

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-3000	4,447826E+22	4,447648E+22	1,434592E+22	1,434679E+22	8,895474E+22	2,869271E+22	1,176475E+23
-2999	4,447515E+22	4,447716E+22	1,434738E+22	1,434664E+22	8,895231E+22	2,869402E+22	1,176463E+23
-2998	4,447599E+22	4,447643E+22	1,434754E+22	1,434813E+22	8,895242E+22	2,869567E+22	1,176481E+23
-2997	4,447605E+22	4,447484E+22	1,434764E+22	1,434775E+22	8,895090E+22	2,869540E+22	1,176463E+23
-2996	4,447354E+22	4,447483E+22	1,434914E+22	1,434825E+22	8,894837E+22	2,869738E+22	1,176458E+23
-2995	4,447517E+22	4,447375E+22	1,434853E+22	1,434948E+22	8,894892E+22	2,869801E+22	1,176469E+23
-2994	4,447366E+22	4,447361E+22	1,434897E+22	1,434881E+22	8,894728E+22	2,869778E+22	1,176451E+23
-2993	4,447284E+22	4,447400E+22	1,434959E+22	1,434956E+22	8,894685E+22	2,869915E+22	1,176460E+23
-2992	4,447497E+22	4,447313E+22	1,434853E+22	1,434957E+22	8,894811E+22	2,869810E+22	1,176462E+23
-2991	4,447289E+22	4,447399E+22	1,434937E+22	1,434840E+22	8,894687E+22	2,869777E+22	1,176446E+23
-2990	4,447405E+22	4,447452E+22	1,434909E+22	1,434907E+22	8,894857E+22	2,869815E+22	1,176467E+23
-2989	4,447531E+22	4,447408E+22	1,434803E+22	1,434824E+22	8,894939E+22	2,869627E+22	1,176457E+23
-2988	4,447312E+22	4,447522E+22	1,434862E+22	1,434773E+22	8,894834E+22	2,869635E+22	1,176447E+23
-2987	4,447542E+22	4,447519E+22	1,434751E+22	1,434839E+22	8,895060E+22	2,869590E+22	1,176465E+23
-2986	4,447554E+22	4,447525E+22	1,434710E+22	1,434706E+22	8,895079E+22	2,869416E+22	1,176449E+23
-2985	4,447507E+22	4,447605E+22	1,434758E+22	1,434707E+22	8,895112E+22	2,869465E+22	1,176458E+23
-2984	4,447767E+22	4,447553E+22	1,434646E+22	1,434737E+22	8,895320E+22	2,869382E+22	1,176470E+23
-2983	4,447567E+22	4,447609E+22	1,434714E+22	1,434654E+22	8,895176E+22	2,869367E+22	1,176454E+23
-2982	4,447545E+22	4,447664E+22	1,434759E+22	1,434764E+22	8,895208E+22	2,869523E+22	1,176473E+23
-2981	4,447661E+22	4,447545E+22	1,434703E+22	1,434781E+22	8,895206E+22	2,869484E+22	1,176469E+23
-2980	4,447376E+22	4,447530E+22	1,434846E+22	1,434767E+22	8,894906E+22	2,869614E+22	1,176452E+23
-2979	4,447481E+22	4,447455E+22	1,434861E+22	1,434905E+22	8,894936E+22	2,869766E+22	1,176470E+23
-2978	4,447470E+22	4,447341E+22	1,434868E+22	1,434882E+22	8,894811E+22	2,869750E+22	1,176456E+23
-2977	4,447239E+22	4,447355E+22	1,434991E+22	1,434932E+22	8,894595E+22	2,869923E+22	1,176452E+23
-2976	4,447402E+22	4,447277E+22	1,434927E+22	1,435047E+22	8,894679E+22	2,869974E+22	1,176465E+23
-2975	4,447230E+22	4,447244E+22	1,434988E+22	1,434976E+22	8,894474E+22	2,869964E+22	1,176444E+23
-2974	4,447164E+22	4,447315E+22	1,435052E+22	1,435023E+22	8,894479E+22	2,870075E+22	1,176455E+23
-2973	4,447396E+22	4,447223E+22	1,434956E+22	1,435023E+22	8,894619E+22	2,869980E+22	1,176460E+23
-2972	4,447180E+22	4,447255E+22	1,435022E+22	1,434922E+22	8,894436E+22	2,869943E+22	1,176438E+23
-2971	4,447272E+22	4,447330E+22	1,434980E+22	1,434989E+22	8,894602E+22	2,869969E+22	1,176457E+23
-2970	4,447392E+22	4,447312E+22	1,434869E+22	1,434915E+22	8,894704E+22	2,869784E+22	1,176449E+23
-2969	4,447232E+22	4,447399E+22	1,434910E+22	1,434844E+22	8,894630E+22	2,869754E+22	1,176438E+23
-2968	4,447493E+22	4,447412E+22	1,434806E+22	1,434890E+22	8,894906E+22	2,869696E+22	1,176460E+23
-2967	4,447486E+22	4,447404E+22	1,434787E+22	1,434765E+22	8,894890E+22	2,869552E+22	1,176444E+23
-2966	4,447405E+22	4,447541E+22	1,434839E+22	1,434770E+22	8,894946E+22	2,869609E+22	1,176455E+23
-2965	4,447636E+22	4,447500E+22	1,434739E+22	1,434825E+22	8,895135E+22	2,869564E+22	1,176470E+23
-2964	4,447418E+22	4,447479E+22	1,434805E+22	1,434763E+22	8,894897E+22	2,869568E+22	1,176447E+23
-2963	4,447393E+22	4,447520E+22	1,434859E+22	1,434862E+22	8,894914E+22	2,869721E+22	1,176463E+23
-2962	4,447520E+22	4,447403E+22	1,434812E+22	1,434881E+22	8,894923E+22	2,869693E+22	1,176462E+23
-2961	4,447284E+22	4,447357E+22	1,434941E+22	1,434864E+22	8,894641E+22	2,869805E+22	1,176445E+23
-2960	4,447377E+22	4,447314E+22	1,434951E+22	1,435004E+22	8,894691E+22	2,869954E+22	1,176465E+23
-2959	4,447310E+22	4,447200E+22	1,434965E+22	1,435000E+22	8,894510E+22	2,869965E+22	1,176447E+23
-2958	4,447079E+22	4,447262E+22	1,435083E+22	1,435035E+22	8,894341E+22	2,870118E+22	1,176446E+23
-2957	4,447271E+22	4,447178E+22	1,435030E+22	1,435139E+22	8,894450E+22	2,870169E+22	1,176462E+23
-2956	4,447127E+22	4,447088E+22	1,435084E+22	1,435059E+22	8,894215E+22	2,870143E+22	1,176436E+23
-2955	4,447071E+22	4,447179E+22	1,435145E+22	1,435088E+22	8,894249E+22	2,870232E+22	1,176448E+23
-2954	4,447272E+22	4,447129E+22	1,435041E+22	1,435099E+22	8,894401E+22	2,870140E+22	1,176454E+23
-2953	4,447078E+22	4,447154E+22	1,435078E+22	1,435003E+22	8,894232E+22	2,870081E+22	1,176431E+23
-2952	4,447169E+22	4,447237E+22	1,435031E+22	1,435060E+22	8,894407E+22	2,870091E+22	1,176450E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2951	4,447271E+22	4,447196E+22	1,434938E+22	1,434989E+22	8,894468E+22	2,869927E+22	1,176439E+23
-2950	4,447145E+22	4,447315E+22	1,434981E+22	1,434897E+22	8,894460E+22	2,869878E+22	1,176434E+23
-2949	4,447424E+22	4,447324E+22	1,434893E+22	1,434952E+22	8,894748E+22	2,869845E+22	1,176459E+23
-2948	4,447390E+22	4,447277E+22	1,434866E+22	1,434851E+22	8,894667E+22	2,869717E+22	1,176438E+23
-2947	4,447272E+22	4,447432E+22	1,434919E+22	1,434859E+22	8,894705E+22	2,869778E+22	1,176448E+23
-2946	4,447479E+22	4,447404E+22	1,434828E+22	1,434926E+22	8,894883E+22	2,869754E+22	1,176464E+23
-2945	4,447311E+22	4,447338E+22	1,434886E+22	1,434858E+22	8,894648E+22	2,869744E+22	1,176439E+23
-2944	4,447297E+22	4,447377E+22	1,434949E+22	1,434941E+22	8,894674E+22	2,869890E+22	1,176456E+23
-2943	4,447394E+22	4,447246E+22	1,434919E+22	1,434979E+22	8,894639E+22	2,869898E+22	1,176454E+23
-2942	4,447144E+22	4,447248E+22	1,435040E+22	1,434960E+22	8,894391E+22	2,870000E+22	1,176439E+23
-2941	4,447233E+22	4,447214E+22	1,435056E+22	1,435117E+22	8,894446E+22	2,870173E+22	1,176462E+23
-2940	4,447166E+22	4,447048E+22	1,435062E+22	1,435118E+22	8,894214E+22	2,870180E+22	1,176439E+23
-2939	4,446947E+22	4,447122E+22	1,435183E+22	1,435125E+22	8,894069E+22	2,870309E+22	1,176438E+23
-2938	4,447157E+22	4,447061E+22	1,435137E+22	1,435221E+22	8,894218E+22	2,870358E+22	1,176458E+23
-2937	4,447050E+22	4,446947E+22	1,435170E+22	1,435133E+22	8,893997E+22	2,870303E+22	1,176430E+23
-2936	4,446959E+22	4,447073E+22	1,435218E+22	1,435160E+22	8,894033E+22	2,870378E+22	1,176441E+23
-2935	4,447111E+22	4,447020E+22	1,435116E+22	1,435192E+22	8,894131E+22	2,870308E+22	1,176444E+23
-2934	4,446929E+22	4,447068E+22	1,435144E+22	1,435080E+22	8,893997E+22	2,870224E+22	1,176422E+23
-2933	4,447069E+22	4,447141E+22	1,435108E+22	1,435130E+22	8,894210E+22	2,870238E+22	1,176445E+23
-2932	4,447199E+22	4,447048E+22	1,435010E+22	1,435057E+22	8,894247E+22	2,870067E+22	1,176431E+23
-2931	4,447078E+22	4,447199E+22	1,435052E+22	1,434956E+22	8,894277E+22	2,870008E+22	1,176429E+23
-2930	4,447325E+22	4,447255E+22	1,434968E+22	1,435027E+22	8,894580E+22	2,869995E+22	1,176457E+23
-2929	4,447298E+22	4,447188E+22	1,434926E+22	1,434938E+22	8,894486E+22	2,869864E+22	1,176435E+23
-2928	4,447161E+22	4,447344E+22	1,434989E+22	1,434939E+22	8,894504E+22	2,869928E+22	1,176443E+23
-2927	4,447333E+22	4,447282E+22	1,434925E+22	1,435015E+22	8,894615E+22	2,869941E+22	1,176456E+23
-2926	4,447186E+22	4,447221E+22	1,434990E+22	1,434937E+22	8,894407E+22	2,869928E+22	1,176433E+23
-2925	4,447185E+22	4,447243E+22	1,435065E+22	1,435036E+22	8,894428E+22	2,870101E+22	1,176453E+23
-2924	4,447248E+22	4,447075E+22	1,435023E+22	1,435100E+22	8,894323E+22	2,870123E+22	1,176445E+23
-2923	4,446992E+22	4,447101E+22	1,435135E+22	1,435078E+22	8,894093E+22	2,870213E+22	1,176431E+23
-2922	4,447079E+22	4,447088E+22	1,435156E+22	1,435226E+22	8,894167E+22	2,870382E+22	1,176455E+23
-2921	4,447071E+22	4,446902E+22	1,435150E+22	1,435211E+22	8,893973E+22	2,870361E+22	1,176433E+23
-2920	4,446864E+22	4,446992E+22	1,435274E+22	1,435192E+22	8,893856E+22	2,870465E+22	1,176432E+23
-2919	4,447020E+22	4,446939E+22	1,435240E+22	1,435301E+22	8,893960E+22	2,870540E+22	1,176450E+23
-2918	4,446897E+22	4,446873E+22	1,435257E+22	1,435214E+22	8,893771E+22	2,870471E+22	1,176424E+23
-2917	4,446811E+22	4,446987E+22	1,435303E+22	1,435253E+22	8,893798E+22	2,870556E+22	1,176435E+23
-2916	4,446968E+22	4,446878E+22	1,435189E+22	1,435289E+22	8,893846E+22	2,870478E+22	1,176432E+23
-2915	4,446831E+22	4,446932E+22	1,435213E+22	1,435150E+22	8,893763E+22	2,870363E+22	1,176413E+23
-2914	4,447001E+22	4,447029E+22	1,435184E+22	1,435192E+22	8,894030E+22	2,870376E+22	1,176441E+23
-2913	4,447165E+22	4,446933E+22	1,435070E+22	1,435122E+22	8,894098E+22	2,870192E+22	1,176429E+23
-2912	4,447001E+22	4,447123E+22	1,435109E+22	1,435020E+22	8,894124E+22	2,870129E+22	1,176425E+23
-2911	4,447178E+22	4,447178E+22	1,435044E+22	1,435112E+22	8,894357E+22	2,870156E+22	1,176451E+23
-2910	4,447154E+22	4,447117E+22	1,435008E+22	1,435014E+22	8,894270E+22	2,870022E+22	1,176429E+23
-2909	4,447042E+22	4,447236E+22	1,435092E+22	1,435020E+22	8,894278E+22	2,870112E+22	1,176439E+23
-2908	4,447214E+22	4,447110E+22	1,435029E+22	1,435108E+22	8,894323E+22	2,870138E+22	1,176446E+23
-2907	4,447065E+22	4,447062E+22	1,435091E+22	1,435031E+22	8,894128E+22	2,870122E+22	1,176425E+23
-2906	4,447047E+22	4,447121E+22	1,435165E+22	1,435148E+22	8,894168E+22	2,870313E+22	1,176448E+23
-2905	4,447133E+22	4,446933E+22	1,435104E+22	1,435217E+22	8,894065E+22	2,870320E+22	1,176439E+23
-2904	4,446869E+22	4,446979E+22	1,435220E+22	1,435173E+22	8,893848E+22	2,870393E+22	1,176424E+23
-2903	4,446936E+22	4,446965E+22	1,435263E+22	1,435320E+22	8,893900E+22	2,870584E+22	1,176448E+23

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	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2902	4,446945E+22	4,446796E+22	1,435260E+22	1,435287E+22	8,893741E+22	2,870547E+22	1,176429E+23
-2901	4,446738E+22	4,446883E+22	1,435388E+22	1,435282E+22	8,893621E+22	2,870670E+22	1,176429E+23
-2900	4,446849E+22	4,446791E+22	1,435334E+22	1,435409E+22	8,893640E+22	2,870743E+22	1,176438E+23
-2899	4,446734E+22	4,446734E+22	1,435336E+22	1,435315E+22	8,893469E+22	2,870651E+22	1,176412E+23
-2898	4,446682E+22	4,446860E+22	1,435379E+22	1,435342E+22	8,893542E+22	2,870721E+22	1,176426E+23
-2897	4,446913E+22	4,446734E+22	1,435246E+22	1,435360E+22	8,893647E+22	2,870606E+22	1,176425E+23
-2896	4,446801E+22	4,446825E+22	1,435268E+22	1,435194E+22	8,893626E+22	2,870462E+22	1,176409E+23
-2895	4,446919E+22	4,446953E+22	1,435254E+22	1,435250E+22	8,893872E+22	2,870504E+22	1,176438E+23
-2894	4,447056E+22	4,446905E+22	1,435138E+22	1,435182E+22	8,893961E+22	2,870319E+22	1,176428E+23
-2893	4,446882E+22	4,447073E+22	1,435192E+22	1,435099E+22	8,893954E+22	2,870291E+22	1,176425E+23
-2892	4,447021E+22	4,447059E+22	1,435132E+22	1,435202E+22	8,894080E+22	2,870334E+22	1,176441E+23
-2891	4,447028E+22	4,446978E+22	1,435102E+22	1,435098E+22	8,894007E+22	2,870200E+22	1,176421E+23
-2890	4,446934E+22	4,447083E+22	1,435195E+22	1,435108E+22	8,894017E+22	2,870303E+22	1,176432E+23
-2889	4,447123E+22	4,446944E+22	1,435113E+22	1,435213E+22	8,894067E+22	2,870326E+22	1,176439E+23
-2888	4,446953E+22	4,446929E+22	1,435164E+22	1,435134E+22	8,893881E+22	2,870298E+22	1,176418E+23
-2887	4,446882E+22	4,446999E+22	1,435255E+22	1,435262E+22	8,893881E+22	2,870517E+22	1,176440E+23
-2886	4,446987E+22	4,446837E+22	1,435201E+22	1,435310E+22	8,893824E+22	2,870511E+22	1,176434E+23
-2885	4,446756E+22	4,446864E+22	1,435336E+22	1,435263E+22	8,893619E+22	2,870599E+22	1,176422E+23
-2884	4,446795E+22	4,446806E+22	1,435380E+22	1,435414E+22	8,893601E+22	2,870794E+22	1,176440E+23
-2883	4,446801E+22	4,446658E+22	1,435367E+22	1,435382E+22	8,893459E+22	2,870749E+22	1,176421E+23
-2882	4,446580E+22	4,446760E+22	1,435485E+22	1,435388E+22	8,893340E+22	2,870873E+22	1,176421E+23
-2881	4,446724E+22	4,446646E+22	1,435404E+22	1,435515E+22	8,893370E+22	2,870919E+22	1,176429E+23
-2880	4,446635E+22	4,446605E+22	1,435397E+22	1,435391E+22	8,893240E+22	2,870788E+22	1,176403E+23
-2879	4,446588E+22	4,446745E+22	1,435455E+22	1,435410E+22	8,893333E+22	2,870865E+22	1,176420E+23
-2878	4,446847E+22	4,446657E+22	1,435323E+22	1,435407E+22	8,893505E+22	2,870731E+22	1,176424E+23
-2877	4,446729E+22	4,446765E+22	1,435351E+22	1,435260E+22	8,893494E+22	2,870610E+22	1,176410E+23
-2876	4,446778E+22	4,446864E+22	1,435330E+22	1,435334E+22	8,893642E+22	2,870664E+22	1,176431E+23
-2875	4,446904E+22	4,446810E+22	1,435212E+22	1,435265E+22	8,893714E+22	2,870476E+22	1,176419E+23
-2874	4,446750E+22	4,446958E+22	1,435278E+22	1,435184E+22	8,893708E+22	2,870462E+22	1,176417E+23
-2873	4,446936E+22	4,446897E+22	1,435207E+22	1,435282E+22	8,893834E+22	2,870489E+22	1,176432E+23
-2872	4,446952E+22	4,446831E+22	1,435176E+22	1,435170E+22	8,893783E+22	2,870346E+22	1,176413E+23
-2871	4,446817E+22	4,446963E+22	1,435278E+22	1,435203E+22	8,893780E+22	2,870481E+22	1,176426E+23
-2870	4,446994E+22	4,446860E+22	1,435195E+22	1,435306E+22	8,893854E+22	2,870502E+22	1,176436E+23
-2869	4,446829E+22	4,446840E+22	1,435260E+22	1,435240E+22	8,893669E+22	2,870500E+22	1,176417E+23
-2868	4,446725E+22	4,446861E+22	1,435360E+22	1,435366E+22	8,893586E+22	2,870726E+22	1,176431E+23
-2867	4,446852E+22	4,446696E+22	1,435317E+22	1,435402E+22	8,893548E+22	2,870719E+22	1,176427E+23
-2866	4,446632E+22	4,446716E+22	1,435462E+22	1,435361E+22	8,893348E+22	2,870823E+22	1,176417E+23
-2865	4,446665E+22	4,446644E+22	1,435479E+22	1,435523E+22	8,893309E+22	2,871001E+22	1,176431E+23
-2864	4,446655E+22	4,446519E+22	1,435447E+22	1,435486E+22	8,893175E+22	2,870933E+22	1,176411E+23
-2863	4,446417E+22	4,446626E+22	1,435566E+22	1,435493E+22	8,893043E+22	2,871059E+22	1,176410E+23
-2862	4,446606E+22	4,446540E+22	1,435482E+22	1,435589E+22	8,893147E+22	2,871071E+22	1,176422E+23
-2861	4,446573E+22	4,446504E+22	1,435481E+22	1,435457E+22	8,893078E+22	2,870938E+22	1,176402E+23
-2860	4,446493E+22	4,446628E+22	1,435537E+22	1,435475E+22	8,893121E+22	2,871012E+22	1,176413E+23
-2859	4,446743E+22	4,446581E+22	1,435401E+22	1,435475E+22	8,893324E+22	2,870876E+22	1,176420E+23
-2858	4,446606E+22	4,446689E+22	1,435427E+22	1,435341E+22	8,893296E+22	2,870768E+22	1,176406E+23
-2857	4,446657E+22	4,446752E+22	1,435390E+22	1,435419E+22	8,893409E+22	2,870809E+22	1,176422E+23
-2856	4,446803E+22	4,446690E+22	1,435273E+22	1,435333E+22	8,893493E+22	2,870606E+22	1,176410E+23
-2855	4,446644E+22	4,446823E+22	1,435357E+22	1,435259E+22	8,893467E+22	2,870616E+22	1,176408E+23
-2854	4,446850E+22	4,446787E+22	1,435291E+22	1,435350E+22	8,893637E+22	2,870642E+22	1,176428E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2853	4,446862E+22	4,446730E+22	1,435264E+22	1,435263E+22	8,893591E+22	2,870527E+22	1,176412E+23
-2852	4,446660E+22	4,446837E+22	1,435364E+22	1,435312E+22	8,893497E+22	2,870676E+22	1,176417E+23
-2851	4,446844E+22	4,446741E+22	1,435290E+22	1,435409E+22	8,893585E+22	2,870699E+22	1,176428E+23
-2850	4,446701E+22	4,446707E+22	1,435372E+22	1,435339E+22	8,893408E+22	2,870712E+22	1,176412E+23
-2849	4,446621E+22	4,446698E+22	1,435465E+22	1,435459E+22	8,893318E+22	2,870924E+22	1,176424E+23
-2848	4,446743E+22	4,446548E+22	1,435420E+22	1,435488E+22	8,893291E+22	2,870908E+22	1,176420E+23
-2847	4,446474E+22	4,446589E+22	1,435567E+22	1,435470E+22	8,893063E+22	2,871038E+22	1,176410E+23
-2846	4,446502E+22	4,446542E+22	1,435572E+22	1,435624E+22	8,893044E+22	2,871196E+22	1,176424E+23
-2845	4,446518E+22	4,446410E+22	1,435539E+22	1,435593E+22	8,892928E+22	2,871133E+22	1,176406E+23
-2844	4,446275E+22	4,446481E+22	1,435654E+22	1,435587E+22	8,892756E+22	2,871242E+22	1,176400E+23
-2843	4,446508E+22	4,446408E+22	1,435573E+22	1,435660E+22	8,892915E+22	2,871233E+22	1,176415E+23
-2842	4,446495E+22	4,446393E+22	1,435574E+22	1,435531E+22	8,892888E+22	2,871105E+22	1,176399E+23
-2841	4,446403E+22	4,446514E+22	1,435601E+22	1,435555E+22	8,892916E+22	2,871156E+22	1,176407E+23
-2840	4,446624E+22	4,446487E+22	1,435456E+22	1,435547E+22	8,893111E+22	2,871003E+22	1,176411E+23
-2839	4,446470E+22	4,446594E+22	1,435492E+22	1,435421E+22	8,893063E+22	2,870913E+22	1,176398E+23
-2838	4,446550E+22	4,446657E+22	1,435460E+22	1,435474E+22	8,893207E+22	2,870934E+22	1,176414E+23
-2837	4,446736E+22	4,446585E+22	1,435354E+22	1,435398E+22	8,893321E+22	2,870752E+22	1,176407E+23
-2836	4,446539E+22	4,446689E+22	1,435438E+22	1,435337E+22	8,893228E+22	2,870775E+22	1,176400E+23
-2835	4,446734E+22	4,446682E+22	1,435375E+22	1,435438E+22	8,893416E+22	2,870812E+22	1,176423E+23
-2834	4,446740E+22	4,446630E+22	1,435355E+22	1,435368E+22	8,893369E+22	2,870722E+22	1,176409E+23
-2833	4,446538E+22	4,446704E+22	1,435446E+22	1,435416E+22	8,893241E+22	2,870862E+22	1,176410E+23
-2832	4,446730E+22	4,446608E+22	1,435384E+22	1,435495E+22	8,893338E+22	2,870879E+22	1,176422E+23
-2831	4,446576E+22	4,446568E+22	1,435486E+22	1,435435E+22	8,893144E+22	2,870921E+22	1,176407E+23
-2830	4,446490E+22	4,446577E+22	1,435580E+22	1,435549E+22	8,893067E+22	2,871129E+22	1,176420E+23
-2829	4,446600E+22	4,446433E+22	1,435529E+22	1,435605E+22	8,893033E+22	2,871134E+22	1,176417E+23
-2828	4,446273E+22	4,446432E+22	1,435665E+22	1,435594E+22	8,892704E+22	2,871259E+22	1,176396E+23
-2827	4,446337E+22	4,446393E+22	1,435669E+22	1,435730E+22	8,892730E+22	2,871399E+22	1,176413E+23
-2826	4,446409E+22	4,446257E+22	1,435639E+22	1,435684E+22	8,892666E+22	2,871323E+22	1,176399E+23
-2825	4,446200E+22	4,446323E+22	1,435733E+22	1,435664E+22	8,892522E+22	2,871396E+22	1,176392E+23
-2824	4,446438E+22	4,446294E+22	1,435644E+22	1,435722E+22	8,892732E+22	2,871366E+22	1,176410E+23
-2823	4,446380E+22	4,446316E+22	1,435646E+22	1,435608E+22	8,892696E+22	2,871253E+22	1,176395E+23
-2822	4,446279E+22	4,446459E+22	1,435668E+22	1,435618E+22	8,892738E+22	2,871286E+22	1,176402E+23
-2821	4,446514E+22	4,446418E+22	1,435527E+22	1,435618E+22	8,892931E+22	2,871146E+22	1,176408E+23
-2820	4,446336E+22	4,446466E+22	1,435571E+22	1,435492E+22	8,892802E+22	2,871063E+22	1,176387E+23
-2819	4,446452E+22	4,446528E+22	1,435549E+22	1,435539E+22	8,892981E+22	2,871088E+22	1,176407E+23
-2818	4,446650E+22	4,446462E+22	1,435448E+22	1,435483E+22	8,893112E+22	2,870930E+22	1,176404E+23
-2817	4,446436E+22	4,446560E+22	1,435506E+22	1,435437E+22	8,892996E+22	2,870943E+22	1,176394E+23
-2816	4,446615E+22	4,446566E+22	1,435442E+22	1,435530E+22	8,893181E+22	2,870972E+22	1,176415E+23
-2815	4,446608E+22	4,446520E+22	1,435440E+22	1,435467E+22	8,893128E+22	2,870907E+22	1,176404E+23
-2814	4,446430E+22	4,446596E+22	1,435546E+22	1,435489E+22	8,893025E+22	2,871035E+22	1,176406E+23
-2813	4,446631E+22	4,446497E+22	1,435496E+22	1,435581E+22	8,893127E+22	2,871077E+22	1,176420E+23
-2812	4,446418E+22	4,446425E+22	1,435601E+22	1,435542E+22	8,892843E+22	2,871143E+22	1,176399E+23
-2811	4,446313E+22	4,446444E+22	1,435690E+22	1,435660E+22	8,892757E+22	2,871350E+22	1,176411E+23
-2810	4,446432E+22	4,446293E+22	1,435637E+22	1,435729E+22	8,892724E+22	2,871366E+22	1,176409E+23
-2809	4,446137E+22	4,446256E+22	1,435748E+22	1,435708E+22	8,892393E+22	2,871456E+22	1,176385E+23
-2808	4,446237E+22	4,446228E+22	1,435753E+22	1,435811E+22	8,892465E+22	2,871564E+22	1,176403E+23
-2807	4,446321E+22	4,446129E+22	1,435731E+22	1,435764E+22	8,892450E+22	2,871496E+22	1,176395E+23
-2806	4,446116E+22	4,446235E+22	1,435818E+22	1,435727E+22	8,892350E+22	2,871545E+22	1,176390E+23
-2805	4,446328E+22	4,446235E+22	1,435723E+22	1,435802E+22	8,892563E+22	2,871525E+22	1,176409E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2804	4,446210E+22	4,446219E+22	1,435721E+22	1,435694E+22	8,892429E+22	2,871415E+22	1,176384E+23
-2803	4,446131E+22	4,446354E+22	1,435748E+22	1,435690E+22	8,892484E+22	2,871438E+22	1,176392E+23
-2802	4,446410E+22	4,446295E+22	1,435616E+22	1,435690E+22	8,892705E+22	2,871306E+22	1,176401E+23
-2801	4,446262E+22	4,446312E+22	1,435639E+22	1,435566E+22	8,892574E+22	2,871205E+22	1,176378E+23
-2800	4,446380E+22	4,446403E+22	1,435614E+22	1,435610E+22	8,892783E+22	2,871224E+22	1,176401E+23
-2799	4,446543E+22	4,446375E+22	1,435516E+22	1,435575E+22	8,892918E+22	2,871092E+22	1,176401E+23
-2798	4,446329E+22	4,446488E+22	1,435575E+22	1,435518E+22	8,892818E+22	2,871093E+22	1,176391E+23
-2797	4,446514E+22	4,446491E+22	1,435527E+22	1,435615E+22	8,893006E+22	2,871142E+22	1,176415E+23
-2796	4,446464E+22	4,446388E+22	1,435544E+22	1,435554E+22	8,892852E+22	2,871098E+22	1,176395E+23
-2795	4,446297E+22	4,446459E+22	1,435667E+22	1,435575E+22	8,892756E+22	2,871243E+22	1,176400E+23
-2794	4,446487E+22	4,446353E+22	1,435622E+22	1,435691E+22	8,892840E+22	2,871313E+22	1,176415E+23
-2793	4,446247E+22	4,446251E+22	1,435697E+22	1,435670E+22	8,892498E+22	2,871367E+22	1,176386E+23
-2792	4,446155E+22	4,446271E+22	1,435779E+22	1,435774E+22	8,892426E+22	2,871553E+22	1,176398E+23
-2791	4,446290E+22	4,446136E+22	1,435732E+22	1,435837E+22	8,892426E+22	2,871568E+22	1,176399E+23
-2790	4,446049E+22	4,446125E+22	1,435839E+22	1,435781E+22	8,892173E+22	2,871620E+22	1,176379E+23
-2789	4,446168E+22	4,446129E+22	1,435847E+22	1,435884E+22	8,892297E+22	2,871731E+22	1,176403E+23
-2788	4,446183E+22	4,446030E+22	1,435826E+22	1,435848E+22	8,892213E+22	2,871674E+22	1,176389E+23
-2787	4,445963E+22	4,446161E+22	1,435910E+22	1,435810E+22	8,892124E+22	2,871720E+22	1,176384E+23
-2786	4,446176E+22	4,446146E+22	1,435816E+22	1,435892E+22	8,892322E+22	2,871709E+22	1,176403E+23
-2785	4,446077E+22	4,446081E+22	1,435791E+22	1,435782E+22	8,892158E+22	2,871572E+22	1,176373E+23
-2784	4,446040E+22	4,446201E+22	1,435817E+22	1,435754E+22	8,892241E+22	2,871571E+22	1,176381E+23
-2783	4,446331E+22	4,446171E+22	1,435691E+22	1,435765E+22	8,892502E+22	2,871456E+22	1,176396E+23
-2782	4,446197E+22	4,446219E+22	1,435702E+22	1,435635E+22	8,892416E+22	2,871337E+22	1,176375E+23
-2781	4,446291E+22	4,446338E+22	1,435675E+22	1,435693E+22	8,892629E+22	2,871368E+22	1,176400E+23
-2780	4,446399E+22	4,446281E+22	1,435591E+22	1,435665E+22	8,892680E+22	2,871256E+22	1,176394E+23
-2779	4,446201E+22	4,446384E+22	1,435669E+22	1,435591E+22	8,892586E+22	2,871260E+22	1,176385E+23
-2778	4,446399E+22	4,446370E+22	1,435642E+22	1,435693E+22	8,892769E+22	2,871335E+22	1,176410E+23
-2777	4,446348E+22	4,446229E+22	1,435644E+22	1,435649E+22	8,892577E+22	2,871293E+22	1,176387E+23
-2776	4,446161E+22	4,446302E+22	1,435766E+22	1,435676E+22	8,892463E+22	2,871442E+22	1,176390E+23
-2775	4,446321E+22	4,446223E+22	1,435720E+22	1,435814E+22	8,892544E+22	2,871534E+22	1,176408E+23
-2774	4,446109E+22	4,446118E+22	1,435786E+22	1,435777E+22	8,892227E+22	2,871563E+22	1,176379E+23
-2773	4,446042E+22	4,446146E+22	1,435871E+22	1,435874E+22	8,892188E+22	2,871745E+22	1,176393E+23
-2772	4,446156E+22	4,445990E+22	1,435838E+22	1,435929E+22	8,892145E+22	2,871768E+22	1,176391E+23
-2771	4,445934E+22	4,446004E+22	1,435953E+22	1,435864E+22	8,891939E+22	2,871817E+22	1,176376E+23
-2770	4,446036E+22	4,446031E+22	1,435960E+22	1,435982E+22	8,892067E+22	2,871942E+22	1,176401E+23
-2769	4,446022E+22	4,445906E+22	1,435906E+22	1,435955E+22	8,891928E+22	2,871862E+22	1,176379E+23
-2768	4,445818E+22	4,446022E+22	1,435984E+22	1,435898E+22	8,891839E+22	2,871882E+22	1,176372E+23
-2767	4,446048E+22	4,446018E+22	1,435892E+22	1,435972E+22	8,892066E+22	2,871865E+22	1,176393E+23
-2766	4,446010E+22	4,445957E+22	1,435858E+22	1,435838E+22	8,891966E+22	2,871696E+22	1,176366E+23
-2765	4,445997E+22	4,446107E+22	1,435881E+22	1,435816E+22	8,892103E+22	2,871697E+22	1,176380E+23
-2764	4,446220E+22	4,446077E+22	1,435760E+22	1,435839E+22	8,892297E+22	2,871599E+22	1,176390E+23
-2763	4,446081E+22	4,446155E+22	1,435775E+22	1,435710E+22	8,892235E+22	2,871485E+22	1,176372E+23
-2762	4,446174E+22	4,446261E+22	1,435762E+22	1,435775E+22	8,892435E+22	2,871537E+22	1,176397E+23
-2761	4,446272E+22	4,446153E+22	1,435672E+22	1,435748E+22	8,892425E+22	2,871420E+22	1,176384E+23
-2760	4,446100E+22	4,446232E+22	1,435765E+22	1,435666E+22	8,892331E+22	2,871431E+22	1,176376E+23
-2759	4,446274E+22	4,446234E+22	1,435749E+22	1,435787E+22	8,892508E+22	2,871537E+22	1,176404E+23
-2758	4,446221E+22	4,446103E+22	1,435739E+22	1,435753E+22	8,892324E+22	2,871492E+22	1,176382E+23
-2757	4,446020E+22	4,446182E+22	1,435852E+22	1,435794E+22	8,892202E+22	2,871646E+22	1,176385E+23
-2756	4,446136E+22	4,446072E+22	1,435817E+22	1,435933E+22	8,892208E+22	2,871750E+22	1,176396E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2755	4,445972E+22	4,445976E+22	1,435893E+22	1,435873E+22	8,891948E+22	2,871767E+22	1,176371E+23
-2754	4,445935E+22	4,446011E+22	1,435990E+22	1,435966E+22	8,891946E+22	2,871956E+22	1,176390E+23
-2753	4,446038E+22	4,445845E+22	1,435940E+22	1,436029E+22	8,891884E+22	2,871969E+22	1,176385E+23
-2752	4,445808E+22	4,445875E+22	1,436048E+22	1,435958E+22	8,891683E+22	2,872006E+22	1,176369E+23
-2751	4,445877E+22	4,445934E+22	1,436050E+22	1,436083E+22	8,891811E+22	2,872133E+22	1,176394E+23
-2750	4,445898E+22	4,445800E+22	1,435981E+22	1,436040E+22	8,891698E+22	2,872021E+22	1,176372E+23
-2749	4,445719E+22	4,445908E+22	1,436053E+22	1,435970E+22	8,891627E+22	2,872023E+22	1,176365E+23
-2748	4,445934E+22	4,445883E+22	1,435974E+22	1,436040E+22	8,891818E+22	2,872014E+22	1,176383E+23
-2747	4,445927E+22	4,445847E+22	1,435941E+22	1,435900E+22	8,891773E+22	2,871840E+22	1,176361E+23
-2746	4,445897E+22	4,446023E+22	1,435961E+22	1,435896E+22	8,891920E+22	2,871857E+22	1,176378E+23
-2745	4,446092E+22	4,445973E+22	1,435821E+22	1,435930E+22	8,892066E+22	2,871751E+22	1,176382E+23
-2744	4,445971E+22	4,446031E+22	1,435842E+22	1,435786E+22	8,892002E+22	2,871628E+22	1,176363E+23
-2743	4,446061E+22	4,446155E+22	1,435846E+22	1,435847E+22	8,892216E+22	2,871693E+22	1,176391E+23
-2742	4,446195E+22	4,446035E+22	1,435756E+22	1,435815E+22	8,892229E+22	2,871571E+22	1,176380E+23
-2741	4,446010E+22	4,446122E+22	1,435852E+22	1,435752E+22	8,892132E+22	2,871603E+22	1,176373E+23
-2740	4,446103E+22	4,446113E+22	1,435847E+22	1,435895E+22	8,892216E+22	2,871743E+22	1,176396E+23
-2739	4,446056E+22	4,445987E+22	1,435840E+22	1,435865E+22	8,892042E+22	2,871706E+22	1,176375E+23
-2738	4,445873E+22	4,446052E+22	1,435959E+22	1,435911E+22	8,891926E+22	2,871870E+22	1,176380E+23
-2737	4,445998E+22	4,445900E+22	1,435917E+22	1,436041E+22	8,891898E+22	2,871958E+22	1,176386E+23
-2736	4,445877E+22	4,445799E+22	1,436002E+22	1,435966E+22	8,891676E+22	2,871968E+22	1,176364E+23
-2735	4,445818E+22	4,445883E+22	1,436102E+22	1,436065E+22	8,891701E+22	2,872166E+22	1,176387E+23
-2734	4,445911E+22	4,445738E+22	1,436034E+22	1,436128E+22	8,891649E+22	2,872162E+22	1,176381E+23
-2733	4,445671E+22	4,445776E+22	1,436130E+22	1,436060E+22	8,891447E+22	2,872190E+22	1,176364E+23
-2732	4,445695E+22	4,445800E+22	1,436140E+22	1,436172E+22	8,891495E+22	2,872312E+22	1,176381E+23
-2731	4,445768E+22	4,445673E+22	1,436073E+22	1,436108E+22	8,891440E+22	2,872182E+22	1,176362E+23
-2730	4,445634E+22	4,445784E+22	1,436144E+22	1,436040E+22	8,891418E+22	2,872184E+22	1,176360E+23
-2729	4,445832E+22	4,445750E+22	1,436045E+22	1,436118E+22	8,891582E+22	2,872163E+22	1,176375E+23
-2728	4,445836E+22	4,445737E+22	1,436004E+22	1,435978E+22	8,891573E+22	2,871982E+22	1,176356E+23
-2727	4,445784E+22	4,445950E+22	1,436026E+22	1,435978E+22	8,891733E+22	2,872004E+22	1,176374E+23
-2726	4,446002E+22	4,445892E+22	1,435882E+22	1,435999E+22	8,891894E+22	2,871881E+22	1,176378E+23
-2725	4,445896E+22	4,445940E+22	1,435911E+22	1,435851E+22	8,891836E+22	2,871763E+22	1,176360E+23
-2724	4,445933E+22	4,446032E+22	1,435942E+22	1,435919E+22	8,891965E+22	2,871861E+22	1,176383E+23
-2723	4,446070E+22	4,445926E+22	1,435860E+22	1,435901E+22	8,891996E+22	2,871761E+22	1,176376E+23
-2722	4,445866E+22	4,446007E+22	1,435954E+22	1,435866E+22	8,891873E+22	2,871820E+22	1,176369E+23
-2721	4,445931E+22	4,445954E+22	1,435936E+22	1,436019E+22	8,891886E+22	2,871955E+22	1,176384E+23
-2720	4,445929E+22	4,445806E+22	1,435933E+22	1,435972E+22	8,891735E+22	2,871905E+22	1,176364E+23
-2719	4,445761E+22	4,445904E+22	1,436062E+22	1,436006E+22	8,891665E+22	2,872068E+22	1,176373E+23
-2718	4,445924E+22	4,445764E+22	1,436017E+22	1,436127E+22	8,891688E+22	2,872144E+22	1,176383E+23
-2717	4,445781E+22	4,445693E+22	1,436097E+22	1,436058E+22	8,891474E+22	2,872155E+22	1,176363E+23
-2716	4,445635E+22	4,445780E+22	1,436209E+22	1,436167E+22	8,891415E+22	2,872376E+22	1,176379E+23
-2715	4,445737E+22	4,445637E+22	1,436140E+22	1,436226E+22	8,891374E+22	2,872366E+22	1,176374E+23
-2714	4,445512E+22	4,445652E+22	1,436234E+22	1,436159E+22	8,891164E+22	2,872393E+22	1,176356E+23
-2713	4,445550E+22	4,445630E+22	1,436229E+22	1,436261E+22	8,891180E+22	2,872490E+22	1,176367E+23
-2712	4,445683E+22	4,445497E+22	1,436159E+22	1,436185E+22	8,891179E+22	2,872344E+22	1,176352E+23
-2711	4,445542E+22	4,445670E+22	1,436219E+22	1,436122E+22	8,891213E+22	2,872341E+22	1,176355E+23
-2710	4,445749E+22	4,445662E+22	1,436099E+22	1,436200E+22	8,891411E+22	2,872300E+22	1,176371E+23
-2709	4,445748E+22	4,445665E+22	1,436052E+22	1,436055E+22	8,891413E+22	2,872107E+22	1,176352E+23
-2708	4,445652E+22	4,445857E+22	1,436099E+22	1,436042E+22	8,891509E+22	2,872141E+22	1,176365E+23
-2707	4,445900E+22	4,445801E+22	1,435972E+22	1,436051E+22	8,891702E+22	2,872023E+22	1,176373E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2706	4,445804E+22	4,445838E+22	1,436011E+22	1,435925E+22	8,891642E+22	2,871937E+22	1,176358E+23
-2705	4,445792E+22	4,445895E+22	1,436032E+22	1,436013E+22	8,891687E+22	2,872045E+22	1,176373E+23
-2704	4,445938E+22	4,445782E+22	1,435949E+22	1,436008E+22	8,891720E+22	2,871957E+22	1,176368E+23
-2703	4,445727E+22	4,445882E+22	1,436042E+22	1,435977E+22	8,891608E+22	2,872020E+22	1,176363E+23
-2702	4,445825E+22	4,445813E+22	1,436020E+22	1,436118E+22	8,891638E+22	2,872137E+22	1,176378E+23
-2701	4,445850E+22	4,445674E+22	1,436023E+22	1,436061E+22	8,891524E+22	2,872084E+22	1,176361E+23
-2700	4,445631E+22	4,445762E+22	1,436179E+22	1,436093E+22	8,891393E+22	2,872272E+22	1,176367E+23
-2699	4,445776E+22	4,445661E+22	1,436140E+22	1,436223E+22	8,891436E+22	2,872363E+22	1,176380E+23
-2698	4,445610E+22	4,445592E+22	1,436214E+22	1,436180E+22	8,891202E+22	2,872393E+22	1,176360E+23
-2697	4,445426E+22	4,445623E+22	1,436309E+22	1,436286E+22	8,891048E+22	2,872595E+22	1,176364E+23
-2696	4,445588E+22	4,445453E+22	1,436237E+22	1,436327E+22	8,891041E+22	2,872564E+22	1,176360E+23
-2695	4,445399E+22	4,445492E+22	1,436325E+22	1,436244E+22	8,890891E+22	2,872569E+22	1,176346E+23
-2694	4,445486E+22	4,445485E+22	1,436302E+22	1,436336E+22	8,890971E+22	2,872638E+22	1,176361E+23
-2693	4,445620E+22	4,445405E+22	1,436216E+22	1,436260E+22	8,891025E+22	2,872476E+22	1,176350E+23
-2692	4,445416E+22	4,445598E+22	1,436286E+22	1,436198E+22	8,891014E+22	2,872485E+22	1,176350E+23
-2691	4,445633E+22	4,445612E+22	1,436175E+22	1,436265E+22	8,891245E+22	2,872440E+22	1,176369E+23
-2690	4,445642E+22	4,445597E+22	1,436135E+22	1,436124E+22	8,891239E+22	2,872259E+22	1,176350E+23
-2689	4,445528E+22	4,445727E+22	1,436185E+22	1,436109E+22	8,891255E+22	2,872294E+22	1,176355E+23
-2688	4,445808E+22	4,445649E+22	1,436066E+22	1,436124E+22	8,891458E+22	2,872190E+22	1,176365E+23
-2687	4,445682E+22	4,445719E+22	1,436101E+22	1,436021E+22	8,891401E+22	2,872122E+22	1,176352E+23
-2686	4,445676E+22	4,445770E+22	1,436104E+22	1,436120E+22	8,891446E+22	2,872224E+22	1,176367E+23
-2685	4,445825E+22	4,445655E+22	1,436016E+22	1,436108E+22	8,891481E+22	2,872124E+22	1,176361E+23
-2684	4,445587E+22	4,445744E+22	1,436133E+22	1,436067E+22	8,891331E+22	2,872201E+22	1,176353E+23
-2683	4,445720E+22	4,445694E+22	1,436129E+22	1,436194E+22	8,891414E+22	2,872322E+22	1,176374E+23
-2682	4,445737E+22	4,445564E+22	1,436141E+22	1,436157E+22	8,891301E+22	2,872299E+22	1,176360E+23
-2681	4,445457E+22	4,445628E+22	1,436292E+22	1,436206E+22	8,891084E+22	2,872497E+22	1,176358E+23
-2680	4,445606E+22	4,445511E+22	1,436252E+22	1,436341E+22	8,891117E+22	2,872593E+22	1,176371E+23
-2679	4,445435E+22	4,445454E+22	1,436319E+22	1,436298E+22	8,890889E+22	2,872617E+22	1,176351E+23
-2678	4,445298E+22	4,445458E+22	1,436396E+22	1,436387E+22	8,890756E+22	2,872783E+22	1,176354E+23
-2677	4,445501E+22	4,445297E+22	1,436316E+22	1,436409E+22	8,890798E+22	2,872725E+22	1,176352E+23
-2676	4,445291E+22	4,445352E+22	1,436415E+22	1,436323E+22	8,890644E+22	2,872737E+22	1,176338E+23
-2675	4,445381E+22	4,445402E+22	1,436389E+22	1,436412E+22	8,890783E+22	2,872800E+22	1,176358E+23
-2674	4,445502E+22	4,445346E+22	1,436297E+22	1,436350E+22	8,890849E+22	2,872646E+22	1,176350E+23
-2673	4,445268E+22	4,445490E+22	1,436361E+22	1,436278E+22	8,890758E+22	2,872639E+22	1,176340E+23
-2672	4,445527E+22	4,445483E+22	1,436259E+22	1,436329E+22	8,891010E+22	2,872587E+22	1,176360E+23
-2671	4,445549E+22	4,445486E+22	1,436222E+22	1,436188E+22	8,891034E+22	2,872410E+22	1,176344E+23
-2670	4,445445E+22	4,445601E+22	1,436258E+22	1,436182E+22	8,891046E+22	2,872440E+22	1,176349E+23
-2669	4,445710E+22	4,445551E+22	1,436129E+22	1,436210E+22	8,891261E+22	2,872339E+22	1,176360E+23
-2668	4,445536E+22	4,445609E+22	1,436177E+22	1,436118E+22	8,891145E+22	2,872295E+22	1,176344E+23
-2667	4,445544E+22	4,445671E+22	1,436191E+22	1,436207E+22	8,891215E+22	2,872398E+22	1,176361E+23
-2666	4,445714E+22	4,445552E+22	1,436113E+22	1,436203E+22	8,891267E+22	2,872316E+22	1,176358E+23
-2665	4,445456E+22	4,445586E+22	1,436239E+22	1,436158E+22	8,891042E+22	2,872397E+22	1,176344E+23
-2664	4,445606E+22	4,445536E+22	1,436246E+22	1,436291E+22	8,891143E+22	2,872537E+22	1,176368E+23
-2663	4,445582E+22	4,445444E+22	1,436255E+22	1,436275E+22	8,891026E+22	2,872531E+22	1,176356E+23
-2662	4,445297E+22	4,445484E+22	1,436387E+22	1,436330E+22	8,890781E+22	2,872717E+22	1,176350E+23
-2661	4,445458E+22	4,445363E+22	1,436339E+22	1,436449E+22	8,890821E+22	2,872788E+22	1,176361E+23
-2660	4,445281E+22	4,445289E+22	1,436421E+22	1,436392E+22	8,890570E+22	2,872813E+22	1,176338E+23
-2659	4,445193E+22	4,445321E+22	1,436500E+22	1,436461E+22	8,890514E+22	2,872962E+22	1,176348E+23
-2658	4,445404E+22	4,445195E+22	1,436414E+22	1,436497E+22	8,890599E+22	2,872911E+22	1,176351E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2657	4,445151E+22	4,445241E+22	1,436500E+22	1,436416E+22	8,890392E+22	2,872915E+22	1,176331E+23
-2656	4,445261E+22	4,445296E+22	1,436472E+22	1,436500E+22	8,890557E+22	2,872972E+22	1,176353E+23
-2655	4,445372E+22	4,445264E+22	1,436378E+22	1,436431E+22	8,890636E+22	2,872809E+22	1,176344E+23
-2654	4,445177E+22	4,445374E+22	1,436431E+22	1,436348E+22	8,890551E+22	2,872778E+22	1,176333E+23
-2653	4,445451E+22	4,445360E+22	1,436326E+22	1,436384E+22	8,890811E+22	2,872710E+22	1,176352E+23
-2652	4,445429E+22	4,445367E+22	1,436304E+22	1,436262E+22	8,890796E+22	2,872566E+22	1,176336E+23
-2651	4,445324E+22	4,445511E+22	1,436336E+22	1,436266E+22	8,890835E+22	2,872602E+22	1,176344E+23
-2650	4,445575E+22	4,445464E+22	1,436206E+22	1,436314E+22	8,891039E+22	2,872520E+22	1,176356E+23
-2649	4,445388E+22	4,445467E+22	1,436255E+22	1,436215E+22	8,890855E+22	2,872470E+22	1,176332E+23
-2648	4,445449E+22	4,445512E+22	1,436285E+22	1,436289E+22	8,890961E+22	2,872573E+22	1,176353E+23
-2647	4,445618E+22	4,445426E+22	1,436218E+22	1,436287E+22	8,891044E+22	2,872505E+22	1,176355E+23
-2646	4,445359E+22	4,445453E+22	1,436336E+22	1,436255E+22	8,890812E+22	2,872591E+22	1,176340E+23
-2645	4,445471E+22	4,445425E+22	1,436339E+22	1,436393E+22	8,890895E+22	2,872733E+22	1,176363E+23
-2644	4,445396E+22	4,445324E+22	1,436364E+22	1,436392E+22	8,890720E+22	2,872756E+22	1,176348E+23
-2643	4,445131E+22	4,445358E+22	1,436499E+22	1,436433E+22	8,890489E+22	2,872932E+22	1,176342E+23
-2642	4,445316E+22	4,445230E+22	1,436451E+22	1,436553E+22	8,890546E+22	2,873005E+22	1,176355E+23
-2641	4,445143E+22	4,445105E+22	1,436530E+22	1,436488E+22	8,890248E+22	2,873019E+22	1,176327E+23
-2640	4,445085E+22	4,445160E+22	1,436606E+22	1,436559E+22	8,890245E+22	2,873165E+22	1,176341E+23
-2639	4,445272E+22	4,445098E+22	1,436508E+22	1,436603E+22	8,890370E+22	2,873111E+22	1,176348E+23
-2638	4,445029E+22	4,445127E+22	1,436568E+22	1,436514E+22	8,890157E+22	2,873082E+22	1,176324E+23
-2637	4,445152E+22	4,445190E+22	1,436534E+22	1,436570E+22	8,890342E+22	2,873104E+22	1,176345E+23
-2636	4,445257E+22	4,445149E+22	1,436456E+22	1,436490E+22	8,890406E+22	2,872946E+22	1,176335E+23
-2635	4,445085E+22	4,445271E+22	1,436513E+22	1,436399E+22	8,890357E+22	2,872912E+22	1,176327E+23
-2634	4,445346E+22	4,445284E+22	1,436405E+22	1,436460E+22	8,890630E+22	2,872866E+22	1,176350E+23
-2633	4,445284E+22	4,445248E+22	1,436377E+22	1,436353E+22	8,890532E+22	2,872730E+22	1,176326E+23
-2632	4,445209E+22	4,445385E+22	1,436412E+22	1,436359E+22	8,890594E+22	2,872771E+22	1,176337E+23
-2631	4,445461E+22	4,445358E+22	1,436289E+22	1,436404E+22	8,890818E+22	2,872692E+22	1,176351E+23
-2630	4,445312E+22	4,445326E+22	1,436332E+22	1,436298E+22	8,890638E+22	2,872629E+22	1,176327E+23
-2629	4,445377E+22	4,445381E+22	1,436370E+22	1,436359E+22	8,890758E+22	2,872729E+22	1,176349E+23
-2628	4,445484E+22	4,445312E+22	1,436326E+22	1,436381E+22	8,890796E+22	2,872707E+22	1,176350E+23
-2627	4,445201E+22	4,445357E+22	1,436447E+22	1,436363E+22	8,890558E+22	2,872810E+22	1,176337E+23
-2626	4,445287E+22	4,445321E+22	1,436450E+22	1,436515E+22	8,890608E+22	2,872965E+22	1,176357E+23
-2625	4,445203E+22	4,445146E+22	1,436476E+22	1,436509E+22	8,890349E+22	2,872986E+22	1,176333E+23
-2624	4,445005E+22	4,445161E+22	1,436613E+22	1,436536E+22	8,890166E+22	2,873148E+22	1,176331E+23
-2623	4,445195E+22	4,445073E+22	1,436563E+22	1,436653E+22	8,890267E+22	2,873216E+22	1,176348E+23
-2622	4,445045E+22	4,444959E+22	1,436616E+22	1,436595E+22	8,890004E+22	2,873210E+22	1,176321E+23
-2621	4,444976E+22	4,445049E+22	1,436677E+22	1,436650E+22	8,890025E+22	2,873326E+22	1,176335E+23
-2620	4,445122E+22	4,445007E+22	1,436592E+22	1,436693E+22	8,890129E+22	2,873284E+22	1,176341E+23
-2619	4,444909E+22	4,445045E+22	1,436651E+22	1,436584E+22	8,889955E+22	2,873235E+22	1,176319E+23
-2618	4,445040E+22	4,445102E+22	1,436620E+22	1,436634E+22	8,890141E+22	2,873254E+22	1,176340E+23
-2617	4,445132E+22	4,445005E+22	1,436545E+22	1,436560E+22	8,890137E+22	2,873105E+22	1,176324E+23
-2616	4,444983E+22	4,445131E+22	1,436596E+22	1,436481E+22	8,890114E+22	2,873077E+22	1,176319E+23
-2615	4,445212E+22	4,445186E+22	1,436482E+22	1,436556E+22	8,890397E+22	2,873039E+22	1,176344E+23
-2614	4,445181E+22	4,445119E+22	1,436434E+22	1,436451E+22	8,890300E+22	2,872885E+22	1,176318E+23
-2613	4,445131E+22	4,445259E+22	1,436470E+22	1,436428E+22	8,890390E+22	2,872899E+22	1,176329E+23
-2612	4,445368E+22	4,445245E+22	1,436376E+22	1,436470E+22	8,890614E+22	2,872846E+22	1,176346E+23
-2611	4,445228E+22	4,445234E+22	1,436429E+22	1,436366E+22	8,890462E+22	2,872795E+22	1,176326E+23
-2610	4,445246E+22	4,445313E+22	1,436475E+22	1,436454E+22	8,890559E+22	2,872928E+22	1,176349E+23
-2609	4,445294E+22	4,445186E+22	1,436436E+22	1,436498E+22	8,890480E+22	2,872934E+22	1,176341E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2608	4,445031E+22	4,445200E+22	1,436561E+22	1,436486E+22	8,890232E+22	2,873047E+22	1,176328E+23
-2607	4,445120E+22	4,445171E+22	1,436566E+22	1,436633E+22	8,890291E+22	2,873199E+22	1,176349E+23
-2606	4,445089E+22	4,444944E+22	1,436575E+22	1,436619E+22	8,890034E+22	2,873194E+22	1,176323E+23
-2605	4,444914E+22	4,444984E+22	1,436703E+22	1,436627E+22	8,889898E+22	2,873330E+22	1,176323E+23
-2604	4,445066E+22	4,444944E+22	1,436662E+22	1,436756E+22	8,890010E+22	2,873418E+22	1,176343E+23
-2603	4,444910E+22	4,444869E+22	1,436706E+22	1,436692E+22	8,889779E+22	2,873398E+22	1,176318E+23
-2602	4,444832E+22	4,444977E+22	1,436764E+22	1,436742E+22	8,889809E+22	2,873506E+22	1,176331E+23
-2601	4,444968E+22	4,444871E+22	1,436686E+22	1,436770E+22	8,889839E+22	2,873456E+22	1,176329E+23
-2600	4,444807E+22	4,444898E+22	1,436747E+22	1,436651E+22	8,889705E+22	2,873397E+22	1,176310E+23
-2599	4,444925E+22	4,444988E+22	1,436712E+22	1,436705E+22	8,889913E+22	2,873417E+22	1,176333E+23
-2598	4,445030E+22	4,444877E+22	1,436610E+22	1,436649E+22	8,889907E+22	2,873258E+22	1,176317E+23
-2597	4,444887E+22	4,445021E+22	1,436647E+22	1,436562E+22	8,889908E+22	2,873209E+22	1,176312E+23
-2596	4,445094E+22	4,445091E+22	1,436550E+22	1,436640E+22	8,890185E+22	2,873190E+22	1,176338E+23
-2595	4,445098E+22	4,445035E+22	1,436507E+22	1,436518E+22	8,890133E+22	2,873025E+22	1,176316E+23
-2594	4,445050E+22	4,445179E+22	1,436556E+22	1,436493E+22	8,890229E+22	2,873049E+22	1,176328E+23
-2593	4,445245E+22	4,445117E+22	1,436480E+22	1,436551E+22	8,890361E+22	2,873031E+22	1,176339E+23
-2592	4,445097E+22	4,445109E+22	1,436537E+22	1,436472E+22	8,890206E+22	2,873009E+22	1,176322E+23
-2591	4,445057E+22	4,445201E+22	1,436585E+22	1,436574E+22	8,890258E+22	2,873158E+22	1,176342E+23
-2590	4,445134E+22	4,445014E+22	1,436529E+22	1,436626E+22	8,890149E+22	2,873154E+22	1,176330E+23
-2589	4,444913E+22	4,445006E+22	1,436649E+22	1,436583E+22	8,889919E+22	2,873232E+22	1,176315E+23
-2588	4,444996E+22	4,444997E+22	1,436673E+22	1,436727E+22	8,889993E+22	2,873399E+22	1,176339E+23
-2587	4,444993E+22	4,444814E+22	1,436676E+22	1,436709E+22	8,889807E+22	2,873385E+22	1,176319E+23
-2586	4,444790E+22	4,444899E+22	1,436800E+22	1,436726E+22	8,889689E+22	2,873526E+22	1,176321E+23
-2585	4,444893E+22	4,444829E+22	1,436766E+22	1,436863E+22	8,889723E+22	2,873629E+22	1,176335E+23
-2584	4,444764E+22	4,444750E+22	1,436811E+22	1,436792E+22	8,889514E+22	2,873603E+22	1,176312E+23
-2583	4,444678E+22	4,444866E+22	1,436871E+22	1,436826E+22	8,889544E+22	2,873697E+22	1,176324E+23
-2582	4,444862E+22	4,444708E+22	1,436773E+22	1,436852E+22	8,889570E+22	2,873625E+22	1,176320E+23
-2581	4,444719E+22	4,444741E+22	1,436821E+22	1,436722E+22	8,889461E+22	2,873543E+22	1,176300E+23
-2580	4,444796E+22	4,444878E+22	1,436789E+22	1,436793E+22	8,889675E+22	2,873582E+22	1,176326E+23
-2579	4,444917E+22	4,444795E+22	1,436672E+22	1,436735E+22	8,889711E+22	2,873407E+22	1,176312E+23
-2578	4,444786E+22	4,444951E+22	1,436708E+22	1,436641E+22	8,889737E+22	2,873349E+22	1,176309E+23
-2577	4,444986E+22	4,444968E+22	1,436631E+22	1,436708E+22	8,889954E+22	2,873339E+22	1,176329E+23
-2576	4,445023E+22	4,444915E+22	1,436598E+22	1,436583E+22	8,889937E+22	2,873181E+22	1,176312E+23
-2575	4,444938E+22	4,445090E+22	1,436658E+22	1,436570E+22	8,890028E+22	2,873228E+22	1,176326E+23
-2574	4,445116E+22	4,444988E+22	1,436566E+22	1,436653E+22	8,890104E+22	2,873219E+22	1,176332E+23
-2573	4,444958E+22	4,444970E+22	1,436621E+22	1,436575E+22	8,889928E+22	2,873195E+22	1,176312E+23
-2572	4,444894E+22	4,445064E+22	1,436684E+22	1,436683E+22	8,889958E+22	2,873367E+22	1,176333E+23
-2571	4,445009E+22	4,444870E+22	1,436628E+22	1,436722E+22	8,889879E+22	2,873349E+22	1,176323E+23
-2570	4,444810E+22	4,444870E+22	1,436751E+22	1,436676E+22	8,889680E+22	2,873426E+22	1,176311E+23
-2569	4,444859E+22	4,444830E+22	1,436789E+22	1,436829E+22	8,889690E+22	2,873618E+22	1,176331E+23
-2568	4,444852E+22	4,444685E+22	1,436789E+22	1,436825E+22	8,889537E+22	2,873614E+22	1,176315E+23
-2567	4,444612E+22	4,444799E+22	1,436912E+22	1,436842E+22	8,889411E+22	2,873754E+22	1,176317E+23
-2566	4,444741E+22	4,444677E+22	1,436862E+22	1,436973E+22	8,889418E+22	2,873835E+22	1,176325E+23
-2565	4,444650E+22	4,444589E+22	1,436899E+22	1,436871E+22	8,889239E+22	2,873770E+22	1,176301E+23
-2564	4,444554E+22	4,444727E+22	1,436967E+22	1,436901E+22	8,889281E+22	2,873868E+22	1,176315E+23
-2563	4,444760E+22	4,444601E+22	1,436852E+22	1,436928E+22	8,889361E+22	2,873781E+22	1,176314E+23
-2562	4,444611E+22	4,444666E+22	1,436886E+22	1,436806E+22	8,889277E+22	2,873692E+22	1,176297E+23
-2561	4,444658E+22	4,444766E+22	1,436863E+22	1,436883E+22	8,889424E+22	2,873746E+22	1,176317E+23
-2560	4,444817E+22	4,444696E+22	1,436748E+22	1,436816E+22	8,889513E+22	2,873565E+22	1,176308E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2559	4,444683E+22	4,444859E+22	1,436794E+22	1,436706E+22	8,889543E+22	2,873499E+22	1,176304E+23
-2558	4,444910E+22	4,444830E+22	1,436711E+22	1,436777E+22	8,889740E+22	2,873489E+22	1,176323E+23
-2557	4,444942E+22	4,444780E+22	1,436677E+22	1,436654E+22	8,889722E+22	2,873332E+22	1,176305E+23
-2556	4,444783E+22	4,444985E+22	1,436750E+22	1,436667E+22	8,889768E+22	2,873417E+22	1,176319E+23
-2555	4,444964E+22	4,444886E+22	1,436652E+22	1,436756E+22	8,889850E+22	2,873408E+22	1,176326E+23
-2554	4,444820E+22	4,444850E+22	1,436709E+22	1,436675E+22	8,889670E+22	2,873384E+22	1,176305E+23
-2553	4,444750E+22	4,444885E+22	1,436795E+22	1,436779E+22	8,889634E+22	2,873573E+22	1,176321E+23
-2552	4,444899E+22	4,444711E+22	1,436742E+22	1,436819E+22	8,889610E+22	2,873562E+22	1,176317E+23
-2551	4,444671E+22	4,444752E+22	1,436868E+22	1,436782E+22	8,889422E+22	2,873650E+22	1,176307E+23
-2550	4,444715E+22	4,444690E+22	1,436889E+22	1,436952E+22	8,889405E+22	2,873841E+22	1,176325E+23
-2549	4,444709E+22	4,444547E+22	1,436884E+22	1,436936E+22	8,889257E+22	2,873820E+22	1,176308E+23
-2548	4,444448E+22	4,444678E+22	1,437020E+22	1,436946E+22	8,889127E+22	2,873966E+22	1,176309E+23
-2547	4,444617E+22	4,444550E+22	1,436961E+22	1,437055E+22	8,889168E+22	2,874015E+22	1,176318E+23
-2546	4,444546E+22	4,444467E+22	1,436991E+22	1,436950E+22	8,889013E+22	2,873942E+22	1,176295E+23
-2545	4,444416E+22	4,444577E+22	1,437063E+22	1,436991E+22	8,888992E+22	2,874055E+22	1,176305E+23
-2544	4,444622E+22	4,444490E+22	1,436935E+22	1,437026E+22	8,889112E+22	2,873961E+22	1,176307E+23
-2543	4,444474E+22	4,444578E+22	1,436963E+22	1,436898E+22	8,889052E+22	2,873862E+22	1,176291E+23
-2542	4,444565E+22	4,444624E+22	1,436927E+22	1,436962E+22	8,889188E+22	2,873889E+22	1,176308E+23
-2541	4,444755E+22	4,444559E+22	1,436815E+22	1,436867E+22	8,889315E+22	2,873682E+22	1,176300E+23
-2540	4,444600E+22	4,444762E+22	1,436876E+22	1,436763E+22	8,889362E+22	2,873639E+22	1,176300E+23
-2539	4,444811E+22	4,444754E+22	1,436789E+22	1,436844E+22	8,889565E+22	2,873633E+22	1,176320E+23
-2538	4,444813E+22	4,444718E+22	1,436753E+22	1,436744E+22	8,889531E+22	2,873498E+22	1,176303E+23
-2537	4,444609E+22	4,444856E+22	1,436847E+22	1,436773E+22	8,889465E+22	2,873620E+22	1,176309E+23
-2536	4,444813E+22	4,444753E+22	1,436755E+22	1,436861E+22	8,889566E+22	2,873616E+22	1,176318E+23
-2535	4,444687E+22	4,444708E+22	1,436820E+22	1,436774E+22	8,889395E+22	2,873594E+22	1,176299E+23
-2534	4,444646E+22	4,444691E+22	1,436897E+22	1,436885E+22	8,889338E+22	2,873783E+22	1,176312E+23
-2533	4,444791E+22	4,444547E+22	1,436842E+22	1,436926E+22	8,889338E+22	2,873768E+22	1,176311E+23
-2532	4,444509E+22	4,444637E+22	1,436973E+22	1,436903E+22	8,889145E+22	2,873877E+22	1,176302E+23
-2531	4,444561E+22	4,444582E+22	1,436987E+22	1,437063E+22	8,889143E+22	2,874051E+22	1,176319E+23
-2530	4,444574E+22	4,444434E+22	1,436983E+22	1,437032E+22	8,889008E+22	2,874015E+22	1,176302E+23
-2529	4,444297E+22	4,444510E+22	1,437136E+22	1,437034E+22	8,888807E+22	2,874170E+22	1,176298E+23
-2528	4,444490E+22	4,444411E+22	1,437071E+22	1,437140E+22	8,888901E+22	2,874211E+22	1,176311E+23
-2527	4,444403E+22	4,444353E+22	1,437091E+22	1,437042E+22	8,888755E+22	2,874133E+22	1,176289E+23
-2526	4,444284E+22	4,444432E+22	1,437137E+22	1,437094E+22	8,888716E+22	2,874232E+22	1,176295E+23
-2525	4,444519E+22	4,444360E+22	1,437001E+22	1,437110E+22	8,888879E+22	2,874111E+22	1,176299E+23
-2524	4,444365E+22	4,444480E+22	1,437037E+22	1,436971E+22	8,888845E+22	2,874008E+22	1,176285E+23
-2523	4,444497E+22	4,444534E+22	1,436997E+22	1,437015E+22	8,889031E+22	2,874011E+22	1,176304E+23
-2522	4,444688E+22	4,444481E+22	1,436888E+22	1,436923E+22	8,889169E+22	2,873810E+22	1,176298E+23
-2521	4,444464E+22	4,444652E+22	1,436968E+22	1,436846E+22	8,889115E+22	2,873814E+22	1,176293E+23
-2520	4,444647E+22	4,444667E+22	1,436879E+22	1,436942E+22	8,889314E+22	2,873822E+22	1,176314E+23
-2519	4,444644E+22	4,444613E+22	1,436849E+22	1,436851E+22	8,889257E+22	2,873700E+22	1,176296E+23
-2518	4,444484E+22	4,444672E+22	1,436934E+22	1,436879E+22	8,889156E+22	2,873812E+22	1,176297E+23
-2517	4,444726E+22	4,444567E+22	1,436846E+22	1,436947E+22	8,889293E+22	2,873793E+22	1,176309E+23
-2516	4,444585E+22	4,444570E+22	1,436920E+22	1,436869E+22	8,889155E+22	2,873789E+22	1,176294E+23
-2515	4,444541E+22	4,444584E+22	1,436988E+22	1,436984E+22	8,889125E+22	2,873971E+22	1,176310E+23
-2514	4,444658E+22	4,444467E+22	1,436935E+22	1,437034E+22	8,889126E+22	2,873969E+22	1,176309E+23
-2513	4,444333E+22	4,444507E+22	1,437092E+22	1,437018E+22	8,888840E+22	2,874110E+22	1,176295E+23
-2512	4,444388E+22	4,444458E+22	1,437109E+22	1,437162E+22	8,888846E+22	2,874272E+22	1,176312E+23
-2511	4,444421E+22	4,444295E+22	1,437109E+22	1,437128E+22	8,888717E+22	2,874237E+22	1,176295E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2510	4,444172E+22	4,444307E+22	1,437240E+22	1,437137E+22	8,888478E+22	2,874377E+22	1,176285E+23
-2509	4,444358E+22	4,444240E+22	1,437158E+22	1,437240E+22	8,888598E+22	2,874398E+22	1,176300E+23
-2508	4,444255E+22	4,444238E+22	1,437169E+22	1,437149E+22	8,888493E+22	2,874318E+22	1,176281E+23
-2507	4,444179E+22	4,444326E+22	1,437199E+22	1,437179E+22	8,888505E+22	2,874378E+22	1,176288E+23
-2506	4,444442E+22	4,444275E+22	1,437064E+22	1,437172E+22	8,888717E+22	2,874236E+22	1,176295E+23
-2505	4,444273E+22	4,444362E+22	1,437122E+22	1,437029E+22	8,888635E+22	2,874151E+22	1,176279E+23
-2504	4,444391E+22	4,444456E+22	1,437085E+22	1,437074E+22	8,888847E+22	2,874158E+22	1,176301E+23
-2503	4,444552E+22	4,444416E+22	1,436978E+22	1,437005E+22	8,888967E+22	2,873982E+22	1,176295E+23
-2502	4,444322E+22	4,444514E+22	1,437045E+22	1,436951E+22	8,888835E+22	2,873996E+22	1,176283E+23
-2501	4,444517E+22	4,444520E+22	1,436958E+22	1,437038E+22	8,889037E+22	2,873996E+22	1,176303E+23
-2500	4,444522E+22	4,444477E+22	1,436937E+22	1,436946E+22	8,889000E+22	2,873882E+22	1,176288E+23
-2499	4,444412E+22	4,444528E+22	1,437016E+22	1,436960E+22	8,888940E+22	2,873977E+22	1,176292E+23
-2498	4,444653E+22	4,444450E+22	1,436935E+22	1,437033E+22	8,889102E+22	2,873968E+22	1,176307E+23
-2497	4,444438E+22	4,444441E+22	1,437029E+22	1,436978E+22	8,888879E+22	2,874008E+22	1,176289E+23
-2496	4,444364E+22	4,444494E+22	1,437101E+22	1,437097E+22	8,888858E+22	2,874197E+22	1,176306E+23
-2495	4,444477E+22	4,444353E+22	1,437058E+22	1,437147E+22	8,888830E+22	2,874206E+22	1,176304E+23
-2494	4,444176E+22	4,444311E+22	1,437208E+22	1,437129E+22	8,888487E+22	2,874338E+22	1,176282E+23
-2493	4,444258E+22	4,444264E+22	1,437221E+22	1,437255E+22	8,888522E+22	2,874476E+22	1,176300E+23
-2492	4,444277E+22	4,444142E+22	1,437215E+22	1,437231E+22	8,888420E+22	2,874446E+22	1,176287E+23
-2491	4,444050E+22	4,444178E+22	1,437317E+22	1,437239E+22	8,888228E+22	2,874557E+22	1,176278E+23
-2490	4,444243E+22	4,444143E+22	1,437227E+22	1,437336E+22	8,888386E+22	2,874563E+22	1,176295E+23
-2489	4,444123E+22	4,444120E+22	1,437253E+22	1,437240E+22	8,888243E+22	2,874493E+22	1,176274E+23
-2488	4,444068E+22	4,444243E+22	1,437284E+22	1,437244E+22	8,888311E+22	2,874528E+22	1,176284E+23
-2487	4,444346E+22	4,444189E+22	1,437160E+22	1,437233E+22	8,888535E+22	2,874393E+22	1,176293E+23
-2486	4,444176E+22	4,444221E+22	1,437206E+22	1,437108E+22	8,888397E+22	2,874314E+22	1,176271E+23
-2485	4,444263E+22	4,444333E+22	1,437161E+22	1,437156E+22	8,888596E+22	2,874317E+22	1,176291E+23
-2484	4,444399E+22	4,444316E+22	1,437054E+22	1,437105E+22	8,888715E+22	2,874159E+22	1,176287E+23
-2483	4,444219E+22	4,444384E+22	1,437109E+22	1,437039E+22	8,888603E+22	2,874148E+22	1,176275E+23
-2482	4,444441E+22	4,444396E+22	1,437030E+22	1,437111E+22	8,888837E+22	2,874140E+22	1,176298E+23
-2481	4,444432E+22	4,444332E+22	1,437033E+22	1,437026E+22	8,888764E+22	2,874059E+22	1,176282E+23
-2480	4,444298E+22	4,444432E+22	1,437116E+22	1,437041E+22	8,888730E+22	2,874157E+22	1,176289E+23
-2479	4,444503E+22	4,444372E+22	1,437046E+22	1,437137E+22	8,888875E+22	2,874183E+22	1,176306E+23
-2478	4,444277E+22	4,444291E+22	1,437135E+22	1,437103E+22	8,888568E+22	2,874238E+22	1,176281E+23
-2477	4,444194E+22	4,444334E+22	1,437213E+22	1,437206E+22	8,888527E+22	2,874419E+22	1,176295E+23
-2476	4,444314E+22	4,444202E+22	1,437177E+22	1,437258E+22	8,888516E+22	2,874434E+22	1,176295E+23
-2475	4,444066E+22	4,444129E+22	1,437311E+22	1,437230E+22	8,888195E+22	2,874540E+22	1,176274E+23
-2474	4,444143E+22	4,444115E+22	1,437315E+22	1,437355E+22	8,888258E+22	2,874670E+22	1,176293E+23
-2473	4,444116E+22	4,443996E+22	1,437313E+22	1,437348E+22	8,888112E+22	2,874661E+22	1,176277E+23
-2472	4,443890E+22	4,444080E+22	1,437405E+22	1,437342E+22	8,887970E+22	2,874747E+22	1,176272E+23
-2471	4,444112E+22	4,444046E+22	1,437323E+22	1,437426E+22	8,888158E+22	2,874749E+22	1,176291E+23
-2470	4,444027E+22	4,443964E+22	1,437340E+22	1,437318E+22	8,887991E+22	2,874658E+22	1,176265E+23
-2469	4,443986E+22	4,444107E+22	1,437371E+22	1,437300E+22	8,888093E+22	2,874671E+22	1,176276E+23
-2468	4,444233E+22	4,444099E+22	1,437244E+22	1,437304E+22	8,888332E+22	2,874549E+22	1,176288E+23
-2467	4,444069E+22	4,444126E+22	1,437269E+22	1,437191E+22	8,888195E+22	2,874460E+22	1,176266E+23
-2466	4,444147E+22	4,444247E+22	1,437224E+22	1,437238E+22	8,888394E+22	2,874463E+22	1,176286E+23
-2465	4,444259E+22	4,444192E+22	1,437138E+22	1,437195E+22	8,888451E+22	2,874332E+22	1,176278E+23
-2464	4,444110E+22	4,444281E+22	1,437195E+22	1,437112E+22	8,888390E+22	2,874307E+22	1,176270E+23
-2463	4,444351E+22	4,444279E+22	1,437132E+22	1,437188E+22	8,888630E+22	2,874320E+22	1,176295E+23
-2462	4,444320E+22	4,444172E+22	1,437129E+22	1,437127E+22	8,888492E+22	2,874256E+22	1,176275E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2461	4,444154E+22	4,444301E+22	1,437212E+22	1,437147E+22	8,888455E+22	2,874359E+22	1,176281E+23
-2460	4,444326E+22	4,444258E+22	1,437150E+22	1,437256E+22	8,888584E+22	2,874406E+22	1,176299E+23
-2459	4,444143E+22	4,444140E+22	1,437231E+22	1,437214E+22	8,888283E+22	2,874445E+22	1,176273E+23
-2458	4,444075E+22	4,444180E+22	1,437315E+22	1,437297E+22	8,888256E+22	2,874612E+22	1,176287E+23
-2457	4,444171E+22	4,444030E+22	1,437295E+22	1,437360E+22	8,888201E+22	2,874655E+22	1,176286E+23
-2456	4,443918E+22	4,444007E+22	1,437417E+22	1,437330E+22	8,887924E+22	2,874747E+22	1,176267E+23
-2455	4,443989E+22	4,444005E+22	1,437422E+22	1,437466E+22	8,887994E+22	2,874889E+22	1,176288E+23
-2454	4,443971E+22	4,443840E+22	1,437407E+22	1,437465E+22	8,887811E+22	2,874872E+22	1,176268E+23
-2453	4,443766E+22	4,443941E+22	1,437497E+22	1,437429E+22	8,887707E+22	2,874926E+22	1,176263E+23
-2452	4,444002E+22	4,443935E+22	1,437420E+22	1,437503E+22	8,887937E+22	2,874923E+22	1,176286E+23
-2451	4,443960E+22	4,443837E+22	1,437419E+22	1,437387E+22	8,887798E+22	2,874806E+22	1,176260E+23
-2450	4,443887E+22	4,444013E+22	1,437444E+22	1,437368E+22	8,887900E+22	2,874812E+22	1,176271E+23
-2449	4,444076E+22	4,443999E+22	1,437325E+22	1,437398E+22	8,888075E+22	2,874723E+22	1,176280E+23
-2448	4,443915E+22	4,444037E+22	1,437343E+22	1,437275E+22	8,887952E+22	2,874618E+22	1,176257E+23
-2447	4,444023E+22	4,444138E+22	1,437311E+22	1,437320E+22	8,888162E+22	2,874631E+22	1,176279E+23
-2446	4,444170E+22	4,444020E+22	1,437220E+22	1,437277E+22	8,888190E+22	2,874497E+22	1,176269E+23
-2445	4,444027E+22	4,444132E+22	1,437278E+22	1,437185E+22	8,888159E+22	2,874463E+22	1,176262E+23
-2444	4,444235E+22	4,444183E+22	1,437222E+22	1,437280E+22	8,888418E+22	2,874501E+22	1,176292E+23
-2443	4,444211E+22	4,444062E+22	1,437206E+22	1,437232E+22	8,888273E+22	2,874437E+22	1,176271E+23
-2442	4,444021E+22	4,444196E+22	1,437300E+22	1,437245E+22	8,888217E+22	2,874545E+22	1,176276E+23
-2441	4,444158E+22	4,444121E+22	1,437265E+22	1,437362E+22	8,888279E+22	2,874627E+22	1,176291E+23
-2440	4,443993E+22	4,444006E+22	1,437351E+22	1,437307E+22	8,887999E+22	2,874658E+22	1,176266E+23
-2439	4,443940E+22	4,444030E+22	1,437444E+22	1,437401E+22	8,887970E+22	2,874846E+22	1,176282E+23
-2438	4,444015E+22	4,443838E+22	1,437408E+22	1,437486E+22	8,887854E+22	2,874894E+22	1,176275E+23
-2437	4,443757E+22	4,443847E+22	1,437517E+22	1,437451E+22	8,887603E+22	2,874968E+22	1,176257E+23
-2436	4,443832E+22	4,443876E+22	1,437522E+22	1,437581E+22	8,887708E+22	2,875103E+22	1,176281E+23
-2435	4,443874E+22	4,443698E+22	1,437491E+22	1,437559E+22	8,887572E+22	2,875050E+22	1,176262E+23
-2434	4,443690E+22	4,443824E+22	1,437581E+22	1,437493E+22	8,887514E+22	2,875074E+22	1,176259E+23
-2433	4,443879E+22	4,443821E+22	1,437519E+22	1,437574E+22	8,887700E+22	2,875092E+22	1,176279E+23
-2432	4,443818E+22	4,443772E+22	1,437505E+22	1,437460E+22	8,887590E+22	2,874965E+22	1,176255E+23
-2431	4,443739E+22	4,443932E+22	1,437529E+22	1,437457E+22	8,887671E+22	2,874987E+22	1,176266E+23
-2430	4,443923E+22	4,443853E+22	1,437401E+22	1,437497E+22	8,887775E+22	2,874898E+22	1,176267E+23
-2429	4,443805E+22	4,443893E+22	1,437416E+22	1,437355E+22	8,887698E+22	2,874771E+22	1,176247E+23
-2428	4,443939E+22	4,444008E+22	1,437393E+22	1,437393E+22	8,887947E+22	2,874787E+22	1,176273E+23
-2427	4,444123E+22	4,443884E+22	1,437290E+22	1,437354E+22	8,888007E+22	2,874644E+22	1,176265E+23
-2426	4,443943E+22	4,444037E+22	1,437349E+22	1,437263E+22	8,887980E+22	2,874612E+22	1,176259E+23
-2425	4,444075E+22	4,444088E+22	1,437315E+22	1,437382E+22	8,888163E+22	2,874697E+22	1,176286E+23
-2424	4,444045E+22	4,443977E+22	1,437305E+22	1,437328E+22	8,888023E+22	2,874634E+22	1,176266E+23
-2423	4,443873E+22	4,444070E+22	1,437421E+22	1,437343E+22	8,887943E+22	2,874764E+22	1,176271E+23
-2422	4,444013E+22	4,443926E+22	1,437386E+22	1,437468E+22	8,887940E+22	2,874854E+22	1,176279E+23
-2421	4,443858E+22	4,443824E+22	1,437466E+22	1,437412E+22	8,887682E+22	2,874878E+22	1,176256E+23
-2420	4,443783E+22	4,443888E+22	1,437556E+22	1,437523E+22	8,887671E+22	2,875078E+22	1,176275E+23
-2419	4,443887E+22	4,443690E+22	1,437496E+22	1,437613E+22	8,887576E+22	2,875109E+22	1,176269E+23
-2418	4,443630E+22	4,443722E+22	1,437602E+22	1,437553E+22	8,887352E+22	2,875156E+22	1,176251E+23
-2417	4,443690E+22	4,443754E+22	1,437628E+22	1,437677E+22	8,887444E+22	2,875305E+22	1,176275E+23
-2416	4,443755E+22	4,443596E+22	1,437594E+22	1,437629E+22	8,887351E+22	2,875223E+22	1,176257E+23
-2415	4,443571E+22	4,443717E+22	1,437690E+22	1,437572E+22	8,887288E+22	2,875262E+22	1,176255E+23
-2414	4,443720E+22	4,443678E+22	1,437609E+22	1,437673E+22	8,887398E+22	2,875282E+22	1,176268E+23
-2413	4,443655E+22	4,443638E+22	1,437582E+22	1,437558E+22	8,887293E+22	2,875140E+22	1,176243E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2412	4,443597E+22	4,443807E+22	1,437606E+22	1,437551E+22	8,887404E+22	2,875157E+22	1,176256E+23
-2411	4,443855E+22	4,443701E+22	1,437461E+22	1,437575E+22	8,887556E+22	2,875036E+22	1,176259E+23
-2410	4,443764E+22	4,443770E+22	1,437477E+22	1,437408E+22	8,887534E+22	2,874885E+22	1,176242E+23
-2409	4,443853E+22	4,443910E+22	1,437474E+22	1,437462E+22	8,887763E+22	2,874936E+22	1,176270E+23
-2408	4,444002E+22	4,443837E+22	1,437372E+22	1,437427E+22	8,887839E+22	2,874799E+22	1,176264E+23
-2407	4,443804E+22	4,443973E+22	1,437449E+22	1,437358E+22	8,887777E+22	2,874808E+22	1,176258E+23
-2406	4,443899E+22	4,443950E+22	1,437422E+22	1,437489E+22	8,887849E+22	2,874911E+22	1,176276E+23
-2405	4,443893E+22	4,443821E+22	1,437419E+22	1,437431E+22	8,887714E+22	2,874849E+22	1,176256E+23
-2404	4,443737E+22	4,443901E+22	1,437543E+22	1,437450E+22	8,887639E+22	2,874992E+22	1,176263E+23
-2403	4,443902E+22	4,443740E+22	1,437487E+22	1,437587E+22	8,887642E+22	2,875074E+22	1,176272E+23
-2402	4,443731E+22	4,443676E+22	1,437555E+22	1,437528E+22	8,887407E+22	2,875084E+22	1,176249E+23
-2401	4,443609E+22	4,443749E+22	1,437655E+22	1,437647E+22	8,887358E+22	2,875303E+22	1,176266E+23
-2400	4,443730E+22	4,443585E+22	1,437598E+22	1,437713E+22	8,887315E+22	2,875311E+22	1,176263E+23
-2399	4,443514E+22	4,443603E+22	1,437717E+22	1,437642E+22	8,887117E+22	2,875359E+22	1,176248E+23
-2398	4,443555E+22	4,443591E+22	1,437740E+22	1,437762E+22	8,887145E+22	2,875502E+22	1,176265E+23
-2397	4,443621E+22	4,443464E+22	1,437696E+22	1,437714E+22	8,887085E+22	2,875409E+22	1,176249E+23
-2396	4,443417E+22	4,443604E+22	1,437783E+22	1,437669E+22	8,887021E+22	2,875452E+22	1,176247E+23
-2395	4,443592E+22	4,443544E+22	1,437675E+22	1,437773E+22	8,887136E+22	2,875449E+22	1,176258E+23
-2394	4,443554E+22	4,443515E+22	1,437641E+22	1,437635E+22	8,887069E+22	2,875276E+22	1,176234E+23
-2393	4,443496E+22	4,443686E+22	1,437681E+22	1,437624E+22	8,887182E+22	2,875305E+22	1,176249E+23
-2392	4,443782E+22	4,443615E+22	1,437541E+22	1,437629E+22	8,887398E+22	2,875170E+22	1,176257E+23
-2391	4,443689E+22	4,443691E+22	1,437566E+22	1,437479E+22	8,887380E+22	2,875045E+22	1,176242E+23
-2390	4,443708E+22	4,443803E+22	1,437561E+22	1,437556E+22	8,887511E+22	2,875117E+22	1,176263E+23
-2389	4,443843E+22	4,443729E+22	1,437461E+22	1,437527E+22	8,887572E+22	2,874988E+22	1,176256E+23
-2388	4,443648E+22	4,443845E+22	1,437554E+22	1,437464E+22	8,887493E+22	2,875018E+22	1,176251E+23
-2387	4,443787E+22	4,443778E+22	1,437516E+22	1,437591E+22	8,887565E+22	2,875107E+22	1,176267E+23
-2386	4,443793E+22	4,443654E+22	1,437512E+22	1,437520E+22	8,887446E+22	2,875033E+22	1,176248E+23
-2385	4,443599E+22	4,443753E+22	1,437647E+22	1,437560E+22	8,887352E+22	2,875207E+22	1,176256E+23
-2384	4,443751E+22	4,443631E+22	1,437586E+22	1,437694E+22	8,887382E+22	2,875279E+22	1,176266E+23
-2383	4,443585E+22	4,443563E+22	1,437662E+22	1,437645E+22	8,887148E+22	2,875307E+22	1,176246E+23
-2382	4,443442E+22	4,443596E+22	1,437766E+22	1,437760E+22	8,887039E+22	2,875526E+22	1,176256E+23
-2381	4,443590E+22	4,443437E+22	1,437714E+22	1,437808E+22	8,887027E+22	2,875522E+22	1,176255E+23
-2380	4,443388E+22	4,443458E+22	1,437840E+22	1,437736E+22	8,886846E+22	2,875576E+22	1,176242E+23
-2379	4,443434E+22	4,443434E+22	1,437835E+22	1,437862E+22	8,886868E+22	2,875698E+22	1,176257E+23
-2378	4,443480E+22	4,443335E+22	1,437772E+22	1,437810E+22	8,886815E+22	2,875582E+22	1,176240E+23
-2377	4,443253E+22	4,443478E+22	1,437862E+22	1,437772E+22	8,886731E+22	2,875634E+22	1,176236E+23
-2376	4,443465E+22	4,443441E+22	1,437750E+22	1,437847E+22	8,886906E+22	2,875598E+22	1,176250E+23
-2375	4,443483E+22	4,443409E+22	1,437723E+22	1,437702E+22	8,886893E+22	2,875426E+22	1,176232E+23
-2374	4,443406E+22	4,443554E+22	1,437763E+22	1,437691E+22	8,886960E+22	2,875454E+22	1,176241E+23
-2373	4,443680E+22	4,443525E+22	1,437623E+22	1,437702E+22	8,887205E+22	2,875325E+22	1,176253E+23
-2372	4,443563E+22	4,443612E+22	1,437652E+22	1,437572E+22	8,887174E+22	2,875224E+22	1,176240E+23
-2371	4,443577E+22	4,443686E+22	1,437636E+22	1,437655E+22	8,887264E+22	2,875291E+22	1,176255E+23
-2370	4,443725E+22	4,443606E+22	1,437540E+22	1,437614E+22	8,887331E+22	2,875154E+22	1,176248E+23
-2369	4,443520E+22	4,443692E+22	1,437653E+22	1,437556E+22	8,887212E+22	2,875209E+22	1,176242E+23
-2368	4,443670E+22	4,443644E+22	1,437620E+22	1,437674E+22	8,887314E+22	2,875294E+22	1,176261E+23
-2367	4,443680E+22	4,443524E+22	1,437619E+22	1,437629E+22	8,887204E+22	2,875248E+22	1,176245E+23
-2366	4,443421E+22	4,443595E+22	1,437748E+22	1,437685E+22	8,887016E+22	2,875433E+22	1,176245E+23
-2365	4,443581E+22	4,443491E+22	1,437691E+22	1,437813E+22	8,887072E+22	2,875505E+22	1,176258E+23
-2364	4,443441E+22	4,443416E+22	1,437781E+22	1,437756E+22	8,886857E+22	2,875537E+22	1,176239E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2363	4,443332E+22	4,443425E+22	1,437872E+22	1,437857E+22	8,886757E+22	2,875730E+22	1,176249E+23
-2362	4,443485E+22	4,443289E+22	1,437816E+22	1,437891E+22	8,886774E+22	2,875707E+22	1,176248E+23
-2361	4,443233E+22	4,443332E+22	1,437944E+22	1,437839E+22	8,886564E+22	2,875783E+22	1,176235E+23
-2360	4,443266E+22	4,443342E+22	1,437926E+22	1,437956E+22	8,886608E+22	2,875882E+22	1,176249E+23
-2359	4,443339E+22	4,443231E+22	1,437861E+22	1,437911E+22	8,886570E+22	2,875772E+22	1,176234E+23
-2358	4,443109E+22	4,443330E+22	1,437945E+22	1,437865E+22	8,886439E+22	2,875810E+22	1,176225E+23
-2357	4,443370E+22	4,443307E+22	1,437836E+22	1,437920E+22	8,886678E+22	2,875756E+22	1,176243E+23
-2356	4,443409E+22	4,443292E+22	1,437815E+22	1,437777E+22	8,886701E+22	2,875592E+22	1,176229E+23
-2355	4,443326E+22	4,443438E+22	1,437832E+22	1,437775E+22	8,886764E+22	2,875607E+22	1,176237E+23
-2354	4,443564E+22	4,443430E+22	1,437686E+22	1,437781E+22	8,886994E+22	2,875467E+22	1,176246E+23
-2353	4,443414E+22	4,443509E+22	1,437732E+22	1,437666E+22	8,886923E+22	2,875398E+22	1,176232E+23
-2352	4,443447E+22	4,443579E+22	1,437723E+22	1,437725E+22	8,887027E+22	2,875448E+22	1,176247E+23
-2351	4,443626E+22	4,443476E+22	1,437640E+22	1,437694E+22	8,887102E+22	2,875334E+22	1,176244E+23
-2350	4,443391E+22	4,443527E+22	1,437755E+22	1,437651E+22	8,886917E+22	2,875406E+22	1,176232E+23
-2349	4,443530E+22	4,443506E+22	1,437724E+22	1,437778E+22	8,887036E+22	2,875502E+22	1,176254E+23
-2348	4,443529E+22	4,443398E+22	1,437728E+22	1,437751E+22	8,886927E+22	2,875478E+22	1,176241E+23
-2347	4,443282E+22	4,443442E+22	1,437843E+22	1,437806E+22	8,886724E+22	2,875649E+22	1,176237E+23
-2346	4,443452E+22	4,443346E+22	1,437793E+22	1,437913E+22	8,886798E+22	2,875706E+22	1,176250E+23
-2345	4,443306E+22	4,443271E+22	1,437900E+22	1,437860E+22	8,886576E+22	2,875760E+22	1,176234E+23
-2344	4,443196E+22	4,443301E+22	1,437990E+22	1,437945E+22	8,886497E+22	2,875935E+22	1,176243E+23
-2343	4,443341E+22	4,443174E+22	1,437927E+22	1,438001E+22	8,886515E+22	2,875928E+22	1,176244E+23
-2342	4,443035E+22	4,443178E+22	1,438041E+22	1,437960E+22	8,886213E+22	2,876000E+22	1,176221E+23
-2341	4,443097E+22	4,443198E+22	1,438019E+22	1,438062E+22	8,886295E+22	2,876081E+22	1,176238E+23
-2340	4,443225E+22	4,443086E+22	1,437956E+22	1,438003E+22	8,886312E+22	2,875959E+22	1,176227E+23
-2339	4,443043E+22	4,443173E+22	1,438017E+22	1,437939E+22	8,886216E+22	2,875956E+22	1,176217E+23
-2338	4,443314E+22	4,443195E+22	1,437905E+22	1,437979E+22	8,886508E+22	2,875883E+22	1,176239E+23
-2337	4,443305E+22	4,443212E+22	1,437886E+22	1,437852E+22	8,886517E+22	2,875739E+22	1,176226E+23
-2336	4,443196E+22	4,443383E+22	1,437903E+22	1,437841E+22	8,886578E+22	2,875744E+22	1,176232E+23
-2335	4,443443E+22	4,443357E+22	1,437768E+22	1,437861E+22	8,886800E+22	2,875629E+22	1,176243E+23
-2334	4,443261E+22	4,443368E+22	1,437823E+22	1,437752E+22	8,886630E+22	2,875576E+22	1,176221E+23
-2333	4,443324E+22	4,443434E+22	1,437827E+22	1,437807E+22	8,886758E+22	2,875634E+22	1,176239E+23
-2332	4,443516E+22	4,443327E+22	1,437752E+22	1,437795E+22	8,886842E+22	2,875546E+22	1,176239E+23
-2331	4,443269E+22	4,443366E+22	1,437840E+22	1,437769E+22	8,886635E+22	2,875608E+22	1,176224E+23
-2330	4,443393E+22	4,443366E+22	1,437807E+22	1,437890E+22	8,886759E+22	2,875697E+22	1,176246E+23
-2329	4,443375E+22	4,443265E+22	1,437827E+22	1,437869E+22	8,886640E+22	2,875696E+22	1,176234E+23
-2328	4,443152E+22	4,443320E+22	1,437953E+22	1,437894E+22	8,886472E+22	2,875847E+22	1,176232E+23
-2327	4,443342E+22	4,443220E+22	1,437915E+22	1,438006E+22	8,886562E+22	2,875921E+22	1,176248E+23
-2326	4,443141E+22	4,443116E+22	1,438023E+22	1,437968E+22	8,886257E+22	2,875991E+22	1,176225E+23
-2325	4,443016E+22	4,443168E+22	1,438106E+22	1,438057E+22	8,886184E+22	2,876162E+22	1,176235E+23
-2324	4,443164E+22	4,443037E+22	1,438038E+22	1,438124E+22	8,886201E+22	2,876162E+22	1,176236E+23
-2323	4,442899E+22	4,443008E+22	1,438123E+22	1,438073E+22	8,885906E+22	2,876196E+22	1,176210E+23
-2322	4,443000E+22	4,443036E+22	1,438098E+22	1,438140E+22	8,886036E+22	2,876238E+22	1,176227E+23
-2321	4,443140E+22	4,442957E+22	1,438042E+22	1,438079E+22	8,886097E+22	2,876121E+22	1,176222E+23
-2320	4,442969E+22	4,443084E+22	1,438097E+22	1,437996E+22	8,886053E+22	2,876093E+22	1,176215E+23
-2319	4,443208E+22	4,443132E+22	1,437983E+22	1,438054E+22	8,886341E+22	2,876037E+22	1,176238E+23
-2318	4,443135E+22	4,443116E+22	1,437965E+22	1,437943E+22	8,886250E+22	2,875908E+22	1,176216E+23
-2317	4,443038E+22	4,443274E+22	1,437991E+22	1,437922E+22	8,886312E+22	2,875913E+22	1,176222E+23
-2316	4,443317E+22	4,443225E+22	1,437869E+22	1,437945E+22	8,886542E+22	2,875813E+22	1,176236E+23
-2315	4,443171E+22	4,443197E+22	1,437906E+22	1,437840E+22	8,886368E+22	2,875746E+22	1,176211E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2314	4,443231E+22	4,443283E+22	1,437909E+22	1,437893E+22	8,886514E+22	2,875802E+22	1,176232E+23
-2313	4,443386E+22	4,443213E+22	1,437838E+22	1,437906E+22	8,886599E+22	2,875744E+22	1,176234E+23
-2312	4,443137E+22	4,443270E+22	1,437925E+22	1,437867E+22	8,886407E+22	2,875792E+22	1,176220E+23
-2311	4,443270E+22	4,443268E+22	1,437907E+22	1,437994E+22	8,886537E+22	2,875901E+22	1,176244E+23
-2310	4,443218E+22	4,443118E+22	1,437944E+22	1,437973E+22	8,886335E+22	2,875917E+22	1,176225E+23
-2309	4,443008E+22	4,443173E+22	1,438086E+22	1,437991E+22	8,886181E+22	2,876078E+22	1,176226E+23
-2308	4,443191E+22	4,443073E+22	1,438052E+22	1,438121E+22	8,886264E+22	2,876174E+22	1,176244E+23
-2307	4,442969E+22	4,442940E+22	1,438126E+22	1,438098E+22	8,885909E+22	2,876224E+22	1,176213E+23
-2306	4,442849E+22	4,442999E+22	1,438197E+22	1,438173E+22	8,885848E+22	2,876370E+22	1,176222E+23
-2305	4,443014E+22	4,442878E+22	1,438130E+22	1,438233E+22	8,885892E+22	2,876363E+22	1,176225E+23
-2304	4,442802E+22	4,442872E+22	1,438207E+22	1,438143E+22	8,885674E+22	2,876350E+22	1,176202E+23
-2303	4,442938E+22	4,442933E+22	1,438184E+22	1,438207E+22	8,885871E+22	2,876391E+22	1,176226E+23
-2302	4,443016E+22	4,442854E+22	1,438130E+22	1,438155E+22	8,885870E+22	2,876285E+22	1,176215E+23
-2301	4,442825E+22	4,443015E+22	1,438184E+22	1,438074E+22	8,885840E+22	2,876259E+22	1,176210E+23
-2300	4,443057E+22	4,443049E+22	1,438076E+22	1,438144E+22	8,886106E+22	2,876220E+22	1,176233E+23
-2299	4,442998E+22	4,442978E+22	1,438039E+22	1,438036E+22	8,885976E+22	2,876075E+22	1,176205E+23
-2298	4,442935E+22	4,443119E+22	1,438069E+22	1,437997E+22	8,886053E+22	2,876066E+22	1,176212E+23
-2297	4,443219E+22	4,443082E+22	1,437956E+22	1,438031E+22	8,886301E+22	2,875987E+22	1,176229E+23
-2296	4,443086E+22	4,443080E+22	1,437985E+22	1,437923E+22	8,886165E+22	2,875907E+22	1,176207E+23
-2295	4,443125E+22	4,443189E+22	1,437988E+22	1,437994E+22	8,886315E+22	2,875982E+22	1,176230E+23
-2294	4,443218E+22	4,443092E+22	1,437931E+22	1,438018E+22	8,886310E+22	2,875949E+22	1,176226E+23
-2293	4,442988E+22	4,443148E+22	1,438036E+22	1,437965E+22	8,886136E+22	2,876001E+22	1,176214E+23
-2292	4,443134E+22	4,443130E+22	1,438039E+22	1,438090E+22	8,886264E+22	2,876130E+22	1,176239E+23
-2291	4,443092E+22	4,442945E+22	1,438061E+22	1,438081E+22	8,886036E+22	2,876141E+22	1,176218E+23
-2290	4,442864E+22	4,443003E+22	1,438198E+22	1,438097E+22	8,885867E+22	2,876295E+22	1,176216E+23
-2289	4,443005E+22	4,442933E+22	1,438161E+22	1,438247E+22	8,885938E+22	2,876408E+22	1,176235E+23
-2288	4,442813E+22	4,442802E+22	1,438220E+22	1,438209E+22	8,885615E+22	2,876428E+22	1,176204E+23
-2287	4,442721E+22	4,442865E+22	1,438290E+22	1,438275E+22	8,885586E+22	2,876565E+22	1,176215E+23
-2286	4,442875E+22	4,442729E+22	1,438232E+22	1,438326E+22	8,885603E+22	2,876558E+22	1,176216E+23
-2285	4,442697E+22	4,442750E+22	1,438313E+22	1,438220E+22	8,885447E+22	2,876533E+22	1,176198E+23
-2284	4,442820E+22	4,442835E+22	1,438290E+22	1,438295E+22	8,885656E+22	2,876585E+22	1,176224E+23
-2283	4,442873E+22	4,442739E+22	1,438204E+22	1,438255E+22	8,885612E+22	2,876460E+22	1,176207E+23
-2282	4,442684E+22	4,442887E+22	1,438255E+22	1,438161E+22	8,885571E+22	2,876416E+22	1,176199E+23
-2281	4,442921E+22	4,442927E+22	1,438155E+22	1,438227E+22	8,885848E+22	2,876382E+22	1,176223E+23
-2280	4,442917E+22	4,442850E+22	1,438112E+22	1,438098E+22	8,885767E+22	2,876210E+22	1,176198E+23
-2279	4,442876E+22	4,443006E+22	1,438144E+22	1,438068E+22	8,885882E+22	2,876212E+22	1,176209E+23
-2278	4,443094E+22	4,442969E+22	1,438039E+22	1,438121E+22	8,886063E+22	2,876160E+22	1,176222E+23
-2277	4,442952E+22	4,442993E+22	1,438074E+22	1,438016E+22	8,885945E+22	2,876090E+22	1,176203E+23
-2276	4,442989E+22	4,443094E+22	1,438092E+22	1,438098E+22	8,886084E+22	2,876190E+22	1,176227E+23
-2275	4,443078E+22	4,442945E+22	1,438028E+22	1,438122E+22	8,886023E+22	2,876150E+22	1,176217E+23
-2274	4,442868E+22	4,442981E+22	1,438148E+22	1,438057E+22	8,885850E+22	2,876205E+22	1,176205E+23
-2273	4,442995E+22	4,442975E+22	1,438162E+22	1,438195E+22	8,885970E+22	2,876358E+22	1,176233E+23
-2272	4,442944E+22	4,442800E+22	1,438170E+22	1,438191E+22	8,885744E+22	2,876361E+22	1,176211E+23
-2271	4,442703E+22	4,442870E+22	1,438296E+22	1,438224E+22	8,885573E+22	2,876520E+22	1,176209E+23
-2270	4,442801E+22	4,442768E+22	1,438265E+22	1,438374E+22	8,885570E+22	2,876639E+22	1,176221E+23
-2269	4,442661E+22	4,442650E+22	1,438328E+22	1,438310E+22	8,885311E+22	2,876639E+22	1,176195E+23
-2268	4,442614E+22	4,442720E+22	1,438405E+22	1,438367E+22	8,885334E+22	2,876772E+22	1,176211E+23
-2267	4,442769E+22	4,442578E+22	1,438326E+22	1,438418E+22	8,885348E+22	2,876745E+22	1,176209E+23
-2266	4,442586E+22	4,442627E+22	1,438399E+22	1,438306E+22	8,885213E+22	2,876705E+22	1,176192E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2265	4,442670E+22	4,442746E+22	1,438373E+22	1,438388E+22	8,885415E+22	2,876761E+22	1,176218E+23
-2264	4,442748E+22	4,442644E+22	1,438275E+22	1,438334E+22	8,885392E+22	2,876609E+22	1,176200E+23
-2263	4,442584E+22	4,442779E+22	1,438327E+22	1,438235E+22	8,885363E+22	2,876561E+22	1,176192E+23
-2262	4,442794E+22	4,442791E+22	1,438242E+22	1,438301E+22	8,885585E+22	2,876543E+22	1,176213E+23
-2261	4,442824E+22	4,442732E+22	1,438206E+22	1,438171E+22	8,885556E+22	2,876377E+22	1,176193E+23
-2260	4,442766E+22	4,442904E+22	1,438239E+22	1,438161E+22	8,885669E+22	2,876400E+22	1,176207E+23
-2259	4,442956E+22	4,442845E+22	1,438116E+22	1,438230E+22	8,885801E+22	2,876346E+22	1,176215E+23
-2258	4,442826E+22	4,442850E+22	1,438156E+22	1,438112E+22	8,885676E+22	2,876267E+22	1,176194E+23
-2257	4,442851E+22	4,442964E+22	1,438192E+22	1,438189E+22	8,885815E+22	2,876381E+22	1,176220E+23
-2256	4,442979E+22	4,442810E+22	1,438129E+22	1,438204E+22	8,885788E+22	2,876333E+22	1,176212E+23
-2255	4,442759E+22	4,442850E+22	1,438254E+22	1,438155E+22	8,885608E+22	2,876409E+22	1,176202E+23
-2254	4,442800E+22	4,442838E+22	1,438277E+22	1,438315E+22	8,885638E+22	2,876592E+22	1,176223E+23
-2253	4,442758E+22	4,442669E+22	1,438284E+22	1,438314E+22	8,885427E+22	2,876599E+22	1,176203E+23
-2252	4,442536E+22	4,442723E+22	1,438413E+22	1,438350E+22	8,885259E+22	2,876763E+22	1,176202E+23
-2251	4,442656E+22	4,442585E+22	1,438366E+22	1,438490E+22	8,885241E+22	2,876856E+22	1,176210E+23
-2250	4,442565E+22	4,442468E+22	1,438432E+22	1,438402E+22	8,885034E+22	2,876834E+22	1,176187E+23
-2249	4,442505E+22	4,442590E+22	1,438511E+22	1,438459E+22	8,885096E+22	2,876970E+22	1,176207E+23
-2248	4,442656E+22	4,442478E+22	1,438413E+22	1,438507E+22	8,885134E+22	2,876920E+22	1,176205E+23
-2247	4,442455E+22	4,442541E+22	1,438476E+22	1,438401E+22	8,884996E+22	2,876876E+22	1,176187E+23
-2246	4,442490E+22	4,442628E+22	1,438460E+22	1,438476E+22	8,885118E+22	2,876936E+22	1,176205E+23
-2245	4,442615E+22	4,442526E+22	1,438367E+22	1,438404E+22	8,885140E+22	2,876772E+22	1,176191E+23
-2244	4,442496E+22	4,442652E+22	1,438422E+22	1,438309E+22	8,885148E+22	2,876731E+22	1,176188E+23
-2243	4,442695E+22	4,442643E+22	1,438319E+22	1,438384E+22	8,885338E+22	2,876703E+22	1,176204E+23
-2242	4,442724E+22	4,442607E+22	1,438278E+22	1,438258E+22	8,885331E+22	2,876536E+22	1,176187E+23
-2241	4,442640E+22	4,442810E+22	1,438314E+22	1,438256E+22	8,885450E+22	2,876570E+22	1,176202E+23
-2240	4,442845E+22	4,442743E+22	1,438190E+22	1,438315E+22	8,885588E+22	2,876504E+22	1,176209E+23
-2239	4,442729E+22	4,442742E+22	1,438241E+22	1,438197E+22	8,885471E+22	2,876437E+22	1,176191E+23
-2238	4,442704E+22	4,442822E+22	1,438306E+22	1,438277E+22	8,885525E+22	2,876583E+22	1,176211E+23
-2237	4,442835E+22	4,442679E+22	1,438252E+22	1,438303E+22	8,885515E+22	2,876556E+22	1,176207E+23
-2236	4,442596E+22	4,442713E+22	1,438377E+22	1,438282E+22	8,885308E+22	2,876659E+22	1,176197E+23
-2235	4,442605E+22	4,442659E+22	1,438380E+22	1,438453E+22	8,885264E+22	2,876833E+22	1,176210E+23
-2234	4,442607E+22	4,442474E+22	1,438388E+22	1,438435E+22	8,885081E+22	2,876823E+22	1,176190E+23
-2233	4,442408E+22	4,442555E+22	1,438521E+22	1,438453E+22	8,884963E+22	2,876974E+22	1,176194E+23
-2232	4,442574E+22	4,442437E+22	1,438467E+22	1,438576E+22	8,885011E+22	2,877043E+22	1,176205E+23
-2231	4,442478E+22	4,442361E+22	1,438526E+22	1,438491E+22	8,884838E+22	2,877018E+22	1,176186E+23
-2230	4,442330E+22	4,442495E+22	1,438614E+22	1,438556E+22	8,884825E+22	2,877170E+22	1,176199E+23
-2229	4,442488E+22	4,442396E+22	1,438516E+22	1,438600E+22	8,884883E+22	2,877116E+22	1,176200E+23
-2228	4,442300E+22	4,442429E+22	1,438578E+22	1,438495E+22	8,884728E+22	2,877073E+22	1,176180E+23
-2227	4,442344E+22	4,442468E+22	1,438547E+22	1,438564E+22	8,884812E+22	2,877111E+22	1,176192E+23
-2226	4,442529E+22	4,442349E+22	1,438452E+22	1,438480E+22	8,884878E+22	2,876932E+22	1,176181E+23
-2225	4,442400E+22	4,442523E+22	1,438500E+22	1,438392E+22	8,884923E+22	2,876892E+22	1,176181E+23
-2224	4,442606E+22	4,442544E+22	1,438379E+22	1,438471E+22	8,885150E+22	2,876850E+22	1,176200E+23
-2223	4,442626E+22	4,442520E+22	1,438334E+22	1,438347E+22	8,885147E+22	2,876681E+22	1,176183E+23
-2222	4,442491E+22	4,442704E+22	1,438398E+22	1,438338E+22	8,885195E+22	2,876736E+22	1,176193E+23
-2221	4,442727E+22	4,442638E+22	1,438295E+22	1,438383E+22	8,885364E+22	2,876678E+22	1,176204E+23
-2220	4,442620E+22	4,442619E+22	1,438360E+22	1,438285E+22	8,885239E+22	2,876645E+22	1,176188E+23
-2219	4,442547E+22	4,442666E+22	1,438415E+22	1,438386E+22	8,885213E+22	2,876801E+22	1,176201E+23
-2218	4,442679E+22	4,442516E+22	1,438358E+22	1,438424E+22	8,885194E+22	2,876782E+22	1,176198E+23
-2217	4,442429E+22	4,442564E+22	1,438480E+22	1,438410E+22	8,884993E+22	2,876890E+22	1,176188E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2216	4,442477E+22	4,442498E+22	1,438475E+22	1,438565E+22	8,884975E+22	2,877040E+22	1,176202E+23
-2215	4,442509E+22	4,442326E+22	1,438485E+22	1,438536E+22	8,884835E+22	2,877021E+22	1,176186E+23
-2214	4,442274E+22	4,442409E+22	1,438639E+22	1,438549E+22	8,884682E+22	2,877189E+22	1,176187E+23
-2213	4,442434E+22	4,442332E+22	1,438591E+22	1,438671E+22	8,884765E+22	2,877262E+22	1,176203E+23
-2212	4,442316E+22	4,442266E+22	1,438643E+22	1,438608E+22	8,884582E+22	2,877252E+22	1,176183E+23
-2211	4,442131E+22	4,442346E+22	1,438709E+22	1,438669E+22	8,884477E+22	2,877378E+22	1,176185E+23
-2210	4,442335E+22	4,442221E+22	1,438607E+22	1,438695E+22	8,884556E+22	2,877302E+22	1,176186E+23
-2209	4,442185E+22	4,442270E+22	1,438664E+22	1,438577E+22	8,884456E+22	2,877241E+22	1,176170E+23
-2208	4,442276E+22	4,442318E+22	1,438617E+22	1,438635E+22	8,884593E+22	2,877252E+22	1,176185E+23
-2207	4,442463E+22	4,442251E+22	1,438510E+22	1,438556E+22	8,884715E+22	2,877066E+22	1,176178E+23
-2206	4,442271E+22	4,442440E+22	1,438570E+22	1,438474E+22	8,884711E+22	2,877044E+22	1,176175E+23
-2205	4,442482E+22	4,442481E+22	1,438461E+22	1,438546E+22	8,884962E+22	2,877007E+22	1,176197E+23
-2204	4,442511E+22	4,442439E+22	1,438429E+22	1,438430E+22	8,884950E+22	2,876858E+22	1,176181E+23
-2203	4,442355E+22	4,442560E+22	1,438497E+22	1,438419E+22	8,884914E+22	2,876916E+22	1,176183E+23
-2202	4,442617E+22	4,442471E+22	1,438406E+22	1,438470E+22	8,885089E+22	2,876876E+22	1,176197E+23
-2201	4,442479E+22	4,442476E+22	1,438469E+22	1,438396E+22	8,884956E+22	2,876865E+22	1,176182E+23
-2200	4,442401E+22	4,442520E+22	1,438507E+22	1,438509E+22	8,884921E+22	2,877016E+22	1,176194E+23
-2199	4,442536E+22	4,442372E+22	1,438444E+22	1,438547E+22	8,884908E+22	2,876991E+22	1,176190E+23
-2198	4,442262E+22	4,442405E+22	1,438586E+22	1,438521E+22	8,884667E+22	2,877106E+22	1,176177E+23
-2197	4,442357E+22	4,442362E+22	1,438596E+22	1,438657E+22	8,884719E+22	2,877253E+22	1,176197E+23
-2196	4,442395E+22	4,442200E+22	1,438612E+22	1,438638E+22	8,884595E+22	2,877250E+22	1,176184E+23
-2195	4,442104E+22	4,442269E+22	1,438755E+22	1,438661E+22	8,884373E+22	2,877416E+22	1,176179E+23
-2194	4,442269E+22	4,442186E+22	1,438701E+22	1,438784E+22	8,884455E+22	2,877485E+22	1,176194E+23
-2193	4,442138E+22	4,442131E+22	1,438744E+22	1,438720E+22	8,884269E+22	2,877465E+22	1,176173E+23
-2192	4,441998E+22	4,442193E+22	1,438791E+22	1,438763E+22	8,884191E+22	2,877554E+22	1,176175E+23
-2191	4,442245E+22	4,442073E+22	1,438680E+22	1,438773E+22	8,884318E+22	2,877453E+22	1,176177E+23
-2190	4,442078E+22	4,442132E+22	1,438749E+22	1,438652E+22	8,884210E+22	2,877401E+22	1,176161E+23
-2189	4,442178E+22	4,442230E+22	1,438702E+22	1,438708E+22	8,884408E+22	2,877411E+22	1,176182E+23
-2188	4,442347E+22	4,442185E+22	1,438592E+22	1,438648E+22	8,884532E+22	2,877240E+22	1,176177E+23
-2187	4,442121E+22	4,442328E+22	1,438646E+22	1,438563E+22	8,884449E+22	2,877209E+22	1,176166E+23
-2186	4,442368E+22	4,442342E+22	1,438551E+22	1,438619E+22	8,884710E+22	2,877170E+22	1,176188E+23
-2185	4,442405E+22	4,442312E+22	1,438526E+22	1,438506E+22	8,884717E+22	2,877032E+22	1,176175E+23
-2184	4,442260E+22	4,442419E+22	1,438586E+22	1,438504E+22	8,884679E+22	2,877090E+22	1,176177E+23
-2183	4,442497E+22	4,442356E+22	1,438489E+22	1,438572E+22	8,884853E+22	2,877061E+22	1,176191E+23
-2182	4,442305E+22	4,442352E+22	1,438566E+22	1,438514E+22	8,884656E+22	2,877080E+22	1,176174E+23
-2181	4,442241E+22	4,442397E+22	1,438614E+22	1,438618E+22	8,884638E+22	2,877232E+22	1,176187E+23
-2180	4,442400E+22	4,442243E+22	1,438559E+22	1,438662E+22	8,884643E+22	2,877221E+22	1,176186E+23
-2179	4,442120E+22	4,442223E+22	1,438701E+22	1,438625E+22	8,884342E+22	2,877327E+22	1,176167E+23
-2178	4,442235E+22	4,442184E+22	1,438721E+22	1,438760E+22	8,884418E+22	2,877482E+22	1,176190E+23
-2177	4,442239E+22	4,442070E+22	1,438730E+22	1,438757E+22	8,884309E+22	2,877487E+22	1,176180E+23
-2176	4,441940E+22	4,442125E+22	1,438852E+22	1,438782E+22	8,884066E+22	2,877634E+22	1,176170E+23
-2175	4,442112E+22	4,442046E+22	1,438788E+22	1,438890E+22	8,884158E+22	2,877678E+22	1,176184E+23
-2174	4,441977E+22	4,441973E+22	1,438843E+22	1,438811E+22	8,883950E+22	2,877654E+22	1,176160E+23
-2173	4,441889E+22	4,442056E+22	1,438892E+22	1,438833E+22	8,883945E+22	2,877725E+22	1,176167E+23
-2172	4,442152E+22	4,441968E+22	1,438776E+22	1,438855E+22	8,884120E+22	2,877631E+22	1,176175E+23
-2171	4,441945E+22	4,442016E+22	1,438828E+22	1,438741E+22	8,883961E+22	2,877569E+22	1,176153E+23
-2170	4,442062E+22	4,442121E+22	1,438783E+22	1,438796E+22	8,884183E+22	2,877579E+22	1,176176E+23
-2169	4,442218E+22	4,442097E+22	1,438674E+22	1,438734E+22	8,884315E+22	2,877407E+22	1,176172E+23
-2168	4,442022E+22	4,442209E+22	1,438721E+22	1,438640E+22	8,884231E+22	2,877362E+22	1,176159E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2167	4,442281E+22	4,442220E+22	1,438630E+22	1,438688E+22	8,884501E+22	2,877318E+22	1,176182E+23
-2166	4,442273E+22	4,442184E+22	1,438625E+22	1,438594E+22	8,884458E+22	2,877219E+22	1,176168E+23
-2165	4,442122E+22	4,442315E+22	1,438687E+22	1,438605E+22	8,884437E+22	2,877292E+22	1,176173E+23
-2164	4,442339E+22	4,442246E+22	1,438588E+22	1,438694E+22	8,884585E+22	2,877282E+22	1,176187E+23
-2163	4,442128E+22	4,442181E+22	1,438662E+22	1,438632E+22	8,884310E+22	2,877294E+22	1,176160E+23
-2162	4,442124E+22	4,442209E+22	1,438722E+22	1,438718E+22	8,884333E+22	2,877441E+22	1,176177E+23
-2161	4,442284E+22	4,442086E+22	1,438676E+22	1,438759E+22	8,884370E+22	2,877436E+22	1,176181E+23
-2160	4,442012E+22	4,442074E+22	1,438808E+22	1,438731E+22	8,884086E+22	2,877538E+22	1,176162E+23
-2159	4,442094E+22	4,442066E+22	1,438821E+22	1,438867E+22	8,884160E+22	2,877688E+22	1,176185E+23
-2158	4,442045E+22	4,441949E+22	1,438842E+22	1,438875E+22	8,883994E+22	2,877717E+22	1,176171E+23
-2157	4,441768E+22	4,442003E+22	1,438964E+22	1,438885E+22	8,883771E+22	2,877849E+22	1,176162E+23
-2156	4,441962E+22	4,441914E+22	1,438898E+22	1,438992E+22	8,883876E+22	2,877889E+22	1,176177E+23
-2155	4,441838E+22	4,441792E+22	1,438946E+22	1,438905E+22	8,883630E+22	2,877850E+22	1,176148E+23
-2154	4,441791E+22	4,441889E+22	1,438991E+22	1,438924E+22	8,883680E+22	2,877914E+22	1,176159E+23
-2153	4,442028E+22	4,441865E+22	1,438863E+22	1,438955E+22	8,883893E+22	2,877818E+22	1,176171E+23
-2152	4,441833E+22	4,441907E+22	1,438891E+22	1,438839E+22	8,883740E+22	2,877730E+22	1,176147E+23
-2151	4,441955E+22	4,442020E+22	1,438844E+22	1,438871E+22	8,883975E+22	2,877714E+22	1,176169E+23
-2150	4,442100E+22	4,441987E+22	1,438757E+22	1,438802E+22	8,884087E+22	2,877558E+22	1,176165E+23
-2149	4,441926E+22	4,442102E+22	1,438815E+22	1,438700E+22	8,884027E+22	2,877516E+22	1,176154E+23
-2148	4,442163E+22	4,442131E+22	1,438727E+22	1,438774E+22	8,884294E+22	2,877502E+22	1,176180E+23
-2147	4,442111E+22	4,442046E+22	1,438715E+22	1,438699E+22	8,884157E+22	2,877415E+22	1,176157E+23
-2146	4,441978E+22	4,442158E+22	1,438781E+22	1,438715E+22	8,884136E+22	2,877497E+22	1,176163E+23
-2145	4,442195E+22	4,442110E+22	1,438687E+22	1,438805E+22	8,884304E+22	2,877492E+22	1,176180E+23
-2144	4,442026E+22	4,442013E+22	1,438754E+22	1,438734E+22	8,884040E+22	2,877487E+22	1,176153E+23
-2143	4,442033E+22	4,442057E+22	1,438821E+22	1,438806E+22	8,884090E+22	2,877628E+22	1,176172E+23
-2142	4,442140E+22	4,441956E+22	1,438797E+22	1,438865E+22	8,884096E+22	2,877663E+22	1,176176E+23
-2141	4,441844E+22	4,441968E+22	1,438931E+22	1,438846E+22	8,883812E+22	2,877776E+22	1,176159E+23
-2140	4,441898E+22	4,441959E+22	1,438940E+22	1,438995E+22	8,883858E+22	2,877935E+22	1,176179E+23
-2139	4,441839E+22	4,441768E+22	1,438956E+22	1,438995E+22	8,883608E+22	2,877951E+22	1,176156E+23
-2138	4,441632E+22	4,441801E+22	1,439078E+22	1,438987E+22	8,883433E+22	2,878065E+22	1,176150E+23
-2137	4,441841E+22	4,441752E+22	1,439005E+22	1,439087E+22	8,883593E+22	2,878092E+22	1,176169E+23
-2136	4,441745E+22	4,441645E+22	1,439025E+22	1,439004E+22	8,883390E+22	2,878030E+22	1,176142E+23
-2135	4,441692E+22	4,441788E+22	1,439055E+22	1,439012E+22	8,883480E+22	2,878067E+22	1,176155E+23
-2134	4,441887E+22	4,441783E+22	1,438942E+22	1,439043E+22	8,883670E+22	2,877985E+22	1,176165E+23
-2133	4,441720E+22	4,441833E+22	1,438974E+22	1,438908E+22	8,883553E+22	2,877882E+22	1,176144E+23
-2132	4,441845E+22	4,441934E+22	1,438932E+22	1,438936E+22	8,883779E+22	2,877868E+22	1,176165E+23
-2131	4,441969E+22	4,441840E+22	1,438851E+22	1,438874E+22	8,883809E+22	2,877725E+22	1,176153E+23
-2130	4,441818E+22	4,441948E+22	1,438911E+22	1,438790E+22	8,883766E+22	2,877701E+22	1,176147E+23
-2129	4,442009E+22	4,442012E+22	1,438819E+22	1,438883E+22	8,884021E+22	2,877701E+22	1,176172E+23
-2128	4,441980E+22	4,441898E+22	1,438788E+22	1,438816E+22	8,883878E+22	2,877604E+22	1,176148E+23
-2127	4,441873E+22	4,442008E+22	1,438855E+22	1,438807E+22	8,883881E+22	2,877662E+22	1,176154E+23
-2126	4,442078E+22	4,441968E+22	1,438789E+22	1,438892E+22	8,884046E+22	2,877681E+22	1,176173E+23
-2125	4,441928E+22	4,441897E+22	1,438866E+22	1,438818E+22	8,883825E+22	2,877684E+22	1,176151E+23
-2124	4,441890E+22	4,441969E+22	1,438940E+22	1,438912E+22	8,883858E+22	2,877853E+22	1,176171E+23
-2123	4,441937E+22	4,441820E+22	1,438918E+22	1,438991E+22	8,883757E+22	2,877910E+22	1,176167E+23
-2122	4,441662E+22	4,441801E+22	1,439054E+22	1,438975E+22	8,883463E+22	2,878030E+22	1,176149E+23
-2121	4,441711E+22	4,441801E+22	1,439062E+22	1,439117E+22	8,883512E+22	2,878179E+22	1,176169E+23
-2120	4,441714E+22	4,441568E+22	1,439056E+22	1,439109E+22	8,883283E+22	2,878165E+22	1,176145E+23
-2119	4,441540E+22	4,441622E+22	1,439167E+22	1,439078E+22	8,883162E+22	2,878245E+22	1,176141E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2118	4,441721E+22	4,441624E+22	1,439102E+22	1,439187E+22	8,883346E+22	2,878289E+22	1,176163E+23
-2117	4,441623E+22	4,441559E+22	1,439111E+22	1,439095E+22	8,883182E+22	2,878206E+22	1,176139E+23
-2116	4,441555E+22	4,441720E+22	1,439138E+22	1,439099E+22	8,883276E+22	2,878238E+22	1,176151E+23
-2115	4,441739E+22	4,441652E+22	1,439030E+22	1,439117E+22	8,883391E+22	2,878148E+22	1,176154E+23
-2114	4,441616E+22	4,441683E+22	1,439070E+22	1,438974E+22	8,883299E+22	2,878044E+22	1,176134E+23
-2113	4,441724E+22	4,441817E+22	1,439029E+22	1,439008E+22	8,883541E+22	2,878038E+22	1,176158E+23
-2112	4,441858E+22	4,441704E+22	1,438925E+22	1,438969E+22	8,883562E+22	2,877894E+22	1,176146E+23
-2111	4,441703E+22	4,441826E+22	1,438975E+22	1,438884E+22	8,883528E+22	2,877859E+22	1,176139E+23
-2110	4,441869E+22	4,441897E+22	1,438901E+22	1,438984E+22	8,883766E+22	2,877885E+22	1,176165E+23
-2109	4,441871E+22	4,441790E+22	1,438877E+22	1,438903E+22	8,883661E+22	2,877780E+22	1,176144E+23
-2108	4,441771E+22	4,441904E+22	1,438955E+22	1,438893E+22	8,883675E+22	2,877848E+22	1,176152E+23
-2107	4,441940E+22	4,441815E+22	1,438907E+22	1,438989E+22	8,883755E+22	2,877896E+22	1,176165E+23
-2106	4,441787E+22	4,441750E+22	1,438992E+22	1,438936E+22	8,883537E+22	2,877928E+22	1,176146E+23
-2105	4,441689E+22	4,441844E+22	1,439065E+22	1,439043E+22	8,883534E+22	2,878108E+22	1,176164E+23
-2104	4,441759E+22	4,441642E+22	1,439023E+22	1,439129E+22	8,883401E+22	2,878153E+22	1,176155E+23
-2103	4,441525E+22	4,441606E+22	1,439152E+22	1,439084E+22	8,883131E+22	2,878236E+22	1,176137E+23
-2102	4,441575E+22	4,441620E+22	1,439174E+22	1,439215E+22	8,883195E+22	2,878389E+22	1,176158E+23
-2101	4,441614E+22	4,441433E+22	1,439160E+22	1,439198E+22	8,883047E+22	2,878358E+22	1,176141E+23
-2100	4,441423E+22	4,441532E+22	1,439260E+22	1,439173E+22	8,882955E+22	2,878433E+22	1,176139E+23
-2099	4,441554E+22	4,441509E+22	1,439198E+22	1,439286E+22	8,883063E+22	2,878484E+22	1,176155E+23
-2098	4,441487E+22	4,441444E+22	1,439207E+22	1,439189E+22	8,882932E+22	2,878396E+22	1,176133E+23
-2097	4,441407E+22	4,441615E+22	1,439237E+22	1,439177E+22	8,883022E+22	2,878414E+22	1,176144E+23
-2096	4,441635E+22	4,441501E+22	1,439113E+22	1,439196E+22	8,883135E+22	2,878309E+22	1,176144E+23
-2095	4,441531E+22	4,441531E+22	1,439145E+22	1,439046E+22	8,883062E+22	2,878191E+22	1,176125E+23
-2094	4,441590E+22	4,441701E+22	1,439113E+22	1,439102E+22	8,883290E+22	2,878215E+22	1,176150E+23
-2093	4,441730E+22	4,441612E+22	1,438998E+22	1,439067E+22	8,883342E+22	2,878065E+22	1,176141E+23
-2092	4,441580E+22	4,441735E+22	1,439047E+22	1,438980E+22	8,883315E+22	2,878027E+22	1,176134E+23
-2091	4,441739E+22	4,441748E+22	1,438994E+22	1,439071E+22	8,883487E+22	2,878065E+22	1,176155E+23
-2090	4,441782E+22	4,441639E+22	1,438983E+22	1,438986E+22	8,883421E+22	2,877969E+22	1,176139E+23
-2089	4,441643E+22	4,441789E+22	1,439075E+22	1,438985E+22	8,883431E+22	2,878060E+22	1,176149E+23
-2088	4,441798E+22	4,441675E+22	1,439012E+22	1,439107E+22	8,883473E+22	2,878119E+22	1,176159E+23
-2087	4,441630E+22	4,441602E+22	1,439093E+22	1,439055E+22	8,883232E+22	2,878148E+22	1,176138E+23
-2086	4,441504E+22	4,441699E+22	1,439182E+22	1,439167E+22	8,883203E+22	2,878348E+22	1,176155E+23
-2085	4,441612E+22	4,441486E+22	1,439135E+22	1,439235E+22	8,883098E+22	2,878370E+22	1,176147E+23
-2084	4,441402E+22	4,441455E+22	1,439262E+22	1,439183E+22	8,882857E+22	2,878445E+22	1,176130E+23
-2083	4,441434E+22	4,441440E+22	1,439292E+22	1,439319E+22	8,882874E+22	2,878611E+22	1,176148E+23
-2082	4,441476E+22	4,441291E+22	1,439272E+22	1,439310E+22	8,882767E+22	2,878582E+22	1,176135E+23
-2081	4,441249E+22	4,441435E+22	1,439365E+22	1,439285E+22	8,882683E+22	2,878650E+22	1,176133E+23
-2080	4,441409E+22	4,441366E+22	1,439285E+22	1,439391E+22	8,882775E+22	2,878675E+22	1,176145E+23
-2079	4,441378E+22	4,441294E+22	1,439287E+22	1,439263E+22	8,882673E+22	2,878550E+22	1,176122E+23
-2078	4,441290E+22	4,441484E+22	1,439329E+22	1,439248E+22	8,882774E+22	2,878576E+22	1,176135E+23
-2077	4,441532E+22	4,441397E+22	1,439194E+22	1,439267E+22	8,882929E+22	2,878461E+22	1,176139E+23
-2076	4,441417E+22	4,441454E+22	1,439215E+22	1,439133E+22	8,882871E+22	2,878348E+22	1,176122E+23
-2075	4,441440E+22	4,441577E+22	1,439194E+22	1,439198E+22	8,883017E+22	2,878392E+22	1,176141E+23
-2074	4,441616E+22	4,441491E+22	1,439086E+22	1,439161E+22	8,883107E+22	2,878246E+22	1,176135E+23
-2073	4,441463E+22	4,441625E+22	1,439143E+22	1,439062E+22	8,883088E+22	2,878205E+22	1,176129E+23
-2072	4,441650E+22	4,441594E+22	1,439087E+22	1,439158E+22	8,883244E+22	2,878245E+22	1,176149E+23
-2071	4,441692E+22	4,441493E+22	1,439079E+22	1,439076E+22	8,883186E+22	2,878155E+22	1,176134E+23
-2070	4,441477E+22	4,441670E+22	1,439186E+22	1,439098E+22	8,883147E+22	2,878284E+22	1,176143E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2069	4,441624E+22	4,441561E+22	1,439119E+22	1,439225E+22	8,883185E+22	2,878343E+22	1,176153E+23
-2068	4,441467E+22	4,441466E+22	1,439198E+22	1,439171E+22	8,882933E+22	2,878369E+22	1,176130E+23
-2067	4,441330E+22	4,441496E+22	1,439303E+22	1,439275E+22	8,882826E+22	2,878578E+22	1,176140E+23
-2066	4,441485E+22	4,441304E+22	1,439258E+22	1,439341E+22	8,882789E+22	2,878599E+22	1,176139E+23
-2065	4,441257E+22	4,441317E+22	1,439381E+22	1,439292E+22	8,882574E+22	2,878673E+22	1,176125E+23
-2064	4,441290E+22	4,441293E+22	1,439389E+22	1,439442E+22	8,882584E+22	2,878831E+22	1,176141E+23
-2063	4,441340E+22	4,441158E+22	1,439361E+22	1,439417E+22	8,882498E+22	2,878778E+22	1,176128E+23
-2062	4,441091E+22	4,441320E+22	1,439465E+22	1,439383E+22	8,882412E+22	2,878848E+22	1,176126E+23
-2061	4,441289E+22	4,441253E+22	1,439377E+22	1,439466E+22	8,882541E+22	2,878842E+22	1,176138E+23
-2060	4,441278E+22	4,441181E+22	1,439374E+22	1,439335E+22	8,882459E+22	2,878708E+22	1,176117E+23
-2059	4,441153E+22	4,441336E+22	1,439424E+22	1,439333E+22	8,882489E+22	2,878757E+22	1,176125E+23
-2058	4,441397E+22	4,441281E+22	1,439280E+22	1,439365E+22	8,882678E+22	2,878646E+22	1,176132E+23
-2057	4,441269E+22	4,441356E+22	1,439298E+22	1,439233E+22	8,882626E+22	2,878531E+22	1,176116E+23
-2056	4,441335E+22	4,441427E+22	1,439267E+22	1,439293E+22	8,882761E+22	2,878559E+22	1,176132E+23
-2055	4,441542E+22	4,441341E+22	1,439163E+22	1,439229E+22	8,882883E+22	2,878392E+22	1,176128E+23
-2054	4,441369E+22	4,441510E+22	1,439241E+22	1,439136E+22	8,882880E+22	2,878377E+22	1,176126E+23
-2053	4,441540E+22	4,441499E+22	1,439183E+22	1,439238E+22	8,883039E+22	2,878421E+22	1,176146E+23
-2052	4,441541E+22	4,441413E+22	1,439175E+22	1,439180E+22	8,882955E+22	2,878356E+22	1,176131E+23
-2051	4,441278E+22	4,441523E+22	1,439302E+22	1,439219E+22	8,882802E+22	2,878521E+22	1,176132E+23
-2050	4,441443E+22	4,441404E+22	1,439239E+22	1,439346E+22	8,882847E+22	2,878585E+22	1,176143E+23
-2049	4,441303E+22	4,441304E+22	1,439323E+22	1,439285E+22	8,882606E+22	2,878608E+22	1,176121E+23
-2048	4,441211E+22	4,441283E+22	1,439415E+22	1,439393E+22	8,882493E+22	2,878808E+22	1,176130E+23
-2047	4,441372E+22	4,441124E+22	1,439363E+22	1,439453E+22	8,882496E+22	2,878816E+22	1,176131E+23
-2046	4,441098E+22	4,441196E+22	1,439487E+22	1,439415E+22	8,882294E+22	2,878902E+22	1,176120E+23
-2045	4,441138E+22	4,441188E+22	1,439485E+22	1,439549E+22	8,882326E+22	2,879034E+22	1,176136E+23
-2044	4,441205E+22	4,441055E+22	1,439454E+22	1,439509E+22	8,882260E+22	2,878963E+22	1,176122E+23
-2043	4,440946E+22	4,441160E+22	1,439574E+22	1,439463E+22	8,882105E+22	2,879037E+22	1,176114E+23
-2042	4,441166E+22	4,441117E+22	1,439483E+22	1,439543E+22	8,882283E+22	2,879025E+22	1,176131E+23
-2041	4,441139E+22	4,441075E+22	1,439471E+22	1,439423E+22	8,882214E+22	2,878894E+22	1,176111E+23
-2040	4,441023E+22	4,441195E+22	1,439497E+22	1,439437E+22	8,882218E+22	2,878935E+22	1,176115E+23
-2039	4,441292E+22	4,441152E+22	1,439348E+22	1,439457E+22	8,882444E+22	2,878805E+22	1,176125E+23
-2038	4,441158E+22	4,441247E+22	1,439375E+22	1,439315E+22	8,882405E+22	2,878690E+22	1,176110E+23
-2037	4,441256E+22	4,441324E+22	1,439344E+22	1,439356E+22	8,882580E+22	2,878699E+22	1,176128E+23
-2036	4,441467E+22	4,441247E+22	1,439247E+22	1,439297E+22	8,882714E+22	2,878544E+22	1,176126E+23
-2035	4,441220E+22	4,441379E+22	1,439349E+22	1,439231E+22	8,882599E+22	2,878579E+22	1,176118E+23
-2034	4,441359E+22	4,441394E+22	1,439293E+22	1,439352E+22	8,882753E+22	2,878645E+22	1,176140E+23
-2033	4,441345E+22	4,441289E+22	1,439289E+22	1,439305E+22	8,882635E+22	2,878595E+22	1,176123E+23
-2032	4,441122E+22	4,441317E+22	1,439406E+22	1,439345E+22	8,882440E+22	2,878751E+22	1,176119E+23
-2031	4,441331E+22	4,441194E+22	1,439345E+22	1,439449E+22	8,882525E+22	2,878794E+22	1,176132E+23
-2030	4,441182E+22	4,441137E+22	1,439435E+22	1,439392E+22	8,882319E+22	2,878827E+22	1,176115E+23
-2029	4,441094E+22	4,441157E+22	1,439515E+22	1,439499E+22	8,882251E+22	2,879014E+22	1,176126E+23
-2028	4,441233E+22	4,441033E+22	1,439461E+22	1,439565E+22	8,882266E+22	2,879025E+22	1,176129E+23
-2027	4,440918E+22	4,441064E+22	1,439605E+22	1,439529E+22	8,881983E+22	2,879134E+22	1,176112E+23
-2026	4,440971E+22	4,441067E+22	1,439604E+22	1,439646E+22	8,882038E+22	2,879250E+22	1,176129E+23
-2025	4,441052E+22	4,440926E+22	1,439575E+22	1,439600E+22	8,881978E+22	2,879174E+22	1,176115E+23
-2024	4,440826E+22	4,440971E+22	1,439675E+22	1,439561E+22	8,881797E+22	2,879236E+22	1,176103E+23
-2023	4,441042E+22	4,440955E+22	1,439569E+22	1,439637E+22	8,881997E+22	2,879205E+22	1,176120E+23
-2022	4,440993E+22	4,440964E+22	1,439549E+22	1,439528E+22	8,881957E+22	2,879078E+22	1,176103E+23
-2021	4,440916E+22	4,441085E+22	1,439559E+22	1,439524E+22	8,882000E+22	2,879083E+22	1,176108E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2020	4,441204E+22	4,441055E+22	1,439413E+22	1,439525E+22	8,882260E+22	2,878938E+22	1,176120E+23
-2019	4,441059E+22	4,441118E+22	1,439464E+22	1,439381E+22	8,882177E+22	2,878846E+22	1,176102E+23
-2018	4,441147E+22	4,441228E+22	1,439441E+22	1,439423E+22	8,882375E+22	2,878865E+22	1,176124E+23
-2017	4,441319E+22	4,441170E+22	1,439351E+22	1,439389E+22	8,882488E+22	2,878740E+22	1,176123E+23
-2016	4,441063E+22	4,441229E+22	1,439443E+22	1,439350E+22	8,882293E+22	2,878794E+22	1,176109E+23
-2015	4,441204E+22	4,441231E+22	1,439391E+22	1,439464E+22	8,882435E+22	2,878854E+22	1,176129E+23
-2014	4,441196E+22	4,441134E+22	1,439395E+22	1,439419E+22	8,882330E+22	2,878813E+22	1,176114E+23
-2013	4,441022E+22	4,441148E+22	1,439504E+22	1,439442E+22	8,882170E+22	2,878947E+22	1,176112E+23
-2012	4,441237E+22	4,441052E+22	1,439447E+22	1,439549E+22	8,882289E+22	2,878995E+22	1,176128E+23
-2011	4,441028E+22	4,440987E+22	1,439554E+22	1,439511E+22	8,882015E+22	2,879065E+22	1,176108E+23
-2010	4,440912E+22	4,441054E+22	1,439635E+22	1,439619E+22	8,881966E+22	2,879254E+22	1,176122E+23
-2009	4,441046E+22	4,440923E+22	1,439586E+22	1,439684E+22	8,881969E+22	2,879270E+22	1,176124E+23
-2008	4,440762E+22	4,440875E+22	1,439720E+22	1,439641E+22	8,881636E+22	2,879361E+22	1,176100E+23
-2007	4,440845E+22	4,440883E+22	1,439714E+22	1,439734E+22	8,881728E+22	2,879448E+22	1,176118E+23
-2006	4,440916E+22	4,440777E+22	1,439676E+22	1,439694E+22	8,881693E+22	2,879370E+22	1,176106E+23
-2005	4,440705E+22	4,440845E+22	1,439749E+22	1,439655E+22	8,881550E+22	2,879404E+22	1,176095E+23
-2004	4,440927E+22	4,440860E+22	1,439633E+22	1,439729E+22	8,881787E+22	2,879362E+22	1,176115E+23
-2003	4,440857E+22	4,440839E+22	1,439630E+22	1,439619E+22	8,881697E+22	2,879249E+22	1,176095E+23
-2002	4,440803E+22	4,440994E+22	1,439643E+22	1,439594E+22	8,881798E+22	2,879237E+22	1,176103E+23
-2001	4,441105E+22	4,440962E+22	1,439510E+22	1,439591E+22	8,882067E+22	2,879101E+22	1,176117E+23
-2000	4,440963E+22	4,440966E+22	1,439555E+22	1,439467E+22	8,881928E+22	2,879023E+22	1,176095E+23
-1999	4,441016E+22	4,441096E+22	1,439532E+22	1,439515E+22	8,882112E+22	2,879047E+22	1,176116E+23
-1998	4,441148E+22	4,441057E+22	1,439444E+22	1,439504E+22	8,882205E+22	2,878947E+22	1,176115E+23
-1997	4,440931E+22	4,441083E+22	1,439527E+22	1,439457E+22	8,882014E+22	2,878984E+22	1,176100E+23
-1996	4,441094E+22	4,441083E+22	1,439481E+22	1,439556E+22	8,882177E+22	2,879037E+22	1,176121E+23
-1995	4,441073E+22	4,440957E+22	1,439509E+22	1,439517E+22	8,882031E+22	2,879026E+22	1,176106E+23
-1994	4,440892E+22	4,441024E+22	1,439620E+22	1,439541E+22	8,881915E+22	2,879161E+22	1,176108E+23
-1993	4,441072E+22	4,440955E+22	1,439571E+22	1,439667E+22	8,882027E+22	2,879238E+22	1,176127E+23
-1992	4,440860E+22	4,440832E+22	1,439669E+22	1,439648E+22	8,881692E+22	2,879317E+22	1,176101E+23
-1991	4,440741E+22	4,440892E+22	1,439752E+22	1,439734E+22	8,881633E+22	2,879486E+22	1,176112E+23
-1990	4,440878E+22	4,440774E+22	1,439706E+22	1,439794E+22	8,881652E+22	2,879501E+22	1,176115E+23
-1989	4,440649E+22	4,440698E+22	1,439821E+22	1,439736E+22	8,881347E+22	2,879557E+22	1,176090E+23
-1988	4,440726E+22	4,440734E+22	1,439805E+22	1,439825E+22	8,881460E+22	2,879630E+22	1,176109E+23
-1987	4,440756E+22	4,440634E+22	1,439771E+22	1,439804E+22	8,881390E+22	2,879575E+22	1,176096E+23
-1986	4,440550E+22	4,440745E+22	1,439831E+22	1,439754E+22	8,881295E+22	2,879586E+22	1,176088E+23
-1985	4,440795E+22	4,440764E+22	1,439722E+22	1,439818E+22	8,881559E+22	2,879540E+22	1,176110E+23
-1984	4,440768E+22	4,440682E+22	1,439711E+22	1,439698E+22	8,881450E+22	2,879408E+22	1,176086E+23
-1983	4,440727E+22	4,440854E+22	1,439728E+22	1,439651E+22	8,881582E+22	2,879380E+22	1,176096E+23
-1982	4,440994E+22	4,440868E+22	1,439599E+22	1,439666E+22	8,881863E+22	2,879265E+22	1,176113E+23
-1981	4,440848E+22	4,440865E+22	1,439629E+22	1,439557E+22	8,881713E+22	2,879186E+22	1,176090E+23
-1980	4,440880E+22	4,441001E+22	1,439609E+22	1,439610E+22	8,881881E+22	2,879219E+22	1,176110E+23
-1979	4,440986E+22	4,440916E+22	1,439544E+22	1,439610E+22	8,881902E+22	2,879155E+22	1,176106E+23
-1978	4,440794E+22	4,440954E+22	1,439632E+22	1,439551E+22	8,881748E+22	2,879183E+22	1,176093E+23
-1977	4,440979E+22	4,440942E+22	1,439601E+22	1,439655E+22	8,881921E+22	2,879256E+22	1,176118E+23
-1976	4,440949E+22	4,440771E+22	1,439621E+22	1,439637E+22	8,881721E+22	2,879259E+22	1,176098E+23
-1975	4,440740E+22	4,440874E+22	1,439731E+22	1,439663E+22	8,881614E+22	2,879394E+22	1,176101E+23
-1974	4,440886E+22	4,440827E+22	1,439686E+22	1,439797E+22	8,881713E+22	2,879483E+22	1,176120E+23
-1973	4,440710E+22	4,440671E+22	1,439774E+22	1,439765E+22	8,881381E+22	2,879539E+22	1,176092E+23
-1972	4,440610E+22	4,440736E+22	1,439857E+22	1,439828E+22	8,881346E+22	2,879684E+22	1,176103E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1971	4,440727E+22	4,440595E+22	1,439826E+22	1,439893E+22	8,881321E+22	2,879719E+22	1,176104E+23
-1970	4,440497E+22	4,440571E+22	1,439928E+22	1,439832E+22	8,881068E+22	2,879760E+22	1,176083E+23
-1969	4,440569E+22	4,440626E+22	1,439909E+22	1,439932E+22	8,881195E+22	2,879841E+22	1,176104E+23
-1968	4,440613E+22	4,440479E+22	1,439858E+22	1,439917E+22	8,881092E+22	2,879775E+22	1,176087E+23
-1967	4,440435E+22	4,440608E+22	1,439915E+22	1,439839E+22	8,881043E+22	2,879754E+22	1,176080E+23
-1966	4,440689E+22	4,440654E+22	1,439811E+22	1,439892E+22	8,881343E+22	2,879704E+22	1,176105E+23
-1965	4,440704E+22	4,440558E+22	1,439788E+22	1,439765E+22	8,881263E+22	2,879553E+22	1,176082E+23
-1964	4,440633E+22	4,440759E+22	1,439805E+22	1,439720E+22	8,881392E+22	2,879525E+22	1,176092E+23
-1963	4,440829E+22	4,440765E+22	1,439692E+22	1,439765E+22	8,881594E+22	2,879456E+22	1,176105E+23
-1962	4,440679E+22	4,440772E+22	1,439719E+22	1,439658E+22	8,881451E+22	2,879377E+22	1,176083E+23
-1961	4,440729E+22	4,440879E+22	1,439713E+22	1,439711E+22	8,881608E+22	2,879424E+22	1,176103E+23
-1960	4,440873E+22	4,440724E+22	1,439644E+22	1,439715E+22	8,881596E+22	2,879360E+22	1,176096E+23
-1959	4,440697E+22	4,440775E+22	1,439732E+22	1,439642E+22	8,881472E+22	2,879373E+22	1,176084E+23
-1958	4,440846E+22	4,440817E+22	1,439707E+22	1,439763E+22	8,881663E+22	2,879470E+22	1,176113E+23
-1957	4,440825E+22	4,440642E+22	1,439713E+22	1,439755E+22	8,881467E+22	2,879468E+22	1,176094E+23
-1956	4,440589E+22	4,440754E+22	1,439831E+22	1,439772E+22	8,881342E+22	2,879603E+22	1,176095E+23
-1955	4,440702E+22	4,440681E+22	1,439811E+22	1,439912E+22	8,881384E+22	2,879723E+22	1,176111E+23
-1954	4,440547E+22	4,440532E+22	1,439900E+22	1,439864E+22	8,881079E+22	2,879763E+22	1,176084E+23
-1953	4,440461E+22	4,440583E+22	1,439989E+22	1,439932E+22	8,881044E+22	2,879921E+22	1,176096E+23
-1952	4,440572E+22	4,440401E+22	1,439939E+22	1,440017E+22	8,880972E+22	2,879955E+22	1,176093E+23
-1951	4,440340E+22	4,440409E+22	1,440023E+22	1,439949E+22	8,880749E+22	2,879972E+22	1,176072E+23
-1950	4,440415E+22	4,440498E+22	1,440001E+22	1,440044E+22	8,880913E+22	2,880045E+22	1,176096E+23
-1949	4,440520E+22	4,440339E+22	1,439933E+22	1,440006E+22	8,880858E+22	2,879939E+22	1,176080E+23
-1948	4,440364E+22	4,440494E+22	1,439990E+22	1,439898E+22	8,880858E+22	2,879888E+22	1,176075E+23
-1947	4,440578E+22	4,440543E+22	1,439906E+22	1,439959E+22	8,881121E+22	2,879866E+22	1,176099E+23
-1946	4,440567E+22	4,440495E+22	1,439876E+22	1,439839E+22	8,881062E+22	2,879715E+22	1,176078E+23
-1945	4,440479E+22	4,440685E+22	1,439900E+22	1,439816E+22	8,881163E+22	2,879716E+22	1,176088E+23
-1944	4,440666E+22	4,440613E+22	1,439780E+22	1,439876E+22	8,881278E+22	2,879656E+22	1,176093E+23
-1943	4,440551E+22	4,440613E+22	1,439808E+22	1,439754E+22	8,881164E+22	2,879561E+22	1,176072E+23
-1942	4,440622E+22	4,440723E+22	1,439810E+22	1,439802E+22	8,881345E+22	2,879612E+22	1,176096E+23
-1941	4,440800E+22	4,440556E+22	1,439731E+22	1,439808E+22	8,881357E+22	2,879539E+22	1,176090E+23
-1940	4,440595E+22	4,440655E+22	1,439818E+22	1,439737E+22	8,881250E+22	2,879555E+22	1,176080E+23
-1939	4,440669E+22	4,440699E+22	1,439817E+22	1,439881E+22	8,881368E+22	2,879698E+22	1,176107E+23
-1938	4,440639E+22	4,440542E+22	1,439829E+22	1,439868E+22	8,881181E+22	2,879697E+22	1,176088E+23
-1937	4,440421E+22	4,440617E+22	1,439965E+22	1,439883E+22	8,881038E+22	2,879848E+22	1,176089E+23
-1936	4,440541E+22	4,440475E+22	1,439942E+22	1,440026E+22	8,881016E+22	2,879967E+22	1,176098E+23
-1935	4,440403E+22	4,440340E+22	1,440022E+22	1,439972E+22	8,880744E+22	2,879993E+22	1,176074E+23
-1934	4,440295E+22	4,440431E+22	1,440102E+22	1,440052E+22	8,880726E+22	2,880154E+22	1,176088E+23
-1933	4,440435E+22	4,440251E+22	1,440025E+22	1,440140E+22	8,880686E+22	2,880165E+22	1,176085E+23
-1932	4,440217E+22	4,440287E+22	1,440101E+22	1,440048E+22	8,880504E+22	2,880150E+22	1,176065E+23
-1931	4,440279E+22	4,440377E+22	1,440099E+22	1,440135E+22	8,880656E+22	2,880234E+22	1,176089E+23
-1930	4,440411E+22	4,440249E+22	1,440030E+22	1,440073E+22	8,880659E+22	2,880102E+22	1,176076E+23
-1929	4,440256E+22	4,440398E+22	1,440096E+22	1,439972E+22	8,880654E+22	2,880068E+22	1,176072E+23
-1928	4,440431E+22	4,440409E+22	1,440000E+22	1,440056E+22	8,880841E+22	2,880055E+22	1,176090E+23
-1927	4,440411E+22	4,440364E+22	1,439959E+22	1,439938E+22	8,880775E+22	2,879897E+22	1,176067E+23
-1926	4,440322E+22	4,440552E+22	1,439985E+22	1,439918E+22	8,880874E+22	2,879903E+22	1,176078E+23
-1925	4,440576E+22	4,440448E+22	1,439851E+22	1,439966E+22	8,881025E+22	2,879817E+22	1,176084E+23
-1924	4,440487E+22	4,440464E+22	1,439879E+22	1,439822E+22	8,880951E+22	2,879702E+22	1,176065E+23
-1923	4,440517E+22	4,440596E+22	1,439906E+22	1,439887E+22	8,881113E+22	2,879793E+22	1,176091E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1922	4,440665E+22	4,440483E+22	1,439829E+22	1,439898E+22	8,881148E+22	2,879727E+22	1,176088E+23
-1921	4,440436E+22	4,440571E+22	1,439934E+22	1,439849E+22	8,881008E+22	2,879783E+22	1,176079E+23
-1920	4,440480E+22	4,440545E+22	1,439939E+22	1,440005E+22	8,881026E+22	2,879943E+22	1,176097E+23
-1919	4,440470E+22	4,440372E+22	1,439955E+22	1,439983E+22	8,880842E+22	2,879938E+22	1,176078E+23
-1918	4,440264E+22	4,440437E+22	1,440097E+22	1,439999E+22	8,880701E+22	2,880096E+22	1,176080E+23
-1917	4,440415E+22	4,440275E+22	1,440051E+22	1,440147E+22	8,880690E+22	2,880198E+22	1,176089E+23
-1916	4,440265E+22	4,440182E+22	1,440115E+22	1,440090E+22	8,880447E+22	2,880205E+22	1,176065E+23
-1915	4,440118E+22	4,440289E+22	1,440204E+22	1,440180E+22	8,880407E+22	2,880384E+22	1,176079E+23
-1914	4,440277E+22	4,440147E+22	1,440124E+22	1,440243E+22	8,880424E+22	2,880366E+22	1,176079E+23
-1913	4,440106E+22	4,440175E+22	1,440210E+22	1,440137E+22	8,880280E+22	2,880346E+22	1,176063E+23
-1912	4,440160E+22	4,440218E+22	1,440203E+22	1,440214E+22	8,880378E+22	2,880417E+22	1,176080E+23
-1911	4,440292E+22	4,440122E+22	1,440126E+22	1,440149E+22	8,880414E+22	2,880275E+22	1,176069E+23
-1910	4,440111E+22	4,440290E+22	1,440187E+22	1,440063E+22	8,880400E+22	2,880250E+22	1,176065E+23
-1909	4,440295E+22	4,440277E+22	1,440068E+22	1,440154E+22	8,880571E+22	2,880222E+22	1,176079E+23
-1908	4,440295E+22	4,440240E+22	1,440023E+22	1,440022E+22	8,880535E+22	2,880045E+22	1,176058E+23
-1907	4,440203E+22	4,440416E+22	1,440070E+22	1,440003E+22	8,880619E+22	2,880073E+22	1,176069E+23
-1906	4,440483E+22	4,440342E+22	1,439942E+22	1,440036E+22	8,880825E+22	2,879977E+22	1,176080E+23
-1905	4,440398E+22	4,440361E+22	1,439982E+22	1,439909E+22	8,880759E+22	2,879891E+22	1,176065E+23
-1904	4,440362E+22	4,440464E+22	1,440008E+22	1,439997E+22	8,880826E+22	2,880006E+22	1,176083E+23
-1903	4,440492E+22	4,440360E+22	1,439935E+22	1,440016E+22	8,880852E+22	2,879951E+22	1,176080E+23
-1902	4,440259E+22	4,440426E+22	1,440055E+22	1,439971E+22	8,880685E+22	2,880026E+22	1,176071E+23
-1901	4,440343E+22	4,440358E+22	1,440049E+22	1,440119E+22	8,880700E+22	2,880168E+22	1,176087E+23
-1900	4,440352E+22	4,440191E+22	1,440062E+22	1,440084E+22	8,880543E+22	2,880145E+22	1,176069E+23
-1899	4,440109E+22	4,440270E+22	1,440215E+22	1,440118E+22	8,880379E+22	2,880333E+22	1,176071E+23
-1898	4,440250E+22	4,440160E+22	1,440158E+22	1,440262E+22	8,880410E+22	2,880421E+22	1,176083E+23
-1897	4,440111E+22	4,440065E+22	1,440226E+22	1,440211E+22	8,880176E+22	2,880437E+22	1,176061E+23
-1896	4,439957E+22	4,440133E+22	1,440313E+22	1,440294E+22	8,880089E+22	2,880606E+22	1,176070E+23
-1895	4,440150E+22	4,439999E+22	1,440233E+22	1,440332E+22	8,880149E+22	2,880564E+22	1,176071E+23
-1894	4,439986E+22	4,440035E+22	1,440323E+22	1,440221E+22	8,880020E+22	2,880543E+22	1,176056E+23
-1893	4,440052E+22	4,440071E+22	1,440291E+22	1,440302E+22	8,880123E+22	2,880593E+22	1,176072E+23
-1892	4,440158E+22	4,440004E+22	1,440198E+22	1,440236E+22	8,880162E+22	2,880434E+22	1,176060E+23
-1891	4,439944E+22	4,440169E+22	1,440266E+22	1,440166E+22	8,880113E+22	2,880432E+22	1,176055E+23
-1890	4,440156E+22	4,440173E+22	1,440147E+22	1,440234E+22	8,880329E+22	2,880381E+22	1,176071E+23
-1889	4,440208E+22	4,440122E+22	1,440112E+22	1,440099E+22	8,880331E+22	2,880211E+22	1,176054E+23
-1888	4,440106E+22	4,440263E+22	1,440160E+22	1,440083E+22	8,880369E+22	2,880242E+22	1,176061E+23
-1887	4,440374E+22	4,440225E+22	1,440035E+22	1,440121E+22	8,880599E+22	2,880156E+22	1,176076E+23
-1886	4,440256E+22	4,440263E+22	1,440082E+22	1,440016E+22	8,880519E+22	2,880098E+22	1,176062E+23
-1885	4,440218E+22	4,440330E+22	1,440099E+22	1,440111E+22	8,880548E+22	2,880210E+22	1,176076E+23
-1884	4,440352E+22	4,440221E+22	1,440031E+22	1,440120E+22	8,880573E+22	2,880151E+22	1,176072E+23
-1883	4,440107E+22	4,440262E+22	1,440174E+22	1,440083E+22	8,880369E+22	2,880256E+22	1,176063E+23
-1882	4,440199E+22	4,440210E+22	1,440171E+22	1,440217E+22	8,880410E+22	2,880388E+22	1,176080E+23
-1881	4,440220E+22	4,440045E+22	1,440186E+22	1,440204E+22	8,880265E+22	2,880390E+22	1,176066E+23
-1880	4,439924E+22	4,440092E+22	1,440328E+22	1,440252E+22	8,880016E+22	2,880579E+22	1,176059E+23
-1879	4,440072E+22	4,440005E+22	1,440270E+22	1,440388E+22	8,880077E+22	2,880659E+22	1,176074E+23
-1878	4,439963E+22	4,439911E+22	1,440343E+22	1,440324E+22	8,879874E+22	2,880667E+22	1,176054E+23
-1877	4,439846E+22	4,439958E+22	1,440413E+22	1,440386E+22	8,879805E+22	2,880799E+22	1,176060E+23
-1876	4,440050E+22	4,439860E+22	1,440327E+22	1,440406E+22	8,879910E+22	2,880733E+22	1,176064E+23
-1875	4,439840E+22	4,439917E+22	1,440421E+22	1,440314E+22	8,879757E+22	2,880735E+22	1,176049E+23
-1874	4,439884E+22	4,439993E+22	1,440378E+22	1,440389E+22	8,879876E+22	2,880768E+22	1,176064E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1873	4,440015E+22	4,439908E+22	1,440285E+22	1,440335E+22	8,879923E+22	2,880621E+22	1,176054E+23
-1872	4,439796E+22	4,440017E+22	1,440350E+22	1,440262E+22	8,879814E+22	2,880612E+22	1,176043E+23
-1871	4,440055E+22	4,440031E+22	1,440235E+22	1,440313E+22	8,880086E+22	2,880548E+22	1,176063E+23
-1870	4,440127E+22	4,439988E+22	1,440207E+22	1,440181E+22	8,880115E+22	2,880387E+22	1,176050E+23
-1869	4,440020E+22	4,440129E+22	1,440237E+22	1,440174E+22	8,880150E+22	2,880411E+22	1,176056E+23
-1868	4,440253E+22	4,440122E+22	1,440110E+22	1,440214E+22	8,880375E+22	2,880324E+22	1,176070E+23
-1867	4,440092E+22	4,440150E+22	1,440179E+22	1,440129E+22	8,880242E+22	2,880307E+22	1,176055E+23
-1866	4,440064E+22	4,440217E+22	1,440206E+22	1,440202E+22	8,880281E+22	2,880408E+22	1,176069E+23
-1865	4,440229E+22	4,440077E+22	1,440151E+22	1,440217E+22	8,880306E+22	2,880369E+22	1,176067E+23
-1864	4,439958E+22	4,440071E+22	1,440295E+22	1,440192E+22	8,880030E+22	2,880488E+22	1,176052E+23
-1863	4,440043E+22	4,440046E+22	1,440289E+22	1,440333E+22	8,880089E+22	2,880623E+22	1,176071E+23
-1862	4,440045E+22	4,439896E+22	1,440304E+22	1,440336E+22	8,879941E+22	2,880640E+22	1,176058E+23
-1861	4,439772E+22	4,439926E+22	1,440426E+22	1,440380E+22	8,879698E+22	2,880806E+22	1,176050E+23
-1860	4,439939E+22	4,439854E+22	1,440370E+22	1,440491E+22	8,879792E+22	2,880861E+22	1,176065E+23
-1859	4,439827E+22	4,439766E+22	1,440458E+22	1,440426E+22	8,879594E+22	2,880884E+22	1,176048E+23
-1858	4,439717E+22	4,439842E+22	1,440525E+22	1,440466E+22	8,879559E+22	2,880991E+22	1,176055E+23
-1857	4,439913E+22	4,439753E+22	1,440433E+22	1,440506E+22	8,879667E+22	2,880939E+22	1,176061E+23
-1856	4,439651E+22	4,439773E+22	1,440515E+22	1,440428E+22	8,879424E+22	2,880943E+22	1,176037E+23
-1855	4,439714E+22	4,439852E+22	1,440468E+22	1,440491E+22	8,879567E+22	2,880959E+22	1,176053E+23
-1854	4,439891E+22	4,439763E+22	1,440378E+22	1,440428E+22	8,879654E+22	2,880806E+22	1,176046E+23
-1853	4,439730E+22	4,439850E+22	1,440421E+22	1,440339E+22	8,879580E+22	2,880760E+22	1,176034E+23
-1852	4,439997E+22	4,439905E+22	1,440306E+22	1,440377E+22	8,879902E+22	2,880683E+22	1,176058E+23
-1851	4,440020E+22	4,439898E+22	1,440288E+22	1,440267E+22	8,879919E+22	2,880556E+22	1,176047E+23
-1850	4,439880E+22	4,440067E+22	1,440322E+22	1,440254E+22	8,879948E+22	2,880576E+22	1,176052E+23
-1849	4,440116E+22	4,440041E+22	1,440211E+22	1,440310E+22	8,880158E+22	2,880521E+22	1,176068E+23
-1848	4,439924E+22	4,439993E+22	1,440290E+22	1,440232E+22	8,879916E+22	2,880522E+22	1,176044E+23
-1847	4,439912E+22	4,440051E+22	1,440329E+22	1,440301E+22	8,879962E+22	2,880630E+22	1,176059E+23
-1846	4,440091E+22	4,439903E+22	1,440280E+22	1,440333E+22	8,879994E+22	2,880613E+22	1,176061E+23
-1845	4,439815E+22	4,439881E+22	1,440396E+22	1,440323E+22	8,879696E+22	2,880719E+22	1,176041E+23
-1844	4,439886E+22	4,439887E+22	1,440384E+22	1,440460E+22	8,879773E+22	2,880844E+22	1,176062E+23
-1843	4,439876E+22	4,439747E+22	1,440412E+22	1,440466E+22	8,879624E+22	2,880878E+22	1,176050E+23
-1842	4,439631E+22	4,439797E+22	1,440538E+22	1,440475E+22	8,879428E+22	2,881013E+22	1,176044E+23
-1841	4,439828E+22	4,439727E+22	1,440492E+22	1,440583E+22	8,879555E+22	2,881075E+22	1,176063E+23
-1840	4,439670E+22	4,439612E+22	1,440577E+22	1,440527E+22	8,879282E+22	2,881104E+22	1,176039E+23
-1839	4,439544E+22	4,439717E+22	1,440636E+22	1,440569E+22	8,879261E+22	2,881205E+22	1,176047E+23
-1838	4,439738E+22	4,439625E+22	1,440538E+22	1,440619E+22	8,879363E+22	2,881158E+22	1,176052E+23
-1837	4,439514E+22	4,439608E+22	1,440592E+22	1,440536E+22	8,879122E+22	2,881127E+22	1,176025E+23
-1836	4,439618E+22	4,439699E+22	1,440541E+22	1,440570E+22	8,879317E+22	2,881111E+22	1,176043E+23
-1835	4,439805E+22	4,439633E+22	1,440462E+22	1,440507E+22	8,879438E+22	2,880969E+22	1,176041E+23
-1834	4,439658E+22	4,439762E+22	1,440502E+22	1,440401E+22	8,879419E+22	2,880903E+22	1,176032E+23
-1833	4,439897E+22	4,439835E+22	1,440391E+22	1,440458E+22	8,879733E+22	2,880849E+22	1,176058E+23
-1832	4,439848E+22	4,439793E+22	1,440378E+22	1,440368E+22	8,879641E+22	2,880746E+22	1,176039E+23
-1831	4,439713E+22	4,439946E+22	1,440424E+22	1,440349E+22	8,879659E+22	2,880773E+22	1,176043E+23
-1830	4,439963E+22	4,439890E+22	1,440328E+22	1,440408E+22	8,879853E+22	2,880736E+22	1,176059E+23
-1829	4,439808E+22	4,439800E+22	1,440390E+22	1,440337E+22	8,879607E+22	2,880727E+22	1,176033E+23
-1828	4,439795E+22	4,439874E+22	1,440428E+22	1,440403E+22	8,879669E+22	2,880830E+22	1,176050E+23
-1827	4,439934E+22	4,439763E+22	1,440383E+22	1,440461E+22	8,879696E+22	2,880845E+22	1,176054E+23
-1826	4,439660E+22	4,439764E+22	1,440494E+22	1,440438E+22	8,879425E+22	2,880932E+22	1,176036E+23
-1825	4,439746E+22	4,439768E+22	1,440495E+22	1,440576E+22	8,879515E+22	2,881071E+22	1,176059E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1824	4,439712E+22	4,439589E+22	1,440535E+22	1,440579E+22	8,879300E+22	2,881114E+22	1,176041E+23
-1823	4,439486E+22	4,439643E+22	1,440672E+22	1,440573E+22	8,879129E+22	2,881245E+22	1,176037E+23
-1822	4,439676E+22	4,439577E+22	1,440629E+22	1,440692E+22	8,879254E+22	2,881321E+22	1,176057E+23
-1821	4,439506E+22	4,439443E+22	1,440678E+22	1,440650E+22	8,878949E+22	2,881329E+22	1,176028E+23
-1820	4,439376E+22	4,439559E+22	1,440724E+22	1,440681E+22	8,878935E+22	2,881404E+22	1,176034E+23
-1819	4,439583E+22	4,439479E+22	1,440628E+22	1,440729E+22	8,879062E+22	2,881356E+22	1,176042E+23
-1818	4,439415E+22	4,439478E+22	1,440672E+22	1,440605E+22	8,878893E+22	2,881278E+22	1,176017E+23
-1817	4,439560E+22	4,439593E+22	1,440627E+22	1,440637E+22	8,879153E+22	2,881263E+22	1,176042E+23
-1816	4,439692E+22	4,439520E+22	1,440549E+22	1,440582E+22	8,879213E+22	2,881132E+22	1,176034E+23
-1815	4,439514E+22	4,439683E+22	1,440593E+22	1,440482E+22	8,879198E+22	2,881074E+22	1,176027E+23
-1814	4,439738E+22	4,439748E+22	1,440491E+22	1,440554E+22	8,879486E+22	2,881045E+22	1,176053E+23
-1813	4,439701E+22	4,439646E+22	1,440463E+22	1,440473E+22	8,879347E+22	2,880935E+22	1,176028E+23
-1812	4,439588E+22	4,439782E+22	1,440516E+22	1,440439E+22	8,879370E+22	2,880955E+22	1,176033E+23
-1811	4,439840E+22	4,439729E+22	1,440432E+22	1,440511E+22	8,879570E+22	2,880943E+22	1,176051E+23
-1810	4,439697E+22	4,439659E+22	1,440487E+22	1,440434E+22	8,879355E+22	2,880922E+22	1,176028E+23
-1809	4,439670E+22	4,439754E+22	1,440526E+22	1,440521E+22	8,879424E+22	2,881047E+22	1,176047E+23
-1808	4,439746E+22	4,439616E+22	1,440491E+22	1,440591E+22	8,879363E+22	2,881082E+22	1,176044E+23
-1807	4,439495E+22	4,439623E+22	1,440616E+22	1,440551E+22	8,879118E+22	2,881167E+22	1,176028E+23
-1806	4,439600E+22	4,439615E+22	1,440634E+22	1,440682E+22	8,879216E+22	2,881315E+22	1,176053E+23
-1805	4,439582E+22	4,439406E+22	1,440656E+22	1,440689E+22	8,878988E+22	2,881345E+22	1,176033E+23
-1804	4,439343E+22	4,439479E+22	1,440786E+22	1,440678E+22	8,878822E+22	2,881464E+22	1,176029E+23
-1803	4,439488E+22	4,439445E+22	1,440738E+22	1,440815E+22	8,878933E+22	2,881553E+22	1,176049E+23
-1802	4,439346E+22	4,439319E+22	1,440771E+22	1,440758E+22	8,878664E+22	2,881529E+22	1,176019E+23
-1801	4,439251E+22	4,439428E+22	1,440813E+22	1,440779E+22	8,878679E+22	2,881592E+22	1,176027E+23
-1800	4,439445E+22	4,439328E+22	1,440723E+22	1,440818E+22	8,878773E+22	2,881542E+22	1,176031E+23
-1799	4,439320E+22	4,439352E+22	1,440769E+22	1,440678E+22	8,878671E+22	2,881448E+22	1,176012E+23
-1798	4,439450E+22	4,439485E+22	1,440728E+22	1,440720E+22	8,878936E+22	2,881447E+22	1,176038E+23
-1797	4,439557E+22	4,439404E+22	1,440624E+22	1,440682E+22	8,878961E+22	2,881306E+22	1,176027E+23
-1796	4,439372E+22	4,439557E+22	1,440668E+22	1,440574E+22	8,878929E+22	2,881242E+22	1,176017E+23
-1795	4,439585E+22	4,439621E+22	1,440581E+22	1,440649E+22	8,879207E+22	2,881229E+22	1,176044E+23
-1794	4,439598E+22	4,439509E+22	1,440550E+22	1,440548E+22	8,879107E+22	2,881099E+22	1,176021E+23
-1793	4,439506E+22	4,439646E+22	1,440610E+22	1,440525E+22	8,879152E+22	2,881135E+22	1,176029E+23
-1792	4,439693E+22	4,439587E+22	1,440535E+22	1,440617E+22	8,879280E+22	2,881152E+22	1,176043E+23
-1791	4,439540E+22	4,439541E+22	1,440593E+22	1,440545E+22	8,879081E+22	2,881138E+22	1,176022E+23
-1790	4,439508E+22	4,439630E+22	1,440646E+22	1,440641E+22	8,879139E+22	2,881287E+22	1,176043E+23
-1789	4,439593E+22	4,439451E+22	1,440602E+22	1,440713E+22	8,879045E+22	2,881314E+22	1,176036E+23
-1788	4,439361E+22	4,439449E+22	1,440738E+22	1,440657E+22	8,878810E+22	2,881395E+22	1,176020E+23
-1787	4,439452E+22	4,439459E+22	1,440766E+22	1,440796E+22	8,878911E+22	2,881562E+22	1,176047E+23
-1786	4,439431E+22	4,439262E+22	1,440772E+22	1,440800E+22	8,878693E+22	2,881571E+22	1,176026E+23
-1785	4,439178E+22	4,439348E+22	1,440890E+22	1,440804E+22	8,878526E+22	2,881694E+22	1,176022E+23
-1784	4,439281E+22	4,439281E+22	1,440841E+22	1,440940E+22	8,878561E+22	2,881782E+22	1,176034E+23
-1783	4,439187E+22	4,439162E+22	1,440874E+22	1,440857E+22	8,878349E+22	2,881731E+22	1,176008E+23
-1782	4,439143E+22	4,439281E+22	1,440921E+22	1,440866E+22	8,878423E+22	2,881787E+22	1,176021E+23
-1781	4,439353E+22	4,439174E+22	1,440809E+22	1,440903E+22	8,878527E+22	2,881712E+22	1,176024E+23
-1780	4,439221E+22	4,439233E+22	1,440849E+22	1,440758E+22	8,878454E+22	2,881606E+22	1,176006E+23
-1779	4,439308E+22	4,439402E+22	1,440809E+22	1,440810E+22	8,878710E+22	2,881618E+22	1,176033E+23
-1778	4,439428E+22	4,439316E+22	1,440697E+22	1,440762E+22	8,878744E+22	2,881459E+22	1,176020E+23
-1777	4,439264E+22	4,439450E+22	1,440749E+22	1,440657E+22	8,878714E+22	2,881405E+22	1,176012E+23
-1776	4,439441E+22	4,439475E+22	1,440679E+22	1,440734E+22	8,878917E+22	2,881413E+22	1,176033E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1775	4,439484E+22	4,439372E+22	1,440658E+22	1,440635E+22	8,878856E+22	2,881293E+22	1,176015E+23
-1774	4,439379E+22	4,439515E+22	1,440721E+22	1,440633E+22	8,878894E+22	2,881355E+22	1,176025E+23
-1773	4,439537E+22	4,439436E+22	1,440627E+22	1,440746E+22	8,878973E+22	2,881373E+22	1,176035E+23
-1772	4,439396E+22	4,439382E+22	1,440691E+22	1,440663E+22	8,878778E+22	2,881354E+22	1,176013E+23
-1771	4,439353E+22	4,439483E+22	1,440761E+22	1,440753E+22	8,878836E+22	2,881514E+22	1,176035E+23
-1770	4,439479E+22	4,439306E+22	1,440716E+22	1,440808E+22	8,878784E+22	2,881525E+22	1,176031E+23
-1769	4,439245E+22	4,439304E+22	1,440857E+22	1,440761E+22	8,878549E+22	2,881618E+22	1,176017E+23
-1768	4,439244E+22	4,439311E+22	1,440890E+22	1,440917E+22	8,878555E+22	2,881807E+22	1,176036E+23
-1767	4,439233E+22	4,439127E+22	1,440890E+22	1,440924E+22	8,878360E+22	2,881814E+22	1,176017E+23
-1766	4,438999E+22	4,439191E+22	1,441008E+22	1,440928E+22	8,878190E+22	2,881936E+22	1,176013E+23
-1765	4,439132E+22	4,439094E+22	1,440939E+22	1,441054E+22	8,878226E+22	2,881993E+22	1,176022E+23
-1764	4,439095E+22	4,438983E+22	1,440969E+22	1,440944E+22	8,878078E+22	2,881914E+22	1,175999E+23
-1763	4,439045E+22	4,439150E+22	1,441018E+22	1,440951E+22	8,878195E+22	2,881969E+22	1,176016E+23
-1762	4,439254E+22	4,439081E+22	1,440889E+22	1,440983E+22	8,878334E+22	2,881872E+22	1,176021E+23
-1761	4,439099E+22	4,439154E+22	1,440923E+22	1,440848E+22	8,878253E+22	2,881771E+22	1,176002E+23
-1760	4,439125E+22	4,439292E+22	1,440897E+22	1,440900E+22	8,878417E+22	2,881797E+22	1,176021E+23
-1759	4,439286E+22	4,439195E+22	1,440795E+22	1,440838E+22	8,878481E+22	2,881633E+22	1,176011E+23
-1758	4,439158E+22	4,439308E+22	1,440856E+22	1,440739E+22	8,878466E+22	2,881596E+22	1,176006E+23
-1757	4,439329E+22	4,439311E+22	1,440771E+22	1,440831E+22	8,878640E+22	2,881601E+22	1,176024E+23
-1756	4,439366E+22	4,439228E+22	1,440746E+22	1,440740E+22	8,878594E+22	2,881485E+22	1,176008E+23
-1755	4,439233E+22	4,439402E+22	1,440813E+22	1,440750E+22	8,878636E+22	2,881563E+22	1,176020E+23
-1754	4,439408E+22	4,439314E+22	1,440718E+22	1,440849E+22	8,878722E+22	2,881567E+22	1,176029E+23
-1753	4,439281E+22	4,439256E+22	1,440793E+22	1,440766E+22	8,878537E+22	2,881559E+22	1,176010E+23
-1752	4,439192E+22	4,439325E+22	1,440888E+22	1,440854E+22	8,878517E+22	2,881742E+22	1,176026E+23
-1751	4,439320E+22	4,439157E+22	1,440853E+22	1,440914E+22	8,878477E+22	2,881767E+22	1,176024E+23
-1750	4,439068E+22	4,439156E+22	1,440991E+22	1,440893E+22	8,878224E+22	2,881884E+22	1,176011E+23
-1749	4,439038E+22	4,439126E+22	1,440999E+22	1,441059E+22	8,878164E+22	2,882058E+22	1,176022E+23
-1748	4,439068E+22	4,438930E+22	1,440995E+22	1,441048E+22	8,877997E+22	2,882043E+22	1,176004E+23
-1747	4,438864E+22	4,439019E+22	1,441111E+22	1,441034E+22	8,877883E+22	2,882145E+22	1,176003E+23
-1746	4,439052E+22	4,438944E+22	1,441032E+22	1,441135E+22	8,877995E+22	2,882167E+22	1,176016E+23
-1745	4,439021E+22	4,438877E+22	1,441056E+22	1,441025E+22	8,877898E+22	2,882081E+22	1,175998E+23
-1744	4,438885E+22	4,439059E+22	1,441112E+22	1,441038E+22	8,877944E+22	2,882150E+22	1,176009E+23
-1743	4,439091E+22	4,439008E+22	1,440986E+22	1,441069E+22	8,878099E+22	2,882055E+22	1,176015E+23
-1742	4,438947E+22	4,439050E+22	1,441024E+22	1,440942E+22	8,877997E+22	2,881966E+22	1,175996E+23
-1741	4,438975E+22	4,439135E+22	1,440987E+22	1,440993E+22	8,878110E+22	2,881980E+22	1,176009E+23
-1740	4,439190E+22	4,439021E+22	1,440886E+22	1,440925E+22	8,878211E+22	2,881811E+22	1,176002E+23
-1739	4,439054E+22	4,439162E+22	1,440945E+22	1,440835E+22	8,878216E+22	2,881781E+22	1,176000E+23
-1738	4,439228E+22	4,439191E+22	1,440846E+22	1,440931E+22	8,878419E+22	2,881777E+22	1,176020E+23
-1737	4,439255E+22	4,439118E+22	1,440818E+22	1,440846E+22	8,878373E+22	2,881664E+22	1,176004E+23
-1736	4,439061E+22	4,439271E+22	1,440912E+22	1,440851E+22	8,878332E+22	2,881764E+22	1,176010E+23
-1735	4,439268E+22	4,439189E+22	1,440838E+22	1,440937E+22	8,878457E+22	2,881775E+22	1,176023E+23
-1734	4,439152E+22	4,439109E+22	1,440929E+22	1,440868E+22	8,878261E+22	2,881797E+22	1,176006E+23
-1733	4,439020E+22	4,439152E+22	1,441012E+22	1,440973E+22	8,878172E+22	2,881986E+22	1,176016E+23
-1732	4,439147E+22	4,438983E+22	1,440972E+22	1,441043E+22	8,878130E+22	2,882014E+22	1,176014E+23
-1731	4,438880E+22	4,438994E+22	1,441104E+22	1,441028E+22	8,877874E+22	2,882132E+22	1,176001E+23
-1730	4,438894E+22	4,438957E+22	1,441100E+22	1,441176E+22	8,877851E+22	2,882275E+22	1,176013E+23
-1729	4,438960E+22	4,438777E+22	1,441092E+22	1,441151E+22	8,877737E+22	2,882243E+22	1,175998E+23
-1728	4,438730E+22	4,438871E+22	1,441224E+22	1,441127E+22	8,877601E+22	2,882351E+22	1,175995E+23
-1727	4,438926E+22	4,438838E+22	1,441148E+22	1,441222E+22	8,877764E+22	2,882370E+22	1,176013E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1726	4,438871E+22	4,438787E+22	1,441166E+22	1,441132E+22	8,877659E+22	2,882298E+22	1,175996E+23
-1725	4,438698E+22	4,438927E+22	1,441202E+22	1,441147E+22	8,877626E+22	2,882349E+22	1,175997E+23
-1724	4,438941E+22	4,438850E+22	1,441075E+22	1,441163E+22	8,877791E+22	2,882238E+22	1,176003E+23
-1723	4,438829E+22	4,438899E+22	1,441113E+22	1,441028E+22	8,877728E+22	2,882141E+22	1,175987E+23
-1722	4,438902E+22	4,438980E+22	1,441063E+22	1,441066E+22	8,877882E+22	2,882129E+22	1,176001E+23
-1721	4,439114E+22	4,438907E+22	1,440956E+22	1,441008E+22	8,878022E+22	2,881963E+22	1,175998E+23
-1720	4,438912E+22	4,439061E+22	1,441025E+22	1,440929E+22	8,877973E+22	2,881954E+22	1,175993E+23
-1719	4,439085E+22	4,439104E+22	1,440940E+22	1,441020E+22	8,878189E+22	2,881960E+22	1,176015E+23
-1718	4,439120E+22	4,439016E+22	1,440927E+22	1,440946E+22	8,878136E+22	2,881873E+22	1,176001E+23
-1717	4,438909E+22	4,439110E+22	1,441025E+22	1,440950E+22	8,878020E+22	2,881975E+22	1,176000E+23
-1716	4,439140E+22	4,439009E+22	1,440965E+22	1,441038E+22	8,878149E+22	2,882003E+22	1,176015E+23
-1715	4,438997E+22	4,438950E+22	1,441055E+22	1,440991E+22	8,877947E+22	2,882046E+22	1,175999E+23
-1714	4,438854E+22	4,438992E+22	1,441119E+22	1,441105E+22	8,877845E+22	2,882224E+22	1,176007E+23
-1713	4,438982E+22	4,438828E+22	1,441069E+22	1,441177E+22	8,877810E+22	2,882246E+22	1,176006E+23
-1712	4,438696E+22	4,438819E+22	1,441215E+22	1,441148E+22	8,877514E+22	2,882363E+22	1,175988E+23
-1711	4,438762E+22	4,438806E+22	1,441221E+22	1,441271E+22	8,877568E+22	2,882492E+22	1,176006E+23
-1710	4,438850E+22	4,438644E+22	1,441217E+22	1,441252E+22	8,877494E+22	2,882468E+22	1,175996E+23
-1709	4,438575E+22	4,438733E+22	1,441333E+22	1,441233E+22	8,877308E+22	2,882566E+22	1,175987E+23
-1708	4,438774E+22	4,438709E+22	1,441252E+22	1,441329E+22	8,877483E+22	2,882581E+22	1,176006E+23
-1707	4,438703E+22	4,438666E+22	1,441262E+22	1,441237E+22	8,877369E+22	2,882499E+22	1,175987E+23
-1706	4,438568E+22	4,438786E+22	1,441282E+22	1,441236E+22	8,877354E+22	2,882518E+22	1,175987E+23
-1705	4,438848E+22	4,438708E+22	1,441148E+22	1,441239E+22	8,877557E+22	2,882387E+22	1,175994E+23
-1704	4,438713E+22	4,438751E+22	1,441200E+22	1,441104E+22	8,877464E+22	2,882304E+22	1,175977E+23
-1703	4,438797E+22	4,438877E+22	1,441155E+22	1,441145E+22	8,877675E+22	2,882300E+22	1,175997E+23
-1702	4,438988E+22	4,438821E+22	1,441047E+22	1,441110E+22	8,877809E+22	2,882157E+22	1,175997E+23
-1701	4,438749E+22	4,438933E+22	1,441112E+22	1,441034E+22	8,877681E+22	2,882146E+22	1,175983E+23
-1700	4,438955E+22	4,438952E+22	1,441042E+22	1,441113E+22	8,877907E+22	2,882155E+22	1,176006E+23
-1699	4,438994E+22	4,438870E+22	1,441040E+22	1,441040E+22	8,877864E+22	2,882080E+22	1,175994E+23
-1698	4,438798E+22	4,438953E+22	1,441133E+22	1,441049E+22	8,877751E+22	2,882182E+22	1,175993E+23
-1697	4,439000E+22	4,438874E+22	1,441067E+22	1,441152E+22	8,877874E+22	2,882219E+22	1,176009E+23
-1696	4,438795E+22	4,438808E+22	1,441169E+22	1,441122E+22	8,877602E+22	2,882291E+22	1,175989E+23
-1695	4,438671E+22	4,438850E+22	1,441239E+22	1,441228E+22	8,877521E+22	2,882467E+22	1,175999E+23
-1694	4,438825E+22	4,438680E+22	1,441194E+22	1,441303E+22	8,877505E+22	2,882498E+22	1,176000E+23
-1693	4,438547E+22	4,438631E+22	1,441333E+22	1,441262E+22	8,877178E+22	2,882595E+22	1,175977E+23
-1692	4,438647E+22	4,438625E+22	1,441345E+22	1,441375E+22	8,877272E+22	2,882721E+22	1,175999E+23
-1691	4,438709E+22	4,438516E+22	1,441333E+22	1,441365E+22	8,877225E+22	2,882698E+22	1,175992E+23
-1690	4,438427E+22	4,438601E+22	1,441424E+22	1,441344E+22	8,877028E+22	2,882768E+22	1,175980E+23
-1689	4,438617E+22	4,438583E+22	1,441333E+22	1,441427E+22	8,877201E+22	2,882760E+22	1,175996E+23
-1688	4,438540E+22	4,438521E+22	1,441354E+22	1,441324E+22	8,877060E+22	2,882679E+22	1,175974E+23
-1687	4,438454E+22	4,438649E+22	1,441379E+22	1,441303E+22	8,877103E+22	2,882682E+22	1,175978E+23
-1686	4,438752E+22	4,438596E+22	1,441244E+22	1,441321E+22	8,877348E+22	2,882565E+22	1,175991E+23
-1685	4,438582E+22	4,438625E+22	1,441281E+22	1,441196E+22	8,877207E+22	2,882477E+22	1,175968E+23
-1684	4,438675E+22	4,438757E+22	1,441239E+22	1,441240E+22	8,877433E+22	2,882480E+22	1,175991E+23
-1683	4,438851E+22	4,438720E+22	1,441137E+22	1,441208E+22	8,877571E+22	2,882344E+22	1,175992E+23
-1682	4,438637E+22	4,438801E+22	1,441197E+22	1,441125E+22	8,877438E+22	2,882323E+22	1,175976E+23
-1681	4,438850E+22	4,438819E+22	1,441136E+22	1,441197E+22	8,877669E+22	2,882333E+22	1,176000E+23
-1680	4,438847E+22	4,438723E+22	1,441156E+22	1,441142E+22	8,877570E+22	2,882298E+22	1,175987E+23
-1679	4,438638E+22	4,438825E+22	1,441255E+22	1,441162E+22	8,877463E+22	2,882417E+22	1,175988E+23
-1678	4,438817E+22	4,438747E+22	1,441185E+22	1,441291E+22	8,877564E+22	2,882476E+22	1,176004E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1677	4,438594E+22	4,438620E+22	1,441280E+22	1,441260E+22	8,877214E+22	2,882540E+22	1,175975E+23
-1676	4,438534E+22	4,438646E+22	1,441360E+22	1,441346E+22	8,877180E+22	2,882706E+22	1,175989E+23
-1675	4,438701E+22	4,438505E+22	1,441318E+22	1,441410E+22	8,877206E+22	2,882728E+22	1,175993E+23
-1674	4,438441E+22	4,438471E+22	1,441442E+22	1,441367E+22	8,876912E+22	2,882809E+22	1,175972E+23
-1673	4,438514E+22	4,438507E+22	1,441443E+22	1,441477E+22	8,877021E+22	2,882921E+22	1,175994E+23
-1672	4,438513E+22	4,438401E+22	1,441440E+22	1,441475E+22	8,876914E+22	2,882914E+22	1,175983E+23
-1671	4,438251E+22	4,438490E+22	1,441532E+22	1,441439E+22	8,876741E+22	2,882971E+22	1,175971E+23
-1670	4,438464E+22	4,438460E+22	1,441439E+22	1,441522E+22	8,876924E+22	2,882961E+22	1,175989E+23
-1669	4,438397E+22	4,438347E+22	1,441452E+22	1,441415E+22	8,876744E+22	2,882867E+22	1,175961E+23
-1668	4,438360E+22	4,438479E+22	1,441476E+22	1,441392E+22	8,876840E+22	2,882867E+22	1,175971E+23
-1667	4,438630E+22	4,438483E+22	1,441332E+22	1,441421E+22	8,877113E+22	2,882753E+22	1,175987E+23
-1666	4,438470E+22	4,438510E+22	1,441346E+22	1,441299E+22	8,876980E+22	2,882645E+22	1,175962E+23
-1665	4,438562E+22	4,438648E+22	1,441305E+22	1,441325E+22	8,877210E+22	2,882630E+22	1,175984E+23
-1664	4,438718E+22	4,438599E+22	1,441230E+22	1,441288E+22	8,877317E+22	2,882518E+22	1,175983E+23
-1663	4,438528E+22	4,438682E+22	1,441307E+22	1,441199E+22	8,877210E+22	2,882506E+22	1,175972E+23
-1662	4,438716E+22	4,438712E+22	1,441254E+22	1,441296E+22	8,877427E+22	2,882551E+22	1,175998E+23
-1661	4,438664E+22	4,438574E+22	1,441267E+22	1,441266E+22	8,877238E+22	2,882533E+22	1,175977E+23
-1660	4,438471E+22	4,438650E+22	1,441369E+22	1,441291E+22	8,877121E+22	2,882660E+22	1,175978E+23
-1659	4,438648E+22	4,438587E+22	1,441302E+22	1,441419E+22	8,877235E+22	2,882721E+22	1,175996E+23
-1658	4,438475E+22	4,438430E+22	1,441382E+22	1,441375E+22	8,876905E+22	2,882757E+22	1,175966E+23
-1657	4,438427E+22	4,438477E+22	1,441465E+22	1,441443E+22	8,876904E+22	2,882908E+22	1,175981E+23
-1656	4,438554E+22	4,438364E+22	1,441442E+22	1,441518E+22	8,876918E+22	2,882960E+22	1,175988E+23
-1655	4,438275E+22	4,438362E+22	1,441565E+22	1,441478E+22	8,876637E+22	2,883043E+22	1,175968E+23
-1654	4,438317E+22	4,438407E+22	1,441561E+22	1,441600E+22	8,876724E+22	2,883162E+22	1,175989E+23
-1653	4,438308E+22	4,438231E+22	1,441548E+22	1,441591E+22	8,876539E+22	2,883139E+22	1,175968E+23
-1652	4,438115E+22	4,438293E+22	1,441640E+22	1,441537E+22	8,876407E+22	2,883177E+22	1,175958E+23
-1651	4,438345E+22	4,438299E+22	1,441541E+22	1,441612E+22	8,876645E+22	2,883153E+22	1,175980E+23
-1650	4,438311E+22	4,438197E+22	1,441526E+22	1,441507E+22	8,876508E+22	2,883034E+22	1,175954E+23
-1649	4,438265E+22	4,438376E+22	1,441537E+22	1,441478E+22	8,876641E+22	2,883016E+22	1,175966E+23
-1648	4,438491E+22	4,438395E+22	1,441410E+22	1,441511E+22	8,876886E+22	2,882921E+22	1,175981E+23
-1647	4,438350E+22	4,438429E+22	1,441434E+22	1,441376E+22	8,876779E+22	2,882810E+22	1,175959E+23
-1646	4,438444E+22	4,438560E+22	1,441405E+22	1,441403E+22	8,877003E+22	2,882808E+22	1,175981E+23
-1645	4,438578E+22	4,438446E+22	1,441338E+22	1,441375E+22	8,877023E+22	2,882713E+22	1,175974E+23
-1644	4,438409E+22	4,438514E+22	1,441424E+22	1,441304E+22	8,876924E+22	2,882728E+22	1,175965E+23
-1643	4,438544E+22	4,438571E+22	1,441367E+22	1,441419E+22	8,877115E+22	2,882786E+22	1,175990E+23
-1642	4,438504E+22	4,438403E+22	1,441360E+22	1,441399E+22	8,876907E+22	2,882759E+22	1,175967E+23
-1641	4,438336E+22	4,438476E+22	1,441458E+22	1,441404E+22	8,876812E+22	2,882862E+22	1,175967E+23
-1640	4,438503E+22	4,438416E+22	1,441417E+22	1,441524E+22	8,876919E+22	2,882941E+22	1,175986E+23
-1639	4,438360E+22	4,438292E+22	1,441506E+22	1,441470E+22	8,876652E+22	2,882976E+22	1,175963E+23
-1638	4,438282E+22	4,438373E+22	1,441592E+22	1,441554E+22	8,876655E+22	2,883146E+22	1,175980E+23
-1637	4,438348E+22	4,438227E+22	1,441566E+22	1,441645E+22	8,876575E+22	2,883211E+22	1,175979E+23
-1636	4,438092E+22	4,438201E+22	1,441690E+22	1,441606E+22	8,876293E+22	2,883296E+22	1,175959E+23
-1635	4,438126E+22	4,438253E+22	1,441680E+22	1,441717E+22	8,876379E+22	2,883397E+22	1,175978E+23
-1634	4,438180E+22	4,438042E+22	1,441642E+22	1,441698E+22	8,876222E+22	2,883340E+22	1,175956E+23
-1633	4,438027E+22	4,438117E+22	1,441721E+22	1,441621E+22	8,876144E+22	2,883343E+22	1,175949E+23
-1632	4,438232E+22	4,438168E+22	1,441632E+22	1,441704E+22	8,876400E+22	2,883335E+22	1,175974E+23
-1631	4,438198E+22	4,438115E+22	1,441608E+22	1,441596E+22	8,876313E+22	2,883203E+22	1,175952E+23
-1630	4,438131E+22	4,438312E+22	1,441619E+22	1,441570E+22	8,876444E+22	2,883189E+22	1,175963E+23
-1629	4,438342E+22	4,438271E+22	1,441501E+22	1,441595E+22	8,876614E+22	2,883095E+22	1,175971E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1628	4,438247E+22	4,438274E+22	1,441537E+22	1,441451E+22	8,876521E+22	2,882989E+22	1,175951E+23
-1627	4,438315E+22	4,438430E+22	1,441516E+22	1,441484E+22	8,876745E+22	2,882999E+22	1,175974E+23
-1626	4,438457E+22	4,438294E+22	1,441427E+22	1,441480E+22	8,876751E+22	2,882906E+22	1,175966E+23
-1625	4,438269E+22	4,438370E+22	1,441505E+22	1,441412E+22	8,876639E+22	2,882917E+22	1,175956E+23
-1624	4,438372E+22	4,438433E+22	1,441466E+22	1,441539E+22	8,876805E+22	2,883005E+22	1,175981E+23
-1623	4,438364E+22	4,438268E+22	1,441464E+22	1,441506E+22	8,876633E+22	2,882971E+22	1,175960E+23
-1622	4,438209E+22	4,438347E+22	1,441572E+22	1,441509E+22	8,876556E+22	2,883082E+22	1,175964E+23
-1621	4,438354E+22	4,438244E+22	1,441545E+22	1,441635E+22	8,876598E+22	2,883180E+22	1,175978E+23
-1620	4,438217E+22	4,438127E+22	1,441641E+22	1,441594E+22	8,876344E+22	2,883236E+22	1,175958E+23
-1619	4,438080E+22	4,438243E+22	1,441722E+22	1,441686E+22	8,876323E+22	2,883409E+22	1,175973E+23
-1618	4,438164E+22	4,438051E+22	1,441672E+22	1,441781E+22	8,876215E+22	2,883454E+22	1,175967E+23
-1617	4,437944E+22	4,438010E+22	1,441787E+22	1,441714E+22	8,875954E+22	2,883501E+22	1,175946E+23
-1616	4,437983E+22	4,438074E+22	1,441789E+22	1,441812E+22	8,876057E+22	2,883601E+22	1,175966E+23
-1615	4,438078E+22	4,437905E+22	1,441743E+22	1,441781E+22	8,875983E+22	2,883525E+22	1,175951E+23
-1614	4,437918E+22	4,438030E+22	1,441811E+22	1,441713E+22	8,875948E+22	2,883524E+22	1,175947E+23
-1613	4,438075E+22	4,438057E+22	1,441722E+22	1,441801E+22	8,876132E+22	2,883523E+22	1,175966E+23
-1612	4,438073E+22	4,438002E+22	1,441702E+22	1,441689E+22	8,876075E+22	2,883391E+22	1,175947E+23
-1611	4,437989E+22	4,438206E+22	1,441718E+22	1,441649E+22	8,876195E+22	2,883366E+22	1,175956E+23
-1610	4,438230E+22	4,438120E+22	1,441587E+22	1,441676E+22	8,876350E+22	2,883263E+22	1,175961E+23
-1609	4,438153E+22	4,438119E+22	1,441621E+22	1,441531E+22	8,876273E+22	2,883152E+22	1,175943E+23
-1608	4,438166E+22	4,438297E+22	1,441614E+22	1,441586E+22	8,876463E+22	2,883200E+22	1,175966E+23
-1607	4,438305E+22	4,438186E+22	1,441518E+22	1,441592E+22	8,876490E+22	2,883110E+22	1,175960E+23
-1606	4,438120E+22	4,438256E+22	1,441595E+22	1,441528E+22	8,876376E+22	2,883123E+22	1,175950E+23
-1605	4,438215E+22	4,438258E+22	1,441574E+22	1,441647E+22	8,876472E+22	2,883221E+22	1,175969E+23
-1604	4,438259E+22	4,438090E+22	1,441586E+22	1,441608E+22	8,876349E+22	2,883194E+22	1,175954E+23
-1603	4,438071E+22	4,438207E+22	1,441704E+22	1,441613E+22	8,876277E+22	2,883317E+22	1,175959E+23
-1602	4,438205E+22	4,438092E+22	1,441660E+22	1,441760E+22	8,876297E+22	2,883420E+22	1,175972E+23
-1601	4,438051E+22	4,437977E+22	1,441750E+22	1,441718E+22	8,876028E+22	2,883467E+22	1,175950E+23
-1600	4,437879E+22	4,438095E+22	1,441844E+22	1,441812E+22	8,875974E+22	2,883656E+22	1,175963E+23
-1599	4,438005E+22	4,437901E+22	1,441787E+22	1,441889E+22	8,875906E+22	2,883676E+22	1,175958E+23
-1598	4,437814E+22	4,437863E+22	1,441896E+22	1,441814E+22	8,875677E+22	2,883710E+22	1,175939E+23
-1597	4,437847E+22	4,437897E+22	1,441903E+22	1,441914E+22	8,875744E+22	2,883817E+22	1,175956E+23
-1596	4,437958E+22	4,437760E+22	1,441850E+22	1,441887E+22	8,875718E+22	2,883737E+22	1,175945E+23
-1595	4,437755E+22	4,437934E+22	1,441909E+22	1,441818E+22	8,875689E+22	2,883727E+22	1,175942E+23
-1594	4,437940E+22	4,437922E+22	1,441800E+22	1,441902E+22	8,875862E+22	2,883702E+22	1,175956E+23
-1593	4,437963E+22	4,437855E+22	1,441777E+22	1,441762E+22	8,875819E+22	2,883539E+22	1,175936E+23
-1592	4,437868E+22	4,438075E+22	1,441811E+22	1,441720E+22	8,875943E+22	2,883531E+22	1,175947E+23
-1591	4,438122E+22	4,438011E+22	1,441677E+22	1,441750E+22	8,876133E+22	2,883427E+22	1,175956E+23
-1590	4,438024E+22	4,438031E+22	1,441706E+22	1,441628E+22	8,876056E+22	2,883334E+22	1,175939E+23
-1589	4,437994E+22	4,438158E+22	1,441710E+22	1,441698E+22	8,876153E+22	2,883408E+22	1,175956E+23
-1588	4,438166E+22	4,438038E+22	1,441622E+22	1,441705E+22	8,876203E+22	2,883327E+22	1,175953E+23
-1587	4,437979E+22	4,438120E+22	1,441706E+22	1,441630E+22	8,876099E+22	2,883336E+22	1,175943E+23
-1586	4,438108E+22	4,438077E+22	1,441680E+22	1,441751E+22	8,876185E+22	2,883431E+22	1,175962E+23
-1585	4,438155E+22	4,437924E+22	1,441696E+22	1,441710E+22	8,876078E+22	2,883407E+22	1,175948E+23
-1584	4,437898E+22	4,438074E+22	1,441830E+22	1,441736E+22	8,875972E+22	2,883566E+22	1,175954E+23
-1583	4,438014E+22	4,437974E+22	1,441781E+22	1,441887E+22	8,875988E+22	2,883668E+22	1,175966E+23
-1582	4,437869E+22	4,437843E+22	1,441867E+22	1,441846E+22	8,875712E+22	2,883713E+22	1,175942E+23
-1581	4,437689E+22	4,437890E+22	1,441972E+22	1,441928E+22	8,875580E+22	2,883899E+22	1,175948E+23
-1580	4,437872E+22	4,437710E+22	1,441913E+22	1,441996E+22	8,875582E+22	2,883909E+22	1,175949E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1579	4,437675E+22	4,437715E+22	1,442011E+22	1,441917E+22	8,875390E+22	2,883928E+22	1,175932E+23
-1578	4,437710E+22	4,437746E+22	1,441993E+22	1,442027E+22	8,875456E+22	2,884021E+22	1,175948E+23
-1577	4,437829E+22	4,437636E+22	1,441929E+22	1,441987E+22	8,875465E+22	2,883916E+22	1,175938E+23
-1576	4,437605E+22	4,437826E+22	1,442000E+22	1,441910E+22	8,875431E+22	2,883910E+22	1,175934E+23
-1575	4,437820E+22	4,437820E+22	1,441889E+22	1,441972E+22	8,875640E+22	2,883861E+22	1,175950E+23
-1574	4,437864E+22	4,437750E+22	1,441865E+22	1,441833E+22	8,875614E+22	2,883698E+22	1,175931E+23
-1573	4,437730E+22	4,437924E+22	1,441911E+22	1,441807E+22	8,875654E+22	2,883719E+22	1,175937E+23
-1572	4,437983E+22	4,437885E+22	1,441775E+22	1,441855E+22	8,875868E+22	2,883629E+22	1,175950E+23
-1571	4,437859E+22	4,437918E+22	1,441801E+22	1,441740E+22	8,875777E+22	2,883541E+22	1,175932E+23
-1570	4,437866E+22	4,437988E+22	1,441794E+22	1,441811E+22	8,875854E+22	2,883605E+22	1,175946E+23
-1569	4,438072E+22	4,437865E+22	1,441712E+22	1,441793E+22	8,875936E+22	2,883505E+22	1,175944E+23
-1568	4,437866E+22	4,437978E+22	1,441818E+22	1,441722E+22	8,875844E+22	2,883540E+22	1,175938E+23
-1567	4,437986E+22	4,437968E+22	1,441794E+22	1,441847E+22	8,875954E+22	2,883641E+22	1,175959E+23
-1566	4,437992E+22	4,437833E+22	1,441810E+22	1,441829E+22	8,875825E+22	2,883639E+22	1,175946E+23
-1565	4,437683E+22	4,437922E+22	1,441961E+22	1,441870E+22	8,875606E+22	2,883832E+22	1,175944E+23
-1564	4,437821E+22	4,437804E+22	1,441914E+22	1,442016E+22	8,875624E+22	2,883930E+22	1,175955E+23
-1563	4,437685E+22	4,437669E+22	1,441998E+22	1,441966E+22	8,875353E+22	2,883964E+22	1,175932E+23
-1562	4,437561E+22	4,437668E+22	1,442083E+22	1,442047E+22	8,875229E+22	2,884131E+22	1,175936E+23
-1561	4,437759E+22	4,437519E+22	1,442015E+22	1,442105E+22	8,875278E+22	2,884119E+22	1,175940E+23
-1560	4,437524E+22	4,437591E+22	1,442111E+22	1,442034E+22	8,875115E+22	2,884144E+22	1,175926E+23
-1559	4,437567E+22	4,437648E+22	1,442081E+22	1,442128E+22	8,875215E+22	2,884209E+22	1,175942E+23
-1558	4,437698E+22	4,437544E+22	1,442014E+22	1,442074E+22	8,875242E+22	2,884089E+22	1,175933E+23
-1557	4,437465E+22	4,437676E+22	1,442103E+22	1,441986E+22	8,875141E+22	2,884089E+22	1,175923E+23
-1556	4,437702E+22	4,437685E+22	1,441995E+22	1,442044E+22	8,875387E+22	2,884039E+22	1,175943E+23
-1555	4,437724E+22	4,437642E+22	1,441967E+22	1,441920E+22	8,875367E+22	2,883887E+22	1,175925E+23
-1554	4,437594E+22	4,437776E+22	1,441992E+22	1,441916E+22	8,875369E+22	2,883908E+22	1,175928E+23
-1553	4,437858E+22	4,437743E+22	1,441852E+22	1,441958E+22	8,875600E+22	2,883810E+22	1,175941E+23
-1552	4,437728E+22	4,437792E+22	1,441889E+22	1,441841E+22	8,875521E+22	2,883730E+22	1,175925E+23
-1551	4,437765E+22	4,437868E+22	1,441886E+22	1,441894E+22	8,875633E+22	2,883780E+22	1,175941E+23
-1550	4,437980E+22	4,437756E+22	1,441813E+22	1,441882E+22	8,875736E+22	2,883696E+22	1,175943E+23
-1549	4,437710E+22	4,437827E+22	1,441944E+22	1,441832E+22	8,875537E+22	2,883776E+22	1,175931E+23
-1548	4,437796E+22	4,437844E+22	1,441924E+22	1,441974E+22	8,875639E+22	2,883898E+22	1,175954E+23
-1547	4,437778E+22	4,437696E+22	1,441939E+22	1,441966E+22	8,875474E+22	2,883905E+22	1,175938E+23
-1546	4,437501E+22	4,437701E+22	1,442077E+22	1,442007E+22	8,875202E+22	2,884084E+22	1,175929E+23
-1545	4,437684E+22	4,437583E+22	1,442027E+22	1,442128E+22	8,875267E+22	2,884154E+22	1,175942E+23
-1544	4,437553E+22	4,437486E+22	1,442114E+22	1,442076E+22	8,875039E+22	2,884189E+22	1,175923E+23
-1543	4,437441E+22	4,437534E+22	1,442185E+22	1,442151E+22	8,874975E+22	2,884336E+22	1,175931E+23
-1542	4,437624E+22	4,437430E+22	1,442109E+22	1,442213E+22	8,875055E+22	2,884321E+22	1,175938E+23
-1541	4,437351E+22	4,437465E+22	1,442220E+22	1,442141E+22	8,874816E+22	2,884361E+22	1,175918E+23
-1540	4,437413E+22	4,437535E+22	1,442192E+22	1,442218E+22	8,874948E+22	2,884410E+22	1,175936E+23
-1539	4,437551E+22	4,437426E+22	1,442126E+22	1,442156E+22	8,874977E+22	2,884282E+22	1,175926E+23
-1538	4,437351E+22	4,437495E+22	1,442199E+22	1,442078E+22	8,874846E+22	2,884277E+22	1,175912E+23
-1537	4,437585E+22	4,437527E+22	1,442081E+22	1,442136E+22	8,875111E+22	2,884217E+22	1,175933E+23
-1536	4,437574E+22	4,437527E+22	1,442049E+22	1,442031E+22	8,875100E+22	2,884081E+22	1,175918E+23
-1535	4,437472E+22	4,437662E+22	1,442063E+22	1,442017E+22	8,875134E+22	2,884080E+22	1,175921E+23
-1534	4,437755E+22	4,437632E+22	1,441928E+22	1,442045E+22	8,875387E+22	2,883973E+22	1,175936E+23
-1533	4,437617E+22	4,437642E+22	1,441992E+22	1,441924E+22	8,875258E+22	2,883916E+22	1,175917E+23
-1532	4,437653E+22	4,437744E+22	1,442000E+22	1,441975E+22	8,875396E+22	2,883975E+22	1,175937E+23
-1531	4,437816E+22	4,437655E+22	1,441935E+22	1,441987E+22	8,875471E+22	2,883921E+22	1,175939E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1530	4,437535E+22	4,437664E+22	1,442056E+22	1,441966E+22	8,875200E+22	2,884022E+22	1,175922E+23
-1529	4,437615E+22	4,437665E+22	1,442038E+22	1,442100E+22	8,875280E+22	2,884137E+22	1,175942E+23
-1528	4,437599E+22	4,437523E+22	1,442059E+22	1,442094E+22	8,875122E+22	2,884153E+22	1,175928E+23
-1527	4,437376E+22	4,437516E+22	1,442187E+22	1,442116E+22	8,874892E+22	2,884303E+22	1,175919E+23
-1526	4,437574E+22	4,437424E+22	1,442136E+22	1,442234E+22	8,874998E+22	2,884370E+22	1,175937E+23
-1525	4,437400E+22	4,437324E+22	1,442236E+22	1,442196E+22	8,874724E+22	2,884431E+22	1,175916E+23
-1524	4,437267E+22	4,437423E+22	1,442302E+22	1,442270E+22	8,874690E+22	2,884572E+22	1,175926E+23
-1523	4,437438E+22	4,437327E+22	1,442228E+22	1,442327E+22	8,874765E+22	2,884556E+22	1,175932E+23
-1522	4,437201E+22	4,437286E+22	1,442326E+22	1,442248E+22	8,874487E+22	2,884574E+22	1,175906E+23
-1521	4,437290E+22	4,437360E+22	1,442294E+22	1,442299E+22	8,874650E+22	2,884593E+22	1,175924E+23
-1520	4,437422E+22	4,437287E+22	1,442224E+22	1,442245E+22	8,874709E+22	2,884468E+22	1,175918E+23
-1519	4,437233E+22	4,437376E+22	1,442275E+22	1,442169E+22	8,874608E+22	2,884445E+22	1,175905E+23
-1518	4,437464E+22	4,437438E+22	1,442150E+22	1,442233E+22	8,874902E+22	2,884383E+22	1,175928E+23
-1517	4,437433E+22	4,437394E+22	1,442136E+22	1,442129E+22	8,874827E+22	2,884265E+22	1,175909E+23
-1516	4,437351E+22	4,437553E+22	1,442156E+22	1,442098E+22	8,874904E+22	2,884254E+22	1,175916E+23
-1515	4,437644E+22	4,437522E+22	1,442034E+22	1,442123E+22	8,875166E+22	2,884156E+22	1,175932E+23
-1514	4,437511E+22	4,437468E+22	1,442094E+22	1,442022E+22	8,874980E+22	2,884116E+22	1,175910E+23
-1513	4,437513E+22	4,437597E+22	1,442105E+22	1,442079E+22	8,875109E+22	2,884185E+22	1,175929E+23
-1512	4,437629E+22	4,437529E+22	1,442044E+22	1,442115E+22	8,875159E+22	2,884160E+22	1,175932E+23
-1511	4,437373E+22	4,437506E+22	1,442159E+22	1,442090E+22	8,874879E+22	2,884249E+22	1,175913E+23
-1510	4,437473E+22	4,437502E+22	1,442144E+22	1,442210E+22	8,874975E+22	2,884354E+22	1,175933E+23
-1509	4,437452E+22	4,437323E+22	1,442186E+22	1,442205E+22	8,874775E+22	2,884391E+22	1,175917E+23
-1508	4,437237E+22	4,437366E+22	1,442312E+22	1,442223E+22	8,874603E+22	2,884535E+22	1,175914E+23
-1507	4,437406E+22	4,437309E+22	1,442263E+22	1,442355E+22	8,874715E+22	2,884618E+22	1,175933E+23
-1506	4,437231E+22	4,437165E+22	1,442349E+22	1,442331E+22	8,874396E+22	2,884680E+22	1,175908E+23
-1505	4,437103E+22	4,437269E+22	1,442414E+22	1,442382E+22	8,874372E+22	2,884796E+22	1,175917E+23
-1504	4,437274E+22	4,437189E+22	1,442341E+22	1,442433E+22	8,874464E+22	2,884775E+22	1,175924E+23
-1503	4,437091E+22	4,437129E+22	1,442422E+22	1,442338E+22	8,874221E+22	2,884760E+22	1,175898E+23
-1502	4,437179E+22	4,437223E+22	1,442383E+22	1,442383E+22	8,874402E+22	2,884765E+22	1,175917E+23
-1501	4,437269E+22	4,437147E+22	1,442319E+22	1,442349E+22	8,874417E+22	2,884668E+22	1,175908E+23
-1500	4,437084E+22	4,437270E+22	1,442358E+22	1,442268E+22	8,874354E+22	2,884627E+22	1,175898E+23
-1499	4,437320E+22	4,437330E+22	1,442241E+22	1,442326E+22	8,874650E+22	2,884567E+22	1,175922E+23
-1498	4,437332E+22	4,437226E+22	1,442220E+22	1,442218E+22	8,874558E+22	2,884438E+22	1,175900E+23
-1497	4,437267E+22	4,437396E+22	1,442247E+22	1,442166E+22	8,874663E+22	2,884413E+22	1,175908E+23
-1496	4,437524E+22	4,437411E+22	1,442136E+22	1,442208E+22	8,874935E+22	2,884344E+22	1,175928E+23
-1495	4,437384E+22	4,437357E+22	1,442186E+22	1,442125E+22	8,874741E+22	2,884310E+22	1,175905E+23
-1494	4,437352E+22	4,437490E+22	1,442202E+22	1,442190E+22	8,874842E+22	2,884392E+22	1,175923E+23
-1493	4,437440E+22	4,437372E+22	1,442165E+22	1,442240E+22	8,874811E+22	2,884404E+22	1,175922E+23
-1492	4,437208E+22	4,437350E+22	1,442281E+22	1,442202E+22	8,874558E+22	2,884482E+22	1,175904E+23
-1491	4,437328E+22	4,437338E+22	1,442277E+22	1,442323E+22	8,874666E+22	2,884601E+22	1,175927E+23
-1490	4,437318E+22	4,437114E+22	1,442308E+22	1,442336E+22	8,874432E+22	2,884644E+22	1,175908E+23
-1489	4,437082E+22	4,437200E+22	1,442429E+22	1,442352E+22	8,874282E+22	2,884781E+22	1,175906E+23
-1488	4,437221E+22	4,437182E+22	1,442380E+22	1,442491E+22	8,874403E+22	2,884872E+22	1,175927E+23
-1487	4,437080E+22	4,437014E+22	1,442452E+22	1,442449E+22	8,874095E+22	2,884901E+22	1,175900E+23
-1486	4,436974E+22	4,437126E+22	1,442516E+22	1,442472E+22	8,874100E+22	2,884988E+22	1,175909E+23
-1485	4,437132E+22	4,437017E+22	1,442456E+22	1,442522E+22	8,874149E+22	2,884979E+22	1,175913E+23
-1484	4,436947E+22	4,437004E+22	1,442526E+22	1,442424E+22	8,873950E+22	2,884950E+22	1,175890E+23
-1483	4,437023E+22	4,437120E+22	1,442482E+22	1,442482E+22	8,874143E+22	2,884964E+22	1,175911E+23
-1482	4,437123E+22	4,436991E+22	1,442402E+22	1,442460E+22	8,874115E+22	2,884862E+22	1,175898E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1481	4,436966E+22	4,437129E+22	1,442438E+22	1,442357E+22	8,874095E+22	2,884795E+22	1,175889E+23
-1480	4,437211E+22	4,437213E+22	1,442329E+22	1,442407E+22	8,874424E+22	2,884735E+22	1,175916E+23
-1479	4,437263E+22	4,437095E+22	1,442301E+22	1,442292E+22	8,874358E+22	2,884593E+22	1,175895E+23
-1478	4,437172E+22	4,437292E+22	1,442334E+22	1,442243E+22	8,874464E+22	2,884577E+22	1,175904E+23
-1477	4,437351E+22	4,437294E+22	1,442243E+22	1,442317E+22	8,874646E+22	2,884561E+22	1,175921E+23
-1476	4,437195E+22	4,437251E+22	1,442294E+22	1,442242E+22	8,874446E+22	2,884536E+22	1,175898E+23
-1475	4,437170E+22	4,437349E+22	1,442323E+22	1,442309E+22	8,874519E+22	2,884633E+22	1,175915E+23
-1474	4,437294E+22	4,437153E+22	1,442281E+22	1,442363E+22	8,874447E+22	2,884644E+22	1,175909E+23
-1473	4,437091E+22	4,437145E+22	1,442395E+22	1,442310E+22	8,874237E+22	2,884705E+22	1,175894E+23
-1472	4,437184E+22	4,437186E+22	1,442396E+22	1,442445E+22	8,874370E+22	2,884841E+22	1,175921E+23
-1471	4,437184E+22	4,436976E+22	1,442411E+22	1,442465E+22	8,874160E+22	2,884876E+22	1,175904E+23
-1470	4,436928E+22	4,437077E+22	1,442534E+22	1,442467E+22	8,874005E+22	2,885001E+22	1,175901E+23
-1469	4,437033E+22	4,437035E+22	1,442509E+22	1,442607E+22	8,874068E+22	2,885116E+22	1,175918E+23
-1468	4,436918E+22	4,436878E+22	1,442576E+22	1,442545E+22	8,873795E+22	2,885121E+22	1,175892E+23
-1467	4,436819E+22	4,436975E+22	1,442644E+22	1,442567E+22	8,873794E+22	2,885211E+22	1,175901E+23
-1466	4,436980E+22	4,436828E+22	1,442564E+22	1,442636E+22	8,873808E+22	2,885201E+22	1,175901E+23
-1465	4,436796E+22	4,436845E+22	1,442617E+22	1,442534E+22	8,873641E+22	2,885151E+22	1,175879E+23
-1464	4,436866E+22	4,436995E+22	1,442570E+22	1,442593E+22	8,873861E+22	2,885163E+22	1,175902E+23
-1463	4,437027E+22	4,436853E+22	1,442473E+22	1,442551E+22	8,873880E+22	2,885025E+22	1,175890E+23
-1462	4,436892E+22	4,437011E+22	1,442512E+22	1,442420E+22	8,873903E+22	2,884932E+22	1,175884E+23
-1461	4,437103E+22	4,437093E+22	1,442428E+22	1,442478E+22	8,874196E+22	2,884905E+22	1,175910E+23
-1460	4,437128E+22	4,437019E+22	1,442399E+22	1,442372E+22	8,874147E+22	2,884770E+22	1,175892E+23
-1459	4,437002E+22	4,437209E+22	1,442443E+22	1,442349E+22	8,874212E+22	2,884792E+22	1,175900E+23
-1458	4,437170E+22	4,437132E+22	1,442348E+22	1,442443E+22	8,874303E+22	2,884791E+22	1,175909E+23
-1457	4,437041E+22	4,437073E+22	1,442401E+22	1,442357E+22	8,874115E+22	2,884759E+22	1,175887E+23
-1456	4,437034E+22	4,437175E+22	1,442438E+22	1,442423E+22	8,874209E+22	2,884861E+22	1,175907E+23
-1455	4,437200E+22	4,436964E+22	1,442384E+22	1,442474E+22	8,874164E+22	2,884858E+22	1,175902E+23
-1454	4,436981E+22	4,437003E+22	1,442496E+22	1,442419E+22	8,873984E+22	2,884915E+22	1,175890E+23
-1453	4,437004E+22	4,437051E+22	1,442517E+22	1,442573E+22	8,874054E+22	2,885090E+22	1,175914E+23
-1452	4,436987E+22	4,436866E+22	1,442534E+22	1,442585E+22	8,873852E+22	2,885120E+22	1,175897E+23
-1451	4,436747E+22	4,436941E+22	1,442670E+22	1,442581E+22	8,873688E+22	2,885252E+22	1,175894E+23
-1450	4,436866E+22	4,436826E+22	1,442638E+22	1,442718E+22	8,873692E+22	2,885356E+22	1,175905E+23
-1449	4,436774E+22	4,436687E+22	1,442695E+22	1,442647E+22	8,873461E+22	2,885342E+22	1,175880E+23
-1448	4,436658E+22	4,436826E+22	1,442752E+22	1,442681E+22	8,873483E+22	2,885433E+22	1,175892E+23
-1447	4,436843E+22	4,436684E+22	1,442644E+22	1,442753E+22	8,873527E+22	2,885397E+22	1,175892E+23
-1446	4,436677E+22	4,436728E+22	1,442687E+22	1,442630E+22	8,873405E+22	2,885317E+22	1,175872E+23
-1445	4,436736E+22	4,436871E+22	1,442661E+22	1,442682E+22	8,873607E+22	2,885343E+22	1,175895E+23
-1444	4,436920E+22	4,436762E+22	1,442566E+22	1,442618E+22	8,873682E+22	2,885184E+22	1,175887E+23
-1443	4,436790E+22	4,436911E+22	1,442618E+22	1,442494E+22	8,873700E+22	2,885112E+22	1,175881E+23
-1442	4,436959E+22	4,436952E+22	1,442529E+22	1,442577E+22	8,873911E+22	2,885106E+22	1,175902E+23
-1441	4,436968E+22	4,436886E+22	1,442494E+22	1,442483E+22	8,873854E+22	2,884977E+22	1,175883E+23
-1440	4,436826E+22	4,437069E+22	1,442545E+22	1,442469E+22	8,873895E+22	2,885013E+22	1,175891E+23
-1439	4,437052E+22	4,436956E+22	1,442438E+22	1,442554E+22	8,874007E+22	2,884993E+22	1,175900E+23
-1438	4,436953E+22	4,436900E+22	1,442491E+22	1,442445E+22	8,873852E+22	2,884936E+22	1,175879E+23
-1437	4,436908E+22	4,437013E+22	1,442554E+22	1,442523E+22	8,873921E+22	2,885077E+22	1,175900E+23
-1436	4,437050E+22	4,436862E+22	1,442499E+22	1,442580E+22	8,873912E+22	2,885078E+22	1,175899E+23
-1435	4,436802E+22	4,436899E+22	1,442625E+22	1,442543E+22	8,873701E+22	2,885168E+22	1,175887E+23
-1434	4,436801E+22	4,436886E+22	1,442648E+22	1,442707E+22	8,873687E+22	2,885355E+22	1,175904E+23
-1433	4,436808E+22	4,436690E+22	1,442666E+22	1,442706E+22	8,873499E+22	2,885372E+22	1,175887E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1432	4,436578E+22	4,436761E+22	1,442804E+22	1,442699E+22	8,873339E+22	2,885503E+22	1,175884E+23
-1431	4,436736E+22	4,436630E+22	1,442748E+22	1,442835E+22	8,873366E+22	2,885582E+22	1,175895E+23
-1430	4,436639E+22	4,436529E+22	1,442787E+22	1,442758E+22	8,873168E+22	2,885545E+22	1,175871E+23
-1429	4,436485E+22	4,436685E+22	1,442850E+22	1,442803E+22	8,873170E+22	2,885652E+22	1,175882E+23
-1428	4,436689E+22	4,436581E+22	1,442735E+22	1,442851E+22	8,873271E+22	2,885587E+22	1,175886E+23
-1427	4,436565E+22	4,436618E+22	1,442787E+22	1,442714E+22	8,873183E+22	2,885501E+22	1,175868E+23
-1426	4,436629E+22	4,436714E+22	1,442759E+22	1,442759E+22	8,873343E+22	2,885518E+22	1,175886E+23
-1425	4,436814E+22	4,436636E+22	1,442662E+22	1,442693E+22	8,873450E+22	2,885355E+22	1,175880E+23
-1424	4,436647E+22	4,436809E+22	1,442715E+22	1,442590E+22	8,873456E+22	2,885305E+22	1,175876E+23
-1423	4,436815E+22	4,436822E+22	1,442609E+22	1,442683E+22	8,873637E+22	2,885291E+22	1,175893E+23
-1422	4,436834E+22	4,436756E+22	1,442573E+22	1,442581E+22	8,873591E+22	2,885153E+22	1,175874E+23
-1421	4,436686E+22	4,436912E+22	1,442645E+22	1,442570E+22	8,873597E+22	2,885215E+22	1,175881E+23
-1420	4,436928E+22	4,436821E+22	1,442544E+22	1,442642E+22	8,873748E+22	2,885186E+22	1,175893E+23
-1419	4,436840E+22	4,436768E+22	1,442609E+22	1,442548E+22	8,873609E+22	2,885157E+22	1,175877E+23
-1418	4,436743E+22	4,436850E+22	1,442670E+22	1,442649E+22	8,873594E+22	2,885320E+22	1,175891E+23
-1417	4,436865E+22	4,436721E+22	1,442618E+22	1,442713E+22	8,873586E+22	2,885331E+22	1,175892E+23
-1416	4,436609E+22	4,436745E+22	1,442756E+22	1,442679E+22	8,873354E+22	2,885435E+22	1,175879E+23
-1415	4,436647E+22	4,436692E+22	1,442766E+22	1,442829E+22	8,873338E+22	2,885595E+22	1,175893E+23
-1414	4,436681E+22	4,436505E+22	1,442777E+22	1,442809E+22	8,873186E+22	2,885586E+22	1,175877E+23
-1413	4,436419E+22	4,436583E+22	1,442925E+22	1,442814E+22	8,873002E+22	2,885739E+22	1,175874E+23
-1412	4,436565E+22	4,436511E+22	1,442855E+22	1,442945E+22	8,873076E+22	2,885800E+22	1,175888E+23
-1411	4,436483E+22	4,436414E+22	1,442893E+22	1,442875E+22	8,872897E+22	2,885768E+22	1,175867E+23
-1410	4,436328E+22	4,436527E+22	1,442952E+22	1,442914E+22	8,872855E+22	2,885866E+22	1,175872E+23
-1409	4,436571E+22	4,436442E+22	1,442837E+22	1,442939E+22	8,873013E+22	2,885776E+22	1,175879E+23
-1408	4,436456E+22	4,436486E+22	1,442893E+22	1,442795E+22	8,872942E+22	2,885688E+22	1,175863E+23
-1407	4,436534E+22	4,436576E+22	1,442846E+22	1,442842E+22	8,873109E+22	2,885689E+22	1,175880E+23
-1406	4,436691E+22	4,436523E+22	1,442737E+22	1,442779E+22	8,873213E+22	2,885516E+22	1,175873E+23
-1405	4,436471E+22	4,436686E+22	1,442805E+22	1,442699E+22	8,873156E+22	2,885504E+22	1,175866E+23
-1404	4,436652E+22	4,436713E+22	1,442699E+22	1,442776E+22	8,873365E+22	2,885476E+22	1,175884E+23
-1403	4,436717E+22	4,436617E+22	1,442675E+22	1,442674E+22	8,873334E+22	2,885349E+22	1,175868E+23
-1402	4,436567E+22	4,436728E+22	1,442750E+22	1,442667E+22	8,873295E+22	2,885417E+22	1,175871E+23
-1401	4,436808E+22	4,436672E+22	1,442653E+22	1,442743E+22	8,873480E+22	2,885396E+22	1,175888E+23
-1400	4,436683E+22	4,436646E+22	1,442723E+22	1,442671E+22	8,873330E+22	2,885394E+22	1,175872E+23
-1399	4,436585E+22	4,436704E+22	1,442775E+22	1,442778E+22	8,873290E+22	2,885552E+22	1,175884E+23
-1398	4,436709E+22	4,436573E+22	1,442727E+22	1,442828E+22	8,873281E+22	2,885555E+22	1,175884E+23
-1397	4,436439E+22	4,436573E+22	1,442887E+22	1,442800E+22	8,873012E+22	2,885687E+22	1,175870E+23
-1396	4,436487E+22	4,436536E+22	1,442895E+22	1,442931E+22	8,873024E+22	2,885827E+22	1,175885E+23
-1395	4,436536E+22	4,436350E+22	1,442907E+22	1,442929E+22	8,872886E+22	2,885836E+22	1,175872E+23
-1394	4,436235E+22	4,436402E+22	1,443039E+22	1,442949E+22	8,872637E+22	2,885988E+22	1,175863E+23
-1393	4,436390E+22	4,436357E+22	1,442964E+22	1,443071E+22	8,872747E+22	2,886036E+22	1,175878E+23
-1392	4,436337E+22	4,436269E+22	1,443002E+22	1,442988E+22	8,872606E+22	2,885991E+22	1,175860E+23
-1391	4,436231E+22	4,436359E+22	1,443042E+22	1,443001E+22	8,872590E+22	2,886043E+22	1,175863E+23
-1390	4,436485E+22	4,436309E+22	1,442923E+22	1,443005E+22	8,872794E+22	2,885928E+22	1,175872E+23
-1389	4,436326E+22	4,436372E+22	1,442987E+22	1,442880E+22	8,872698E+22	2,885867E+22	1,175856E+23
-1388	4,436364E+22	4,436500E+22	1,442934E+22	1,442925E+22	8,872865E+22	2,885859E+22	1,175872E+23
-1387	4,436534E+22	4,436431E+22	1,442829E+22	1,442881E+22	8,872965E+22	2,885710E+22	1,175868E+23
-1386	4,436312E+22	4,436522E+22	1,442898E+22	1,442805E+22	8,872833E+22	2,885703E+22	1,175854E+23
-1385	4,436532E+22	4,436552E+22	1,442799E+22	1,442870E+22	8,873084E+22	2,885668E+22	1,175875E+23
-1384	4,436617E+22	4,436460E+22	1,442782E+22	1,442772E+22	8,873077E+22	2,885553E+22	1,175863E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1383	4,436470E+22	4,436567E+22	1,442840E+22	1,442773E+22	8,873037E+22	2,885614E+22	1,175865E+23
-1382	4,436676E+22	4,436549E+22	1,442743E+22	1,442852E+22	8,873226E+22	2,885595E+22	1,175882E+23
-1381	4,436503E+22	4,436515E+22	1,442836E+22	1,442799E+22	8,873018E+22	2,885635E+22	1,175865E+23
-1380	4,436405E+22	4,436579E+22	1,442897E+22	1,442884E+22	8,872984E+22	2,885782E+22	1,175877E+23
-1379	4,436563E+22	4,436417E+22	1,442862E+22	1,442938E+22	8,872981E+22	2,885800E+22	1,175878E+23
-1378	4,436274E+22	4,436365E+22	1,443022E+22	1,442919E+22	8,872639E+22	2,885940E+22	1,175858E+23
-1377	4,436320E+22	4,436363E+22	1,443025E+22	1,443054E+22	8,872683E+22	2,886079E+22	1,175876E+23
-1376	4,436352E+22	4,436196E+22	1,443030E+22	1,443065E+22	8,872548E+22	2,886095E+22	1,175864E+23
-1375	4,436082E+22	4,436234E+22	1,443137E+22	1,443079E+22	8,872316E+22	2,886215E+22	1,175853E+23
-1374	4,436264E+22	4,436207E+22	1,443057E+22	1,443171E+22	8,872471E+22	2,886228E+22	1,175870E+23
-1373	4,436205E+22	4,436127E+22	1,443109E+22	1,443083E+22	8,872332E+22	2,886191E+22	1,175852E+23
-1372	4,436110E+22	4,436253E+22	1,443144E+22	1,443071E+22	8,872363E+22	2,886216E+22	1,175858E+23
-1371	4,436359E+22	4,436209E+22	1,443025E+22	1,443094E+22	8,872568E+22	2,886119E+22	1,175869E+23
-1370	4,436145E+22	4,436234E+22	1,443080E+22	1,442990E+22	8,872379E+22	2,886071E+22	1,175845E+23
-1369	4,436193E+22	4,436365E+22	1,443026E+22	1,443031E+22	8,872558E+22	2,886057E+22	1,175861E+23
-1368	4,436394E+22	4,436280E+22	1,442927E+22	1,442982E+22	8,872675E+22	2,885909E+22	1,175858E+23
-1367	4,436232E+22	4,436341E+22	1,442975E+22	1,442894E+22	8,872573E+22	2,885869E+22	1,175844E+23
-1366	4,436464E+22	4,436403E+22	1,442879E+22	1,442945E+22	8,872867E+22	2,885823E+22	1,175869E+23
-1365	4,436498E+22	4,436348E+22	1,442877E+22	1,442871E+22	8,872846E+22	2,885748E+22	1,175859E+23
-1364	4,436315E+22	4,436489E+22	1,442940E+22	1,442868E+22	8,872804E+22	2,885808E+22	1,175861E+23
-1363	4,436517E+22	4,436453E+22	1,442860E+22	1,442966E+22	8,872971E+22	2,885826E+22	1,175880E+23
-1362	4,436317E+22	4,436347E+22	1,442965E+22	1,442923E+22	8,872664E+22	2,885888E+22	1,175855E+23
-1361	4,436234E+22	4,436401E+22	1,443036E+22	1,442999E+22	8,872635E+22	2,886035E+22	1,175867E+23
-1360	4,436407E+22	4,436231E+22	1,443004E+22	1,443065E+22	8,872638E+22	2,886069E+22	1,175871E+23
-1359	4,436126E+22	4,436157E+22	1,443132E+22	1,443055E+22	8,872283E+22	2,886187E+22	1,175847E+23
-1358	4,436155E+22	4,436192E+22	1,443125E+22	1,443184E+22	8,872347E+22	2,886309E+22	1,175866E+23
-1357	4,436177E+22	4,436041E+22	1,443137E+22	1,443198E+22	8,872219E+22	2,886335E+22	1,175855E+23
-1356	4,435935E+22	4,436102E+22	1,443242E+22	1,443173E+22	8,872037E+22	2,886415E+22	1,175845E+23
-1355	4,436156E+22	4,436083E+22	1,443170E+22	1,443257E+22	8,872239E+22	2,886428E+22	1,175867E+23
-1354	4,436064E+22	4,435975E+22	1,443220E+22	1,443173E+22	8,872039E+22	2,886393E+22	1,175843E+23
-1353	4,435950E+22	4,436135E+22	1,443251E+22	1,443164E+22	8,872085E+22	2,886414E+22	1,175850E+23
-1352	4,436185E+22	4,436094E+22	1,443127E+22	1,443200E+22	8,872279E+22	2,886327E+22	1,175861E+23
-1351	4,436005E+22	4,436073E+22	1,443158E+22	1,443098E+22	8,872078E+22	2,886255E+22	1,175833E+23
-1350	4,436086E+22	4,436211E+22	1,443102E+22	1,443115E+22	8,872297E+22	2,886217E+22	1,175851E+23
-1349	4,436296E+22	4,436137E+22	1,443017E+22	1,443070E+22	8,872432E+22	2,886086E+22	1,175852E+23
-1348	4,436145E+22	4,436233E+22	1,443065E+22	1,442966E+22	8,872378E+22	2,886030E+22	1,175841E+23
-1347	4,436357E+22	4,436316E+22	1,442977E+22	1,443040E+22	8,872673E+22	2,886017E+22	1,175869E+23
-1346	4,436316E+22	4,436227E+22	1,442983E+22	1,442991E+22	8,872543E+22	2,885974E+22	1,175852E+23
-1345	4,436132E+22	4,436359E+22	1,443061E+22	1,442985E+22	8,872490E+22	2,886046E+22	1,175854E+23
-1344	4,436343E+22	4,436289E+22	1,442996E+22	1,443082E+22	8,872631E+22	2,886078E+22	1,175871E+23
-1343	4,436181E+22	4,436136E+22	1,443083E+22	1,443042E+22	8,872316E+22	2,886125E+22	1,175844E+23
-1342	4,436102E+22	4,436204E+22	1,443149E+22	1,443110E+22	8,872306E+22	2,886259E+22	1,175856E+23
-1341	4,436228E+22	4,436068E+22	1,443119E+22	1,443201E+22	8,872296E+22	2,886320E+22	1,175862E+23
-1340	4,435952E+22	4,436030E+22	1,443237E+22	1,443176E+22	8,871982E+22	2,886413E+22	1,175839E+23
-1339	4,436007E+22	4,436063E+22	1,443238E+22	1,443305E+22	8,872070E+22	2,886542E+22	1,175861E+23
-1338	4,436012E+22	4,435880E+22	1,443257E+22	1,443311E+22	8,871892E+22	2,886568E+22	1,175846E+23
-1337	4,435799E+22	4,435954E+22	1,443368E+22	1,443265E+22	8,871753E+22	2,886633E+22	1,175839E+23
-1336	4,436015E+22	4,435941E+22	1,443299E+22	1,443354E+22	8,871956E+22	2,886653E+22	1,175861E+23
-1335	4,435917E+22	4,435819E+22	1,443314E+22	1,443285E+22	8,871736E+22	2,886599E+22	1,175834E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1334	4,435789E+22	4,435991E+22	1,443332E+22	1,443268E+22	8,871780E+22	2,886600E+22	1,175838E+23
-1333	4,436023E+22	4,435955E+22	1,443214E+22	1,443309E+22	8,871978E+22	2,886523E+22	1,175850E+23
-1332	4,435897E+22	4,435943E+22	1,443237E+22	1,443172E+22	8,871840E+22	2,886409E+22	1,175825E+23
-1331	4,436020E+22	4,436090E+22	1,443191E+22	1,443189E+22	8,872110E+22	2,886380E+22	1,175849E+23
-1330	4,436182E+22	4,436009E+22	1,443112E+22	1,443156E+22	8,872191E+22	2,886268E+22	1,175846E+23
-1329	4,436002E+22	4,436141E+22	1,443166E+22	1,443059E+22	8,872143E+22	2,886225E+22	1,175837E+23
-1328	4,436187E+22	4,436219E+22	1,443092E+22	1,443150E+22	8,872406E+22	2,886242E+22	1,175865E+23
-1327	4,436159E+22	4,436066E+22	1,443083E+22	1,443110E+22	8,872225E+22	2,886194E+22	1,175842E+23
-1326	4,435983E+22	4,436180E+22	1,443170E+22	1,443091E+22	8,872163E+22	2,886261E+22	1,175842E+23
-1325	4,436192E+22	4,436111E+22	1,443118E+22	1,443199E+22	8,872303E+22	2,886317E+22	1,175862E+23
-1324	4,436043E+22	4,435970E+22	1,443197E+22	1,443152E+22	8,872013E+22	2,886348E+22	1,175836E+23
-1323	4,435955E+22	4,436060E+22	1,443262E+22	1,443240E+22	8,872015E+22	2,886503E+22	1,175852E+23
-1322	4,436028E+22	4,435903E+22	1,443237E+22	1,443342E+22	8,871930E+22	2,886578E+22	1,175851E+23
-1321	4,435776E+22	4,435876E+22	1,443362E+22	1,443298E+22	8,871652E+22	2,886660E+22	1,175831E+23
-1320	4,435857E+22	4,435905E+22	1,443375E+22	1,443413E+22	8,871762E+22	2,886787E+22	1,175855E+23
-1319	4,435890E+22	4,435697E+22	1,443373E+22	1,443415E+22	8,871586E+22	2,886788E+22	1,175837E+23
-1318	4,435667E+22	4,435798E+22	1,443476E+22	1,443360E+22	8,871465E+22	2,886836E+22	1,175830E+23
-1317	4,435833E+22	4,435818E+22	1,443403E+22	1,443467E+22	8,871652E+22	2,886870E+22	1,175852E+23
-1316	4,435750E+22	4,435708E+22	1,443402E+22	1,443386E+22	8,871458E+22	2,886787E+22	1,175825E+23
-1315	4,435660E+22	4,435869E+22	1,443420E+22	1,443368E+22	8,871529E+22	2,886787E+22	1,175832E+23
-1314	4,435882E+22	4,435805E+22	1,443308E+22	1,443403E+22	8,871687E+22	2,886712E+22	1,175840E+23
-1313	4,435802E+22	4,435813E+22	1,443336E+22	1,443252E+22	8,871615E+22	2,886587E+22	1,175820E+23
-1312	4,435916E+22	4,435969E+22	1,443297E+22	1,443276E+22	8,871885E+22	2,886573E+22	1,175846E+23
-1311	4,436051E+22	4,435880E+22	1,443196E+22	1,443263E+22	8,871931E+22	2,886459E+22	1,175839E+23
-1310	4,435855E+22	4,436008E+22	1,443252E+22	1,443163E+22	8,871863E+22	2,886415E+22	1,175828E+23
-1309	4,436013E+22	4,436078E+22	1,443196E+22	1,443259E+22	8,872091E+22	2,886455E+22	1,175855E+23
-1308	4,436027E+22	4,435917E+22	1,443188E+22	1,443202E+22	8,871944E+22	2,886390E+22	1,175833E+23
-1307	4,435876E+22	4,436021E+22	1,443283E+22	1,443192E+22	8,871897E+22	2,886475E+22	1,175837E+23
-1306	4,436021E+22	4,435942E+22	1,443238E+22	1,443320E+22	8,871964E+22	2,886558E+22	1,175852E+23
-1305	4,435868E+22	4,435830E+22	1,443317E+22	1,443277E+22	8,871698E+22	2,886594E+22	1,175829E+23
-1304	4,435775E+22	4,435915E+22	1,443393E+22	1,443373E+22	8,871689E+22	2,886765E+22	1,175845E+23
-1303	4,435867E+22	4,435725E+22	1,443352E+22	1,443473E+22	8,871592E+22	2,886825E+22	1,175842E+23
-1302	4,435641E+22	4,435698E+22	1,443482E+22	1,443406E+22	8,871339E+22	2,886888E+22	1,175823E+23
-1301	4,435708E+22	4,435749E+22	1,443503E+22	1,443522E+22	8,871457E+22	2,887025E+22	1,175848E+23
-1300	4,435746E+22	4,435562E+22	1,443484E+22	1,443517E+22	8,871309E+22	2,887001E+22	1,175831E+23
-1299	4,435508E+22	4,435677E+22	1,443577E+22	1,443478E+22	8,871185E+22	2,887055E+22	1,175824E+23
-1298	4,435628E+22	4,435670E+22	1,443504E+22	1,443590E+22	8,871298E+22	2,887093E+22	1,175839E+23
-1297	4,435593E+22	4,435559E+22	1,443501E+22	1,443485E+22	8,871152E+22	2,886986E+22	1,175814E+23
-1296	4,435552E+22	4,435718E+22	1,443525E+22	1,443454E+22	8,871271E+22	2,886979E+22	1,175825E+23
-1295	4,435801E+22	4,435639E+22	1,443391E+22	1,443487E+22	8,871440E+22	2,886879E+22	1,175832E+23
-1294	4,435707E+22	4,435683E+22	1,443415E+22	1,443331E+22	8,871390E+22	2,886746E+22	1,175814E+23
-1293	4,435770E+22	4,435880E+22	1,443383E+22	1,443372E+22	8,871650E+22	2,886755E+22	1,175840E+23
-1292	4,435908E+22	4,435785E+22	1,443279E+22	1,443352E+22	8,871694E+22	2,886631E+22	1,175832E+23
-1291	4,435727E+22	4,435891E+22	1,443349E+22	1,443261E+22	8,871618E+22	2,886610E+22	1,175823E+23
-1290	4,435846E+22	4,435918E+22	1,443313E+22	1,443361E+22	8,871764E+22	2,886674E+22	1,175844E+23
-1289	4,435888E+22	4,435757E+22	1,443314E+22	1,443305E+22	8,871645E+22	2,886619E+22	1,175826E+23
-1288	4,435728E+22	4,435861E+22	1,443414E+22	1,443315E+22	8,871589E+22	2,886729E+22	1,175832E+23
-1287	4,435848E+22	4,435764E+22	1,443346E+22	1,443464E+22	8,871612E+22	2,886810E+22	1,175842E+23
-1286	4,435703E+22	4,435654E+22	1,443426E+22	1,443411E+22	8,871357E+22	2,886837E+22	1,175819E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1285	4,435606E+22	4,435752E+22	1,443514E+22	1,443498E+22	8,871359E+22	2,887012E+22	1,175837E+23
-1284	4,435739E+22	4,435571E+22	1,443472E+22	1,443574E+22	8,871311E+22	2,887046E+22	1,175836E+23
-1283	4,435526E+22	4,435555E+22	1,443604E+22	1,443512E+22	8,871081E+22	2,887115E+22	1,175820E+23
-1282	4,435508E+22	4,435606E+22	1,443629E+22	1,443639E+22	8,871114E+22	2,887267E+22	1,175838E+23
-1281	4,435553E+22	4,435439E+22	1,443602E+22	1,443635E+22	8,870992E+22	2,887237E+22	1,175823E+23
-1280	4,435333E+22	4,435526E+22	1,443692E+22	1,443595E+22	8,870859E+22	2,887287E+22	1,175815E+23
-1279	4,435480E+22	4,435486E+22	1,443595E+22	1,443698E+22	8,870966E+22	2,887293E+22	1,175826E+23
-1278	4,435504E+22	4,435385E+22	1,443587E+22	1,443569E+22	8,870889E+22	2,887156E+22	1,175804E+23
-1277	4,435459E+22	4,435581E+22	1,443615E+22	1,443536E+22	8,871040E+22	2,887151E+22	1,175819E+23
-1276	4,435706E+22	4,435544E+22	1,443469E+22	1,443565E+22	8,871250E+22	2,887034E+22	1,175828E+23
-1275	4,435590E+22	4,435603E+22	1,443492E+22	1,443425E+22	8,871193E+22	2,886917E+22	1,175811E+23
-1274	4,435580E+22	4,435767E+22	1,443480E+22	1,443471E+22	8,871347E+22	2,886951E+22	1,175830E+23
-1273	4,435753E+22	4,435659E+22	1,443388E+22	1,443443E+22	8,871412E+22	2,886831E+22	1,175824E+23
-1272	4,435600E+22	4,435730E+22	1,443473E+22	1,443358E+22	8,871329E+22	2,886830E+22	1,175816E+23
-1271	4,435714E+22	4,435730E+22	1,443420E+22	1,443473E+22	8,871444E+22	2,886893E+22	1,175834E+23
-1270	4,435751E+22	4,435587E+22	1,443417E+22	1,443424E+22	8,871338E+22	2,886841E+22	1,175818E+23
-1269	4,435556E+22	4,435721E+22	1,443520E+22	1,443449E+22	8,871277E+22	2,886969E+22	1,175825E+23
-1268	4,435698E+22	4,435625E+22	1,443450E+22	1,443585E+22	8,871323E+22	2,887034E+22	1,175836E+23
-1267	4,435574E+22	4,435513E+22	1,443540E+22	1,443529E+22	8,871088E+22	2,887068E+22	1,175816E+23
-1266	4,435438E+22	4,435591E+22	1,443649E+22	1,443610E+22	8,871028E+22	2,887259E+22	1,175829E+23
-1265	4,435584E+22	4,435418E+22	1,443613E+22	1,443681E+22	8,871003E+22	2,887294E+22	1,175830E+23
-1264	4,435351E+22	4,435404E+22	1,443743E+22	1,443638E+22	8,870755E+22	2,887381E+22	1,175814E+23
-1263	4,435305E+22	4,435424E+22	1,443736E+22	1,443775E+22	8,870730E+22	2,887511E+22	1,175824E+23
-1262	4,435379E+22	4,435246E+22	1,443701E+22	1,443755E+22	8,870626E+22	2,887456E+22	1,175808E+23
-1261	4,435192E+22	4,435356E+22	1,443788E+22	1,443698E+22	8,870548E+22	2,887487E+22	1,175803E+23
-1260	4,435401E+22	4,435334E+22	1,443680E+22	1,443773E+22	8,870735E+22	2,887454E+22	1,175819E+23
-1259	4,435438E+22	4,435276E+22	1,443669E+22	1,443644E+22	8,870714E+22	2,887313E+22	1,175803E+23
-1258	4,435310E+22	4,435490E+22	1,443706E+22	1,443621E+22	8,870800E+22	2,887327E+22	1,175813E+23
-1257	4,435545E+22	4,435473E+22	1,443567E+22	1,443651E+22	8,871018E+22	2,887218E+22	1,175824E+23
-1256	4,435433E+22	4,435498E+22	1,443601E+22	1,443525E+22	8,870931E+22	2,887126E+22	1,175806E+23
-1255	4,435419E+22	4,435603E+22	1,443579E+22	1,443574E+22	8,871023E+22	2,887153E+22	1,175818E+23
-1254	4,435635E+22	4,435475E+22	1,443493E+22	1,443542E+22	8,871110E+22	2,887034E+22	1,175814E+23
-1253	4,435478E+22	4,435561E+22	1,443578E+22	1,443469E+22	8,871039E+22	2,887047E+22	1,175809E+23
-1252	4,435591E+22	4,435584E+22	1,443514E+22	1,443588E+22	8,871175E+22	2,887102E+22	1,175828E+23
-1251	4,435618E+22	4,435460E+22	1,443508E+22	1,443552E+22	8,871079E+22	2,887060E+22	1,175814E+23
-1250	4,435367E+22	4,435572E+22	1,443634E+22	1,443571E+22	8,870940E+22	2,887205E+22	1,175814E+23
-1249	4,435545E+22	4,435485E+22	1,443583E+22	1,443689E+22	8,871030E+22	2,887272E+22	1,175830E+23
-1248	4,435439E+22	4,435352E+22	1,443685E+22	1,443637E+22	8,870791E+22	2,887323E+22	1,175811E+23
-1247	4,435262E+22	4,435406E+22	1,443780E+22	1,443729E+22	8,870668E+22	2,887509E+22	1,175818E+23
-1246	4,435405E+22	4,435246E+22	1,443734E+22	1,443808E+22	8,870652E+22	2,887541E+22	1,175819E+23
-1245	4,435153E+22	4,435241E+22	1,443855E+22	1,443771E+22	8,870394E+22	2,887626E+22	1,175802E+23
-1244	4,435150E+22	4,435260E+22	1,443833E+22	1,443888E+22	8,870409E+22	2,887721E+22	1,175813E+23
-1243	4,435271E+22	4,435097E+22	1,443791E+22	1,443855E+22	8,870368E+22	2,887646E+22	1,175801E+23
-1242	4,435063E+22	4,435209E+22	1,443891E+22	1,443787E+22	8,870272E+22	2,887677E+22	1,175795E+23
-1241	4,435291E+22	4,435229E+22	1,443787E+22	1,443853E+22	8,870520E+22	2,887641E+22	1,175816E+23
-1240	4,435304E+22	4,435186E+22	1,443774E+22	1,443743E+22	8,870490E+22	2,887517E+22	1,175801E+23
-1239	4,435133E+22	4,435364E+22	1,443794E+22	1,443728E+22	8,870498E+22	2,887522E+22	1,175802E+23
-1238	4,435394E+22	4,435320E+22	1,443659E+22	1,443749E+22	8,870713E+22	2,887407E+22	1,175812E+23
-1237	4,435300E+22	4,435340E+22	1,443698E+22	1,443621E+22	8,870640E+22	2,887319E+22	1,175796E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1236	4,435328E+22	4,435440E+22	1,443668E+22	1,443660E+22	8,870768E+22	2,887329E+22	1,175810E+23
-1235	4,435542E+22	4,435342E+22	1,443579E+22	1,443640E+22	8,870884E+22	2,887219E+22	1,175810E+23
-1234	4,435317E+22	4,435438E+22	1,443676E+22	1,443582E+22	8,870756E+22	2,887258E+22	1,175801E+23
-1233	4,435432E+22	4,435471E+22	1,443625E+22	1,443697E+22	8,870903E+22	2,887322E+22	1,175822E+23
-1232	4,435463E+22	4,435332E+22	1,443635E+22	1,443670E+22	8,870795E+22	2,887305E+22	1,175810E+23
-1231	4,435203E+22	4,435394E+22	1,443759E+22	1,443686E+22	8,870597E+22	2,887445E+22	1,175804E+23
-1230	4,435401E+22	4,435290E+22	1,443719E+22	1,443800E+22	8,870691E+22	2,887519E+22	1,175821E+23
-1229	4,435271E+22	4,435182E+22	1,443821E+22	1,443766E+22	8,870453E+22	2,887587E+22	1,175804E+23
-1228	4,435085E+22	4,435242E+22	1,443893E+22	1,443862E+22	8,870327E+22	2,887756E+22	1,175808E+23
-1227	4,435227E+22	4,435091E+22	1,443835E+22	1,443944E+22	8,870318E+22	2,887779E+22	1,175810E+23
-1226	4,434959E+22	4,435066E+22	1,443965E+22	1,443894E+22	8,870025E+22	2,887858E+22	1,175788E+23
-1225	4,435016E+22	4,435104E+22	1,443949E+22	1,443981E+22	8,870119E+22	2,887931E+22	1,175805E+23
-1224	4,435169E+22	4,434962E+22	1,443909E+22	1,443948E+22	8,870131E+22	2,887857E+22	1,175799E+23
-1223	4,434928E+22	4,435071E+22	1,443989E+22	1,443883E+22	8,869999E+22	2,887872E+22	1,175787E+23
-1222	4,435150E+22	4,435109E+22	1,443883E+22	1,443951E+22	8,870260E+22	2,887834E+22	1,175809E+23
-1221	4,435142E+22	4,435077E+22	1,443865E+22	1,443846E+22	8,870219E+22	2,887712E+22	1,175793E+23
-1220	4,435000E+22	4,435232E+22	1,443876E+22	1,443819E+22	8,870232E+22	2,887695E+22	1,175793E+23
-1219	4,435292E+22	4,435186E+22	1,443740E+22	1,443834E+22	8,870478E+22	2,887574E+22	1,175805E+23
-1218	4,435173E+22	4,435185E+22	1,443797E+22	1,443709E+22	8,870358E+22	2,887506E+22	1,175786E+23
-1217	4,435211E+22	4,435317E+22	1,443775E+22	1,443751E+22	8,870529E+22	2,887526E+22	1,175806E+23
-1216	4,435403E+22	4,435230E+22	1,443686E+22	1,443757E+22	8,870633E+22	2,887443E+22	1,175808E+23
-1215	4,435134E+22	4,435284E+22	1,443775E+22	1,443705E+22	8,870419E+22	2,887480E+22	1,175790E+23
-1214	4,435281E+22	4,435300E+22	1,443740E+22	1,443809E+22	8,870581E+22	2,887549E+22	1,175813E+23
-1213	4,435318E+22	4,435164E+22	1,443760E+22	1,443781E+22	8,870483E+22	2,887541E+22	1,175802E+23
-1212	4,435077E+22	4,435221E+22	1,443880E+22	1,443794E+22	8,870298E+22	2,887675E+22	1,175797E+23
-1211	4,435250E+22	4,435146E+22	1,443834E+22	1,443920E+22	8,870396E+22	2,887754E+22	1,175815E+23
-1210	4,435053E+22	4,435032E+22	1,443944E+22	1,443902E+22	8,870085E+22	2,887847E+22	1,175793E+23
-1209	4,434887E+22	4,435095E+22	1,444019E+22	1,443989E+22	8,869982E+22	2,888008E+22	1,175799E+23
-1208	4,435059E+22	4,434934E+22	1,443961E+22	1,444070E+22	8,869993E+22	2,888032E+22	1,175802E+23
-1207	4,434810E+22	4,434874E+22	1,444076E+22	1,444007E+22	8,869684E+22	2,888083E+22	1,175777E+23
-1206	4,434913E+22	4,434921E+22	1,444064E+22	1,444079E+22	8,869834E+22	2,888143E+22	1,175798E+23
-1205	4,435041E+22	4,434834E+22	1,444016E+22	1,444052E+22	8,869876E+22	2,888069E+22	1,175794E+23
-1204	4,434795E+22	4,434955E+22	1,444073E+22	1,443986E+22	8,869750E+22	2,888060E+22	1,175781E+23
-1203	4,435002E+22	4,435001E+22	1,443961E+22	1,444046E+22	8,870003E+22	2,888008E+22	1,175801E+23
-1202	4,434978E+22	4,434943E+22	1,443960E+22	1,443936E+22	8,869921E+22	2,887896E+22	1,175782E+23
-1201	4,434882E+22	4,435092E+22	1,443979E+22	1,443890E+22	8,869974E+22	2,887869E+22	1,175784E+23
-1200	4,435181E+22	4,435058E+22	1,443847E+22	1,443921E+22	8,870239E+22	2,887768E+22	1,175801E+23
-1199	4,435031E+22	4,435040E+22	1,443888E+22	1,443812E+22	8,870071E+22	2,887700E+22	1,175777E+23
-1198	4,435071E+22	4,435173E+22	1,443872E+22	1,443861E+22	8,870243E+22	2,887733E+22	1,175798E+23
-1197	4,435244E+22	4,435105E+22	1,443789E+22	1,443874E+22	8,870349E+22	2,887663E+22	1,175801E+23
-1196	4,435005E+22	4,435135E+22	1,443875E+22	1,443814E+22	8,870140E+22	2,887689E+22	1,175783E+23
-1195	4,435158E+22	4,435153E+22	1,443848E+22	1,443910E+22	8,870311E+22	2,887758E+22	1,175807E+23
-1194	4,435157E+22	4,435004E+22	1,443891E+22	1,443895E+22	8,870162E+22	2,887786E+22	1,175795E+23
-1193	4,434904E+22	4,435077E+22	1,444017E+22	1,443916E+22	8,869981E+22	2,887932E+22	1,175791E+23
-1192	4,435049E+22	4,435007E+22	1,443966E+22	1,444065E+22	8,870057E+22	2,888031E+22	1,175809E+23
-1191	4,434839E+22	4,434834E+22	1,444061E+22	1,444047E+22	8,869673E+22	2,888108E+22	1,175778E+23
-1190	4,434736E+22	4,434880E+22	1,444141E+22	1,444112E+22	8,869616E+22	2,888253E+22	1,175787E+23
-1189	4,434932E+22	4,434755E+22	1,444082E+22	1,444179E+22	8,869687E+22	2,888261E+22	1,175795E+23
-1188	4,434714E+22	4,434716E+22	1,444178E+22	1,444105E+22	8,869430E+22	2,888283E+22	1,175771E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1187	4,434797E+22	4,434816E+22	1,444155E+22	1,444175E+22	8,869613E+22	2,888329E+22	1,175794E+23
-1186	4,434861E+22	4,434734E+22	1,444116E+22	1,444153E+22	8,869595E+22	2,888269E+22	1,175786E+23
-1185	4,434627E+22	4,434856E+22	1,444177E+22	1,444075E+22	8,869483E+22	2,888253E+22	1,175774E+23
-1184	4,434851E+22	4,434886E+22	1,444066E+22	1,444137E+22	8,869736E+22	2,888203E+22	1,175794E+23
-1183	4,434829E+22	4,434768E+22	1,444056E+22	1,444028E+22	8,869597E+22	2,888084E+22	1,175768E+23
-1182	4,434781E+22	4,434914E+22	1,444079E+22	1,443984E+22	8,869695E+22	2,888063E+22	1,175776E+23
-1181	4,435052E+22	4,434925E+22	1,443942E+22	1,444030E+22	8,869978E+22	2,887972E+22	1,175795E+23
-1180	4,434907E+22	4,434908E+22	1,443962E+22	1,443927E+22	8,869815E+22	2,887889E+22	1,175770E+23
-1179	4,434944E+22	4,435048E+22	1,443950E+22	1,443964E+22	8,869992E+22	2,887913E+22	1,175791E+23
-1178	4,435092E+22	4,434966E+22	1,443896E+22	1,443972E+22	8,870057E+22	2,887868E+22	1,175793E+23
-1177	4,434879E+22	4,434998E+22	1,444002E+22	1,443903E+22	8,869878E+22	2,887905E+22	1,175778E+23
-1176	4,435007E+22	4,435024E+22	1,443984E+22	1,444020E+22	8,870032E+22	2,888005E+22	1,175804E+23
-1175	4,434956E+22	4,434838E+22	1,444018E+22	1,444029E+22	8,869793E+22	2,888047E+22	1,175784E+23
-1174	4,434717E+22	4,434888E+22	1,444145E+22	1,444056E+22	8,869605E+22	2,888201E+22	1,175781E+23
-1173	4,434857E+22	4,434830E+22	1,444093E+22	1,444205E+22	8,869687E+22	2,888297E+22	1,175798E+23
-1172	4,434705E+22	4,434639E+22	1,444170E+22	1,444171E+22	8,869344E+22	2,888341E+22	1,175769E+23
-1171	4,434628E+22	4,434708E+22	1,444246E+22	1,444214E+22	8,869336E+22	2,888460E+22	1,175780E+23
-1170	4,434794E+22	4,434613E+22	1,444204E+22	1,444284E+22	8,869407E+22	2,888488E+22	1,175789E+23
-1169	4,434565E+22	4,434611E+22	1,444296E+22	1,444207E+22	8,869177E+22	2,888502E+22	1,175768E+23
-1168	4,434608E+22	4,434724E+22	1,444267E+22	1,444287E+22	8,869332E+22	2,888554E+22	1,175789E+23
-1167	4,434660E+22	4,434580E+22	1,444216E+22	1,444263E+22	8,869240E+22	2,888479E+22	1,175772E+23
-1166	4,434490E+22	4,434664E+22	1,444281E+22	1,444169E+22	8,869154E+22	2,888451E+22	1,175760E+23
-1165	4,434726E+22	4,434724E+22	1,444167E+22	1,444226E+22	8,869450E+22	2,888393E+22	1,175784E+23
-1164	4,434743E+22	4,434612E+22	1,444133E+22	1,444121E+22	8,869355E+22	2,888254E+22	1,175761E+23
-1163	4,434680E+22	4,434801E+22	1,444146E+22	1,444076E+22	8,869480E+22	2,888223E+22	1,175770E+23
-1162	4,434904E+22	4,434825E+22	1,444028E+22	1,444131E+22	8,869729E+22	2,888159E+22	1,175789E+23
-1161	4,434775E+22	4,434811E+22	1,444061E+22	1,444017E+22	8,869586E+22	2,888077E+22	1,175766E+23
-1160	4,434810E+22	4,434945E+22	1,444064E+22	1,444056E+22	8,869755E+22	2,888120E+22	1,175787E+23
-1159	4,434939E+22	4,434798E+22	1,444018E+22	1,444074E+22	8,869737E+22	2,888092E+22	1,175783E+23
-1158	4,434744E+22	4,434812E+22	1,444136E+22	1,444021E+22	8,869556E+22	2,888157E+22	1,175771E+23
-1157	4,434817E+22	4,434871E+22	1,444115E+22	1,444158E+22	8,869687E+22	2,888272E+22	1,175796E+23
-1156	4,434774E+22	4,434656E+22	1,444126E+22	1,444178E+22	8,869430E+22	2,888304E+22	1,175773E+23
-1155	4,434562E+22	4,434702E+22	1,444247E+22	1,444185E+22	8,869265E+22	2,888432E+22	1,175770E+23
-1154	4,434701E+22	4,434642E+22	1,444214E+22	1,444320E+22	8,869343E+22	2,888534E+22	1,175788E+23
-1153	4,434585E+22	4,434487E+22	1,444296E+22	1,444268E+22	8,869072E+22	2,888564E+22	1,175764E+23
-1152	4,434491E+22	4,434597E+22	1,444370E+22	1,444320E+22	8,869088E+22	2,888690E+22	1,175778E+23
-1151	4,434596E+22	4,434477E+22	1,444320E+22	1,444403E+22	8,869073E+22	2,888722E+22	1,175780E+23
-1150	4,434387E+22	4,434462E+22	1,444412E+22	1,444326E+22	8,868849E+22	2,888738E+22	1,175759E+23
-1149	4,434420E+22	4,434580E+22	1,444378E+22	1,444396E+22	8,869000E+22	2,888774E+22	1,175777E+23
-1148	4,434531E+22	4,434402E+22	1,444304E+22	1,444364E+22	8,868933E+22	2,888668E+22	1,175760E+23
-1147	4,434404E+22	4,434494E+22	1,444359E+22	1,444252E+22	8,868898E+22	2,888611E+22	1,175751E+23
-1146	4,434613E+22	4,434585E+22	1,444258E+22	1,444317E+22	8,869198E+22	2,888574E+22	1,175777E+23
-1145	4,434628E+22	4,434521E+22	1,444219E+22	1,444212E+22	8,869150E+22	2,888431E+22	1,175758E+23
-1144	4,434541E+22	4,434723E+22	1,444234E+22	1,444176E+22	8,869265E+22	2,888410E+22	1,175767E+23
-1143	4,434741E+22	4,434688E+22	1,444127E+22	1,444228E+22	8,869430E+22	2,888355E+22	1,175779E+23
-1142	4,434661E+22	4,434644E+22	1,444177E+22	1,444109E+22	8,869304E+22	2,888286E+22	1,175759E+23
-1141	4,434666E+22	4,434798E+22	1,444191E+22	1,444152E+22	8,869464E+22	2,888343E+22	1,175781E+23
-1140	4,434803E+22	4,434636E+22	1,444127E+22	1,444194E+22	8,869439E+22	2,888321E+22	1,175776E+23
-1139	4,434584E+22	4,434654E+22	1,444237E+22	1,444146E+22	8,869238E+22	2,888383E+22	1,175762E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1138	4,434617E+22	4,434714E+22	1,444233E+22	1,444293E+22	8,869331E+22	2,888526E+22	1,175786E+23
-1137	4,434611E+22	4,434500E+22	1,444245E+22	1,444299E+22	8,869111E+22	2,888543E+22	1,175765E+23
-1136	4,434413E+22	4,434552E+22	1,444370E+22	1,444301E+22	8,868965E+22	2,888671E+22	1,175764E+23
-1135	4,434544E+22	4,434458E+22	1,444345E+22	1,444436E+22	8,869002E+22	2,888781E+22	1,175778E+23
-1134	4,434449E+22	4,434312E+22	1,444430E+22	1,444390E+22	8,868762E+22	2,888820E+22	1,175758E+23
-1133	4,434297E+22	4,434470E+22	1,444497E+22	1,444446E+22	8,868767E+22	2,888943E+22	1,175771E+23
-1132	4,434419E+22	4,434317E+22	1,444420E+22	1,444530E+22	8,868737E+22	2,888950E+22	1,175769E+23
-1131	4,434240E+22	4,434287E+22	1,444502E+22	1,444428E+22	8,868527E+22	2,888930E+22	1,175746E+23
-1130	4,434277E+22	4,434412E+22	1,444481E+22	1,444485E+22	8,868689E+22	2,888966E+22	1,175766E+23
-1129	4,434430E+22	4,434267E+22	1,444400E+22	1,444440E+22	8,868697E+22	2,888841E+22	1,175754E+23
-1128	4,434297E+22	4,434402E+22	1,444447E+22	1,444340E+22	8,868700E+22	2,888787E+22	1,175749E+23
-1127	4,434460E+22	4,434469E+22	1,444346E+22	1,444416E+22	8,868929E+22	2,888762E+22	1,175769E+23
-1126	4,434500E+22	4,434399E+22	1,444315E+22	1,444312E+22	8,868899E+22	2,888628E+22	1,175753E+23
-1125	4,434394E+22	4,434612E+22	1,444339E+22	1,444268E+22	8,869006E+22	2,888607E+22	1,175761E+23
-1124	4,434623E+22	4,434534E+22	1,444223E+22	1,444323E+22	8,869157E+22	2,888546E+22	1,175770E+23
-1123	4,434558E+22	4,434483E+22	1,444277E+22	1,444203E+22	8,869040E+22	2,888481E+22	1,175752E+23
-1122	4,434505E+22	4,434648E+22	1,444308E+22	1,444268E+22	8,869153E+22	2,888575E+22	1,175773E+23
-1121	4,434624E+22	4,434508E+22	1,444238E+22	1,444320E+22	8,869132E+22	2,888558E+22	1,175769E+23
-1120	4,434407E+22	4,434517E+22	1,444345E+22	1,444280E+22	8,868924E+22	2,888625E+22	1,175755E+23
-1119	4,434432E+22	4,434511E+22	1,444353E+22	1,444419E+22	8,868943E+22	2,888772E+22	1,175771E+23
-1118	4,434486E+22	4,434298E+22	1,444376E+22	1,444414E+22	8,868784E+22	2,888790E+22	1,175757E+23
-1117	4,434270E+22	4,434393E+22	1,444506E+22	1,444412E+22	8,868662E+22	2,888918E+22	1,175758E+23
-1116	4,434396E+22	4,434300E+22	1,444462E+22	1,444561E+22	8,868696E+22	2,889023E+22	1,175772E+23
-1115	4,434286E+22	4,434170E+22	1,444537E+22	1,444511E+22	8,868456E+22	2,889047E+22	1,175750E+23
-1114	4,434096E+22	4,434328E+22	1,444615E+22	1,444565E+22	8,868424E+22	2,889180E+22	1,175760E+23
-1113	4,434256E+22	4,434179E+22	1,444531E+22	1,444630E+22	8,868435E+22	2,889161E+22	1,175760E+23
-1112	4,434109E+22	4,434147E+22	1,444606E+22	1,444522E+22	8,868256E+22	2,889127E+22	1,175738E+23
-1111	4,434140E+22	4,434236E+22	1,444589E+22	1,444581E+22	8,868376E+22	2,889170E+22	1,175755E+23
-1110	4,434318E+22	4,434123E+22	1,444504E+22	1,444544E+22	8,868441E+22	2,889048E+22	1,175749E+23
-1109	4,434141E+22	4,434305E+22	1,444542E+22	1,444447E+22	8,868446E+22	2,888989E+22	1,175743E+23
-1108	4,434328E+22	4,434338E+22	1,444425E+22	1,444523E+22	8,868666E+22	2,888949E+22	1,175761E+23
-1107	4,434393E+22	4,434251E+22	1,444396E+22	1,444394E+22	8,868644E+22	2,888790E+22	1,175743E+23
-1106	4,434266E+22	4,434472E+22	1,444443E+22	1,444348E+22	8,868738E+22	2,888791E+22	1,175753E+23
-1105	4,434505E+22	4,434413E+22	1,444328E+22	1,444405E+22	8,868918E+22	2,888733E+22	1,175765E+23
-1104	4,434407E+22	4,434376E+22	1,444380E+22	1,444313E+22	8,868782E+22	2,888693E+22	1,175748E+23
-1103	4,434304E+22	4,434492E+22	1,444421E+22	1,444396E+22	8,868797E+22	2,888816E+22	1,175761E+23
-1102	4,434459E+22	4,434334E+22	1,444359E+22	1,444451E+22	8,868793E+22	2,888809E+22	1,175760E+23
-1101	4,434241E+22	4,434354E+22	1,444469E+22	1,444400E+22	8,868595E+22	2,888869E+22	1,175746E+23
-1100	4,434312E+22	4,434312E+22	1,444468E+22	1,444538E+22	8,868624E+22	2,889006E+22	1,175763E+23
-1099	4,434376E+22	4,434117E+22	1,444493E+22	1,444525E+22	8,868493E+22	2,889018E+22	1,175751E+23
-1098	4,434098E+22	4,434254E+22	1,444636E+22	1,444537E+22	8,868352E+22	2,889173E+22	1,175753E+23
-1097	4,434204E+22	4,434184E+22	1,444584E+22	1,444685E+22	8,868388E+22	2,889269E+22	1,175766E+23
-1096	4,434096E+22	4,434043E+22	1,444653E+22	1,444636E+22	8,868139E+22	2,889289E+22	1,175743E+23
-1095	4,433903E+22	4,434132E+22	1,444738E+22	1,444678E+22	8,868035E+22	2,889415E+22	1,175745E+23
-1094	4,434123E+22	4,433989E+22	1,444652E+22	1,444732E+22	8,868112E+22	2,889384E+22	1,175750E+23
-1093	4,433977E+22	4,434002E+22	1,444716E+22	1,444620E+22	8,867979E+22	2,889336E+22	1,175731E+23
-1092	4,434018E+22	4,434088E+22	1,444673E+22	1,444690E+22	8,868106E+22	2,889363E+22	1,175747E+23
-1091	4,434199E+22	4,434004E+22	1,444579E+22	1,444642E+22	8,868203E+22	2,889221E+22	1,175742E+23
-1090	4,433999E+22	4,434195E+22	1,444630E+22	1,444539E+22	8,868194E+22	2,889169E+22	1,175736E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1089	4,434203E+22	4,434234E+22	1,444516E+22	1,444596E+22	8,868437E+22	2,889112E+22	1,175755E+23
-1088	4,434284E+22	4,434144E+22	1,444490E+22	1,444474E+22	8,868429E+22	2,888964E+22	1,175739E+23
-1087	4,434118E+22	4,434308E+22	1,444556E+22	1,444444E+22	8,868426E+22	2,889000E+22	1,175743E+23
-1086	4,434351E+22	4,434269E+22	1,444444E+22	1,444522E+22	8,868619E+22	2,888966E+22	1,175758E+23
-1085	4,434219E+22	4,434242E+22	1,444492E+22	1,444441E+22	8,868461E+22	2,888934E+22	1,175739E+23
-1084	4,434148E+22	4,434299E+22	1,444522E+22	1,444528E+22	8,868447E+22	2,889050E+22	1,175750E+23
-1083	4,434340E+22	4,434138E+22	1,444464E+22	1,444560E+22	8,868478E+22	2,889023E+22	1,175750E+23
-1082	4,434110E+22	4,434185E+22	1,444593E+22	1,444506E+22	8,868295E+22	2,889099E+22	1,175739E+23
-1081	4,434178E+22	4,434185E+22	1,444593E+22	1,444642E+22	8,868362E+22	2,889236E+22	1,175760E+23
-1080	4,434207E+22	4,434017E+22	1,444615E+22	1,444649E+22	8,868224E+22	2,889265E+22	1,175749E+23
-1079	4,433873E+22	4,434100E+22	1,444772E+22	1,444674E+22	8,867973E+22	2,889446E+22	1,175742E+23
-1078	4,434005E+22	4,434018E+22	1,444721E+22	1,444816E+22	8,868023E+22	2,889536E+22	1,175756E+23
-1077	4,433907E+22	4,433875E+22	1,444784E+22	1,444755E+22	8,867781E+22	2,889539E+22	1,175732E+23
-1076	4,433776E+22	4,433919E+22	1,444846E+22	1,444794E+22	8,867695E+22	2,889640E+22	1,175733E+23
-1075	4,434022E+22	4,433801E+22	1,444747E+22	1,444834E+22	8,867824E+22	2,889581E+22	1,175740E+23
-1074	4,433838E+22	4,433877E+22	1,444808E+22	1,444729E+22	8,867715E+22	2,889536E+22	1,175725E+23
-1073	4,433885E+22	4,433996E+22	1,444753E+22	1,444785E+22	8,867881E+22	2,889538E+22	1,175742E+23
-1072	4,434069E+22	4,433914E+22	1,444659E+22	1,444728E+22	8,867983E+22	2,889387E+22	1,175737E+23
-1071	4,433856E+22	4,434049E+22	1,444732E+22	1,444618E+22	8,867905E+22	2,889350E+22	1,175725E+23
-1070	4,434085E+22	4,434093E+22	1,444628E+22	1,444672E+22	8,868179E+22	2,889300E+22	1,175748E+23
-1069	4,434137E+22	4,434027E+22	1,444602E+22	1,444567E+22	8,868163E+22	2,889169E+22	1,175733E+23
-1068	4,433969E+22	4,434150E+22	1,444650E+22	1,444565E+22	8,868119E+22	2,889215E+22	1,175733E+23
-1067	4,434202E+22	4,434109E+22	1,444536E+22	1,444640E+22	8,868311E+22	2,889175E+22	1,175749E+23
-1066	4,434063E+22	4,434092E+22	1,444596E+22	1,444560E+22	8,868155E+22	2,889156E+22	1,175731E+23
-1065	4,434025E+22	4,434152E+22	1,444627E+22	1,444628E+22	8,868178E+22	2,889256E+22	1,175743E+23
-1064	4,434227E+22	4,434006E+22	1,444578E+22	1,444665E+22	8,868234E+22	2,889243E+22	1,175748E+23
-1063	4,433947E+22	4,434019E+22	1,444731E+22	1,444629E+22	8,867966E+22	2,889360E+22	1,175733E+23
-1062	4,433985E+22	4,434048E+22	1,444735E+22	1,444778E+22	8,868033E+22	2,889513E+22	1,175755E+23
-1061	4,433985E+22	4,433881E+22	1,444754E+22	1,444794E+22	8,867866E+22	2,889547E+22	1,175741E+23
-1060	4,433686E+22	4,433880E+22	1,444892E+22	1,444814E+22	8,867565E+22	2,889706E+22	1,175727E+23
-1059	4,433860E+22	4,433798E+22	1,444834E+22	1,444927E+22	8,867658E+22	2,889761E+22	1,175742E+23
-1058	4,433775E+22	4,433687E+22	1,444895E+22	1,444860E+22	8,867463E+22	2,889755E+22	1,175722E+23
-1057	4,433657E+22	4,433778E+22	1,444942E+22	1,444890E+22	8,867435E+22	2,889832E+22	1,175727E+23
-1056	4,433892E+22	4,433716E+22	1,444833E+22	1,444935E+22	8,867608E+22	2,889769E+22	1,175738E+23
-1055	4,433673E+22	4,433754E+22	1,444908E+22	1,444830E+22	8,867427E+22	2,889737E+22	1,175716E+23
-1054	4,433739E+22	4,433885E+22	1,444859E+22	1,444871E+22	8,867624E+22	2,889730E+22	1,175735E+23
-1053	4,433926E+22	4,433803E+22	1,444768E+22	1,444808E+22	8,867729E+22	2,889576E+22	1,175730E+23
-1052	4,433743E+22	4,433871E+22	1,444831E+22	1,444711E+22	8,867613E+22	2,889541E+22	1,175715E+23
-1051	4,433963E+22	4,433934E+22	1,444723E+22	1,444768E+22	8,867897E+22	2,889491E+22	1,175739E+23
-1050	4,433972E+22	4,433899E+22	1,444697E+22	1,444688E+22	8,867871E+22	2,889385E+22	1,175726E+23
-1049	4,433821E+22	4,434020E+22	1,444736E+22	1,444681E+22	8,867841E+22	2,889417E+22	1,175726E+23
-1048	4,434074E+22	4,433976E+22	1,444627E+22	1,444747E+22	8,868050E+22	2,889375E+22	1,175742E+23
-1047	4,433928E+22	4,433914E+22	1,444713E+22	1,444664E+22	8,867842E+22	2,889376E+22	1,175722E+23
-1046	4,433902E+22	4,434005E+22	1,444757E+22	1,444729E+22	8,867907E+22	2,889486E+22	1,175739E+23
-1045	4,434056E+22	4,433890E+22	1,444715E+22	1,444782E+22	8,867946E+22	2,889498E+22	1,175744E+23
-1044	4,433765E+22	4,433851E+22	1,444857E+22	1,444773E+22	8,867616E+22	2,889630E+22	1,175725E+23
-1043	4,433795E+22	4,433866E+22	1,444859E+22	1,444910E+22	8,867660E+22	2,889769E+22	1,175743E+23
-1042	4,433789E+22	4,433701E+22	1,444880E+22	1,444925E+22	8,867490E+22	2,889805E+22	1,175730E+23
-1041	4,433545E+22	4,433694E+22	1,445004E+22	1,444924E+22	8,867239E+22	2,889928E+22	1,175717E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-1040	4,433742E+22	4,433633E+22	1,444941E+22	1,445031E+22	8,867375E+22	2,889972E+22	1,175735E+23
-1039	4,433626E+22	4,433523E+22	1,445011E+22	1,444974E+22	8,867149E+22	2,889985E+22	1,175713E+23
-1038	4,433499E+22	4,433667E+22	1,445051E+22	1,445001E+22	8,867166E+22	2,890053E+22	1,175722E+23
-1037	4,433715E+22	4,433620E+22	1,444943E+22	1,445043E+22	8,867335E+22	2,889986E+22	1,175732E+23
-1036	4,433536E+22	4,433587E+22	1,445004E+22	1,444932E+22	8,867123E+22	2,889936E+22	1,175706E+23
-1035	4,433624E+22	4,433717E+22	1,444955E+22	1,444946E+22	8,867342E+22	2,889902E+22	1,175724E+23
-1034	4,433800E+22	4,433667E+22	1,444866E+22	1,444894E+22	8,867467E+22	2,889760E+22	1,175723E+23
-1033	4,433622E+22	4,433748E+22	1,444913E+22	1,444804E+22	8,867370E+22	2,889717E+22	1,175709E+23
-1032	4,433823E+22	4,433836E+22	1,444802E+22	1,444874E+22	8,867659E+22	2,889677E+22	1,175734E+23
-1031	4,433810E+22	4,433754E+22	1,444796E+22	1,444802E+22	8,867564E+22	2,889598E+22	1,175716E+23
-1030	4,433683E+22	4,433886E+22	1,444843E+22	1,444782E+22	8,867569E+22	2,889626E+22	1,175719E+23
-1029	4,433946E+22	4,433846E+22	1,444748E+22	1,444846E+22	8,867791E+22	2,889594E+22	1,175739E+23
-1028	4,433816E+22	4,433720E+22	1,444830E+22	1,444777E+22	8,867536E+22	2,889608E+22	1,175714E+23
-1027	4,433755E+22	4,433840E+22	1,444879E+22	1,444844E+22	8,867595E+22	2,889723E+22	1,175732E+23
-1026	4,433858E+22	4,433751E+22	1,444839E+22	1,444921E+22	8,867610E+22	2,889760E+22	1,175737E+23
-1025	4,433577E+22	4,433683E+22	1,444973E+22	1,444907E+22	8,867260E+22	2,889880E+22	1,175714E+23
-1024	4,433625E+22	4,433696E+22	1,444975E+22	1,445030E+22	8,867321E+22	2,890004E+22	1,175733E+23
-1023	4,433624E+22	4,433489E+22	1,445012E+22	1,445041E+22	8,867113E+22	2,890053E+22	1,175717E+23
-1022	4,433402E+22	4,433528E+22	1,445131E+22	1,445032E+22	8,866930E+22	2,890163E+22	1,175709E+23
-1021	4,433578E+22	4,433513E+22	1,445065E+22	1,445148E+22	8,867091E+22	2,890213E+22	1,175730E+23
-1020	4,433466E+22	4,433367E+22	1,445115E+22	1,445102E+22	8,866833E+22	2,890218E+22	1,175705E+23
-1019	4,433347E+22	4,433523E+22	1,445152E+22	1,445106E+22	8,866870E+22	2,890258E+22	1,175713E+23
-1018	4,433561E+22	4,433492E+22	1,445045E+22	1,445140E+22	8,867053E+22	2,890185E+22	1,175724E+23
-1017	4,433428E+22	4,433444E+22	1,445095E+22	1,445014E+22	8,866872E+22	2,890109E+22	1,175698E+23
-1016	4,433517E+22	4,433591E+22	1,445043E+22	1,445028E+22	8,867108E+22	2,890071E+22	1,175718E+23
-1015	4,433646E+22	4,433526E+22	1,444966E+22	1,444999E+22	8,867173E+22	2,889965E+22	1,175714E+23
-1014	4,433469E+22	4,433637E+22	1,445006E+22	1,444913E+22	8,867106E+22	2,889920E+22	1,175703E+23
-1013	4,433666E+22	4,433717E+22	1,444904E+22	1,444981E+22	8,867383E+22	2,889885E+22	1,175727E+23
-1012	4,433697E+22	4,433569E+22	1,444892E+22	1,444909E+22	8,867265E+22	2,889800E+22	1,175707E+23
-1011	4,433590E+22	4,433708E+22	1,444946E+22	1,444866E+22	8,867298E+22	2,889812E+22	1,175711E+23
-1010	4,433812E+22	4,433710E+22	1,444863E+22	1,444945E+22	8,867521E+22	2,889809E+22	1,175733E+23
-1009	4,433672E+22	4,433595E+22	1,444937E+22	1,444893E+22	8,867268E+22	2,889830E+22	1,175710E+23
-1008	4,433574E+22	4,433721E+22	1,444990E+22	1,444967E+22	8,867294E+22	2,889958E+22	1,175725E+23
-1007	4,433645E+22	4,433581E+22	1,444973E+22	1,445057E+22	8,867226E+22	2,890030E+22	1,175726E+23
-1006	4,433395E+22	4,433512E+22	1,445107E+22	1,445029E+22	8,866907E+22	2,890136E+22	1,175704E+23
-1005	4,433460E+22	4,433519E+22	1,445114E+22	1,445149E+22	8,866979E+22	2,890263E+22	1,175724E+23
-1004	4,433486E+22	4,433271E+22	1,445136E+22	1,445174E+22	8,866757E+22	2,890310E+22	1,175707E+23
-1003	4,433255E+22	4,433355E+22	1,445244E+22	1,445157E+22	8,866609E+22	2,890401E+22	1,175701E+23
-1002	4,433400E+22	4,433387E+22	1,445175E+22	1,445279E+22	8,866787E+22	2,890453E+22	1,175724E+23
-1001	4,433324E+22	4,433227E+22	1,445209E+22	1,445213E+22	8,866550E+22	2,890422E+22	1,175697E+23
-1000	4,433223E+22	4,433391E+22	1,445246E+22	1,445189E+22	8,866614E+22	2,890435E+22	1,175705E+23
-999	4,433426E+22	4,433335E+22	1,445156E+22	1,445222E+22	8,866760E+22	2,890378E+22	1,175714E+23
-998	4,433293E+22	4,433324E+22	1,445199E+22	1,445097E+22	8,866616E+22	2,890297E+22	1,175691E+23
-997	4,433359E+22	4,433493E+22	1,445148E+22	1,445128E+22	8,866852E+22	2,890276E+22	1,175713E+23
-996	4,433497E+22	4,433366E+22	1,445055E+22	1,445116E+22	8,866863E+22	2,890170E+22	1,175703E+23
-995	4,433340E+22	4,433481E+22	1,445094E+22	1,445012E+22	8,866821E+22	2,890105E+22	1,175693E+23
-994	4,433544E+22	4,433581E+22	1,445000E+22	1,445075E+22	8,867125E+22	2,890076E+22	1,175720E+23
-993	4,433609E+22	4,433418E+22	1,444983E+22	1,444997E+22	8,867027E+22	2,889980E+22	1,175701E+23
-992	4,433480E+22	4,433587E+22	1,445047E+22	1,444958E+22	8,867067E+22	2,890005E+22	1,175707E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-991	4,433627E+22	4,433577E+22	1,444988E+22	1,445068E+22	8,867204E+22	2,890056E+22	1,175726E+23
-990	4,433465E+22	4,433474E+22	1,445065E+22	1,445025E+22	8,866939E+22	2,890090E+22	1,175703E+23
-989	4,433366E+22	4,433567E+22	1,445128E+22	1,445102E+22	8,866933E+22	2,890230E+22	1,175716E+23
-988	4,433476E+22	4,433345E+22	1,445102E+22	1,445192E+22	8,866821E+22	2,890294E+22	1,175711E+23
-987	4,433264E+22	4,433288E+22	1,445230E+22	1,445145E+22	8,866552E+22	2,890375E+22	1,175693E+23
-986	4,433310E+22	4,433348E+22	1,445237E+22	1,445273E+22	8,866659E+22	2,890510E+22	1,175717E+23
-985	4,433346E+22	4,433128E+22	1,445239E+22	1,445301E+22	8,866474E+22	2,890540E+22	1,175701E+23
-984	4,433104E+22	4,433240E+22	1,445343E+22	1,445271E+22	8,866344E+22	2,890615E+22	1,175696E+23
-983	4,433220E+22	4,433249E+22	1,445297E+22	1,445389E+22	8,866470E+22	2,890685E+22	1,175715E+23
-982	4,433172E+22	4,433107E+22	1,445327E+22	1,445303E+22	8,866279E+22	2,890630E+22	1,175691E+23
-981	4,433079E+22	4,433254E+22	1,445367E+22	1,445275E+22	8,866334E+22	2,890642E+22	1,175698E+23
-980	4,433285E+22	4,433154E+22	1,445260E+22	1,445328E+22	8,866439E+22	2,890588E+22	1,175703E+23
-979	4,433151E+22	4,433168E+22	1,445288E+22	1,445204E+22	8,866319E+22	2,890491E+22	1,175681E+23
-978	4,433195E+22	4,433361E+22	1,445235E+22	1,445242E+22	8,866556E+22	2,890477E+22	1,175703E+23
-977	4,433386E+22	4,433221E+22	1,445129E+22	1,445216E+22	8,866607E+22	2,890345E+22	1,175695E+23
-976	4,433254E+22	4,433348E+22	1,445172E+22	1,445087E+22	8,866602E+22	2,890259E+22	1,175686E+23
-975	4,433427E+22	4,433442E+22	1,445109E+22	1,445158E+22	8,866868E+22	2,890267E+22	1,175714E+23
-974	4,433470E+22	4,433324E+22	1,445096E+22	1,445089E+22	8,866793E+22	2,890184E+22	1,175698E+23
-973	4,433295E+22	4,433490E+22	1,445174E+22	1,445075E+22	8,866784E+22	2,890249E+22	1,175703E+23
-972	4,433426E+22	4,433403E+22	1,445111E+22	1,445208E+22	8,866830E+22	2,890319E+22	1,175715E+23
-971	4,433288E+22	4,433278E+22	1,445188E+22	1,445155E+22	8,866566E+22	2,890343E+22	1,175691E+23
-970	4,433201E+22	4,433373E+22	1,445257E+22	1,445229E+22	8,866573E+22	2,890486E+22	1,175706E+23
-969	4,433361E+22	4,433138E+22	1,445215E+22	1,445315E+22	8,866499E+22	2,890530E+22	1,175703E+23
-968	4,433143E+22	4,433127E+22	1,445338E+22	1,445262E+22	8,866270E+22	2,890600E+22	1,175687E+23
-967	4,433132E+22	4,433206E+22	1,445362E+22	1,445406E+22	8,866338E+22	2,890768E+22	1,175711E+23
-966	4,433155E+22	4,433020E+22	1,445362E+22	1,445422E+22	8,866175E+22	2,890785E+22	1,175696E+23
-965	4,432926E+22	4,433115E+22	1,445477E+22	1,445382E+22	8,866041E+22	2,890859E+22	1,175690E+23
-964	4,433064E+22	4,433050E+22	1,445420E+22	1,445492E+22	8,866113E+22	2,890912E+22	1,175703E+23
-963	4,433034E+22	4,432922E+22	1,445440E+22	1,445395E+22	8,865956E+22	2,890835E+22	1,175679E+23
-962	4,432921E+22	4,433112E+22	1,445470E+22	1,445381E+22	8,866033E+22	2,890851E+22	1,175688E+23
-961	4,433143E+22	4,433015E+22	1,445337E+22	1,445440E+22	8,866158E+22	2,890776E+22	1,175693E+23
-960	4,433025E+22	4,433051E+22	1,445357E+22	1,445301E+22	8,866076E+22	2,890658E+22	1,175673E+23
-959	4,433061E+22	4,433229E+22	1,445328E+22	1,445336E+22	8,866289E+22	2,890664E+22	1,175695E+23
-958	4,433273E+22	4,433119E+22	1,445226E+22	1,445292E+22	8,866392E+22	2,890518E+22	1,175691E+23
-957	4,433146E+22	4,433238E+22	1,445286E+22	1,445170E+22	8,866384E+22	2,890456E+22	1,175684E+23
-956	4,433281E+22	4,433286E+22	1,445222E+22	1,445267E+22	8,866566E+22	2,890488E+22	1,175705E+23
-955	4,433300E+22	4,433180E+22	1,445207E+22	1,445212E+22	8,866480E+22	2,890418E+22	1,175690E+23
-954	4,433098E+22	4,433336E+22	1,445292E+22	1,445210E+22	8,866434E+22	2,890502E+22	1,175694E+23
-953	4,433274E+22	4,433211E+22	1,445218E+22	1,445335E+22	8,866484E+22	2,890553E+22	1,175704E+23
-952	4,433171E+22	4,433089E+22	1,445293E+22	1,445262E+22	8,866260E+22	2,890556E+22	1,175682E+23
-951	4,433057E+22	4,433187E+22	1,445386E+22	1,445345E+22	8,866244E+22	2,890731E+22	1,175698E+23
-950	4,433203E+22	4,433019E+22	1,445342E+22	1,445432E+22	8,866222E+22	2,890774E+22	1,175700E+23
-949	4,432962E+22	4,433015E+22	1,445471E+22	1,445391E+22	8,865977E+22	2,890862E+22	1,175684E+23
-948	4,432932E+22	4,433038E+22	1,445493E+22	1,445540E+22	8,865970E+22	2,891033E+22	1,175700E+23
-947	4,432984E+22	4,432849E+22	1,445488E+22	1,445538E+22	8,865833E+22	2,891027E+22	1,175686E+23
-946	4,432757E+22	4,432941E+22	1,445602E+22	1,445492E+22	8,865697E+22	2,891094E+22	1,175679E+23
-945	4,432934E+22	4,432865E+22	1,445522E+22	1,445598E+22	8,865799E+22	2,891120E+22	1,175692E+23
-944	4,432905E+22	4,432773E+22	1,445525E+22	1,445498E+22	8,865678E+22	2,891023E+22	1,175670E+23
-943	4,432752E+22	4,432973E+22	1,445564E+22	1,445498E+22	8,865725E+22	2,891062E+22	1,175679E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-942	4,432990E+22	4,432912E+22	1,445425E+22	1,445539E+22	8,865903E+22	2,890964E+22	1,175687E+23
-941	4,432910E+22	4,432935E+22	1,445454E+22	1,445388E+22	8,865844E+22	2,890842E+22	1,175669E+23
-940	4,432956E+22	4,433062E+22	1,445427E+22	1,445418E+22	8,866019E+22	2,890844E+22	1,175686E+23
-939	4,433170E+22	4,432979E+22	1,445328E+22	1,445371E+22	8,866148E+22	2,890699E+22	1,175685E+23
-938	4,432995E+22	4,433125E+22	1,445395E+22	1,445275E+22	8,866120E+22	2,890669E+22	1,175679E+23
-937	4,433120E+22	4,433151E+22	1,445318E+22	1,445385E+22	8,866271E+22	2,890703E+22	1,175697E+23
-936	4,433142E+22	4,433039E+22	1,445304E+22	1,445327E+22	8,866181E+22	2,890631E+22	1,175681E+23
-935	4,432931E+22	4,433162E+22	1,445413E+22	1,445332E+22	8,866093E+22	2,890745E+22	1,175684E+23
-934	4,433125E+22	4,433054E+22	1,445342E+22	1,445442E+22	8,866179E+22	2,890784E+22	1,175696E+23
-933	4,433039E+22	4,432934E+22	1,445427E+22	1,445380E+22	8,865972E+22	2,890808E+22	1,175678E+23
-932	4,432889E+22	4,433000E+22	1,445514E+22	1,445482E+22	8,865889E+22	2,890996E+22	1,175689E+23
-931	4,433011E+22	4,432862E+22	1,445469E+22	1,445572E+22	8,865873E+22	2,891041E+22	1,175691E+23
-930	4,432762E+22	4,432860E+22	1,445603E+22	1,445531E+22	8,865621E+22	2,891134E+22	1,175676E+23
-929	4,432773E+22	4,432846E+22	1,445609E+22	1,445660E+22	8,865619E+22	2,891269E+22	1,175689E+23
-928	4,432855E+22	4,432671E+22	1,445595E+22	1,445635E+22	8,865526E+22	2,891230E+22	1,175676E+23
-927	4,432604E+22	4,432769E+22	1,445719E+22	1,445598E+22	8,865373E+22	2,891316E+22	1,175669E+23
-926	4,432765E+22	4,432754E+22	1,445625E+22	1,445699E+22	8,865519E+22	2,891324E+22	1,175684E+23
-925	4,432749E+22	4,432667E+22	1,445626E+22	1,445608E+22	8,865417E+22	2,891234E+22	1,175665E+23
-924	4,432601E+22	4,432814E+22	1,445659E+22	1,445605E+22	8,865415E+22	2,891265E+22	1,175668E+23
-923	4,432876E+22	4,432770E+22	1,445522E+22	1,445626E+22	8,865647E+22	2,891148E+22	1,175679E+23
-922	4,432805E+22	4,432800E+22	1,445556E+22	1,445471E+22	8,865605E+22	2,891027E+22	1,175663E+23
-921	4,432862E+22	4,432919E+22	1,445516E+22	1,445504E+22	8,865781E+22	2,891020E+22	1,175680E+23
-920	4,433046E+22	4,432868E+22	1,445413E+22	1,445466E+22	8,865914E+22	2,890878E+22	1,175679E+23
-919	4,432810E+22	4,432998E+22	1,445500E+22	1,445397E+22	8,865807E+22	2,890898E+22	1,175671E+23
-918	4,432935E+22	4,433034E+22	1,445428E+22	1,445496E+22	8,865969E+22	2,890925E+22	1,175689E+23
-917	4,432998E+22	4,432880E+22	1,445425E+22	1,445439E+22	8,865879E+22	2,890863E+22	1,175674E+23
-916	4,432789E+22	4,432946E+22	1,445535E+22	1,445447E+22	8,865735E+22	2,890981E+22	1,175672E+23
-915	4,432991E+22	4,432875E+22	1,445464E+22	1,445558E+22	8,865866E+22	2,891023E+22	1,175689E+23
-914	4,432866E+22	4,432785E+22	1,445552E+22	1,445514E+22	8,865651E+22	2,891066E+22	1,175672E+23
-913	4,432717E+22	4,432843E+22	1,445625E+22	1,445619E+22	8,865561E+22	2,891245E+22	1,175681E+23
-912	4,432847E+22	4,432711E+22	1,445581E+22	1,445693E+22	8,865558E+22	2,891274E+22	1,175683E+23
-911	4,432585E+22	4,432687E+22	1,445736E+22	1,445653E+22	8,865272E+22	2,891389E+22	1,175666E+23
-910	4,432609E+22	4,432697E+22	1,445738E+22	1,445759E+22	8,865306E+22	2,891497E+22	1,175680E+23
-909	4,432709E+22	4,432518E+22	1,445723E+22	1,445746E+22	8,865227E+22	2,891469E+22	1,175670E+23
-908	4,432428E+22	4,432588E+22	1,445830E+22	1,445724E+22	8,865016E+22	2,891554E+22	1,175657E+23
-907	4,432597E+22	4,432602E+22	1,445727E+22	1,445819E+22	8,865198E+22	2,891546E+22	1,175674E+23
-906	4,432601E+22	4,432524E+22	1,445727E+22	1,445718E+22	8,865125E+22	2,891446E+22	1,175657E+23
-905	4,432508E+22	4,432652E+22	1,445743E+22	1,445693E+22	8,865159E+22	2,891436E+22	1,175660E+23
-904	4,432796E+22	4,432640E+22	1,445605E+22	1,445693E+22	8,865437E+22	2,891298E+22	1,175673E+23
-903	4,432683E+22	4,432688E+22	1,445656E+22	1,445600E+22	8,865370E+22	2,891215E+22	1,175659E+23
-902	4,432694E+22	4,432844E+22	1,445614E+22	1,445592E+22	8,865538E+22	2,891207E+22	1,175674E+23
-901	4,432876E+22	4,432772E+22	1,445520E+22	1,445577E+22	8,865647E+22	2,891097E+22	1,175674E+23
-900	4,432635E+22	4,432817E+22	1,445609E+22	1,445517E+22	8,865452E+22	2,891127E+22	1,175658E+23
-899	4,432787E+22	4,432848E+22	1,445543E+22	1,445606E+22	8,865635E+22	2,891149E+22	1,175678E+23
-898	4,432869E+22	4,432699E+22	1,445546E+22	1,445554E+22	8,865568E+22	2,891099E+22	1,175667E+23
-897	4,432676E+22	4,432757E+22	1,445639E+22	1,445568E+22	8,865432E+22	2,891206E+22	1,175664E+23
-896	4,432848E+22	4,432732E+22	1,445567E+22	1,445681E+22	8,865580E+22	2,891248E+22	1,175683E+23
-895	4,432677E+22	4,432643E+22	1,445676E+22	1,445654E+22	8,865320E+22	2,891330E+22	1,175665E+23
-894	4,432525E+22	4,432713E+22	1,445755E+22	1,445733E+22	8,865238E+22	2,891489E+22	1,175673E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-893	4,432691E+22	4,432555E+22	1,445721E+22	1,445806E+22	8,865246E+22	2,891527E+22	1,175677E+23
-892	4,432417E+22	4,432475E+22	1,445872E+22	1,445769E+22	8,864892E+22	2,891641E+22	1,175653E+23
-891	4,432440E+22	4,432521E+22	1,445866E+22	1,445876E+22	8,864960E+22	2,891741E+22	1,175670E+23
-890	4,432525E+22	4,432368E+22	1,445840E+22	1,445876E+22	8,864893E+22	2,891716E+22	1,175661E+23
-889	4,432277E+22	4,432423E+22	1,445919E+22	1,445849E+22	8,864701E+22	2,891767E+22	1,175647E+23
-888	4,432479E+22	4,432461E+22	1,445811E+22	1,445916E+22	8,864941E+22	2,891727E+22	1,175667E+23
-887	4,432481E+22	4,432389E+22	1,445826E+22	1,445809E+22	8,864871E+22	2,891635E+22	1,175651E+23
-886	4,432398E+22	4,432553E+22	1,445842E+22	1,445760E+22	8,864951E+22	2,891602E+22	1,175655E+23
-885	4,432682E+22	4,432543E+22	1,445708E+22	1,445778E+22	8,865225E+22	2,891486E+22	1,175671E+23
-884	4,432503E+22	4,432546E+22	1,445756E+22	1,445672E+22	8,865050E+22	2,891428E+22	1,175648E+23
-883	4,432511E+22	4,432705E+22	1,445717E+22	1,445707E+22	8,865216E+22	2,891424E+22	1,175664E+23
-882	4,432711E+22	4,432606E+22	1,445629E+22	1,445692E+22	8,865317E+22	2,891322E+22	1,175664E+23
-881	4,432530E+22	4,432614E+22	1,445701E+22	1,445623E+22	8,865144E+22	2,891324E+22	1,175647E+23
-880	4,432700E+22	4,432672E+22	1,445638E+22	1,445697E+22	8,865372E+22	2,891335E+22	1,175671E+23
-879	4,432733E+22	4,432558E+22	1,445657E+22	1,445669E+22	8,865291E+22	2,891326E+22	1,175662E+23
-878	4,432504E+22	4,432662E+22	1,445753E+22	1,445679E+22	8,865167E+22	2,891432E+22	1,175660E+23
-877	4,432671E+22	4,432622E+22	1,445698E+22	1,445807E+22	8,865293E+22	2,891505E+22	1,175680E+23
-876	4,432478E+22	4,432464E+22	1,445816E+22	1,445787E+22	8,864942E+22	2,891603E+22	1,175655E+23
-875	4,432344E+22	4,432528E+22	1,445901E+22	1,445853E+22	8,864872E+22	2,891754E+22	1,175663E+23
-874	4,432519E+22	4,432364E+22	1,445867E+22	1,445933E+22	8,864883E+22	2,891799E+22	1,175668E+23
-873	4,432266E+22	4,432268E+22	1,445985E+22	1,445905E+22	8,864534E+22	2,891890E+22	1,175642E+23
-872	4,432276E+22	4,432355E+22	1,445964E+22	1,446003E+22	8,864631E+22	2,891967E+22	1,175660E+23
-871	4,432353E+22	4,432222E+22	1,445944E+22	1,446008E+22	8,864575E+22	2,891952E+22	1,175653E+23
-870	4,432139E+22	4,432298E+22	1,446016E+22	1,445939E+22	8,864438E+22	2,891955E+22	1,175639E+23
-869	4,432380E+22	4,432341E+22	1,445916E+22	1,445995E+22	8,864721E+22	2,891912E+22	1,175663E+23
-868	4,432358E+22	4,432240E+22	1,445930E+22	1,445892E+22	8,864598E+22	2,891822E+22	1,175642E+23
-867	4,432248E+22	4,432435E+22	1,445945E+22	1,445846E+22	8,864683E+22	2,891792E+22	1,175648E+23
-866	4,432502E+22	4,432434E+22	1,445812E+22	1,445884E+22	8,864936E+22	2,891696E+22	1,175663E+23
-865	4,432353E+22	4,432385E+22	1,445840E+22	1,445786E+22	8,864738E+22	2,891626E+22	1,175636E+23
-864	4,432385E+22	4,432543E+22	1,445803E+22	1,445803E+22	8,864928E+22	2,891607E+22	1,175653E+23
-863	4,432591E+22	4,432446E+22	1,445731E+22	1,445796E+22	8,865037E+22	2,891527E+22	1,175656E+23
-862	4,432422E+22	4,432482E+22	1,445803E+22	1,445710E+22	8,864904E+22	2,891513E+22	1,175642E+23
-861	4,432581E+22	4,432560E+22	1,445751E+22	1,445807E+22	8,865141E+22	2,891558E+22	1,175670E+23
-860	4,432543E+22	4,432415E+22	1,445777E+22	1,445803E+22	8,864957E+22	2,891580E+22	1,175654E+23
-859	4,432305E+22	4,432517E+22	1,445887E+22	1,445810E+22	8,864822E+22	2,891697E+22	1,175652E+23
-858	4,432478E+22	4,432450E+22	1,445845E+22	1,445936E+22	8,864928E+22	2,891781E+22	1,175671E+23
-857	4,432327E+22	4,432244E+22	1,445944E+22	1,445915E+22	8,864571E+22	2,891859E+22	1,175643E+23
-856	4,432202E+22	4,432328E+22	1,446021E+22	1,445970E+22	8,864530E+22	2,891991E+22	1,175652E+23
-855	4,432337E+22	4,432195E+22	1,445987E+22	1,446069E+22	8,864532E+22	2,892056E+22	1,175659E+23
-854	4,432087E+22	4,432140E+22	1,446090E+22	1,446025E+22	8,864227E+22	2,892115E+22	1,175634E+23
-853	4,432131E+22	4,432224E+22	1,446072E+22	1,446120E+22	8,864355E+22	2,892192E+22	1,175655E+23
-852	4,432193E+22	4,432058E+22	1,446056E+22	1,446115E+22	8,864251E+22	2,892171E+22	1,175642E+23
-851	4,432012E+22	4,432157E+22	1,446131E+22	1,446024E+22	8,864169E+22	2,892155E+22	1,175632E+23
-850	4,432250E+22	4,432204E+22	1,446036E+22	1,446082E+22	8,864454E+22	2,892118E+22	1,175657E+23
-849	4,432223E+22	4,432091E+22	1,446020E+22	1,445996E+22	8,864315E+22	2,892016E+22	1,175633E+23
-848	4,432093E+22	4,432302E+22	1,446028E+22	1,445949E+22	8,864395E+22	2,891977E+22	1,175637E+23
-847	4,432328E+22	4,432297E+22	1,445905E+22	1,445998E+22	8,864625E+22	2,891903E+22	1,175653E+23
-846	4,432225E+22	4,432250E+22	1,445930E+22	1,445872E+22	8,864475E+22	2,891802E+22	1,175628E+23
-845	4,432299E+22	4,432401E+22	1,445905E+22	1,445890E+22	8,864699E+22	2,891795E+22	1,175649E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-844	4,432462E+22	4,432290E+22	1,445841E+22	1,445897E+22	8,864753E+22	2,891738E+22	1,175649E+23
-843	4,432270E+22	4,432364E+22	1,445917E+22	1,445819E+22	8,864634E+22	2,891737E+22	1,175637E+23
-842	4,432392E+22	4,432443E+22	1,445880E+22	1,445934E+22	8,864835E+22	2,891813E+22	1,175665E+23
-841	4,432371E+22	4,432245E+22	1,445893E+22	1,445940E+22	8,864616E+22	2,891833E+22	1,175645E+23
-840	4,432143E+22	4,432332E+22	1,446011E+22	1,445930E+22	8,864475E+22	2,891941E+22	1,175642E+23
-839	4,432311E+22	4,432266E+22	1,445981E+22	1,446064E+22	8,864576E+22	2,892045E+22	1,175662E+23
-838	4,432177E+22	4,432069E+22	1,446068E+22	1,446030E+22	8,864246E+22	2,892098E+22	1,175634E+23
-837	4,432044E+22	4,432171E+22	1,446142E+22	1,446101E+22	8,864216E+22	2,892244E+22	1,175646E+23
-836	4,432133E+22	4,432024E+22	1,446105E+22	1,446211E+22	8,864156E+22	2,892316E+22	1,175647E+23
-835	4,431910E+22	4,431981E+22	1,446209E+22	1,446145E+22	8,863892E+22	2,892354E+22	1,175625E+23
-834	4,431983E+22	4,432068E+22	1,446200E+22	1,446223E+22	8,864051E+22	2,892423E+22	1,175647E+23
-833	4,432084E+22	4,431881E+22	1,446160E+22	1,446210E+22	8,863966E+22	2,892369E+22	1,175634E+23
-832	4,431897E+22	4,432012E+22	1,446229E+22	1,446107E+22	8,863909E+22	2,892336E+22	1,175624E+23
-831	4,432080E+22	4,432094E+22	1,446135E+22	1,446186E+22	8,864174E+22	2,892321E+22	1,175650E+23
-830	4,432055E+22	4,431992E+22	1,446106E+22	1,446092E+22	8,864047E+22	2,892198E+22	1,175624E+23
-829	4,431956E+22	4,432182E+22	1,446119E+22	1,446051E+22	8,864138E+22	2,892170E+22	1,175631E+23
-828	4,432177E+22	4,432136E+22	1,446005E+22	1,446100E+22	8,864313E+22	2,892105E+22	1,175642E+23
-827	4,432115E+22	4,432101E+22	1,446035E+22	1,445963E+22	8,864216E+22	2,891997E+22	1,175621E+23
-826	4,432185E+22	4,432260E+22	1,446021E+22	1,445991E+22	8,864444E+22	2,892011E+22	1,175646E+23
-825	4,432326E+22	4,432142E+22	1,445938E+22	1,446020E+22	8,864467E+22	2,891958E+22	1,175643E+23
-824	4,432114E+22	4,432224E+22	1,446020E+22	1,445942E+22	8,864337E+22	2,891962E+22	1,175630E+23
-823	4,432205E+22	4,432290E+22	1,446001E+22	1,446061E+22	8,864495E+22	2,892062E+22	1,175656E+23
-822	4,432215E+22	4,432085E+22	1,446015E+22	1,446046E+22	8,864300E+22	2,892062E+22	1,175636E+23
-821	4,432017E+22	4,432156E+22	1,446140E+22	1,446041E+22	8,864172E+22	2,892181E+22	1,175635E+23
-820	4,432120E+22	4,432074E+22	1,446115E+22	1,446191E+22	8,864194E+22	2,892306E+22	1,175650E+23
-819	4,431984E+22	4,431914E+22	1,446197E+22	1,446162E+22	8,863898E+22	2,892359E+22	1,175626E+23
-818	4,431851E+22	4,432014E+22	1,446276E+22	1,446237E+22	8,863864E+22	2,892513E+22	1,175638E+23
-817	4,431970E+22	4,431839E+22	1,446219E+22	1,446343E+22	8,863809E+22	2,892561E+22	1,175637E+23
-816	4,431782E+22	4,431810E+22	1,446320E+22	1,446249E+22	8,863592E+22	2,892570E+22	1,175616E+23
-815	4,431843E+22	4,431918E+22	1,446319E+22	1,446324E+22	8,863762E+22	2,892642E+22	1,175640E+23
-814	4,431953E+22	4,431762E+22	1,446263E+22	1,446299E+22	8,863714E+22	2,892562E+22	1,175628E+23
-813	4,431750E+22	4,431901E+22	1,446326E+22	1,446215E+22	8,863651E+22	2,892541E+22	1,175619E+23
-812	4,431874E+22	4,431956E+22	1,446234E+22	1,446304E+22	8,863830E+22	2,892538E+22	1,175637E+23
-811	4,431894E+22	4,431847E+22	1,446206E+22	1,446195E+22	8,863741E+22	2,892401E+22	1,175614E+23
-810	4,431837E+22	4,432021E+22	1,446228E+22	1,446144E+22	8,863858E+22	2,892372E+22	1,175623E+23
-809	4,432092E+22	4,431959E+22	1,446095E+22	1,446194E+22	8,864051E+22	2,892289E+22	1,175634E+23
-808	4,432022E+22	4,431957E+22	1,446123E+22	1,446052E+22	8,863979E+22	2,892175E+22	1,175615E+23
-807	4,432032E+22	4,432157E+22	1,446120E+22	1,446100E+22	8,864190E+22	2,892220E+22	1,175641E+23
-806	4,432171E+22	4,432037E+22	1,446036E+22	1,446123E+22	8,864208E+22	2,892158E+22	1,175637E+23
-805	4,431964E+22	4,432091E+22	1,446135E+22	1,446054E+22	8,864056E+22	2,892189E+22	1,175624E+23
-804	4,432014E+22	4,432117E+22	1,446134E+22	1,446177E+22	8,864131E+22	2,892311E+22	1,175644E+23
-803	4,432053E+22	4,431905E+22	1,446155E+22	1,446162E+22	8,863958E+22	2,892317E+22	1,175627E+23
-802	4,431848E+22	4,431973E+22	1,446283E+22	1,446174E+22	8,863821E+22	2,892457E+22	1,175628E+23
-801	4,431937E+22	4,431879E+22	1,446231E+22	1,446343E+22	8,863816E+22	2,892574E+22	1,175639E+23
-800	4,431810E+22	4,431730E+22	1,446309E+22	1,446302E+22	8,863540E+22	2,892610E+22	1,175615E+23
-799	4,431679E+22	4,431847E+22	1,446396E+22	1,446367E+22	8,863526E+22	2,892763E+22	1,175629E+23
-798	4,431842E+22	4,431687E+22	1,446332E+22	1,446440E+22	8,863529E+22	2,892772E+22	1,175630E+23
-797	4,431676E+22	4,431672E+22	1,446435E+22	1,446346E+22	8,863348E+22	2,892780E+22	1,175613E+23
-796	4,431660E+22	4,431781E+22	1,446436E+22	1,446428E+22	8,863442E+22	2,892864E+22	1,175631E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-795	4,431765E+22	4,431649E+22	1,446373E+22	1,446407E+22	8,863414E+22	2,892781E+22	1,175619E+23
-794	4,431574E+22	4,431764E+22	1,446437E+22	1,446328E+22	8,863338E+22	2,892765E+22	1,175610E+23
-793	4,431726E+22	4,431778E+22	1,446324E+22	1,446414E+22	8,863505E+22	2,892738E+22	1,175624E+23
-792	4,431802E+22	4,431676E+22	1,446294E+22	1,446284E+22	8,863478E+22	2,892578E+22	1,175606E+23
-791	4,431744E+22	4,431872E+22	1,446321E+22	1,446233E+22	8,863616E+22	2,892554E+22	1,175617E+23
-790	4,431994E+22	4,431848E+22	1,446181E+22	1,446278E+22	8,863842E+22	2,892459E+22	1,175630E+23
-789	4,431901E+22	4,431864E+22	1,446211E+22	1,446157E+22	8,863765E+22	2,892368E+22	1,175613E+23
-788	4,431827E+22	4,432030E+22	1,446230E+22	1,446214E+22	8,863857E+22	2,892444E+22	1,175630E+23
-787	4,431992E+22	4,431898E+22	1,446161E+22	1,446230E+22	8,863890E+22	2,892392E+22	1,175628E+23
-786	4,431811E+22	4,431911E+22	1,446276E+22	1,446167E+22	8,863722E+22	2,892443E+22	1,175617E+23
-785	4,431859E+22	4,431907E+22	1,446260E+22	1,446303E+22	8,863766E+22	2,892562E+22	1,175633E+23
-784	4,431897E+22	4,431715E+22	1,446273E+22	1,446294E+22	8,863613E+22	2,892567E+22	1,175618E+23
-783	4,431657E+22	4,431811E+22	1,446400E+22	1,446319E+22	8,863469E+22	2,892720E+22	1,175619E+23
-782	4,431771E+22	4,431727E+22	1,446342E+22	1,446472E+22	8,863498E+22	2,892814E+22	1,175631E+23
-781	4,431676E+22	4,431581E+22	1,446424E+22	1,446423E+22	8,863257E+22	2,892847E+22	1,175610E+23
-780	4,431509E+22	4,431684E+22	1,446527E+22	1,446478E+22	8,863193E+22	2,893005E+22	1,175620E+23
-779	4,431695E+22	4,431542E+22	1,446467E+22	1,446541E+22	8,863238E+22	2,893008E+22	1,175625E+23
-778	4,431511E+22	4,431530E+22	1,446568E+22	1,446462E+22	8,863041E+22	2,893030E+22	1,175607E+23
-777	4,431470E+22	4,431619E+22	1,446539E+22	1,446557E+22	8,863089E+22	2,893095E+22	1,175618E+23
-776	4,431599E+22	4,431475E+22	1,446468E+22	1,446522E+22	8,863074E+22	2,892990E+22	1,175606E+23
-775	4,431433E+22	4,431598E+22	1,446530E+22	1,446432E+22	8,863031E+22	2,892962E+22	1,175599E+23
-774	4,431647E+22	4,431624E+22	1,446406E+22	1,446488E+22	8,863271E+22	2,892894E+22	1,175617E+23
-773	4,431734E+22	4,431554E+22	1,446375E+22	1,446361E+22	8,863288E+22	2,892736E+22	1,175602E+23
-772	4,431594E+22	4,431771E+22	1,446415E+22	1,446323E+22	8,863365E+22	2,892738E+22	1,175610E+23
-771	4,431827E+22	4,431766E+22	1,446285E+22	1,446373E+22	8,863594E+22	2,892658E+22	1,175625E+23
-770	4,431730E+22	4,431748E+22	1,446332E+22	1,446269E+22	8,863478E+22	2,892601E+22	1,175608E+23
-769	4,431654E+22	4,431855E+22	1,446344E+22	1,446331E+22	8,863510E+22	2,892674E+22	1,175618E+23
-768	4,431852E+22	4,431702E+22	1,446281E+22	1,446343E+22	8,863555E+22	2,892624E+22	1,175618E+23
-767	4,431667E+22	4,431722E+22	1,446399E+22	1,446293E+22	8,863388E+22	2,892692E+22	1,175608E+23
-766	4,431714E+22	4,431737E+22	1,446369E+22	1,446430E+22	8,863451E+22	2,892798E+22	1,175625E+23
-765	4,431744E+22	4,431568E+22	1,446378E+22	1,446434E+22	8,863312E+22	2,892813E+22	1,175613E+23
-764	4,431455E+22	4,431647E+22	1,446523E+22	1,446455E+22	8,863102E+22	2,892978E+22	1,175608E+23
-763	4,431607E+22	4,431574E+22	1,446479E+22	1,446586E+22	8,863180E+22	2,893064E+22	1,175624E+23
-762	4,431539E+22	4,431418E+22	1,446572E+22	1,446534E+22	8,862956E+22	2,893106E+22	1,175606E+23
-761	4,431347E+22	4,431502E+22	1,446656E+22	1,446592E+22	8,862849E+22	2,893248E+22	1,175610E+23
-760	4,431527E+22	4,431383E+22	1,446586E+22	1,446658E+22	8,862910E+22	2,893245E+22	1,175616E+23
-759	4,431319E+22	4,431379E+22	1,446677E+22	1,446587E+22	8,862697E+22	2,893264E+22	1,175596E+23
-758	4,431308E+22	4,431463E+22	1,446631E+22	1,446663E+22	8,862771E+22	2,893294E+22	1,175607E+23
-757	4,431487E+22	4,431332E+22	1,446553E+22	1,446619E+22	8,862818E+22	2,893172E+22	1,175599E+23
-756	4,431303E+22	4,431446E+22	1,446626E+22	1,446519E+22	8,862749E+22	2,893145E+22	1,175589E+23
-755	4,431540E+22	4,431511E+22	1,446510E+22	1,446568E+22	8,863050E+22	2,893078E+22	1,175613E+23
-754	4,431607E+22	4,431455E+22	1,446482E+22	1,446461E+22	8,863062E+22	2,892943E+22	1,175600E+23
-753	4,431421E+22	4,431641E+22	1,446509E+22	1,446437E+22	8,863062E+22	2,892946E+22	1,175601E+23
-752	4,431668E+22	4,431614E+22	1,446387E+22	1,446481E+22	8,863282E+22	2,892869E+22	1,175615E+23
-751	4,431578E+22	4,431580E+22	1,446444E+22	1,446379E+22	8,863158E+22	2,892823E+22	1,175598E+23
-750	4,431539E+22	4,431677E+22	1,446450E+22	1,446429E+22	8,863216E+22	2,892880E+22	1,175610E+23
-749	4,431739E+22	4,431546E+22	1,446385E+22	1,446455E+22	8,863285E+22	2,892840E+22	1,175612E+23
-748	4,431482E+22	4,431572E+22	1,446513E+22	1,446421E+22	8,863054E+22	2,892934E+22	1,175599E+23
-747	4,431534E+22	4,431605E+22	1,446494E+22	1,446556E+22	8,863138E+22	2,893049E+22	1,175619E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-746	4,431572E+22	4,431423E+22	1,446517E+22	1,446567E+22	8,862994E+22	2,893084E+22	1,175608E+23
-745	4,431287E+22	4,431462E+22	1,446654E+22	1,446582E+22	8,862749E+22	2,893237E+22	1,175599E+23
-744	4,431466E+22	4,431379E+22	1,446617E+22	1,446699E+22	8,862845E+22	2,893316E+22	1,175616E+23
-743	4,431375E+22	4,431247E+22	1,446707E+22	1,446659E+22	8,862622E+22	2,893366E+22	1,175599E+23
-742	4,431176E+22	4,431345E+22	1,446766E+22	1,446715E+22	8,862521E+22	2,893481E+22	1,175600E+23
-741	4,431346E+22	4,431237E+22	1,446683E+22	1,446786E+22	8,862583E+22	2,893468E+22	1,175605E+23
-740	4,431120E+22	4,431213E+22	1,446780E+22	1,446705E+22	8,862332E+22	2,893485E+22	1,175582E+23
-739	4,431173E+22	4,431308E+22	1,446740E+22	1,446753E+22	8,862481E+22	2,893493E+22	1,175597E+23
-738	4,431387E+22	4,431191E+22	1,446664E+22	1,446707E+22	8,862578E+22	2,893371E+22	1,175595E+23
-737	4,431185E+22	4,431304E+22	1,446718E+22	1,446611E+22	8,862488E+22	2,893330E+22	1,175582E+23
-736	4,431408E+22	4,431390E+22	1,446603E+22	1,446664E+22	8,862799E+22	2,893267E+22	1,175607E+23
-735	4,431445E+22	4,431346E+22	1,446577E+22	1,446568E+22	8,862791E+22	2,893145E+22	1,175594E+23
-734	4,431278E+22	4,431505E+22	1,446600E+22	1,446534E+22	8,862783E+22	2,893134E+22	1,175592E+23
-733	4,431546E+22	4,431473E+22	1,446483E+22	1,446578E+22	8,863018E+22	2,893060E+22	1,175608E+23
-732	4,431430E+22	4,431411E+22	1,446558E+22	1,446483E+22	8,862841E+22	2,893041E+22	1,175588E+23
-731	4,431399E+22	4,431529E+22	1,446575E+22	1,446537E+22	8,862927E+22	2,893112E+22	1,175604E+23
-730	4,431578E+22	4,431411E+22	1,446512E+22	1,446590E+22	8,862990E+22	2,893102E+22	1,175609E+23
-729	4,431286E+22	4,431398E+22	1,446628E+22	1,446564E+22	8,862684E+22	2,893192E+22	1,175588E+23
-728	4,431369E+22	4,431419E+22	1,446621E+22	1,446686E+22	8,862788E+22	2,893307E+22	1,175609E+23
-727	4,431417E+22	4,431240E+22	1,446652E+22	1,446690E+22	8,862657E+22	2,893341E+22	1,175600E+23
-726	4,431150E+22	4,431279E+22	1,446781E+22	1,446693E+22	8,862429E+22	2,893474E+22	1,175590E+23
-725	4,431312E+22	4,431233E+22	1,446736E+22	1,446817E+22	8,862545E+22	2,893553E+22	1,175610E+23
-724	4,431153E+22	4,431099E+22	1,446830E+22	1,446790E+22	8,862252E+22	2,893620E+22	1,175587E+23
-723	4,430971E+22	4,431204E+22	1,446889E+22	1,446837E+22	8,862175E+22	2,893726E+22	1,175590E+23
-722	4,431175E+22	4,431085E+22	1,446804E+22	1,446907E+22	8,862260E+22	2,893711E+22	1,175597E+23
-721	4,430975E+22	4,431025E+22	1,446882E+22	1,446813E+22	8,861999E+22	2,893695E+22	1,175569E+23
-720	4,431082E+22	4,431130E+22	1,446845E+22	1,446844E+22	8,862212E+22	2,893689E+22	1,175590E+23
-719	4,431274E+22	4,431062E+22	1,446764E+22	1,446804E+22	8,862336E+22	2,893568E+22	1,175590E+23
-718	4,431062E+22	4,431193E+22	1,446799E+22	1,446709E+22	8,862255E+22	2,893508E+22	1,175576E+23
-717	4,431265E+22	4,431289E+22	1,446683E+22	1,446761E+22	8,862554E+22	2,893443E+22	1,175600E+23
-716	4,431270E+22	4,431214E+22	1,446678E+22	1,446667E+22	8,862483E+22	2,893345E+22	1,175583E+23
-715	4,431144E+22	4,431362E+22	1,446715E+22	1,446619E+22	8,862507E+22	2,893334E+22	1,175584E+23
-714	4,431417E+22	4,431329E+22	1,446606E+22	1,446679E+22	8,862747E+22	2,893285E+22	1,175603E+23
-713	4,431275E+22	4,431245E+22	1,446667E+22	1,446603E+22	8,862521E+22	2,893270E+22	1,175579E+23
-712	4,431245E+22	4,431360E+22	1,446688E+22	1,446664E+22	8,862605E+22	2,893352E+22	1,175596E+23
-711	4,431397E+22	4,431260E+22	1,446629E+22	1,446725E+22	8,862657E+22	2,893354E+22	1,175601E+23
-710	4,431140E+22	4,431231E+22	1,446738E+22	1,446687E+22	8,862370E+22	2,893425E+22	1,175580E+23
-709	4,431230E+22	4,431257E+22	1,446739E+22	1,446798E+22	8,862487E+22	2,893537E+22	1,175602E+23
-708	4,431243E+22	4,431072E+22	1,446790E+22	1,446810E+22	8,862315E+22	2,893600E+22	1,175591E+23
-707	4,430974E+22	4,431128E+22	1,446924E+22	1,446814E+22	8,862102E+22	2,893737E+22	1,175584E+23
-706	4,431105E+22	4,431092E+22	1,446872E+22	1,446959E+22	8,862198E+22	2,893831E+22	1,175603E+23
-705	4,430936E+22	4,430906E+22	1,446946E+22	1,446933E+22	8,861841E+22	2,893880E+22	1,175572E+23
-704	4,430816E+22	4,430991E+22	1,447006E+22	1,446957E+22	8,861806E+22	2,893964E+22	1,175577E+23
-703	4,431049E+22	4,430904E+22	1,446917E+22	1,447011E+22	8,861953E+22	2,893928E+22	1,175588E+23
-702	4,430891E+22	4,430865E+22	1,446974E+22	1,446902E+22	8,861756E+22	2,893876E+22	1,175563E+23
-701	4,430978E+22	4,431026E+22	1,446928E+22	1,446931E+22	8,862004E+22	2,893859E+22	1,175586E+23
-700	4,431102E+22	4,430972E+22	1,446859E+22	1,446902E+22	8,862074E+22	2,893760E+22	1,175583E+23
-699	4,430895E+22	4,431102E+22	1,446905E+22	1,446800E+22	8,861996E+22	2,893705E+22	1,175570E+23
-698	4,431106E+22	4,431180E+22	1,446797E+22	1,446859E+22	8,862286E+22	2,893655E+22	1,175594E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-697	4,431115E+22	4,431037E+22	1,446785E+22	1,446769E+22	8,862151E+22	2,893554E+22	1,175570E+23
-696	4,431030E+22	4,431170E+22	1,446829E+22	1,446725E+22	8,862201E+22	2,893554E+22	1,175575E+23
-695	4,431276E+22	4,431171E+22	1,446716E+22	1,446801E+22	8,862447E+22	2,893516E+22	1,175596E+23
-694	4,431129E+22	4,431088E+22	1,446756E+22	1,446732E+22	8,862217E+22	2,893488E+22	1,175571E+23
-693	4,431095E+22	4,431217E+22	1,446780E+22	1,446785E+22	8,862312E+22	2,893565E+22	1,175588E+23
-692	4,431224E+22	4,431100E+22	1,446750E+22	1,446842E+22	8,862325E+22	2,893591E+22	1,175592E+23
-691	4,430998E+22	4,431077E+22	1,446878E+22	1,446789E+22	8,862074E+22	2,893667E+22	1,175574E+23
-690	4,431072E+22	4,431115E+22	1,446887E+22	1,446914E+22	8,862187E+22	2,893801E+22	1,175599E+23
-689	4,431037E+22	4,430898E+22	1,446924E+22	1,446946E+22	8,861935E+22	2,893870E+22	1,175581E+23
-688	4,430778E+22	4,430940E+22	1,447056E+22	1,446956E+22	8,861718E+22	2,894012E+22	1,175573E+23
-687	4,430901E+22	4,430912E+22	1,446999E+22	1,447097E+22	8,861814E+22	2,894096E+22	1,175591E+23
-686	4,430793E+22	4,430712E+22	1,447050E+22	1,447055E+22	8,861506E+22	2,894105E+22	1,175561E+23
-685	4,430712E+22	4,430822E+22	1,447103E+22	1,447055E+22	8,861534E+22	2,894158E+22	1,175569E+23
-684	4,430921E+22	4,430763E+22	1,447028E+22	1,447109E+22	8,861683E+22	2,894137E+22	1,175582E+23
-683	4,430761E+22	4,430769E+22	1,447083E+22	1,446995E+22	8,861531E+22	2,894078E+22	1,175561E+23
-682	4,430808E+22	4,430946E+22	1,447035E+22	1,447037E+22	8,861754E+22	2,894073E+22	1,175583E+23
-681	4,430911E+22	4,430834E+22	1,446957E+22	1,447011E+22	8,861745E+22	2,893969E+22	1,175571E+23
-680	4,430760E+22	4,430915E+22	1,447011E+22	1,446898E+22	8,861675E+22	2,893909E+22	1,175558E+23
-679	4,430969E+22	4,431009E+22	1,446905E+22	1,446953E+22	8,861978E+22	2,893858E+22	1,175584E+23
-678	4,431015E+22	4,430867E+22	1,446871E+22	1,446869E+22	8,861882E+22	2,893740E+22	1,175562E+23
-677	4,430914E+22	4,431033E+22	1,446908E+22	1,446829E+22	8,861946E+22	2,893737E+22	1,175568E+23
-676	4,431105E+22	4,431048E+22	1,446816E+22	1,446918E+22	8,862152E+22	2,893734E+22	1,175589E+23
-675	4,430978E+22	4,430969E+22	1,446869E+22	1,446839E+22	8,861946E+22	2,893708E+22	1,175565E+23
-674	4,430942E+22	4,431093E+22	1,446910E+22	1,446895E+22	8,862035E+22	2,893804E+22	1,175584E+23
-673	4,431058E+22	4,430921E+22	1,446884E+22	1,446958E+22	8,861979E+22	2,893843E+22	1,175582E+23
-672	4,430851E+22	4,430876E+22	1,447026E+22	1,446915E+22	8,861727E+22	2,893941E+22	1,175567E+23
-671	4,430869E+22	4,430948E+22	1,447029E+22	1,447056E+22	8,861818E+22	2,894085E+22	1,175590E+23
-670	4,430842E+22	4,430711E+22	1,447039E+22	1,447098E+22	8,861554E+22	2,894137E+22	1,175569E+23
-669	4,430605E+22	4,430750E+22	1,447162E+22	1,447090E+22	8,861355E+22	2,894252E+22	1,175561E+23
-668	4,430733E+22	4,430724E+22	1,447120E+22	1,447217E+22	8,861457E+22	2,894336E+22	1,175579E+23
-667	4,430675E+22	4,430559E+22	1,447172E+22	1,447150E+22	8,861233E+22	2,894322E+22	1,175555E+23
-666	4,430591E+22	4,430713E+22	1,447222E+22	1,447156E+22	8,861303E+22	2,894377E+22	1,175568E+23
-665	4,430746E+22	4,430635E+22	1,447136E+22	1,447218E+22	8,861382E+22	2,894354E+22	1,175574E+23
-664	4,430597E+22	4,430632E+22	1,447192E+22	1,447106E+22	8,861229E+22	2,894298E+22	1,175553E+23
-663	4,430626E+22	4,430813E+22	1,447142E+22	1,447140E+22	8,861439E+22	2,894282E+22	1,175572E+23
-662	4,430778E+22	4,430662E+22	1,447044E+22	1,447109E+22	8,861439E+22	2,894153E+22	1,175559E+23
-661	4,430664E+22	4,430747E+22	1,447093E+22	1,446984E+22	8,861411E+22	2,894076E+22	1,175549E+23
-660	4,430845E+22	4,430857E+22	1,447003E+22	1,447050E+22	8,861703E+22	2,894052E+22	1,175576E+23
-659	4,430889E+22	4,430758E+22	1,446968E+22	1,446971E+22	8,861646E+22	2,893939E+22	1,175559E+23
-658	4,430762E+22	4,430938E+22	1,447008E+22	1,446945E+22	8,861700E+22	2,893953E+22	1,175565E+23
-657	4,430926E+22	4,430893E+22	1,446926E+22	1,447034E+22	8,861819E+22	2,893960E+22	1,175578E+23
-656	4,430848E+22	4,430785E+22	1,446999E+22	1,446950E+22	8,861632E+22	2,893948E+22	1,175558E+23
-655	4,430786E+22	4,430925E+22	1,447050E+22	1,447003E+22	8,861711E+22	2,894053E+22	1,175576E+23
-654	4,430908E+22	4,430743E+22	1,447008E+22	1,447085E+22	8,861652E+22	2,894093E+22	1,175574E+23
-653	4,430678E+22	4,430710E+22	1,447140E+22	1,447050E+22	8,861388E+22	2,894190E+22	1,175558E+23
-652	4,430647E+22	4,430783E+22	1,447157E+22	1,447200E+22	8,861430E+22	2,894357E+22	1,175579E+23
-651	4,430662E+22	4,430551E+22	1,447166E+22	1,447227E+22	8,861213E+22	2,894393E+22	1,175561E+23
-650	4,430452E+22	4,430593E+22	1,447287E+22	1,447210E+22	8,861044E+22	2,894497E+22	1,175554E+23
-649	4,430583E+22	4,430537E+22	1,447246E+22	1,447332E+22	8,861120E+22	2,894578E+22	1,175570E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-648	4,430558E+22	4,430383E+22	1,447298E+22	1,447263E+22	8,860941E+22	2,894560E+22	1,175550E+23
-647	4,430412E+22	4,430587E+22	1,447339E+22	1,447269E+22	8,860999E+22	2,894608E+22	1,175561E+23
-646	4,430579E+22	4,430493E+22	1,447226E+22	1,447335E+22	8,861073E+22	2,894561E+22	1,175563E+23
-645	4,430452E+22	4,430473E+22	1,447276E+22	1,447203E+22	8,860925E+22	2,894479E+22	1,175540E+23
-644	4,430476E+22	4,430652E+22	1,447243E+22	1,447228E+22	8,861128E+22	2,894471E+22	1,175560E+23
-643	4,430671E+22	4,430525E+22	1,447144E+22	1,447186E+22	8,861196E+22	2,894329E+22	1,175553E+23
-642	4,430551E+22	4,430641E+22	1,447188E+22	1,447077E+22	8,861192E+22	2,894264E+22	1,175546E+23
-641	4,430685E+22	4,430728E+22	1,447100E+22	1,447159E+22	8,861412E+22	2,894259E+22	1,175567E+23
-640	4,430747E+22	4,430617E+22	1,447075E+22	1,447085E+22	8,861364E+22	2,894159E+22	1,175552E+23
-639	4,430597E+22	4,430808E+22	1,447126E+22	1,447052E+22	8,861405E+22	2,894178E+22	1,175558E+23
-638	4,430794E+22	4,430725E+22	1,447035E+22	1,447144E+22	8,861519E+22	2,894179E+22	1,175570E+23
-637	4,430726E+22	4,430611E+22	1,447114E+22	1,447059E+22	8,861337E+22	2,894173E+22	1,175551E+23
-636	4,430609E+22	4,430764E+22	1,447184E+22	1,447132E+22	8,861373E+22	2,894316E+22	1,175569E+23
-635	4,430714E+22	4,430604E+22	1,447137E+22	1,447222E+22	8,861318E+22	2,894359E+22	1,175568E+23
-634	4,430482E+22	4,430564E+22	1,447264E+22	1,447197E+22	8,861046E+22	2,894461E+22	1,175551E+23
-633	4,430448E+22	4,430568E+22	1,447286E+22	1,447337E+22	8,861016E+22	2,894623E+22	1,175564E+23
-632	4,430527E+22	4,430334E+22	1,447301E+22	1,447348E+22	8,860861E+22	2,894648E+22	1,175551E+23
-631	4,430312E+22	4,430424E+22	1,447418E+22	1,447319E+22	8,860736E+22	2,894737E+22	1,175547E+23
-630	4,430447E+22	4,430376E+22	1,447355E+22	1,447447E+22	8,860823E+22	2,894802E+22	1,175562E+23
-629	4,430404E+22	4,430254E+22	1,447395E+22	1,447373E+22	8,860659E+22	2,894768E+22	1,175543E+23
-628	4,430219E+22	4,430461E+22	1,447448E+22	1,447378E+22	8,860680E+22	2,894826E+22	1,175551E+23
-627	4,430416E+22	4,430371E+22	1,447331E+22	1,447426E+22	8,860787E+22	2,894758E+22	1,175554E+23
-626	4,430321E+22	4,430343E+22	1,447377E+22	1,447294E+22	8,860665E+22	2,894670E+22	1,175533E+23
-625	4,430338E+22	4,430476E+22	1,447349E+22	1,447323E+22	8,860814E+22	2,894671E+22	1,175549E+23
-624	4,430561E+22	4,430370E+22	1,447250E+22	1,447291E+22	8,860931E+22	2,894541E+22	1,175547E+23
-623	4,430395E+22	4,430527E+22	1,447286E+22	1,447189E+22	8,860922E+22	2,894475E+22	1,175540E+23
-622	4,430543E+22	4,430584E+22	1,447184E+22	1,447277E+22	8,861127E+22	2,894462E+22	1,175559E+23
-621	4,430627E+22	4,430462E+22	1,447164E+22	1,447185E+22	8,861089E+22	2,894349E+22	1,175544E+23
-620	4,430455E+22	4,430653E+22	1,447243E+22	1,447150E+22	8,861108E+22	2,894393E+22	1,175550E+23
-619	4,430663E+22	4,430592E+22	1,447159E+22	1,447241E+22	8,861254E+22	2,894400E+22	1,175565E+23
-618	4,430565E+22	4,430487E+22	1,447238E+22	1,447182E+22	8,861052E+22	2,894419E+22	1,175547E+23
-617	4,430388E+22	4,430593E+22	1,447315E+22	1,447273E+22	8,860981E+22	2,894588E+22	1,175557E+23
-616	4,430527E+22	4,430411E+22	1,447271E+22	1,447366E+22	8,860938E+22	2,894637E+22	1,175557E+23
-615	4,430291E+22	4,430377E+22	1,447397E+22	1,447328E+22	8,860668E+22	2,894724E+22	1,175539E+23
-614	4,430313E+22	4,430357E+22	1,447404E+22	1,447462E+22	8,860670E+22	2,894866E+22	1,175554E+23
-613	4,430415E+22	4,430146E+22	1,447416E+22	1,447458E+22	8,860561E+22	2,894874E+22	1,175544E+23
-612	4,430149E+22	4,430283E+22	1,447544E+22	1,447438E+22	8,860432E+22	2,894982E+22	1,175541E+23
-611	4,430265E+22	4,430272E+22	1,447472E+22	1,447562E+22	8,860537E+22	2,895034E+22	1,175557E+23
-610	4,430217E+22	4,430144E+22	1,447505E+22	1,447491E+22	8,860361E+22	2,894996E+22	1,175536E+23
-609	4,430027E+22	4,430281E+22	1,447564E+22	1,447486E+22	8,860308E+22	2,895049E+22	1,175536E+23
-608	4,430285E+22	4,430184E+22	1,447447E+22	1,447522E+22	8,860469E+22	2,894970E+22	1,175544E+23
-607	4,430190E+22	4,430194E+22	1,447484E+22	1,447388E+22	8,860384E+22	2,894872E+22	1,175526E+23
-606	4,430222E+22	4,430323E+22	1,447432E+22	1,447431E+22	8,860545E+22	2,894863E+22	1,175541E+23
-605	4,430437E+22	4,430246E+22	1,447326E+22	1,447395E+22	8,860683E+22	2,894721E+22	1,175540E+23
-604	4,430246E+22	4,430414E+22	1,447380E+22	1,447293E+22	8,860660E+22	2,894673E+22	1,175533E+23
-603	4,430410E+22	4,430475E+22	1,447286E+22	1,447363E+22	8,860885E+22	2,894649E+22	1,175553E+23
-602	4,430509E+22	4,430348E+22	1,447274E+22	1,447279E+22	8,860857E+22	2,894553E+22	1,175541E+23
-601	4,430299E+22	4,430475E+22	1,447373E+22	1,447258E+22	8,860775E+22	2,894631E+22	1,175541E+23
-600	4,430492E+22	4,430425E+22	1,447294E+22	1,447369E+22	8,860918E+22	2,894663E+22	1,175558E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-599	4,430354E+22	4,430336E+22	1,447366E+22	1,447324E+22	8,860690E+22	2,894690E+22	1,175538E+23
-598	4,430205E+22	4,430380E+22	1,447428E+22	1,447421E+22	8,860585E+22	2,894849E+22	1,175543E+23
-597	4,430382E+22	4,430199E+22	1,447385E+22	1,447491E+22	8,860581E+22	2,894875E+22	1,175546E+23
-596	4,430150E+22	4,430190E+22	1,447524E+22	1,447443E+22	8,860340E+22	2,894968E+22	1,175531E+23
-595	4,430180E+22	4,430217E+22	1,447531E+22	1,447568E+22	8,860397E+22	2,895099E+22	1,175550E+23
-594	4,430254E+22	4,430047E+22	1,447537E+22	1,447579E+22	8,860301E+22	2,895117E+22	1,175542E+23
-593	4,429930E+22	4,430138E+22	1,447674E+22	1,447567E+22	8,860067E+22	2,895241E+22	1,175531E+23
-592	4,430071E+22	4,430115E+22	1,447602E+22	1,447684E+22	8,860187E+22	2,895286E+22	1,175547E+23
-591	4,430031E+22	4,429985E+22	1,447627E+22	1,447601E+22	8,860016E+22	2,895228E+22	1,175524E+23
-590	4,429900E+22	4,430075E+22	1,447663E+22	1,447595E+22	8,859975E+22	2,895258E+22	1,175523E+23
-589	4,430189E+22	4,430005E+22	1,447537E+22	1,447620E+22	8,860193E+22	2,895157E+22	1,175535E+23
-588	4,430060E+22	4,430066E+22	1,447574E+22	1,447495E+22	8,860125E+22	2,895069E+22	1,175519E+23
-587	4,430094E+22	4,430231E+22	1,447515E+22	1,447530E+22	8,860325E+22	2,895045E+22	1,175537E+23
-586	4,430308E+22	4,430152E+22	1,447412E+22	1,447490E+22	8,860461E+22	2,894902E+22	1,175536E+23
-585	4,430096E+22	4,430259E+22	1,447490E+22	1,447383E+22	8,860354E+22	2,894873E+22	1,175523E+23
-584	4,430286E+22	4,430319E+22	1,447411E+22	1,447449E+22	8,860605E+22	2,894860E+22	1,175546E+23
-583	4,430345E+22	4,430210E+22	1,447402E+22	1,447382E+22	8,860555E+22	2,894784E+22	1,175534E+23
-582	4,430129E+22	4,430301E+22	1,447484E+22	1,447392E+22	8,860430E+22	2,894876E+22	1,175531E+23
-581	4,430314E+22	4,430251E+22	1,447403E+22	1,447503E+22	8,860565E+22	2,894905E+22	1,175547E+23
-580	4,430166E+22	4,430163E+22	1,447486E+22	1,447461E+22	8,860330E+22	2,894946E+22	1,175528E+23
-579	4,430058E+22	4,430213E+22	1,447547E+22	1,447538E+22	8,860271E+22	2,895085E+22	1,175536E+23
-578	4,430253E+22	4,430049E+22	1,447509E+22	1,447608E+22	8,860302E+22	2,895116E+22	1,175542E+23
-577	4,429985E+22	4,430013E+22	1,447666E+22	1,447570E+22	8,859998E+22	2,895236E+22	1,175523E+23
-576	4,429997E+22	4,430072E+22	1,447674E+22	1,447701E+22	8,860069E+22	2,895374E+22	1,175544E+23
-575	4,430032E+22	4,429916E+22	1,447673E+22	1,447718E+22	8,859948E+22	2,895391E+22	1,175534E+23
-574	4,429744E+22	4,429934E+22	1,447788E+22	1,447703E+22	8,859678E+22	2,895491E+22	1,175517E+23
-573	4,429924E+22	4,429909E+22	1,447709E+22	1,447790E+22	8,859833E+22	2,895500E+22	1,175533E+23
-572	4,429903E+22	4,429808E+22	1,447734E+22	1,447701E+22	8,859711E+22	2,895435E+22	1,175515E+23
-571	4,429793E+22	4,429938E+22	1,447756E+22	1,447684E+22	8,859731E+22	2,895440E+22	1,175517E+23
-570	4,430067E+22	4,429921E+22	1,447621E+22	1,447719E+22	8,859988E+22	2,895340E+22	1,175533E+23
-569	4,429902E+22	4,429943E+22	1,447669E+22	1,447596E+22	8,859846E+22	2,895265E+22	1,175511E+23
-568	4,429947E+22	4,430112E+22	1,447621E+22	1,447619E+22	8,860059E+22	2,895240E+22	1,175530E+23
-567	4,430158E+22	4,430039E+22	1,447525E+22	1,447576E+22	8,860196E+22	2,895101E+22	1,175530E+23
-566	4,429975E+22	4,430074E+22	1,447596E+22	1,447485E+22	8,860049E+22	2,895081E+22	1,175513E+23
-565	4,430151E+22	4,430149E+22	1,447520E+22	1,447555E+22	8,860301E+22	2,895074E+22	1,175538E+23
-564	4,430167E+22	4,430066E+22	1,447513E+22	1,447515E+22	8,860233E+22	2,895028E+22	1,175526E+23
-563	4,429955E+22	4,430153E+22	1,447588E+22	1,447524E+22	8,860108E+22	2,895112E+22	1,175522E+23
-562	4,430158E+22	4,430098E+22	1,447510E+22	1,447631E+22	8,860256E+22	2,895141E+22	1,175540E+23
-561	4,430009E+22	4,429959E+22	1,447614E+22	1,447581E+22	8,859968E+22	2,895195E+22	1,175516E+23
-560	4,429925E+22	4,430039E+22	1,447687E+22	1,447649E+22	8,859964E+22	2,895337E+22	1,175530E+23
-559	4,430082E+22	4,429914E+22	1,447652E+22	1,447730E+22	8,859996E+22	2,895382E+22	1,175538E+23
-558	4,429802E+22	4,429841E+22	1,447795E+22	1,447715E+22	8,859643E+22	2,895509E+22	1,175515E+23
-557	4,429803E+22	4,429901E+22	1,447798E+22	1,447833E+22	8,859704E+22	2,895630E+22	1,175533E+23
-556	4,429834E+22	4,429746E+22	1,447798E+22	1,447846E+22	8,859580E+22	2,895644E+22	1,175522E+23
-555	4,429601E+22	4,429759E+22	1,447899E+22	1,447808E+22	8,859360E+22	2,895708E+22	1,175507E+23
-554	4,429810E+22	4,429750E+22	1,447812E+22	1,447888E+22	8,859560E+22	2,895700E+22	1,175526E+23
-553	4,429760E+22	4,429641E+22	1,447844E+22	1,447807E+22	8,859401E+22	2,895651E+22	1,175505E+23
-552	4,429649E+22	4,429824E+22	1,447859E+22	1,447790E+22	8,859473E+22	2,895649E+22	1,175512E+23
-551	4,429893E+22	4,429823E+22	1,447725E+22	1,447824E+22	8,859717E+22	2,895548E+22	1,175527E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-550	4,429764E+22	4,429780E+22	1,447762E+22	1,447701E+22	8,859544E+22	2,895463E+22	1,175501E+23
-549	4,429832E+22	4,429945E+22	1,447719E+22	1,447700E+22	8,859776E+22	2,895418E+22	1,175519E+23
-548	4,430027E+22	4,429894E+22	1,447630E+22	1,447668E+22	8,859921E+22	2,895299E+22	1,175522E+23
-547	4,429846E+22	4,429942E+22	1,447694E+22	1,447586E+22	8,859788E+22	2,895281E+22	1,175507E+23
-546	4,429991E+22	4,430038E+22	1,447616E+22	1,447673E+22	8,860029E+22	2,895289E+22	1,175532E+23
-545	4,429977E+22	4,429904E+22	1,447629E+22	1,447646E+22	8,859881E+22	2,895275E+22	1,175516E+23
-544	4,429796E+22	4,429990E+22	1,447711E+22	1,447643E+22	8,859786E+22	2,895354E+22	1,175514E+23
-543	4,430004E+22	4,429941E+22	1,447644E+22	1,447746E+22	8,859945E+22	2,895390E+22	1,175534E+23
-542	4,429886E+22	4,429750E+22	1,447742E+22	1,447708E+22	8,859636E+22	2,895450E+22	1,175509E+23
-541	4,429778E+22	4,429862E+22	1,447818E+22	1,447774E+22	8,859640E+22	2,895591E+22	1,175523E+23
-540	4,429884E+22	4,429776E+22	1,447784E+22	1,447874E+22	8,859660E+22	2,895658E+22	1,175532E+23
-539	4,429611E+22	4,429681E+22	1,447916E+22	1,447850E+22	8,859292E+22	2,895766E+22	1,175506E+23
-538	4,429624E+22	4,429739E+22	1,447916E+22	1,447953E+22	8,859362E+22	2,895868E+22	1,175523E+23
-537	4,429666E+22	4,429536E+22	1,447926E+22	1,447958E+22	8,859202E+22	2,895884E+22	1,175509E+23
-536	4,429461E+22	4,429584E+22	1,448021E+22	1,447909E+22	8,859045E+22	2,895929E+22	1,175497E+23
-535	4,429652E+22	4,429628E+22	1,447928E+22	1,447995E+22	8,859280E+22	2,895922E+22	1,175520E+23
-534	4,429612E+22	4,429489E+22	1,447937E+22	1,447928E+22	8,859102E+22	2,895865E+22	1,175497E+23
-533	4,429506E+22	4,429686E+22	1,447950E+22	1,447890E+22	8,859192E+22	2,895841E+22	1,175503E+23
-532	4,429747E+22	4,429702E+22	1,447822E+22	1,447919E+22	8,859449E+22	2,895741E+22	1,175519E+23
-531	4,429656E+22	4,429643E+22	1,447853E+22	1,447784E+22	8,859298E+22	2,895637E+22	1,175494E+23
-530	4,429721E+22	4,429819E+22	1,447813E+22	1,447785E+22	8,859540E+22	2,895598E+22	1,175514E+23
-529	4,429867E+22	4,429743E+22	1,447742E+22	1,447779E+22	8,859611E+22	2,895520E+22	1,175513E+23
-528	4,429677E+22	4,429813E+22	1,447803E+22	1,447707E+22	8,859490E+22	2,895511E+22	1,175500E+23
-527	4,429809E+22	4,429900E+22	1,447733E+22	1,447798E+22	8,859709E+22	2,895531E+22	1,175524E+23
-526	4,429836E+22	4,429695E+22	1,447739E+22	1,447774E+22	8,859531E+22	2,895513E+22	1,175504E+23
-525	4,429683E+22	4,429792E+22	1,447828E+22	1,447748E+22	8,859475E+22	2,895576E+22	1,175505E+23
-524	4,429863E+22	4,429782E+22	1,447774E+22	1,447861E+22	8,859645E+22	2,895635E+22	1,175528E+23
-523	4,429736E+22	4,429614E+22	1,447864E+22	1,447834E+22	8,859350E+22	2,895698E+22	1,175505E+23
-522	4,429589E+22	4,429739E+22	1,447939E+22	1,447903E+22	8,859328E+22	2,895843E+22	1,175517E+23
-521	4,429654E+22	4,429601E+22	1,447925E+22	1,448012E+22	8,859255E+22	2,895938E+22	1,175519E+23
-520	4,429416E+22	4,429507E+22	1,448053E+22	1,447974E+22	8,858923E+22	2,896028E+22	1,175495E+23
-519	4,429445E+22	4,429559E+22	1,448053E+22	1,448069E+22	8,859004E+22	2,896122E+22	1,175513E+23
-518	4,429527E+22	4,429317E+22	1,448044E+22	1,448085E+22	8,858844E+22	2,896130E+22	1,175497E+23
-517	4,429329E+22	4,429411E+22	1,448124E+22	1,448026E+22	8,858739E+22	2,896150E+22	1,175489E+23
-516	4,429488E+22	4,429506E+22	1,448027E+22	1,448118E+22	8,858994E+22	2,896145E+22	1,175514E+23
-515	4,429479E+22	4,429364E+22	1,448022E+22	1,448032E+22	8,858843E+22	2,896054E+22	1,175490E+23
-514	4,429388E+22	4,429564E+22	1,448037E+22	1,447970E+22	8,858952E+22	2,896007E+22	1,175496E+23
-513	4,429614E+22	4,429550E+22	1,447931E+22	1,447998E+22	8,859164E+22	2,895929E+22	1,175509E+23
-512	4,429527E+22	4,429518E+22	1,447963E+22	1,447867E+22	8,859044E+22	2,895830E+22	1,175487E+23
-511	4,429552E+22	4,429714E+22	1,447927E+22	1,447889E+22	8,859265E+22	2,895816E+22	1,175508E+23
-510	4,429701E+22	4,429578E+22	1,447842E+22	1,447909E+22	8,859280E+22	2,895751E+22	1,175503E+23
-509	4,429529E+22	4,429641E+22	1,447904E+22	1,447824E+22	8,859170E+22	2,895728E+22	1,175490E+23
-508	4,429668E+22	4,429743E+22	1,447844E+22	1,447913E+22	8,859411E+22	2,895757E+22	1,175517E+23
-507	4,429734E+22	4,429525E+22	1,447845E+22	1,447879E+22	8,859259E+22	2,895724E+22	1,175498E+23
-506	4,429562E+22	4,429651E+22	1,447943E+22	1,447854E+22	8,859213E+22	2,895797E+22	1,175501E+23
-505	4,429673E+22	4,429634E+22	1,447911E+22	1,447993E+22	8,859308E+22	2,895904E+22	1,175521E+23
-504	4,429518E+22	4,429479E+22	1,448002E+22	1,447974E+22	8,858997E+22	2,895977E+22	1,175497E+23
-503	4,429359E+22	4,429582E+22	1,448085E+22	1,448044E+22	8,858942E+22	2,896129E+22	1,175507E+23
-502	4,429470E+22	4,429360E+22	1,448057E+22	1,448140E+22	8,858830E+22	2,896197E+22	1,175503E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-501	4,429277E+22	4,429275E+22	1,448177E+22	1,448091E+22	8,858552E+22	2,896267E+22	1,175482E+23
-500	4,429300E+22	4,429380E+22	1,448172E+22	1,448189E+22	8,858680E+22	2,896361E+22	1,175504E+23
-499	4,429394E+22	4,429175E+22	1,448140E+22	1,448204E+22	8,858569E+22	2,896344E+22	1,175491E+23
-498	4,429186E+22	4,429306E+22	1,448214E+22	1,448133E+22	8,858492E+22	2,896346E+22	1,175484E+23
-497	4,429319E+22	4,429375E+22	1,448139E+22	1,448219E+22	8,858694E+22	2,896358E+22	1,175505E+23
-496	4,429334E+22	4,429250E+22	1,448133E+22	1,448116E+22	8,858584E+22	2,896249E+22	1,175483E+23
-495	4,429247E+22	4,429439E+22	1,448156E+22	1,448052E+22	8,858685E+22	2,896208E+22	1,175489E+23
-494	4,429475E+22	4,429373E+22	1,448038E+22	1,448103E+22	8,858848E+22	2,896141E+22	1,175499E+23
-493	4,429384E+22	4,429363E+22	1,448061E+22	1,447981E+22	8,858747E+22	2,896041E+22	1,175479E+23
-492	4,429378E+22	4,429574E+22	1,448026E+22	1,448016E+22	8,858952E+22	2,896042E+22	1,175499E+23
-491	4,429568E+22	4,429421E+22	1,447930E+22	1,448027E+22	8,858989E+22	2,895957E+22	1,175495E+23
-490	4,429425E+22	4,429487E+22	1,447994E+22	1,447919E+22	8,858912E+22	2,895912E+22	1,175482E+23
-489	4,429533E+22	4,429574E+22	1,447966E+22	1,448011E+22	8,859106E+22	2,895977E+22	1,175508E+23
-488	4,429585E+22	4,429406E+22	1,447972E+22	1,447985E+22	8,858991E+22	2,895957E+22	1,175495E+23
-487	4,429364E+22	4,429537E+22	1,448083E+22	1,447981E+22	8,858901E+22	2,896065E+22	1,175497E+23
-486	4,429457E+22	4,429452E+22	1,448046E+22	1,448142E+22	8,858909E+22	2,896189E+22	1,175510E+23
-485	4,429325E+22	4,429277E+22	1,448137E+22	1,448113E+22	8,858602E+22	2,896250E+22	1,175485E+23
-484	4,429175E+22	4,429379E+22	1,448220E+22	1,448178E+22	8,858555E+22	2,896398E+22	1,175495E+23
-483	4,429341E+22	4,429151E+22	1,448173E+22	1,448276E+22	8,858492E+22	2,896449E+22	1,175494E+23
-482	4,429157E+22	4,429107E+22	1,448282E+22	1,448205E+22	8,858264E+22	2,896486E+22	1,175475E+23
-481	4,429130E+22	4,429234E+22	1,448292E+22	1,448315E+22	8,858365E+22	2,896607E+22	1,175497E+23
-480	4,429216E+22	4,429073E+22	1,448254E+22	1,448319E+22	8,858289E+22	2,896574E+22	1,175486E+23
-479	4,429013E+22	4,429192E+22	1,448336E+22	1,448237E+22	8,858206E+22	2,896573E+22	1,175478E+23
-478	4,429172E+22	4,429193E+22	1,448253E+22	1,448318E+22	8,858365E+22	2,896571E+22	1,175494E+23
-477	4,429210E+22	4,429077E+22	1,448241E+22	1,448203E+22	8,858287E+22	2,896444E+22	1,175473E+23
-476	4,429099E+22	4,429300E+22	1,448261E+22	1,448156E+22	8,858400E+22	2,896416E+22	1,175482E+23
-475	4,429334E+22	4,429236E+22	1,448119E+22	1,448216E+22	8,858569E+22	2,896335E+22	1,175490E+23
-474	4,429244E+22	4,429238E+22	1,448136E+22	1,448086E+22	8,858482E+22	2,896223E+22	1,175470E+23
-473	4,429228E+22	4,429424E+22	1,448127E+22	1,448123E+22	8,858652E+22	2,896250E+22	1,175490E+23
-472	4,429438E+22	4,429293E+22	1,448038E+22	1,448118E+22	8,858731E+22	2,896156E+22	1,175489E+23
-471	4,429298E+22	4,429357E+22	1,448119E+22	1,448016E+22	8,858655E+22	2,896136E+22	1,175479E+23
-470	4,429382E+22	4,429397E+22	1,448092E+22	1,448133E+22	8,858779E+22	2,896225E+22	1,175500E+23
-469	4,429407E+22	4,429248E+22	1,448099E+22	1,448120E+22	8,858654E+22	2,896219E+22	1,175487E+23
-468	4,429151E+22	4,429374E+22	1,448217E+22	1,448130E+22	8,858525E+22	2,896347E+22	1,175487E+23
-467	4,429278E+22	4,429251E+22	1,448167E+22	1,448281E+22	8,858528E+22	2,896447E+22	1,175498E+23
-466	4,429184E+22	4,429077E+22	1,448252E+22	1,448230E+22	8,858261E+22	2,896482E+22	1,175474E+23
-465	4,429021E+22	4,429174E+22	1,448355E+22	1,448298E+22	8,858195E+22	2,896653E+22	1,175485E+23
-464	4,429178E+22	4,429016E+22	1,448302E+22	1,448394E+22	8,858194E+22	2,896696E+22	1,175489E+23
-463	4,428977E+22	4,428997E+22	1,448411E+22	1,448332E+22	8,857974E+22	2,896743E+22	1,175472E+23
-462	4,428941E+22	4,429073E+22	1,448415E+22	1,448446E+22	8,858014E+22	2,896861E+22	1,175487E+23
-461	4,429057E+22	4,428917E+22	1,448373E+22	1,448430E+22	8,857974E+22	2,896803E+22	1,175478E+23
-460	4,428859E+22	4,429033E+22	1,448454E+22	1,448339E+22	8,857891E+22	2,896793E+22	1,175468E+23
-459	4,429049E+22	4,429023E+22	1,448350E+22	1,448415E+22	8,858072E+22	2,896765E+22	1,175484E+23
-458	4,429090E+22	4,428935E+22	1,448324E+22	1,448299E+22	8,858025E+22	2,896623E+22	1,175465E+23
-457	4,428929E+22	4,429157E+22	1,448356E+22	1,448271E+22	8,858085E+22	2,896628E+22	1,175471E+23
-456	4,429169E+22	4,429128E+22	1,448212E+22	1,448322E+22	8,858297E+22	2,896534E+22	1,175483E+23
-455	4,429112E+22	4,429109E+22	1,448239E+22	1,448184E+22	8,858221E+22	2,896424E+22	1,175464E+23
-454	4,429112E+22	4,429239E+22	1,448234E+22	1,448218E+22	8,858351E+22	2,896453E+22	1,175480E+23
-453	4,429330E+22	4,429134E+22	1,448151E+22	1,448210E+22	8,858465E+22	2,896361E+22	1,175483E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-452	4,429140E+22	4,429226E+22	1,448242E+22	1,448132E+22	8,858366E+22	2,896375E+22	1,175474E+23
-451	4,429206E+22	4,429256E+22	1,448204E+22	1,448263E+22	8,858461E+22	2,896467E+22	1,175493E+23
-450	4,429227E+22	4,429097E+22	1,448211E+22	1,448248E+22	8,858324E+22	2,896459E+22	1,175478E+23
-449	4,428957E+22	4,429184E+22	1,448353E+22	1,448264E+22	8,858140E+22	2,896617E+22	1,175476E+23
-448	4,429106E+22	4,429080E+22	1,448301E+22	1,448399E+22	8,858186E+22	2,896701E+22	1,175489E+23
-447	4,429033E+22	4,428905E+22	1,448393E+22	1,448355E+22	8,857938E+22	2,896748E+22	1,175469E+23
-446	4,428855E+22	4,428977E+22	1,448486E+22	1,448440E+22	8,857832E+22	2,896926E+22	1,175476E+23
-445	4,428999E+22	4,428856E+22	1,448428E+22	1,448534E+22	8,857855E+22	2,896962E+22	1,175482E+23
-444	4,428787E+22	4,428850E+22	1,448537E+22	1,448469E+22	8,857636E+22	2,897006E+22	1,175464E+23
-443	4,428793E+22	4,428893E+22	1,448522E+22	1,448558E+22	8,857686E+22	2,897079E+22	1,175477E+23
-442	4,428934E+22	4,428750E+22	1,448471E+22	1,448516E+22	8,857684E+22	2,896987E+22	1,175467E+23
-441	4,428715E+22	4,428868E+22	1,448563E+22	1,448434E+22	8,857583E+22	2,896997E+22	1,175458E+23
-440	4,428885E+22	4,428914E+22	1,448450E+22	1,448508E+22	8,857799E+22	2,896958E+22	1,175476E+23
-439	4,428927E+22	4,428833E+22	1,448425E+22	1,448408E+22	8,857760E+22	2,896832E+22	1,175459E+23
-438	4,428774E+22	4,428992E+22	1,448453E+22	1,448384E+22	8,857766E+22	2,896837E+22	1,175460E+23
-437	4,429048E+22	4,428972E+22	1,448313E+22	1,448418E+22	8,858020E+22	2,896732E+22	1,175475E+23
-436	4,428999E+22	4,428962E+22	1,448347E+22	1,448279E+22	8,857961E+22	2,896626E+22	1,175459E+23
-435	4,429011E+22	4,429081E+22	1,448334E+22	1,448314E+22	8,858092E+22	2,896648E+22	1,175474E+23
-434	4,429199E+22	4,429011E+22	1,448250E+22	1,448316E+22	8,858210E+22	2,896566E+22	1,175478E+23
-433	4,428943E+22	4,429086E+22	1,448365E+22	1,448268E+22	8,858029E+22	2,896634E+22	1,175466E+23
-432	4,428991E+22	4,429125E+22	1,448333E+22	1,448392E+22	8,858116E+22	2,896724E+22	1,175484E+23
-431	4,429051E+22	4,428926E+22	1,448349E+22	1,448379E+22	8,857977E+22	2,896728E+22	1,175470E+23
-430	4,428795E+22	4,428946E+22	1,448489E+22	1,448395E+22	8,857741E+22	2,896884E+22	1,175463E+23
-429	4,428964E+22	4,428879E+22	1,448436E+22	1,448527E+22	8,857843E+22	2,896963E+22	1,175481E+23
-428	4,428862E+22	4,428741E+22	1,448523E+22	1,448494E+22	8,857604E+22	2,897017E+22	1,175462E+23
-427	4,428683E+22	4,428817E+22	1,448598E+22	1,448577E+22	8,857500E+22	2,897175E+22	1,175468E+23
-426	4,428839E+22	4,428712E+22	1,448535E+22	1,448651E+22	8,857551E+22	2,897186E+22	1,175474E+23
-425	4,428611E+22	4,428684E+22	1,448663E+22	1,448582E+22	8,857295E+22	2,897245E+22	1,175454E+23
-424	4,428630E+22	4,428757E+22	1,448643E+22	1,448646E+22	8,857388E+22	2,897289E+22	1,175468E+23
-423	4,428794E+22	4,428609E+22	1,448590E+22	1,448616E+22	8,857403E+22	2,897206E+22	1,175461E+23
-422	4,428550E+22	4,428692E+22	1,448670E+22	1,448552E+22	8,857242E+22	2,897222E+22	1,175446E+23
-421	4,428723E+22	4,428768E+22	1,448549E+22	1,448625E+22	8,857491E+22	2,897173E+22	1,175466E+23
-420	4,428774E+22	4,428689E+22	1,448523E+22	1,448521E+22	8,857464E+22	2,897043E+22	1,175451E+23
-419	4,428675E+22	4,428825E+22	1,448536E+22	1,448478E+22	8,857500E+22	2,897014E+22	1,175451E+23
-418	4,428967E+22	4,428830E+22	1,448398E+22	1,448492E+22	8,857797E+22	2,896890E+22	1,175469E+23
-417	4,428874E+22	4,428833E+22	1,448455E+22	1,448375E+22	8,857707E+22	2,896830E+22	1,175454E+23
-416	4,428837E+22	4,428997E+22	1,448445E+22	1,448413E+22	8,857834E+22	2,896858E+22	1,175469E+23
-415	4,429009E+22	4,428907E+22	1,448373E+22	1,448442E+22	8,857916E+22	2,896815E+22	1,175473E+23
-414	4,428747E+22	4,428894E+22	1,448494E+22	1,448408E+22	8,857641E+22	2,896901E+22	1,175454E+23
-413	4,428823E+22	4,428922E+22	1,448466E+22	1,448519E+22	8,857744E+22	2,896985E+22	1,175473E+23
-412	4,428897E+22	4,428724E+22	1,448485E+22	1,448509E+22	8,857622E+22	2,896995E+22	1,175462E+23
-411	4,428672E+22	4,428733E+22	1,448603E+22	1,448526E+22	8,857405E+22	2,897129E+22	1,175453E+23
-410	4,428814E+22	4,428716E+22	1,448546E+22	1,448655E+22	8,857530E+22	2,897201E+22	1,175473E+23
-409	4,428669E+22	4,428594E+22	1,448649E+22	1,448637E+22	8,857262E+22	2,897286E+22	1,175455E+23
-408	4,428487E+22	4,428689E+22	1,448726E+22	1,448691E+22	8,857176E+22	2,897417E+22	1,175459E+23
-407	4,428678E+22	4,428564E+22	1,448671E+22	1,448759E+22	8,857242E+22	2,897430E+22	1,175467E+23
-406	4,428451E+22	4,428479E+22	1,448793E+22	1,448691E+22	8,856930E+22	2,897484E+22	1,175441E+23
-405	4,428469E+22	4,428587E+22	1,448766E+22	1,448753E+22	8,857056E+22	2,897519E+22	1,175457E+23
-404	4,428613E+22	4,428468E+22	1,448702E+22	1,448737E+22	8,857082E+22	2,897439E+22	1,175452E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-403	4,428401E+22	4,428532E+22	1,448752E+22	1,448672E+22	8,856932E+22	2,897424E+22	1,175436E+23
-402	4,428604E+22	4,428627E+22	1,448628E+22	1,448721E+22	8,857231E+22	2,897349E+22	1,175458E+23
-401	4,428656E+22	4,428550E+22	1,448618E+22	1,448615E+22	8,857206E+22	2,897233E+22	1,175444E+23
-400	4,428562E+22	4,428721E+22	1,448636E+22	1,448551E+22	8,857283E+22	2,897187E+22	1,175447E+23
-399	4,428851E+22	4,428730E+22	1,448510E+22	1,448585E+22	8,857581E+22	2,897094E+22	1,175468E+23
-398	4,428698E+22	4,428685E+22	1,448570E+22	1,448498E+22	8,857383E+22	2,897067E+22	1,175445E+23
-397	4,428645E+22	4,428852E+22	1,448566E+22	1,448543E+22	8,857497E+22	2,897108E+22	1,175461E+23
-396	4,428824E+22	4,428729E+22	1,448499E+22	1,448573E+22	8,857553E+22	2,897072E+22	1,175463E+23
-395	4,428613E+22	4,428668E+22	1,448602E+22	1,448529E+22	8,857282E+22	2,897132E+22	1,175441E+23
-394	4,428713E+22	4,428722E+22	1,448574E+22	1,448625E+22	8,857435E+22	2,897198E+22	1,175463E+23
-393	4,428745E+22	4,428554E+22	1,448608E+22	1,448636E+22	8,857299E+22	2,897244E+22	1,175454E+23
-392	4,428487E+22	4,428624E+22	1,448725E+22	1,448647E+22	8,857110E+22	2,897372E+22	1,175448E+23
-391	4,428629E+22	4,428600E+22	1,448680E+22	1,448787E+22	8,857229E+22	2,897468E+22	1,175470E+23
-390	4,428468E+22	4,428413E+22	1,448790E+22	1,448772E+22	8,856880E+22	2,897561E+22	1,175444E+23
-389	4,428309E+22	4,428509E+22	1,448868E+22	1,448808E+22	8,856819E+22	2,897675E+22	1,175449E+23
-388	4,428508E+22	4,428380E+22	1,448810E+22	1,448876E+22	8,856888E+22	2,897686E+22	1,175457E+23
-387	4,428307E+22	4,428280E+22	1,448900E+22	1,448815E+22	8,856587E+22	2,897715E+22	1,175430E+23
-386	4,428315E+22	4,428429E+22	1,448856E+22	1,448871E+22	8,856744E+22	2,897726E+22	1,175447E+23
-385	4,428441E+22	4,428327E+22	1,448798E+22	1,448864E+22	8,856768E+22	2,897662E+22	1,175443E+23
-384	4,428262E+22	4,428414E+22	1,448842E+22	1,448763E+22	8,856677E+22	2,897605E+22	1,175428E+23
-383	4,428508E+22	4,428506E+22	1,448729E+22	1,448803E+22	8,857014E+22	2,897532E+22	1,175455E+23
-382	4,428544E+22	4,428397E+22	1,448724E+22	1,448701E+22	8,856942E+22	2,897425E+22	1,175437E+23
-381	4,428426E+22	4,428596E+22	1,448746E+22	1,448641E+22	8,857022E+22	2,897387E+22	1,175441E+23
-380	4,428666E+22	4,428617E+22	1,448626E+22	1,448697E+22	8,857283E+22	2,897323E+22	1,175461E+23
-379	4,428533E+22	4,428518E+22	1,448668E+22	1,448623E+22	8,857051E+22	2,897291E+22	1,175434E+23
-378	4,428491E+22	4,428673E+22	1,448668E+22	1,448654E+22	8,857163E+22	2,897321E+22	1,175448E+23
-377	4,428670E+22	4,428548E+22	1,448618E+22	1,448694E+22	8,857218E+22	2,897312E+22	1,175453E+23
-376	4,428480E+22	4,428511E+22	1,448719E+22	1,448633E+22	8,856990E+22	2,897352E+22	1,175434E+23
-375	4,428576E+22	4,428582E+22	1,448701E+22	1,448748E+22	8,857158E+22	2,897449E+22	1,175461E+23
-374	4,428549E+22	4,428393E+22	1,448740E+22	1,448783E+22	8,856942E+22	2,897522E+22	1,175446E+23
-373	4,428280E+22	4,428469E+22	1,448866E+22	1,448788E+22	8,856750E+22	2,897655E+22	1,175440E+23
-372	4,428426E+22	4,428427E+22	1,448831E+22	1,448922E+22	8,856854E+22	2,897753E+22	1,175461E+23
-371	4,428313E+22	4,428193E+22	1,448917E+22	1,448898E+22	8,856506E+22	2,897815E+22	1,175432E+23
-370	4,428166E+22	4,428312E+22	1,448985E+22	1,448917E+22	8,856478E+22	2,897902E+22	1,175438E+23
-369	4,428330E+22	4,428216E+22	1,448926E+22	1,449004E+22	8,856546E+22	2,897930E+22	1,175448E+23
-368	4,428128E+22	4,428161E+22	1,448998E+22	1,448929E+22	8,856289E+22	2,897927E+22	1,175422E+23
-367	4,428172E+22	4,428308E+22	1,448958E+22	1,448984E+22	8,856480E+22	2,897943E+22	1,175442E+23
-366	4,428293E+22	4,428167E+22	1,448904E+22	1,448969E+22	8,856461E+22	2,897873E+22	1,175433E+23
-365	4,428149E+22	4,428277E+22	1,448952E+22	1,448847E+22	8,856425E+22	2,897798E+22	1,175422E+23
-364	4,428390E+22	4,428371E+22	1,448845E+22	1,448887E+22	8,856760E+22	2,897731E+22	1,175449E+23
-363	4,428416E+22	4,428246E+22	1,448816E+22	1,448804E+22	8,856662E+22	2,897620E+22	1,175428E+23
-362	4,428268E+22	4,428466E+22	1,448835E+22	1,448748E+22	8,856734E+22	2,897583E+22	1,175432E+23
-361	4,428473E+22	4,428475E+22	1,448730E+22	1,448821E+22	8,856948E+22	2,897552E+22	1,175450E+23
-360	4,428375E+22	4,428371E+22	1,448771E+22	1,448727E+22	8,856746E+22	2,897498E+22	1,175424E+23
-359	4,428378E+22	4,428508E+22	1,448784E+22	1,448758E+22	8,856886E+22	2,897542E+22	1,175443E+23
-358	4,428525E+22	4,428361E+22	1,448742E+22	1,448812E+22	8,856886E+22	2,897554E+22	1,175444E+23
-357	4,428318E+22	4,428366E+22	1,448846E+22	1,448757E+22	8,856684E+22	2,897603E+22	1,175429E+23
-356	4,428377E+22	4,428446E+22	1,448840E+22	1,448886E+22	8,856822E+22	2,897726E+22	1,175455E+23
-355	4,428366E+22	4,428214E+22	1,448864E+22	1,448928E+22	8,856580E+22	2,897792E+22	1,175437E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-354	4,428112E+22	4,428283E+22	1,448994E+22	1,448913E+22	8,856394E+22	2,897907E+22	1,175430E+23
-353	4,428247E+22	4,428241E+22	1,448970E+22	1,449050E+22	8,856488E+22	2,898020E+22	1,175451E+23
-352	4,428156E+22	4,428025E+22	1,449043E+22	1,449011E+22	8,856181E+22	2,898054E+22	1,175423E+23
-351	4,428011E+22	4,428157E+22	1,449107E+22	1,449044E+22	8,856168E+22	2,898151E+22	1,175432E+23
-350	4,428133E+22	4,428051E+22	1,449042E+22	1,449142E+22	8,856184E+22	2,898184E+22	1,175437E+23
-349	4,427963E+22	4,428006E+22	1,449109E+22	1,449045E+22	8,855969E+22	2,898155E+22	1,175412E+23
-348	4,428029E+22	4,428153E+22	1,449077E+22	1,449083E+22	8,856182E+22	2,898160E+22	1,175434E+23
-347	4,428196E+22	4,427995E+22	1,448999E+22	1,449058E+22	8,856191E+22	2,898056E+22	1,175425E+23
-346	4,428043E+22	4,428132E+22	1,449044E+22	1,448924E+22	8,856175E+22	2,897968E+22	1,175414E+23
-345	4,428222E+22	4,428264E+22	1,448946E+22	1,448988E+22	8,856486E+22	2,897934E+22	1,175442E+23
-344	4,428239E+22	4,428151E+22	1,448909E+22	1,448904E+22	8,856391E+22	2,897813E+22	1,175420E+23
-343	4,428113E+22	4,428340E+22	1,448939E+22	1,448860E+22	8,856452E+22	2,897799E+22	1,175425E+23
-342	4,428303E+22	4,428300E+22	1,448844E+22	1,448938E+22	8,856603E+22	2,897782E+22	1,175438E+23
-341	4,428244E+22	4,428199E+22	1,448890E+22	1,448833E+22	8,856442E+22	2,897723E+22	1,175417E+23
-340	4,428246E+22	4,428340E+22	1,448915E+22	1,448874E+22	8,856585E+22	2,897788E+22	1,175437E+23
-339	4,428381E+22	4,428185E+22	1,448853E+22	1,448948E+22	8,856566E+22	2,897801E+22	1,175437E+23
-338	4,428150E+22	4,428211E+22	1,448960E+22	1,448892E+22	8,856361E+22	2,897852E+22	1,175421E+23
-337	4,428175E+22	4,428288E+22	1,448972E+22	1,449027E+22	8,856463E+22	2,897999E+22	1,175446E+23
-336	4,428194E+22	4,428051E+22	1,448995E+22	1,449044E+22	8,856245E+22	2,898039E+22	1,175428E+23
-335	4,427975E+22	4,428105E+22	1,449132E+22	1,449030E+22	8,856081E+22	2,898161E+22	1,175424E+23
-334	4,428057E+22	4,428045E+22	1,449109E+22	1,449177E+22	8,856102E+22	2,898286E+22	1,175439E+23
-333	4,427964E+22	4,427868E+22	1,449173E+22	1,449140E+22	8,855832E+22	2,898312E+22	1,175414E+23
-332	4,427819E+22	4,428000E+22	1,449234E+22	1,449175E+22	8,855819E+22	2,898409E+22	1,175423E+23
-331	4,427973E+22	4,427865E+22	1,449146E+22	1,449268E+22	8,855838E+22	2,898413E+22	1,175425E+23
-330	4,427843E+22	4,427842E+22	1,449208E+22	1,449142E+22	8,855685E+22	2,898349E+22	1,175403E+23
-329	4,427903E+22	4,428009E+22	1,449183E+22	1,449175E+22	8,855912E+22	2,898358E+22	1,175427E+23
-328	4,428074E+22	4,427884E+22	1,449095E+22	1,449138E+22	8,855958E+22	2,898233E+22	1,175419E+23
-327	4,427909E+22	4,428030E+22	1,449141E+22	1,449027E+22	8,855939E+22	2,898167E+22	1,175411E+23
-326	4,428015E+22	4,428130E+22	1,449049E+22	1,449108E+22	8,856145E+22	2,898157E+22	1,175430E+23
-325	4,428067E+22	4,428005E+22	1,449017E+22	1,449016E+22	8,856072E+22	2,898033E+22	1,175411E+23
-324	4,427975E+22	4,428161E+22	1,449058E+22	1,448966E+22	8,856136E+22	2,898023E+22	1,175416E+23
-323	4,428201E+22	4,428097E+22	1,448945E+22	1,449046E+22	8,856297E+22	2,897992E+22	1,175429E+23
-322	4,428139E+22	4,428030E+22	1,448990E+22	1,448937E+22	8,856170E+22	2,897927E+22	1,175410E+23
-321	4,428079E+22	4,428213E+22	1,449027E+22	1,448999E+22	8,856292E+22	2,898026E+22	1,175432E+23
-320	4,428206E+22	4,428073E+22	1,448966E+22	1,449068E+22	8,856280E+22	2,898034E+22	1,175431E+23
-319	4,427986E+22	4,428069E+22	1,449092E+22	1,449020E+22	8,856056E+22	2,898112E+22	1,175417E+23
-318	4,427972E+22	4,428107E+22	1,449120E+22	1,449156E+22	8,856079E+22	2,898276E+22	1,175435E+23
-317	4,428023E+22	4,427862E+22	1,449145E+22	1,449166E+22	8,855885E+22	2,898310E+22	1,175420E+23
-316	4,427795E+22	4,427909E+22	1,449282E+22	1,449163E+22	8,855703E+22	2,898445E+22	1,175415E+23
-315	4,427870E+22	4,427845E+22	1,449226E+22	1,449326E+22	8,855715E+22	2,898552E+22	1,175427E+23
-314	4,427786E+22	4,427684E+22	1,449279E+22	1,449277E+22	8,855470E+22	2,898556E+22	1,175403E+23
-313	4,427645E+22	4,427835E+22	1,449346E+22	1,449303E+22	8,855480E+22	2,898649E+22	1,175413E+23
-312	4,427851E+22	4,427720E+22	1,449249E+22	1,449359E+22	8,855570E+22	2,898608E+22	1,175418E+23
-311	4,427750E+22	4,427710E+22	1,449312E+22	1,449228E+22	8,855460E+22	2,898541E+22	1,175400E+23
-310	4,427740E+22	4,427880E+22	1,449294E+22	1,449269E+22	8,855620E+22	2,898563E+22	1,175418E+23
-309	4,427898E+22	4,427781E+22	1,449201E+22	1,449238E+22	8,855679E+22	2,898439E+22	1,175412E+23
-308	4,427730E+22	4,427899E+22	1,449254E+22	1,449139E+22	8,855629E+22	2,898392E+22	1,175402E+23
-307	4,427860E+22	4,427951E+22	1,449144E+22	1,449222E+22	8,855811E+22	2,898366E+22	1,175418E+23
-306	4,427957E+22	4,427825E+22	1,449111E+22	1,449116E+22	8,855781E+22	2,898227E+22	1,175401E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-305	4,427866E+22	4,427997E+22	1,449160E+22	1,449069E+22	8,855863E+22	2,898230E+22	1,175409E+23
-304	4,428090E+22	4,427966E+22	1,449044E+22	1,449145E+22	8,856057E+22	2,898189E+22	1,175425E+23
-303	4,428012E+22	4,427922E+22	1,449094E+22	1,449058E+22	8,855934E+22	2,898152E+22	1,175409E+23
-302	4,427869E+22	4,428072E+22	1,449153E+22	1,449129E+22	8,855942E+22	2,898282E+22	1,175422E+23
-301	4,428012E+22	4,427922E+22	1,449107E+22	1,449191E+22	8,855935E+22	2,898298E+22	1,175423E+23
-300	4,427815E+22	4,427877E+22	1,449246E+22	1,449144E+22	8,855693E+22	2,898390E+22	1,175408E+23
-299	4,427801E+22	4,427878E+22	1,449255E+22	1,449287E+22	8,855679E+22	2,898542E+22	1,175422E+23
-298	4,427854E+22	4,427662E+22	1,449270E+22	1,449300E+22	8,855516E+22	2,898570E+22	1,175409E+23
-297	4,427595E+22	4,427737E+22	1,449402E+22	1,449310E+22	8,855331E+22	2,898712E+22	1,175404E+23
-296	4,427695E+22	4,427690E+22	1,449335E+22	1,449454E+22	8,855385E+22	2,898789E+22	1,175417E+23
-295	4,427655E+22	4,427537E+22	1,449389E+22	1,449395E+22	8,855192E+22	2,898784E+22	1,175398E+23
-294	4,427486E+22	4,427676E+22	1,449468E+22	1,449407E+22	8,855162E+22	2,898875E+22	1,175404E+23
-293	4,427719E+22	4,427585E+22	1,449373E+22	1,449449E+22	8,855303E+22	2,898822E+22	1,175413E+23
-292	4,427602E+22	4,427576E+22	1,449438E+22	1,449331E+22	8,855178E+22	2,898769E+22	1,175395E+23
-291	4,427560E+22	4,427727E+22	1,449392E+22	1,449389E+22	8,855288E+22	2,898780E+22	1,175407E+23
-290	4,427733E+22	4,427621E+22	1,449293E+22	1,449352E+22	8,855354E+22	2,898645E+22	1,175400E+23
-289	4,427578E+22	4,427732E+22	1,449350E+22	1,449249E+22	8,855310E+22	2,898599E+22	1,175391E+23
-288	4,427765E+22	4,427792E+22	1,449234E+22	1,449307E+22	8,855557E+22	2,898542E+22	1,175410E+23
-287	4,427883E+22	4,427686E+22	1,449204E+22	1,449205E+22	8,855568E+22	2,898409E+22	1,175398E+23
-286	4,427711E+22	4,427875E+22	1,449268E+22	1,449174E+22	8,855587E+22	2,898442E+22	1,175403E+23
-285	4,427917E+22	4,427866E+22	1,449162E+22	1,449255E+22	8,855783E+22	2,898417E+22	1,175420E+23
-284	4,427821E+22	4,427787E+22	1,449231E+22	1,449184E+22	8,855609E+22	2,898415E+22	1,175402E+23
-283	4,427679E+22	4,427885E+22	1,449280E+22	1,449260E+22	8,855564E+22	2,898541E+22	1,175410E+23
-282	4,427852E+22	4,427715E+22	1,449238E+22	1,449315E+22	8,855567E+22	2,898554E+22	1,175412E+23
-281	4,427649E+22	4,427672E+22	1,449381E+22	1,449280E+22	8,855321E+22	2,898661E+22	1,175398E+23
-280	4,427640E+22	4,427697E+22	1,449375E+22	1,449419E+22	8,855336E+22	2,898794E+22	1,175413E+23
-279	4,427689E+22	4,427505E+22	1,449382E+22	1,449445E+22	8,855194E+22	2,898827E+22	1,175402E+23
-278	4,427388E+22	4,427568E+22	1,449524E+22	1,449450E+22	8,854956E+22	2,898975E+22	1,175393E+23
-277	4,427533E+22	4,427532E+22	1,449466E+22	1,449567E+22	8,855065E+22	2,899034E+22	1,175410E+23
-276	4,427524E+22	4,427376E+22	1,449527E+22	1,449498E+22	8,854900E+22	2,899026E+22	1,175393E+23
-275	4,427344E+22	4,427502E+22	1,449585E+22	1,449509E+22	8,854846E+22	2,899094E+22	1,175394E+23
-274	4,427564E+22	4,427440E+22	1,449482E+22	1,449553E+22	8,855004E+22	2,899035E+22	1,175404E+23
-273	4,427415E+22	4,427445E+22	1,449540E+22	1,449451E+22	8,854860E+22	2,898991E+22	1,175385E+23
-272	4,427396E+22	4,427588E+22	1,449482E+22	1,449492E+22	8,854984E+22	2,898975E+22	1,175396E+23
-271	4,427617E+22	4,427483E+22	1,449382E+22	1,449452E+22	8,855101E+22	2,898834E+22	1,175393E+23
-270	4,427448E+22	4,427572E+22	1,449449E+22	1,449342E+22	8,855020E+22	2,898791E+22	1,175381E+23
-269	4,427654E+22	4,427660E+22	1,449344E+22	1,449394E+22	8,855314E+22	2,898738E+22	1,175405E+23
-268	4,427752E+22	4,427569E+22	1,449319E+22	1,449313E+22	8,855321E+22	2,898632E+22	1,175395E+23
-267	4,427532E+22	4,427728E+22	1,449371E+22	1,449299E+22	8,855260E+22	2,898670E+22	1,175393E+23
-266	4,427741E+22	4,427705E+22	1,449276E+22	1,449378E+22	8,855447E+22	2,898655E+22	1,175410E+23
-265	4,427650E+22	4,427606E+22	1,449357E+22	1,449312E+22	8,855255E+22	2,898668E+22	1,175392E+23
-264	4,427538E+22	4,427692E+22	1,449403E+22	1,449371E+22	8,855230E+22	2,898775E+22	1,175400E+23
-263	4,427721E+22	4,427541E+22	1,449359E+22	1,449438E+22	8,855262E+22	2,898796E+22	1,175406E+23
-262	4,427448E+22	4,427501E+22	1,449509E+22	1,449417E+22	8,854950E+22	2,898925E+22	1,175387E+23
-261	4,427443E+22	4,427549E+22	1,449508E+22	1,449554E+22	8,854992E+22	2,899061E+22	1,175405E+23
-260	4,427506E+22	4,427346E+22	1,449524E+22	1,449582E+22	8,854852E+22	2,899106E+22	1,175396E+23
-259	4,427218E+22	4,427378E+22	1,449652E+22	1,449578E+22	8,854595E+22	2,899230E+22	1,175383E+23
-258	4,427398E+22	4,427347E+22	1,449597E+22	1,449678E+22	8,854746E+22	2,899274E+22	1,175402E+23
-257	4,427371E+22	4,427215E+22	1,449655E+22	1,449615E+22	8,854586E+22	2,899270E+22	1,175386E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-256	4,427187E+22	4,427363E+22	1,449690E+22	1,449621E+22	8,854550E+22	2,899311E+22	1,175386E+23
-255	4,427395E+22	4,427312E+22	1,449575E+22	1,449672E+22	8,854707E+22	2,899247E+22	1,175395E+23
-254	4,427218E+22	4,427290E+22	1,449642E+22	1,449567E+22	8,854508E+22	2,899209E+22	1,175372E+23
-253	4,427260E+22	4,427432E+22	1,449589E+22	1,449583E+22	8,854692E+22	2,899172E+22	1,175386E+23
-252	4,427510E+22	4,427329E+22	1,449494E+22	1,449542E+22	8,854839E+22	2,899036E+22	1,175387E+23
-251	4,427330E+22	4,427415E+22	1,449542E+22	1,449440E+22	8,854746E+22	2,898981E+22	1,175373E+23
-250	4,427523E+22	4,427528E+22	1,449441E+22	1,449496E+22	8,855050E+22	2,898937E+22	1,175399E+23
-249	4,427580E+22	4,427451E+22	1,449423E+22	1,449432E+22	8,855031E+22	2,898855E+22	1,175389E+23
-248	4,427376E+22	4,427587E+22	1,449475E+22	1,449408E+22	8,854963E+22	2,898884E+22	1,175385E+23
-247	4,427600E+22	4,427555E+22	1,449389E+22	1,449488E+22	8,855155E+22	2,898877E+22	1,175403E+23
-246	4,427479E+22	4,427425E+22	1,449489E+22	1,449430E+22	8,854904E+22	2,898918E+22	1,175382E+23
-245	4,427379E+22	4,427521E+22	1,449543E+22	1,449491E+22	8,854900E+22	2,899034E+22	1,175393E+23
-244	4,427539E+22	4,427383E+22	1,449499E+22	1,449582E+22	8,854922E+22	2,899082E+22	1,175400E+23
-243	4,427243E+22	4,427312E+22	1,449629E+22	1,449571E+22	8,854554E+22	2,899200E+22	1,175375E+23
-242	4,427268E+22	4,427353E+22	1,449638E+22	1,449693E+22	8,854621E+22	2,899331E+22	1,175395E+23
-241	4,427347E+22	4,427163E+22	1,449658E+22	1,449711E+22	8,854510E+22	2,899369E+22	1,175388E+23
-240	4,427090E+22	4,427200E+22	1,449775E+22	1,449685E+22	8,854289E+22	2,899460E+22	1,175375E+23
-239	4,427261E+22	4,427210E+22	1,449712E+22	1,449786E+22	8,854471E+22	2,899498E+22	1,175397E+23
-238	4,427164E+22	4,427079E+22	1,449771E+22	1,449735E+22	8,854243E+22	2,899506E+22	1,175375E+23
-237	4,426984E+22	4,427231E+22	1,449806E+22	1,449733E+22	8,854216E+22	2,899539E+22	1,175376E+23
-236	4,427221E+22	4,427169E+22	1,449690E+22	1,449786E+22	8,854390E+22	2,899476E+22	1,175387E+23
-235	4,427073E+22	4,427101E+22	1,449737E+22	1,449672E+22	8,854175E+22	2,899409E+22	1,175358E+23
-234	4,427168E+22	4,427251E+22	1,449690E+22	1,449675E+22	8,854419E+22	2,899365E+22	1,175378E+23
-233	4,427401E+22	4,427189E+22	1,449593E+22	1,449642E+22	8,854591E+22	2,899235E+22	1,175383E+23
-232	4,427209E+22	4,427297E+22	1,449627E+22	1,449541E+22	8,854506E+22	2,899168E+22	1,175367E+23
-231	4,427376E+22	4,427424E+22	1,449530E+22	1,449603E+22	8,854800E+22	2,899133E+22	1,175393E+23
-230	4,427392E+22	4,427310E+22	1,449537E+22	1,449543E+22	8,854702E+22	2,899080E+22	1,175378E+23
-229	4,427221E+22	4,427431E+22	1,449607E+22	1,449508E+22	8,854652E+22	2,899116E+22	1,175377E+23
-228	4,427449E+22	4,427390E+22	1,449530E+22	1,449602E+22	8,854839E+22	2,899132E+22	1,175397E+23
-227	4,427302E+22	4,427234E+22	1,449613E+22	1,449565E+22	8,854536E+22	2,899178E+22	1,175371E+23
-226	4,427203E+22	4,427335E+22	1,449670E+22	1,449634E+22	8,854538E+22	2,899305E+22	1,175384E+23
-225	4,427339E+22	4,427213E+22	1,449629E+22	1,449734E+22	8,854552E+22	2,899363E+22	1,175392E+23
-224	4,427086E+22	4,427135E+22	1,449748E+22	1,449705E+22	8,854221E+22	2,899454E+22	1,175367E+23
-223	4,427133E+22	4,427186E+22	1,449759E+22	1,449810E+22	8,854319E+22	2,899569E+22	1,175389E+23
-222	4,427176E+22	4,426995E+22	1,449796E+22	1,449828E+22	8,854171E+22	2,899624E+22	1,175380E+23
-221	4,426923E+22	4,427054E+22	1,449913E+22	1,449797E+22	8,853978E+22	2,899710E+22	1,175369E+23
-220	4,427058E+22	4,427075E+22	1,449844E+22	1,449915E+22	8,854133E+22	2,899759E+22	1,175389E+23
-219	4,426949E+22	4,426900E+22	1,449880E+22	1,449870E+22	8,853849E+22	2,899750E+22	1,175360E+23
-218	4,426830E+22	4,427028E+22	1,449915E+22	1,449848E+22	8,853858E+22	2,899763E+22	1,175362E+23
-217	4,427095E+22	4,426989E+22	1,449795E+22	1,449888E+22	8,854084E+22	2,899683E+22	1,175377E+23
-216	4,426997E+22	4,426941E+22	1,449822E+22	1,449757E+22	8,853938E+22	2,899578E+22	1,175352E+23
-215	4,427074E+22	4,427143E+22	1,449770E+22	1,449760E+22	8,854217E+22	2,899530E+22	1,175375E+23
-214	4,427233E+22	4,427099E+22	1,449689E+22	1,449742E+22	8,854331E+22	2,899431E+22	1,175376E+23
-213	4,427039E+22	4,427202E+22	1,449738E+22	1,449638E+22	8,854241E+22	2,899376E+22	1,175362E+23
-212	4,427203E+22	4,427306E+22	1,449656E+22	1,449710E+22	8,854509E+22	2,899365E+22	1,175387E+23
-211	4,427223E+22	4,427126E+22	1,449655E+22	1,449660E+22	8,854349E+22	2,899316E+22	1,175366E+23
-210	4,427087E+22	4,427223E+22	1,449737E+22	1,449629E+22	8,854310E+22	2,899366E+22	1,175368E+23
-209	4,427287E+22	4,427213E+22	1,449656E+22	1,449741E+22	8,854500E+22	2,899397E+22	1,175390E+23
-208	4,427141E+22	4,427058E+22	1,449719E+22	1,449708E+22	8,854199E+22	2,899427E+22	1,175363E+23

1		14	15	16	17	18	19	20
		Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
		Spring	Summer	Autumn	Winter			
Years	Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
	-207		4,427039E+22	4,427175E+22	1,449777E+22	1,449773E+22	8,854214E+22	2,899550E+22
-206		4,427156E+22	4,427038E+22	1,449758E+22	1,449864E+22	8,854193E+22	2,899622E+22	1,175382E+23
-205		4,426934E+22	4,426966E+22	1,449892E+22	1,449813E+22	8,853901E+22	2,899705E+22	1,175361E+23
-204		4,426973E+22	4,427038E+22	1,449908E+22	1,449924E+22	8,854010E+22	2,899832E+22	1,175384E+23
-203		4,426976E+22	4,426821E+22	1,449927E+22	1,449958E+22	8,853797E+22	2,899885E+22	1,175368E+23
-202		4,426728E+22	4,426875E+22	1,450042E+22	1,449931E+22	8,853603E+22	2,899973E+22	1,175358E+23
-201		4,426851E+22	4,426905E+22	1,449965E+22	1,450047E+22	8,853756E+22	2,900012E+22	1,175377E+23
-200		4,426805E+22	4,426715E+22	1,449977E+22	1,449984E+22	8,853519E+22	2,899961E+22	1,175348E+23
-199		4,426731E+22	4,426865E+22	1,450004E+22	1,449942E+22	8,853596E+22	2,899946E+22	1,175354E+23
-198		4,426974E+22	4,426845E+22	1,449899E+22	1,449980E+22	8,853819E+22	2,899879E+22	1,175370E+23
-197		4,426877E+22	4,426842E+22	1,449926E+22	1,449846E+22	8,853720E+22	2,899772E+22	1,175349E+23
-196		4,426913E+22	4,427063E+22	1,449877E+22	1,449866E+22	8,853975E+22	2,899742E+22	1,175372E+23
-195		4,427039E+22	4,426962E+22	1,449792E+22	1,449858E+22	8,854001E+22	2,899650E+22	1,175365E+23
-194		4,426894E+22	4,427018E+22	1,449855E+22	1,449749E+22	8,853912E+22	2,899604E+22	1,175352E+23
-193		4,427051E+22	4,427126E+22	1,449779E+22	1,449818E+22	8,854176E+22	2,899597E+22	1,175377E+23
-192		4,427108E+22	4,426942E+22	1,449760E+22	1,449774E+22	8,854049E+22	2,899534E+22	1,175358E+23
-191		4,426958E+22	4,427063E+22	1,449833E+22	1,449748E+22	8,854021E+22	2,899581E+22	1,175360E+23
-190		4,427093E+22	4,427065E+22	1,449772E+22	1,449874E+22	8,854158E+22	2,899646E+22	1,175380E+23
-189		4,426969E+22	4,426919E+22	1,449844E+22	1,449830E+22	8,853888E+22	2,899674E+22	1,175356E+23
-188		4,426870E+22	4,427030E+22	1,449916E+22	1,449894E+22	8,853899E+22	2,899810E+22	1,175371E+23
-187		4,426979E+22	4,426850E+22	1,449899E+22	1,449888E+22	8,853828E+22	2,899887E+22	1,175372E+23
-186		4,426787E+22	4,426763E+22	1,450043E+22	1,449941E+22	8,853549E+22	2,899983E+22	1,175353E+23
-185		4,426770E+22	4,426870E+22	1,450051E+22	1,450062E+22	8,853640E+22	2,900113E+22	1,175375E+23
-184		4,426783E+22	4,426645E+22	1,450039E+22	1,450103E+22	8,853428E+22	2,900142E+22	1,175357E+23
-183		4,426553E+22	4,426694E+22	1,450142E+22	1,450060E+22	8,853248E+22	2,900202E+22	1,175345E+23
-182		4,426681E+22	4,426723E+22	1,450078E+22	1,450161E+22	8,853403E+22	2,900240E+22	1,175364E+23
-181		4,426692E+22	4,426562E+22	1,450088E+22	1,450072E+22	8,853254E+22	2,900160E+22	1,175341E+23
-180		4,426620E+22	4,426752E+22	1,450114E+22	1,450034E+22	8,853372E+22	2,900148E+22	1,175352E+23
-179		4,426816E+22	4,426724E+22	1,449999E+22	1,450084E+22	8,853539E+22	2,900083E+22	1,175362E+23
-178		4,426724E+22	4,426713E+22	1,450032E+22	1,449955E+22	8,853436E+22	2,899988E+22	1,175342E+23
-177		4,426734E+22	4,426936E+22	1,449987E+22	1,449973E+22	8,853670E+22	2,899959E+22	1,175363E+23
-176		4,426905E+22	4,426793E+22	1,449886E+22	1,449961E+22	8,853698E+22	2,899847E+22	1,175355E+23
-175		4,426786E+22	4,426844E+22	1,449950E+22	1,449846E+22	8,853630E+22	2,899796E+22	1,175343E+23
-174		4,426910E+22	4,426957E+22	1,449891E+22	1,449927E+22	8,853867E+22	2,899818E+22	1,175368E+23
-173		4,426958E+22	4,426805E+22	1,449873E+22	1,449889E+22	8,853763E+22	2,899762E+22	1,175353E+23
-172		4,426783E+22	4,426943E+22	1,449949E+22	1,449880E+22	8,853726E+22	2,899829E+22	1,175356E+23
-171		4,426897E+22	4,426887E+22	1,449895E+22	1,450009E+22	8,853784E+22	2,899903E+22	1,175369E+23
-170		4,426822E+22	4,426716E+22	1,449985E+22	1,449956E+22	8,853538E+22	2,899941E+22	1,175348E+23
-169		4,426704E+22	4,426849E+22	1,450065E+22	1,450013E+22	8,853553E+22	2,900078E+22	1,175363E+23
-168		4,426823E+22	4,426665E+22	1,450029E+22	1,450117E+22	8,853488E+22	2,900146E+22	1,175363E+23
-167		4,426607E+22	4,426600E+22	1,450163E+22	1,450075E+22	8,853207E+22	2,900238E+22	1,175344E+23
-166		4,426538E+22	4,426707E+22	1,450180E+22	1,450203E+22	8,853245E+22	2,900384E+22	1,175363E+23
-165		4,426591E+22	4,426486E+22	1,450164E+22	1,450227E+22	8,853078E+22	2,900392E+22	1,175347E+23
-164		4,426400E+22	4,426538E+22	1,450261E+22	1,450176E+22	8,852938E+22	2,900437E+22	1,175338E+23
-163		4,426537E+22	4,426537E+22	1,450194E+22	1,450271E+22	8,853075E+22	2,900465E+22	1,175354E+23
-162		4,426591E+22	4,426394E+22	1,450205E+22	1,450178E+22	8,852985E+22	2,900383E+22	1,175337E+23
-161		4,426464E+22	4,426633E+22	1,450224E+22	1,450141E+22	8,853097E+22	2,900365E+22	1,175346E+23
-160		4,426664E+22	4,426597E+22	1,450086E+22	1,450196E+22	8,853261E+22	2,900282E+22	1,175354E+23
-159		4,426586E+22	4,426565E+22	1,450116E+22	1,450053E+22	8,853152E+22	2,900169E+22	1,175332E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-158	4,426574E+22	4,426774E+22	1,450093E+22	1,450065E+22	8,853348E+22	2,900158E+22	1,175351E+23
-157	4,426783E+22	4,426650E+22	1,449995E+22	1,450045E+22	8,853433E+22	2,900040E+22	1,175347E+23
-156	4,426657E+22	4,426716E+22	1,450058E+22	1,449949E+22	8,853374E+22	2,900007E+22	1,175338E+23
-155	4,426730E+22	4,426805E+22	1,450001E+22	1,450050E+22	8,853536E+22	2,900051E+22	1,175359E+23
-154	4,426798E+22	4,426643E+22	1,449993E+22	1,450020E+22	8,853442E+22	2,900013E+22	1,175345E+23
-153	4,426600E+22	4,426790E+22	1,450078E+22	1,450005E+22	8,853390E+22	2,900084E+22	1,175347E+23
-152	4,426752E+22	4,426706E+22	1,450015E+22	1,450133E+22	8,853458E+22	2,900148E+22	1,175361E+23
-151	4,426691E+22	4,426532E+22	1,450110E+22	1,450075E+22	8,853223E+22	2,900185E+22	1,175341E+23
-150	4,426519E+22	4,426678E+22	1,450208E+22	1,450145E+22	8,853197E+22	2,900353E+22	1,175355E+23
-149	4,426623E+22	4,426521E+22	1,450164E+22	1,450254E+22	8,853144E+22	2,900418E+22	1,175356E+23
-148	4,426398E+22	4,426450E+22	1,450291E+22	1,450224E+22	8,852848E+22	2,900515E+22	1,175336E+23
-147	4,426329E+22	4,426495E+22	1,450308E+22	1,450343E+22	8,852824E+22	2,900651E+22	1,175348E+23
-146	4,426456E+22	4,426269E+22	1,450295E+22	1,450348E+22	8,852725E+22	2,900643E+22	1,175337E+23
-145	4,426272E+22	4,426369E+22	1,450385E+22	1,450280E+22	8,852641E+22	2,900665E+22	1,175331E+23
-144	4,426426E+22	4,426380E+22	1,450293E+22	1,450376E+22	8,852806E+22	2,900669E+22	1,175348E+23
-143	4,426454E+22	4,426277E+22	1,450293E+22	1,450279E+22	8,852731E+22	2,900572E+22	1,175330E+23
-142	4,426280E+22	4,426521E+22	1,450325E+22	1,450242E+22	8,852800E+22	2,900568E+22	1,175337E+23
-141	4,426497E+22	4,426481E+22	1,450190E+22	1,450283E+22	8,852979E+22	2,900473E+22	1,175345E+23
-140	4,426445E+22	4,426440E+22	1,450222E+22	1,450147E+22	8,852884E+22	2,900369E+22	1,175325E+23
-139	4,426424E+22	4,426593E+22	1,450205E+22	1,450166E+22	8,853018E+22	2,900372E+22	1,175339E+23
-138	4,426660E+22	4,426478E+22	1,450112E+22	1,450160E+22	8,853137E+22	2,900272E+22	1,175341E+23
-137	4,426489E+22	4,426583E+22	1,450168E+22	1,450075E+22	8,853072E+22	2,900243E+22	1,175331E+23
-136	4,426573E+22	4,426642E+22	1,450098E+22	1,450184E+22	8,853216E+22	2,900282E+22	1,175350E+23
-135	4,426661E+22	4,426474E+22	1,450096E+22	1,450138E+22	8,853134E+22	2,900234E+22	1,175337E+23
-134	4,426443E+22	4,426616E+22	1,450209E+22	1,450118E+22	8,853060E+22	2,900326E+22	1,175339E+23
-133	4,426605E+22	4,426556E+22	1,450153E+22	1,450239E+22	8,853161E+22	2,900392E+22	1,175355E+23
-132	4,426519E+22	4,426399E+22	1,450247E+22	1,450205E+22	8,852918E+22	2,900453E+22	1,175337E+23
-131	4,426284E+22	4,426502E+22	1,450348E+22	1,450293E+22	8,852786E+22	2,900641E+22	1,175343E+23
-130	4,426422E+22	4,426327E+22	1,450307E+22	1,450403E+22	8,852750E+22	2,900710E+22	1,175346E+23
-129	4,426203E+22	4,426258E+22	1,450427E+22	1,450357E+22	8,852461E+22	2,900784E+22	1,175324E+23
-128	4,426195E+22	4,426284E+22	1,450423E+22	1,450467E+22	8,852480E+22	2,900890E+22	1,175337E+23
-127	4,426355E+22	4,426086E+22	1,450401E+22	1,450453E+22	8,852441E+22	2,900854E+22	1,175330E+23
-126	4,426122E+22	4,426229E+22	1,450499E+22	1,450388E+22	8,852351E+22	2,900887E+22	1,175324E+23
-125	4,426258E+22	4,426289E+22	1,450399E+22	1,450478E+22	8,852548E+22	2,900877E+22	1,175343E+23
-124	4,426277E+22	4,426180E+22	1,450394E+22	1,450388E+22	8,852457E+22	2,900782E+22	1,175324E+23
-123	4,426090E+22	4,426352E+22	1,450436E+22	1,450346E+22	8,852443E+22	2,900783E+22	1,175323E+23
-122	4,426366E+22	4,426300E+22	1,450307E+22	1,450379E+22	8,852666E+22	2,900685E+22	1,175335E+23
-121	4,426308E+22	4,426282E+22	1,450333E+22	1,450244E+22	8,852590E+22	2,900577E+22	1,175317E+23
-120	4,426303E+22	4,426428E+22	1,450296E+22	1,450281E+22	8,852732E+22	2,900577E+22	1,175331E+23
-119	4,426525E+22	4,426338E+22	1,450197E+22	1,450276E+22	8,852863E+22	2,900472E+22	1,175334E+23
-118	4,426322E+22	4,426449E+22	1,450271E+22	1,450193E+22	8,852772E+22	2,900464E+22	1,175324E+23
-117	4,426426E+22	4,426515E+22	1,450212E+22	1,450285E+22	8,852942E+22	2,900497E+22	1,175344E+23
-116	4,426524E+22	4,426343E+22	1,450220E+22	1,450248E+22	8,852867E+22	2,900468E+22	1,175334E+23
-115	4,426273E+22	4,426430E+22	1,450353E+22	1,450240E+22	8,852703E+22	2,900594E+22	1,175330E+23
-114	4,426427E+22	4,426377E+22	1,450305E+22	1,450377E+22	8,852804E+22	2,900682E+22	1,175349E+23
-113	4,426296E+22	4,426239E+22	1,450391E+22	1,450358E+22	8,852535E+22	2,900748E+22	1,175328E+23
-112	4,426090E+22	4,426282E+22	1,450470E+22	1,450448E+22	8,852372E+22	2,900918E+22	1,175329E+23
-111	4,426261E+22	4,426107E+22	1,450424E+22	1,450534E+22	8,852368E+22	2,900958E+22	1,175333E+23
-110	4,426054E+22	4,426065E+22	1,450551E+22	1,450474E+22	8,852119E+22	2,901024E+22	1,175314E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\ominus$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-109	4,426066E+22	4,426137E+22	1,450544E+22	1,450566E+22	8,852203E+22	2,901110E+22	1,175331E+23
-108	4,426203E+22	4,425990E+22	1,450515E+22	1,450565E+22	8,852193E+22	2,901080E+22	1,175327E+23
-107	4,425916E+22	4,426097E+22	1,450618E+22	1,450507E+22	8,852014E+22	2,901125E+22	1,175314E+23
-106	4,426074E+22	4,426145E+22	1,450522E+22	1,450590E+22	8,852219E+22	2,901113E+22	1,175333E+23
-105	4,426097E+22	4,426035E+22	1,450512E+22	1,450491E+22	8,852131E+22	2,901003E+22	1,175313E+23
-104	4,425965E+22	4,426155E+22	1,450533E+22	1,450452E+22	8,852120E+22	2,900985E+22	1,175310E+23
-103	4,426265E+22	4,426122E+22	1,450397E+22	1,450477E+22	8,852388E+22	2,900874E+22	1,175326E+23
-102	4,426175E+22	4,426142E+22	1,450427E+22	1,450355E+22	8,852317E+22	2,900782E+22	1,175310E+23
-101	4,426163E+22	4,426322E+22	1,450387E+22	1,450389E+22	8,852485E+22	2,900776E+22	1,175326E+23
-100	4,426382E+22	4,426234E+22	1,450294E+22	1,450387E+22	8,852616E+22	2,900681E+22	1,175330E+23
-99	4,426160E+22	4,426281E+22	1,450394E+22	1,450301E+22	8,852441E+22	2,900694E+22	1,175314E+23
-98	4,426294E+22	4,426346E+22	1,450352E+22	1,450388E+22	8,852640E+22	2,900740E+22	1,175338E+23
-97	4,426355E+22	4,426190E+22	1,450364E+22	1,450364E+22	8,852545E+22	2,900728E+22	1,175327E+23
-96	4,426091E+22	4,426244E+22	1,450481E+22	1,450384E+22	8,852335E+22	2,900865E+22	1,175320E+23
-95	4,426230E+22	4,426195E+22	1,450425E+22	1,450520E+22	8,852425E+22	2,900945E+22	1,175337E+23
-94	4,426084E+22	4,426048E+22	1,450519E+22	1,450503E+22	8,852132E+22	2,901021E+22	1,175315E+23
-93	4,425923E+22	4,426103E+22	1,450594E+22	1,450571E+22	8,852027E+22	2,901165E+22	1,175319E+23
-92	4,426125E+22	4,425947E+22	1,450547E+22	1,450653E+22	8,852072E+22	2,901201E+22	1,175327E+23
-91	4,425896E+22	4,425883E+22	1,450686E+22	1,450595E+22	8,851779E+22	2,901282E+22	1,175306E+23
-90	4,425903E+22	4,425994E+22	1,450679E+22	1,450689E+22	8,851897E+22	2,901369E+22	1,175327E+23
-89	4,425995E+22	4,425872E+22	1,450641E+22	1,450691E+22	8,851867E+22	2,901331E+22	1,175320E+23
-88	4,425741E+22	4,425913E+22	1,450724E+22	1,450633E+22	8,851654E+22	2,901357E+22	1,175301E+23
-87	4,425931E+22	4,425953E+22	1,450622E+22	1,450689E+22	8,851883E+22	2,901311E+22	1,175319E+23
-86	4,425966E+22	4,425861E+22	1,450614E+22	1,450587E+22	8,851827E+22	2,901201E+22	1,175303E+23
-85	4,425858E+22	4,426016E+22	1,450626E+22	1,450539E+22	8,851874E+22	2,901165E+22	1,175304E+23
-84	4,426139E+22	4,426029E+22	1,450485E+22	1,450580E+22	8,852168E+22	2,901065E+22	1,175323E+23
-83	4,426010E+22	4,426014E+22	1,450528E+22	1,450467E+22	8,852024E+22	2,900995E+22	1,175302E+23
-82	4,426014E+22	4,426189E+22	1,450504E+22	1,450492E+22	8,852203E+22	2,900996E+22	1,175320E+23
-81	4,426222E+22	4,426108E+22	1,450420E+22	1,450488E+22	8,852330E+22	2,900908E+22	1,175324E+23
-80	4,426032E+22	4,426087E+22	1,450513E+22	1,450416E+22	8,852118E+22	2,900930E+22	1,175305E+23
-79	4,426143E+22	4,426161E+22	1,450477E+22	1,450505E+22	8,852304E+22	2,900982E+22	1,175329E+23
-78	4,426157E+22	4,426032E+22	1,450491E+22	1,450508E+22	8,852189E+22	2,900999E+22	1,175319E+23
-77	4,425892E+22	4,426080E+22	1,450600E+22	1,450528E+22	8,851972E+22	2,901127E+22	1,175310E+23
-76	4,426044E+22	4,426027E+22	1,450545E+22	1,450662E+22	8,852071E+22	2,901208E+22	1,175328E+23
-75	4,425908E+22	4,425829E+22	1,450655E+22	1,450634E+22	8,851738E+22	2,901288E+22	1,175303E+23
-74	4,425787E+22	4,425911E+22	1,450737E+22	1,450687E+22	8,851698E+22	2,901424E+22	1,175312E+23
-73	4,425961E+22	4,425806E+22	1,450689E+22	1,450772E+22	8,851767E+22	2,901461E+22	1,175323E+23
-72	4,425726E+22	4,425717E+22	1,450807E+22	1,450731E+22	8,851443E+22	2,901538E+22	1,175298E+23
-71	4,425718E+22	4,425839E+22	1,450794E+22	1,450810E+22	8,851558E+22	2,901604E+22	1,175316E+23
-70	4,425804E+22	4,425717E+22	1,450756E+22	1,450808E+22	8,851521E+22	2,901564E+22	1,175309E+23
-69	4,425597E+22	4,425753E+22	1,450827E+22	1,450730E+22	8,851350E+22	2,901557E+22	1,175291E+23
-68	4,425814E+22	4,425809E+22	1,450720E+22	1,450783E+22	8,851624E+22	2,901503E+22	1,175313E+23
-67	4,425829E+22	4,425697E+22	1,450722E+22	1,450691E+22	8,851526E+22	2,901412E+22	1,175294E+23
-66	4,425726E+22	4,425895E+22	1,450731E+22	1,450648E+22	8,851621E+22	2,901379E+22	1,175300E+23
-65	4,425971E+22	4,425925E+22	1,450591E+22	1,450691E+22	8,851896E+22	2,901281E+22	1,175318E+23
-64	4,425870E+22	4,425843E+22	1,450626E+22	1,450581E+22	8,851713E+22	2,901207E+22	1,175292E+23
-63	4,425892E+22	4,426015E+22	1,450608E+22	1,450583E+22	8,851907E+22	2,901191E+22	1,175310E+23
-62	4,426079E+22	4,425947E+22	1,450537E+22	1,450590E+22	8,852026E+22	2,901127E+22	1,175315E+23
-61	4,425884E+22	4,425941E+22	1,450628E+22	1,450529E+22	8,851826E+22	2,901157E+22	1,175298E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-60	4,425960E+22	4,426036E+22	1,450590E+22	1,450637E+22	8,851995E+22	2,901227E+22	1,175322E+23
-59	4,425940E+22	4,425851E+22	1,450622E+22	1,450654E+22	8,851791E+22	2,901276E+22	1,175307E+23
-58	4,425714E+22	4,425892E+22	1,450737E+22	1,450662E+22	8,851606E+22	2,901398E+22	1,175300E+23
-57	4,425873E+22	4,425848E+22	1,450688E+22	1,450788E+22	8,851721E+22	2,901476E+22	1,175320E+23
-56	4,425779E+22	4,425609E+22	1,450785E+22	1,450767E+22	8,851389E+22	2,901552E+22	1,175294E+23
-55	4,425647E+22	4,425727E+22	1,450866E+22	1,450810E+22	8,851374E+22	2,901676E+22	1,175305E+23
-54	4,425768E+22	4,425669E+22	1,450817E+22	1,450910E+22	8,851436E+22	2,901728E+22	1,175316E+23
-53	4,425538E+22	4,425575E+22	1,450922E+22	1,450860E+22	8,851113E+22	2,901783E+22	1,175290E+23
-52	4,425538E+22	4,425693E+22	1,450906E+22	1,450925E+22	8,851231E+22	2,901831E+22	1,175306E+23
-51	4,425637E+22	4,425523E+22	1,450879E+22	1,450915E+22	8,851160E+22	2,901794E+22	1,175295E+23
-50	4,425470E+22	4,425579E+22	1,450946E+22	1,450825E+22	8,851049E+22	2,901771E+22	1,175282E+23
-49	4,425665E+22	4,425686E+22	1,450833E+22	1,450885E+22	8,851350E+22	2,901718E+22	1,175307E+23
-48	4,425689E+22	4,425545E+22	1,450811E+22	1,450810E+22	8,851235E+22	2,901620E+22	1,175286E+23
-47	4,425581E+22	4,425752E+22	1,450820E+22	1,450751E+22	8,851333E+22	2,901571E+22	1,175290E+23
-46	4,425819E+22	4,425797E+22	1,450690E+22	1,450791E+22	8,851616E+22	2,901481E+22	1,175310E+23
-45	4,425754E+22	4,425701E+22	1,450724E+22	1,450672E+22	8,851455E+22	2,901395E+22	1,175285E+23
-44	4,425769E+22	4,425882E+22	1,450715E+22	1,450678E+22	8,851651E+22	2,901393E+22	1,175304E+23
-43	4,425908E+22	4,425785E+22	1,450664E+22	1,450711E+22	8,851694E+22	2,901375E+22	1,175307E+23
-42	4,425700E+22	4,425793E+22	1,450756E+22	1,450663E+22	8,851493E+22	2,901419E+22	1,175291E+23
-41	4,425752E+22	4,425881E+22	1,450724E+22	1,450777E+22	8,851633E+22	2,901501E+22	1,175313E+23
-40	4,425775E+22	4,425622E+22	1,450745E+22	1,450797E+22	8,851397E+22	2,901542E+22	1,175294E+23
-39	4,425583E+22	4,425673E+22	1,450862E+22	1,450780E+22	8,851256E+22	2,901642E+22	1,175290E+23
-38	4,425727E+22	4,425672E+22	1,450822E+22	1,450911E+22	8,851398E+22	2,901733E+22	1,175313E+23
-37	4,425627E+22	4,425466E+22	1,450910E+22	1,450893E+22	8,851093E+22	2,901802E+22	1,175290E+23
-36	4,425459E+22	4,425614E+22	1,450987E+22	1,450940E+22	8,851073E+22	2,901927E+22	1,175300E+23
-35	4,425542E+22	4,425506E+22	1,450956E+22	1,451044E+22	8,851049E+22	2,902000E+22	1,175305E+23
-34	4,425350E+22	4,425411E+22	1,451058E+22	1,450979E+22	8,850761E+22	2,902037E+22	1,175280E+23
-33	4,425365E+22	4,425523E+22	1,451037E+22	1,451032E+22	8,850889E+22	2,902069E+22	1,175296E+23
-32	4,425503E+22	4,425310E+22	1,450988E+22	1,451033E+22	8,850813E+22	2,902021E+22	1,175283E+23
-31	4,425349E+22	4,425409E+22	1,451040E+22	1,450934E+22	8,850758E+22	2,901974E+22	1,175273E+23
-30	4,425508E+22	4,425560E+22	1,450925E+22	1,451003E+22	8,851069E+22	2,901928E+22	1,175300E+23
-29	4,425555E+22	4,425423E+22	1,450892E+22	1,450914E+22	8,850978E+22	2,901806E+22	1,175278E+23
-28	4,425462E+22	4,425631E+22	1,450907E+22	1,450836E+22	8,851093E+22	2,901743E+22	1,175284E+23
-27	4,425681E+22	4,425640E+22	1,450805E+22	1,450876E+22	8,851321E+22	2,901682E+22	1,175300E+23
-26	4,425623E+22	4,425565E+22	1,450846E+22	1,450764E+22	8,851188E+22	2,901609E+22	1,175280E+23
-25	4,425586E+22	4,425763E+22	1,450844E+22	1,450792E+22	8,851349E+22	2,901636E+22	1,175298E+23
-24	4,425720E+22	4,425608E+22	1,450780E+22	1,450855E+22	8,851328E+22	2,901634E+22	1,175296E+23
-23	4,425528E+22	4,425600E+22	1,450872E+22	1,450796E+22	8,851128E+22	2,901668E+22	1,175280E+23
-22	4,425582E+22	4,425697E+22	1,450849E+22	1,450909E+22	8,851279E+22	2,901759E+22	1,175304E+23
-21	4,425650E+22	4,425437E+22	1,450863E+22	1,450919E+22	8,851087E+22	2,901782E+22	1,175287E+23
-20	4,425452E+22	4,425519E+22	1,450986E+22	1,450899E+22	8,850971E+22	2,901885E+22	1,175286E+23
-19	4,425539E+22	4,425517E+22	1,450967E+22	1,451049E+22	8,851056E+22	2,902016E+22	1,175307E+23
-18	4,425418E+22	4,425331E+22	1,451053E+22	1,451034E+22	8,850749E+22	2,902087E+22	1,175284E+23
-17	4,425227E+22	4,425464E+22	1,451134E+22	1,451077E+22	8,850691E+22	2,902211E+22	1,175290E+23
-16	4,425359E+22	4,425275E+22	1,451084E+22	1,451178E+22	8,850634E+22	2,902262E+22	1,175290E+23
-15	4,425209E+22	4,425182E+22	1,451174E+22	1,451088E+22	8,850391E+22	2,902262E+22	1,175265E+23
-14	4,425223E+22	4,425346E+22	1,451148E+22	1,451143E+22	8,850568E+22	2,902292E+22	1,175286E+23
-13	4,425377E+22	4,425172E+22	1,451076E+22	1,451142E+22	8,850549E+22	2,902218E+22	1,175277E+23
-12	4,425212E+22	4,425311E+22	1,451121E+22	1,451035E+22	8,850523E+22	2,902156E+22	1,175268E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-11	4,425348E+22	4,425435E+22	1,451030E+22	1,451102E+22	8,850783E+22	2,902132E+22	1,175291E+23
-10	4,425417E+22	4,425309E+22	1,451002E+22	1,450998E+22	8,850726E+22	2,902000E+22	1,175273E+23
-9	4,425320E+22	4,425509E+22	1,451029E+22	1,450921E+22	8,850828E+22	2,901950E+22	1,175278E+23
-8	4,425541E+22	4,425459E+22	1,450920E+22	1,450986E+22	8,851000E+22	2,901906E+22	1,175291E+23
-7	4,425469E+22	4,425400E+22	1,450956E+22	1,450886E+22	8,850869E+22	2,901842E+22	1,175271E+23
-6	4,425394E+22	4,425610E+22	1,450957E+22	1,450933E+22	8,851004E+22	2,901889E+22	1,175289E+23
-5	4,425558E+22	4,425434E+22	1,450883E+22	1,450990E+22	8,850992E+22	2,901873E+22	1,175286E+23
-4	4,425399E+22	4,425429E+22	1,450977E+22	1,450912E+22	8,850828E+22	2,901888E+22	1,175272E+23
-3	4,425437E+22	4,425505E+22	1,450984E+22	1,451024E+22	8,850941E+22	2,902009E+22	1,175295E+23
-2	4,425499E+22	4,425297E+22	1,451004E+22	1,451036E+22	8,850796E+22	2,902041E+22	1,175284E+23
-1	4,425254E+22	4,425395E+22	1,451134E+22	1,451031E+22	8,850649E+22	2,902165E+22	1,175281E+23
1	4,425316E+22	4,425331E+22	1,451107E+22	1,451200E+22	8,850646E+22	2,902307E+22	1,175295E+23
2	4,425217E+22	4,425133E+22	1,451188E+22	1,451172E+22	8,850350E+22	2,902360E+22	1,175271E+23
3	4,425035E+22	4,425262E+22	1,451266E+22	1,451208E+22	8,850296E+22	2,902473E+22	1,175277E+23
4	4,425221E+22	4,425072E+22	1,451195E+22	1,451295E+22	8,850293E+22	2,902490E+22	1,175278E+23
5	4,425094E+22	4,425018E+22	1,451272E+22	1,451194E+22	8,850112E+22	2,902467E+22	1,175258E+23
6	4,425065E+22	4,425199E+22	1,451260E+22	1,451260E+22	8,850265E+22	2,902521E+22	1,175279E+23
7	4,425213E+22	4,425076E+22	1,451182E+22	1,451252E+22	8,850289E+22	2,902434E+22	1,175272E+23
8	4,425047E+22	4,425203E+22	1,451235E+22	1,451135E+22	8,850250E+22	2,902370E+22	1,175262E+23
9	4,425207E+22	4,425259E+22	1,451140E+22	1,451199E+22	8,850465E+22	2,902339E+22	1,175280E+23
10	4,425298E+22	4,425138E+22	1,451111E+22	1,451086E+22	8,850436E+22	2,902197E+22	1,175263E+23
11	4,425166E+22	4,425363E+22	1,451141E+22	1,451028E+22	8,850530E+22	2,902169E+22	1,175270E+23
12	4,425384E+22	4,425321E+22	1,451014E+22	1,451108E+22	8,850705E+22	2,902122E+22	1,175283E+23
13	4,425308E+22	4,425266E+22	1,451047E+22	1,451008E+22	8,850575E+22	2,902055E+22	1,175263E+23
14	4,425223E+22	4,425441E+22	1,451076E+22	1,451058E+22	8,850664E+22	2,902134E+22	1,175280E+23
15	4,425414E+22	4,425280E+22	1,451007E+22	1,451101E+22	8,850694E+22	2,902107E+22	1,175280E+23
16	4,425255E+22	4,425275E+22	1,451115E+22	1,451024E+22	8,850530E+22	2,902139E+22	1,175267E+23
17	4,425281E+22	4,425311E+22	1,451121E+22	1,451157E+22	8,850593E+22	2,902278E+22	1,175287E+23
18	4,425315E+22	4,425126E+22	1,451140E+22	1,451177E+22	8,850441E+22	2,902317E+22	1,175276E+23
19	4,425029E+22	4,425230E+22	1,451274E+22	1,451184E+22	8,850259E+22	2,902458E+22	1,175272E+23
20	4,425123E+22	4,425133E+22	1,451231E+22	1,451340E+22	8,850256E+22	2,902571E+22	1,175283E+23
21	4,425063E+22	4,424935E+22	1,451304E+22	1,451289E+22	8,849998E+22	2,902593E+22	1,175259E+23
22	4,424879E+22	4,425055E+22	1,451398E+22	1,451323E+22	8,849934E+22	2,902721E+22	1,175265E+23
23	4,425066E+22	4,424933E+22	1,451318E+22	1,451405E+22	8,849998E+22	2,902723E+22	1,175272E+23
24	4,424923E+22	4,424913E+22	1,451391E+22	1,451311E+22	8,849835E+22	2,902703E+22	1,175254E+23
25	4,424892E+22	4,425044E+22	1,451370E+22	1,451383E+22	8,849935E+22	2,902753E+22	1,175269E+23
26	4,425065E+22	4,424927E+22	1,451290E+22	1,451354E+22	8,849991E+22	2,902645E+22	1,175264E+23
27	4,424901E+22	4,425056E+22	1,451345E+22	1,451234E+22	8,849957E+22	2,902579E+22	1,175254E+23
28	4,425086E+22	4,425099E+22	1,451237E+22	1,451293E+22	8,850185E+22	2,902530E+22	1,175272E+23
29	4,425180E+22	4,425003E+22	1,451200E+22	1,451186E+22	8,850183E+22	2,902386E+22	1,175257E+23
30	4,424996E+22	4,425214E+22	1,451248E+22	1,451151E+22	8,850210E+22	2,902400E+22	1,175261E+23
31	4,425205E+22	4,425200E+22	1,451122E+22	1,451228E+22	8,850405E+22	2,902350E+22	1,175275E+23
32	4,425155E+22	4,425119E+22	1,451163E+22	1,451122E+22	8,850274E+22	2,902285E+22	1,175256E+23
33	4,425087E+22	4,425225E+22	1,451195E+22	1,451171E+22	8,850313E+22	2,902366E+22	1,175268E+23
34	4,425292E+22	4,425096E+22	1,451133E+22	1,451208E+22	8,850388E+22	2,902341E+22	1,175273E+23
35	4,425088E+22	4,425123E+22	1,451250E+22	1,451152E+22	8,850211E+22	2,902401E+22	1,175261E+23
36	4,425091E+22	4,425161E+22	1,451245E+22	1,451295E+22	8,850252E+22	2,902541E+22	1,175279E+23
37	4,425121E+22	4,424974E+22	1,451262E+22	1,451313E+22	8,850094E+22	2,902576E+22	1,175267E+23
38	4,424819E+22	4,425033E+22	1,451419E+22	1,451323E+22	8,849852E+22	2,902742E+22	1,175259E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
39	4,424936E+22	4,424959E+22	1,451371E+22	1,451461E+22	8,849896E+22	2,902832E+22	1,175273E+23
40	4,424904E+22	4,424758E+22	1,451444E+22	1,451412E+22	8,849662E+22	2,902856E+22	1,175252E+23
41	4,424718E+22	4,424852E+22	1,451525E+22	1,451459E+22	8,849570E+22	2,902984E+22	1,175255E+23
42	4,424901E+22	4,424776E+22	1,451434E+22	1,451538E+22	8,849677E+22	2,902972E+22	1,175265E+23
43	4,424742E+22	4,424774E+22	1,451505E+22	1,451441E+22	8,849516E+22	2,902946E+22	1,175246E+23
44	4,424754E+22	4,424883E+22	1,451468E+22	1,451489E+22	8,849637E+22	2,902956E+22	1,175259E+23
45	4,424954E+22	4,424776E+22	1,451382E+22	1,451435E+22	8,849730E+22	2,902817E+22	1,175255E+23
46	4,424770E+22	4,424899E+22	1,451456E+22	1,451324E+22	8,849670E+22	2,902781E+22	1,175245E+23
47	4,424929E+22	4,424992E+22	1,451342E+22	1,451385E+22	8,849921E+22	2,902727E+22	1,175265E+23
48	4,425004E+22	4,424897E+22	1,451308E+22	1,451298E+22	8,849901E+22	2,902606E+22	1,175251E+23
49	4,424826E+22	4,425038E+22	1,451353E+22	1,451275E+22	8,849864E+22	2,902628E+22	1,175249E+23
50	4,425066E+22	4,425022E+22	1,451232E+22	1,451338E+22	8,850088E+22	2,902570E+22	1,175266E+23
51	4,425022E+22	4,424951E+22	1,451280E+22	1,451233E+22	8,849973E+22	2,902513E+22	1,175249E+23
52	4,424974E+22	4,425051E+22	1,451306E+22	1,451281E+22	8,850025E+22	2,902586E+22	1,175261E+23
53	4,425152E+22	4,424958E+22	1,451245E+22	1,451325E+22	8,850110E+22	2,902570E+22	1,175268E+23
54	4,424883E+22	4,424974E+22	1,451387E+22	1,451298E+22	8,849857E+22	2,902685E+22	1,175254E+23
55	4,424861E+22	4,425023E+22	1,451386E+22	1,451433E+22	8,849884E+22	2,902819E+22	1,175270E+23
56	4,424922E+22	4,424797E+22	1,451410E+22	1,451451E+22	8,849719E+22	2,902861E+22	1,175258E+23
57	4,424647E+22	4,424783E+22	1,451560E+22	1,451459E+22	8,849430E+22	2,903018E+22	1,175245E+23
58	4,424787E+22	4,424745E+22	1,451507E+22	1,451588E+22	8,849532E+22	2,903095E+22	1,175263E+23
59	4,424734E+22	4,424593E+22	1,451570E+22	1,451548E+22	8,849327E+22	2,903118E+22	1,175245E+23
60	4,424555E+22	4,424698E+22	1,451628E+22	1,451591E+22	8,849253E+22	2,903219E+22	1,175247E+23
61	4,424754E+22	4,424646E+22	1,451533E+22	1,451649E+22	8,849400E+22	2,903182E+22	1,175258E+23
62	4,424587E+22	4,424620E+22	1,451622E+22	1,451545E+22	8,849206E+22	2,903167E+22	1,175237E+23
63	4,424602E+22	4,424760E+22	1,451583E+22	1,451568E+22	8,849362E+22	2,903151E+22	1,175251E+23
64	4,424820E+22	4,424647E+22	1,451497E+22	1,451526E+22	8,849467E+22	2,903023E+22	1,175249E+23
65	4,424609E+22	4,424720E+22	1,451563E+22	1,451439E+22	8,849329E+22	2,903002E+22	1,175233E+23
66	4,424760E+22	4,424843E+22	1,451444E+22	1,451505E+22	8,849603E+22	2,902950E+22	1,175255E+23
67	4,424836E+22	4,424744E+22	1,451412E+22	1,451421E+22	8,849580E+22	2,902833E+22	1,175241E+23
68	4,424709E+22	4,424856E+22	1,451445E+22	1,451383E+22	8,849564E+22	2,902828E+22	1,175239E+23
69	4,424972E+22	4,424863E+22	1,451328E+22	1,451427E+22	8,849835E+22	2,902755E+22	1,175259E+23
70	4,424888E+22	4,424799E+22	1,451402E+22	1,451341E+22	8,849687E+22	2,902743E+22	1,175243E+23
71	4,424791E+22	4,424952E+22	1,451433E+22	1,451392E+22	8,849742E+22	2,902825E+22	1,175257E+23
72	4,424945E+22	4,424843E+22	1,451383E+22	1,451462E+22	8,849789E+22	2,902845E+22	1,175263E+23
73	4,424666E+22	4,424769E+22	1,451530E+22	1,451448E+22	8,849435E+22	2,902979E+22	1,175241E+23
74	4,424672E+22	4,424810E+22	1,451530E+22	1,451571E+22	8,849482E+22	2,903101E+22	1,175258E+23
75	4,424748E+22	4,424583E+22	1,451553E+22	1,451589E+22	8,849332E+22	2,903142E+22	1,175247E+23
76	4,424516E+22	4,424564E+22	1,451678E+22	1,451594E+22	8,849080E+22	2,903273E+22	1,175235E+23
77	4,424647E+22	4,424578E+22	1,451616E+22	1,451715E+22	8,849225E+22	2,903332E+22	1,175256E+23
78	4,424553E+22	4,424449E+22	1,451692E+22	1,451686E+22	8,849002E+22	2,903378E+22	1,175238E+23
79	4,424373E+22	4,424581E+22	1,451746E+22	1,451699E+22	8,848954E+22	2,903445E+22	1,175240E+23
80	4,424597E+22	4,424510E+22	1,451658E+22	1,451746E+22	8,849107E+22	2,903405E+22	1,175251E+23
81	4,424436E+22	4,424429E+22	1,451742E+22	1,451644E+22	8,848865E+22	2,903386E+22	1,175225E+23
82	4,424452E+22	4,424596E+22	1,451698E+22	1,451665E+22	8,849048E+22	2,903363E+22	1,175241E+23
83	4,424640E+22	4,424513E+22	1,451606E+22	1,451642E+22	8,849153E+22	2,903248E+22	1,175240E+23
84	4,424457E+22	4,424564E+22	1,451646E+22	1,451559E+22	8,849020E+22	2,903205E+22	1,175223E+23
85	4,424631E+22	4,424696E+22	1,451527E+22	1,451607E+22	8,849328E+22	2,903135E+22	1,175246E+23
86	4,424708E+22	4,424593E+22	1,451514E+22	1,451526E+22	8,849301E+22	2,903040E+22	1,175234E+23
87	4,424586E+22	4,424736E+22	1,451552E+22	1,451467E+22	8,849322E+22	2,903019E+22	1,175234E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
88	4,424846E+22	4,424746E+22	1,451451E+22	1,451531E+22	8,849592E+22	2,902982E+22	1,175257E+23
89	4,424709E+22	4,424635E+22	1,451530E+22	1,451476E+22	8,849345E+22	2,903006E+22	1,175235E+23
90	4,424583E+22	4,424794E+22	1,451568E+22	1,451534E+22	8,849377E+22	2,903103E+22	1,175248E+23
91	4,424734E+22	4,424659E+22	1,451525E+22	1,451609E+22	8,849394E+22	2,903134E+22	1,175253E+23
92	4,424510E+22	4,424531E+22	1,451654E+22	1,451585E+22	8,849041E+22	2,903239E+22	1,175228E+23
93	4,424546E+22	4,424596E+22	1,451651E+22	1,451688E+22	8,849142E+22	2,903339E+22	1,175248E+23
94	4,424593E+22	4,424396E+22	1,451684E+22	1,451721E+22	8,848989E+22	2,903405E+22	1,175239E+23
95	4,424327E+22	4,424445E+22	1,451802E+22	1,451717E+22	8,848772E+22	2,903519E+22	1,175229E+23
96	4,424462E+22	4,424464E+22	1,451747E+22	1,451845E+22	8,848925E+22	2,903592E+22	1,175252E+23
97	4,424357E+22	4,424271E+22	1,451825E+22	1,451815E+22	8,848627E+22	2,903639E+22	1,175227E+23
98	4,424202E+22	4,424412E+22	1,451880E+22	1,451806E+22	8,848613E+22	2,903685E+22	1,175230E+23
99	4,424434E+22	4,424340E+22	1,451787E+22	1,451853E+22	8,848774E+22	2,903640E+22	1,175241E+23
100	4,424300E+22	4,424241E+22	1,451843E+22	1,451758E+22	8,848541E+22	2,903600E+22	1,175214E+23
101	4,424306E+22	4,424448E+22	1,451785E+22	1,451776E+22	8,848754E+22	2,903561E+22	1,175232E+23
102	4,424467E+22	4,424373E+22	1,451701E+22	1,451768E+22	8,848840E+22	2,903469E+22	1,175231E+23
103	4,424310E+22	4,424443E+22	1,451737E+22	1,451657E+22	8,848754E+22	2,903394E+22	1,175215E+23
104	4,424528E+22	4,424562E+22	1,451632E+22	1,451697E+22	8,849090E+22	2,903328E+22	1,175242E+23
105	4,424591E+22	4,424422E+22	1,451626E+22	1,451621E+22	8,849013E+22	2,903248E+22	1,175226E+23
106	4,424449E+22	4,424599E+22	1,451673E+22	1,451568E+22	8,849048E+22	2,903241E+22	1,175229E+23
107	4,424651E+22	4,424625E+22	1,451581E+22	1,451655E+22	8,849276E+22	2,903236E+22	1,175251E+23
108	4,424528E+22	4,424466E+22	1,451646E+22	1,451617E+22	8,848993E+22	2,903263E+22	1,175226E+23
109	4,424412E+22	4,424605E+22	1,451688E+22	1,451660E+22	8,849018E+22	2,903348E+22	1,175237E+23
110	4,424558E+22	4,424463E+22	1,451659E+22	1,451743E+22	8,849020E+22	2,903403E+22	1,175242E+23
111	4,424358E+22	4,424356E+22	1,451781E+22	1,451700E+22	8,848714E+22	2,903480E+22	1,175219E+23
112	4,424396E+22	4,424432E+22	1,451786E+22	1,451817E+22	8,848828E+22	2,903603E+22	1,175243E+23
113	4,424395E+22	4,424223E+22	1,451818E+22	1,451870E+22	8,848618E+22	2,903688E+22	1,175231E+23
114	4,424126E+22	4,424289E+22	1,451939E+22	1,451857E+22	8,848415E+22	2,903796E+22	1,175221E+23
115	4,424261E+22	4,424298E+22	1,451890E+22	1,451975E+22	8,848559E+22	2,903865E+22	1,175242E+23
116	4,424211E+22	4,424064E+22	1,451943E+22	1,451932E+22	8,848275E+22	2,903875E+22	1,175215E+23
117	4,424070E+22	4,424226E+22	1,451988E+22	1,451903E+22	8,848296E+22	2,903891E+22	1,175219E+23
118	4,424266E+22	4,424187E+22	1,451898E+22	1,451968E+22	8,848453E+22	2,903865E+22	1,175232E+23
119	4,424125E+22	4,424130E+22	1,451936E+22	1,451863E+22	8,848255E+22	2,903799E+22	1,175205E+23
120	4,424157E+22	4,424330E+22	1,451885E+22	1,451887E+22	8,848487E+22	2,903771E+22	1,175226E+23
121	4,424319E+22	4,424209E+22	1,451805E+22	1,451876E+22	8,848528E+22	2,903681E+22	1,175221E+23
122	4,424194E+22	4,424296E+22	1,451846E+22	1,451747E+22	8,848490E+22	2,903593E+22	1,175208E+23
123	4,424407E+22	4,424422E+22	1,451752E+22	1,451790E+22	8,848829E+22	2,903542E+22	1,175237E+23
124	4,424468E+22	4,424262E+22	1,451729E+22	1,451734E+22	8,848730E+22	2,903463E+22	1,175219E+23
125	4,424289E+22	4,424464E+22	1,451778E+22	1,451687E+22	8,848753E+22	2,903465E+22	1,175222E+23
126	4,424445E+22	4,424474E+22	1,451703E+22	1,451793E+22	8,848919E+22	2,903496E+22	1,175241E+23
127	4,424338E+22	4,424304E+22	1,451768E+22	1,451737E+22	8,848642E+22	2,903505E+22	1,175215E+23
128	4,424268E+22	4,424421E+22	1,451820E+22	1,451781E+22	8,848689E+22	2,903601E+22	1,175229E+23
129	4,424391E+22	4,424245E+22	1,451797E+22	1,451875E+22	8,848636E+22	2,903672E+22	1,175231E+23
130	4,424185E+22	4,424187E+22	1,451917E+22	1,451834E+22	8,848371E+22	2,903751E+22	1,175212E+23
131	4,424191E+22	4,424284E+22	1,451928E+22	1,451962E+22	8,848475E+22	2,903890E+22	1,175236E+23
132	4,424210E+22	4,424042E+22	1,451942E+22	1,452017E+22	8,848252E+22	2,903959E+22	1,175221E+23
133	4,423962E+22	4,424111E+22	1,452063E+22	1,451978E+22	8,848073E+22	2,904040E+22	1,175211E+23
134	4,424086E+22	4,424121E+22	1,452023E+22	1,452094E+22	8,848206E+22	2,904117E+22	1,175232E+23
135	4,424056E+22	4,423911E+22	1,452062E+22	1,452033E+22	8,847967E+22	2,904095E+22	1,175206E+23
136	4,423924E+22	4,424081E+22	1,452102E+22	1,452018E+22	8,848004E+22	2,904120E+22	1,175212E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
137	4,424074E+22	4,424028E+22	1,452006E+22	1,452098E+22	8,848101E+22	2,904104E+22	1,175221E+23
138	4,423963E+22	4,423984E+22	1,452040E+22	1,451979E+22	8,847948E+22	2,904019E+22	1,175197E+23
139	4,424017E+22	4,424176E+22	1,451998E+22	1,451988E+22	8,848193E+22	2,903986E+22	1,175218E+23
140	4,424229E+22	4,424036E+22	1,451899E+22	1,451969E+22	8,848265E+22	2,903868E+22	1,175213E+23
141	4,424103E+22	4,424148E+22	1,451941E+22	1,451827E+22	8,848250E+22	2,903768E+22	1,175202E+23
142	4,424242E+22	4,424308E+22	1,451862E+22	1,451896E+22	8,848550E+22	2,903757E+22	1,175231E+23
143	4,424281E+22	4,424167E+22	1,451833E+22	1,451842E+22	8,848448E+22	2,903675E+22	1,175212E+23
144	4,424110E+22	4,424324E+22	1,451897E+22	1,451811E+22	8,848434E+22	2,903708E+22	1,175214E+23
145	4,424247E+22	4,424281E+22	1,451833E+22	1,451925E+22	8,848528E+22	2,903758E+22	1,175229E+23
146	4,424183E+22	4,424109E+22	1,451900E+22	1,451860E+22	8,848292E+22	2,903760E+22	1,175205E+23
147	4,424114E+22	4,424225E+22	1,451963E+22	1,451910E+22	8,848339E+22	2,903873E+22	1,175221E+23
148	4,424240E+22	4,424049E+22	1,451917E+22	1,452022E+22	8,848289E+22	2,903939E+22	1,175223E+23
149	4,424013E+22	4,424021E+22	1,452036E+22	1,451976E+22	8,848034E+22	2,904012E+22	1,175205E+23
150	4,423986E+22	4,424124E+22	1,452063E+22	1,452107E+22	8,848110E+22	2,904170E+22	1,175228E+23
151	4,424033E+22	4,423883E+22	1,452072E+22	1,452132E+22	8,847916E+22	2,904204E+22	1,175212E+23
152	4,423821E+22	4,423937E+22	1,452198E+22	1,452089E+22	8,847758E+22	2,904286E+22	1,175204E+23
153	4,423902E+22	4,423931E+22	1,452158E+22	1,452212E+22	8,847833E+22	2,904369E+22	1,175220E+23
154	4,423870E+22	4,423760E+22	1,452186E+22	1,452154E+22	8,847631E+22	2,904340E+22	1,175197E+23
155	4,423734E+22	4,423935E+22	1,452224E+22	1,452144E+22	8,847668E+22	2,904369E+22	1,175204E+23
156	4,423923E+22	4,423849E+22	1,452104E+22	1,452221E+22	8,847772E+22	2,904325E+22	1,175210E+23
157	4,423852E+22	4,423826E+22	1,452133E+22	1,452074E+22	8,847677E+22	2,904206E+22	1,175188E+23
158	4,423900E+22	4,424032E+22	1,452099E+22	1,452080E+22	8,847932E+22	2,904179E+22	1,175211E+23
159	4,424107E+22	4,423922E+22	1,451996E+22	1,452049E+22	8,848029E+22	2,904045E+22	1,175207E+23
160	4,423968E+22	4,424043E+22	1,452044E+22	1,451933E+22	8,848011E+22	2,903977E+22	1,175199E+23
161	4,424029E+22	4,424169E+22	1,451976E+22	1,452023E+22	8,848197E+22	2,903999E+22	1,175220E+23
162	4,424089E+22	4,424011E+22	1,451955E+22	1,451969E+22	8,848100E+22	2,903924E+22	1,175202E+23
163	4,423947E+22	4,424130E+22	1,452031E+22	1,451933E+22	8,848077E+22	2,903964E+22	1,175204E+23
164	4,424122E+22	4,424054E+22	1,451949E+22	1,452049E+22	8,848176E+22	2,903998E+22	1,175217E+23
165	4,424064E+22	4,423918E+22	1,452013E+22	1,451977E+22	8,847982E+22	2,903990E+22	1,175197E+23
166	4,423937E+22	4,424075E+22	1,452087E+22	1,452047E+22	8,848013E+22	2,904134E+22	1,175215E+23
167	4,424050E+22	4,423927E+22	1,452040E+22	1,452151E+22	8,847977E+22	2,904191E+22	1,175217E+23
168	4,423842E+22	4,423876E+22	1,452173E+22	1,452109E+22	8,847717E+22	2,904282E+22	1,175200E+23
169	4,423776E+22	4,423940E+22	1,452213E+22	1,452237E+22	8,847716E+22	2,904450E+22	1,175217E+23
170	4,423860E+22	4,423702E+22	1,452221E+22	1,452253E+22	8,847562E+22	2,904473E+22	1,175204E+23
171	4,423645E+22	4,423746E+22	1,452346E+22	1,452215E+22	8,847391E+22	2,904561E+22	1,175195E+23
172	4,423727E+22	4,423739E+22	1,452271E+22	1,452353E+22	8,847466E+22	2,904624E+22	1,175209E+23
173	4,423706E+22	4,423588E+22	1,452284E+22	1,452284E+22	8,847294E+22	2,904567E+22	1,175186E+23
174	4,423565E+22	4,423774E+22	1,452327E+22	1,452267E+22	8,847339E+22	2,904594E+22	1,175193E+23
175	4,423804E+22	4,423710E+22	1,452197E+22	1,452307E+22	8,847514E+22	2,904504E+22	1,175202E+23
176	4,423767E+22	4,423690E+22	1,452230E+22	1,452155E+22	8,847457E+22	2,904385E+22	1,175184E+23
177	4,423747E+22	4,423900E+22	1,452208E+22	1,452170E+22	8,847647E+22	2,904378E+22	1,175203E+23
178	4,423938E+22	4,423819E+22	1,452105E+22	1,452150E+22	8,847757E+22	2,904255E+22	1,175201E+23
179	4,423778E+22	4,423910E+22	1,452166E+22	1,452051E+22	8,847689E+22	2,904218E+22	1,175191E+23
180	4,423858E+22	4,423983E+22	1,452084E+22	1,452149E+22	8,847841E+22	2,904233E+22	1,175207E+23
181	4,423956E+22	4,423817E+22	1,452063E+22	1,452082E+22	8,847773E+22	2,904145E+22	1,175192E+23
182	4,423814E+22	4,423942E+22	1,452148E+22	1,452052E+22	8,847755E+22	2,904201E+22	1,175196E+23
183	4,423993E+22	4,423897E+22	1,452062E+22	1,452161E+22	8,847890E+22	2,904223E+22	1,175211E+23
184	4,423921E+22	4,423785E+22	1,452132E+22	1,452111E+22	8,847706E+22	2,904243E+22	1,175195E+23
185	4,423717E+22	4,423924E+22	1,452223E+22	1,452192E+22	8,847642E+22	2,904415E+22	1,175206E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
186	4,423846E+22	4,423770E+22	1,452189E+22	1,452286E+22	8,847616E+22	2,904475E+22	1,175209E+23
187	4,423660E+22	4,423684E+22	1,452335E+22	1,452241E+22	8,847344E+22	2,904576E+22	1,175192E+23
188	4,423607E+22	4,423711E+22	1,452352E+22	1,452368E+22	8,847318E+22	2,904720E+22	1,175204E+23
189	4,423694E+22	4,423503E+22	1,452346E+22	1,452381E+22	8,847197E+22	2,904727E+22	1,175192E+23
190	4,423449E+22	4,423577E+22	1,452461E+22	1,452356E+22	8,847025E+22	2,904817E+22	1,175184E+23
191	4,423546E+22	4,423588E+22	1,452372E+22	1,452474E+22	8,847134E+22	2,904846E+22	1,175198E+23
192	4,423575E+22	4,423447E+22	1,452384E+22	1,452395E+22	8,847022E+22	2,904779E+22	1,175180E+23
193	4,423417E+22	4,423618E+22	1,452437E+22	1,452364E+22	8,847035E+22	2,904801E+22	1,175184E+23
194	4,423684E+22	4,423580E+22	1,452313E+22	1,452390E+22	8,847264E+22	2,904703E+22	1,175197E+23
195	4,423634E+22	4,423562E+22	1,452351E+22	1,452251E+22	8,847196E+22	2,904603E+22	1,175180E+23
196	4,423579E+22	4,423753E+22	1,452307E+22	1,452286E+22	8,847331E+22	2,904594E+22	1,175193E+23
197	4,423769E+22	4,423669E+22	1,452203E+22	1,452267E+22	8,847437E+22	2,904470E+22	1,175191E+23
198	4,423611E+22	4,423737E+22	1,452272E+22	1,452173E+22	8,847348E+22	2,904445E+22	1,175179E+23
199	4,423735E+22	4,423809E+22	1,452187E+22	1,452247E+22	8,847544E+22	2,904434E+22	1,175198E+23
200	4,423862E+22	4,423657E+22	1,452169E+22	1,452187E+22	8,847519E+22	2,904356E+22	1,175187E+23
201	4,423646E+22	4,423791E+22	1,452269E+22	1,452172E+22	8,847437E+22	2,904442E+22	1,175188E+23
202	4,423810E+22	4,423779E+22	1,452193E+22	1,452289E+22	8,847589E+22	2,904482E+22	1,175207E+23
203	4,423721E+22	4,423639E+22	1,452281E+22	1,452251E+22	8,847360E+22	2,904532E+22	1,175189E+23
204	4,423522E+22	4,423730E+22	1,452362E+22	1,452334E+22	8,847252E+22	2,904696E+22	1,175195E+23
205	4,423681E+22	4,423562E+22	1,452327E+22	1,452415E+22	8,847243E+22	2,904742E+22	1,175199E+23
206	4,423482E+22	4,423472E+22	1,452475E+22	1,452377E+22	8,846955E+22	2,904853E+22	1,175181E+23
207	4,423436E+22	4,423529E+22	1,452473E+22	1,452496E+22	8,846966E+22	2,904969E+22	1,175193E+23
208	4,423526E+22	4,423344E+22	1,452456E+22	1,452521E+22	8,846870E+22	2,904977E+22	1,175185E+23
209	4,423242E+22	4,423409E+22	1,452577E+22	1,452492E+22	8,846651E+22	2,905069E+22	1,175172E+23
210	4,423392E+22	4,423433E+22	1,452494E+22	1,452582E+22	8,846825E+22	2,905076E+22	1,175190E+23
211	4,423452E+22	4,423290E+22	1,452512E+22	1,452489E+22	8,846742E+22	2,905001E+22	1,175174E+23
212	4,423296E+22	4,423450E+22	1,452544E+22	1,452457E+22	8,846747E+22	2,905001E+22	1,175175E+23
213	4,423546E+22	4,423445E+22	1,452415E+22	1,452484E+22	8,846991E+22	2,904899E+22	1,175189E+23
214	4,423449E+22	4,423441E+22	1,452453E+22	1,452369E+22	8,846890E+22	2,904822E+22	1,175171E+23
215	4,423404E+22	4,423619E+22	1,452402E+22	1,452393E+22	8,847024E+22	2,904795E+22	1,175182E+23
216	4,423632E+22	4,423524E+22	1,452301E+22	1,452377E+22	8,847156E+22	2,904678E+22	1,175183E+23
217	4,423461E+22	4,423565E+22	1,452382E+22	1,452282E+22	8,847027E+22	2,904664E+22	1,175169E+23
218	4,423610E+22	4,423655E+22	1,452309E+22	1,452350E+22	8,847265E+22	2,904659E+22	1,175192E+23
219	4,423723E+22	4,423517E+22	1,452300E+22	1,452311E+22	8,847239E+22	2,904610E+22	1,175185E+23
220	4,423468E+22	4,423627E+22	1,452386E+22	1,452314E+22	8,847094E+22	2,904699E+22	1,175179E+23
221	4,423623E+22	4,423609E+22	1,452320E+22	1,452427E+22	8,847232E+22	2,904747E+22	1,175198E+23
222	4,423534E+22	4,423450E+22	1,452418E+22	1,452391E+22	8,846983E+22	2,904809E+22	1,175179E+23
223	4,423361E+22	4,423527E+22	1,452494E+22	1,452451E+22	8,846888E+22	2,904945E+22	1,175183E+23
224	4,423535E+22	4,423379E+22	1,452456E+22	1,452539E+22	8,846913E+22	2,904995E+22	1,175191E+23
225	4,423275E+22	4,423293E+22	1,452607E+22	1,452514E+22	8,846568E+22	2,905121E+22	1,175169E+23
226	4,423233E+22	4,423378E+22	1,452605E+22	1,452629E+22	8,846611E+22	2,905234E+22	1,175185E+23
227	4,423340E+22	4,423188E+22	1,452593E+22	1,452654E+22	8,846528E+22	2,905247E+22	1,175178E+23
228	4,423081E+22	4,423222E+22	1,452693E+22	1,452614E+22	8,846303E+22	2,905308E+22	1,175161E+23
229	4,423271E+22	4,423260E+22	1,452611E+22	1,452683E+22	8,846531E+22	2,905293E+22	1,175182E+23
230	4,423318E+22	4,423137E+22	1,452626E+22	1,452594E+22	8,846455E+22	2,905220E+22	1,175167E+23
231	4,423151E+22	4,423323E+22	1,452642E+22	1,452566E+22	8,846474E+22	2,905197E+22	1,175167E+23
232	4,423385E+22	4,423334E+22	1,452505E+22	1,452598E+22	8,846720E+22	2,905103E+22	1,175182E+23
233	4,423248E+22	4,423295E+22	1,452557E+22	1,452488E+22	8,846542E+22	2,905045E+22	1,175159E+23
234	4,423257E+22	4,423464E+22	1,452516E+22	1,452495E+22	8,846720E+22	2,905011E+22	1,175173E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
235	4,423516E+22	4,423355E+22	1,452423E+22	1,452478E+22	8,846870E+22	2,904901E+22	1,175177E+23
236	4,423341E+22	4,423385E+22	1,452486E+22	1,452391E+22	8,846726E+22	2,904878E+22	1,175160E+23
237	4,423477E+22	4,423502E+22	1,452416E+22	1,452464E+22	8,846979E+22	2,904880E+22	1,175186E+23
238	4,423536E+22	4,423378E+22	1,452416E+22	1,452444E+22	8,846914E+22	2,904859E+22	1,175177E+23
239	4,423290E+22	4,423476E+22	1,452503E+22	1,452436E+22	8,846766E+22	2,904939E+22	1,175170E+23
240	4,423462E+22	4,423447E+22	1,452447E+22	1,452548E+22	8,846909E+22	2,904995E+22	1,175190E+23
241	4,423342E+22	4,423258E+22	1,452563E+22	1,452519E+22	8,846600E+22	2,905083E+22	1,175168E+23
242	4,423187E+22	4,423343E+22	1,452645E+22	1,452577E+22	8,846531E+22	2,905221E+22	1,175175E+23
243	4,423341E+22	4,423207E+22	1,452605E+22	1,452685E+22	8,846548E+22	2,905290E+22	1,175184E+23
244	4,423067E+22	4,423099E+22	1,452729E+22	1,452670E+22	8,846166E+22	2,905399E+22	1,175156E+23
245	4,423057E+22	4,423181E+22	1,452730E+22	1,452768E+22	8,846238E+22	2,905498E+22	1,175174E+23
246	4,423181E+22	4,423006E+22	1,452719E+22	1,452780E+22	8,846187E+22	2,905499E+22	1,175169E+23
247	4,422964E+22	4,423052E+22	1,452804E+22	1,452712E+22	8,846016E+22	2,905516E+22	1,175153E+23
248	4,423149E+22	4,423130E+22	1,452716E+22	1,452779E+22	8,846278E+22	2,905496E+22	1,175177E+23
249	4,423125E+22	4,423018E+22	1,452736E+22	1,452705E+22	8,846143E+22	2,905441E+22	1,175158E+23
250	4,422958E+22	4,423206E+22	1,452755E+22	1,452663E+22	8,846165E+22	2,905418E+22	1,175158E+23
251	4,423209E+22	4,423200E+22	1,452624E+22	1,452711E+22	8,846409E+22	2,905334E+22	1,175174E+23
252	4,423104E+22	4,423105E+22	1,452656E+22	1,452598E+22	8,846209E+22	2,905254E+22	1,175146E+23
253	4,423154E+22	4,423272E+22	1,452622E+22	1,452594E+22	8,846427E+22	2,905215E+22	1,175164E+23
254	4,423398E+22	4,423198E+22	1,452529E+22	1,452588E+22	8,846596E+22	2,905117E+22	1,175171E+23
255	4,423211E+22	4,423248E+22	1,452580E+22	1,452502E+22	8,846459E+22	2,905082E+22	1,175154E+23
256	4,423319E+22	4,423386E+22	1,452517E+22	1,452585E+22	8,846705E+22	2,905102E+22	1,175181E+23
257	4,423332E+22	4,423229E+22	1,452543E+22	1,452571E+22	8,846561E+22	2,905114E+22	1,175167E+23
258	4,423116E+22	4,423307E+22	1,452650E+22	1,452550E+22	8,846423E+22	2,905200E+22	1,175162E+23
259	4,423292E+22	4,423269E+22	1,452603E+22	1,452672E+22	8,846561E+22	2,905275E+22	1,175184E+23
260	4,423154E+22	4,423049E+22	1,452699E+22	1,452661E+22	8,846203E+22	2,905360E+22	1,175156E+23
261	4,422999E+22	4,423146E+22	1,452779E+22	1,452725E+22	8,846145E+22	2,905504E+22	1,175165E+23
262	4,423130E+22	4,423027E+22	1,452736E+22	1,452841E+22	8,846157E+22	2,905577E+22	1,175173E+23
263	4,422901E+22	4,422916E+22	1,452844E+22	1,452804E+22	8,845817E+22	2,905648E+22	1,175147E+23
264	4,422926E+22	4,423019E+22	1,452844E+22	1,452883E+22	8,845946E+22	2,905727E+22	1,175167E+23
265	4,423022E+22	4,422848E+22	1,452847E+22	1,452890E+22	8,845870E+22	2,905737E+22	1,175161E+23
266	4,422817E+22	4,422921E+22	1,452935E+22	1,452813E+22	8,845738E+22	2,905748E+22	1,175149E+23
267	4,422968E+22	4,423008E+22	1,452843E+22	1,452895E+22	8,845976E+22	2,905738E+22	1,175171E+23
268	4,422922E+22	4,422855E+22	1,452840E+22	1,452833E+22	8,845778E+22	2,905673E+22	1,175145E+23
269	4,422806E+22	4,423014E+22	1,452860E+22	1,452777E+22	8,845819E+22	2,905637E+22	1,175146E+23
270	4,423071E+22	4,423013E+22	1,452728E+22	1,452816E+22	8,846084E+22	2,905544E+22	1,175163E+23
271	4,423017E+22	4,422934E+22	1,452742E+22	1,452687E+22	8,845951E+22	2,905429E+22	1,175138E+23
272	4,423059E+22	4,423146E+22	1,452708E+22	1,452686E+22	8,846206E+22	2,905393E+22	1,175160E+23
273	4,423221E+22	4,423092E+22	1,452635E+22	1,452699E+22	8,846314E+22	2,905333E+22	1,175165E+23
274	4,423030E+22	4,423143E+22	1,452703E+22	1,452613E+22	8,846173E+22	2,905317E+22	1,175149E+23
275	4,423128E+22	4,423254E+22	1,452659E+22	1,452705E+22	8,846382E+22	2,905364E+22	1,175175E+23
276	4,423146E+22	4,423034E+22	1,452677E+22	1,452702E+22	8,846180E+22	2,905379E+22	1,175156E+23
277	4,422964E+22	4,423083E+22	1,452793E+22	1,452682E+22	8,846047E+22	2,905475E+22	1,175152E+23
278	4,423109E+22	4,423070E+22	1,452743E+22	1,452820E+22	8,846179E+22	2,905563E+22	1,175174E+23
279	4,422978E+22	4,422860E+22	1,452814E+22	1,452813E+22	8,845838E+22	2,905627E+22	1,175147E+23
280	4,422823E+22	4,422975E+22	1,452891E+22	1,452873E+22	8,845799E+22	2,905764E+22	1,175156E+23
281	4,422939E+22	4,422849E+22	1,452867E+22	1,452979E+22	8,845789E+22	2,905846E+22	1,175164E+23
282	4,422757E+22	4,422748E+22	1,452985E+22	1,452912E+22	8,845505E+22	2,905897E+22	1,175140E+23
283	4,422783E+22	4,422874E+22	1,452990E+22	1,452988E+22	8,845657E+22	2,905978E+22	1,175163E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
284	4,422846E+22	4,422685E+22	1,452969E+22	1,453006E+22	8,845531E+22	2,905975E+22	1,175151E+23
285	4,422632E+22	4,422756E+22	1,453054E+22	1,452934E+22	8,845388E+22	2,905988E+22	1,175138E+23
286	4,422760E+22	4,422856E+22	1,452955E+22	1,453019E+22	8,845616E+22	2,905975E+22	1,175159E+23
287	4,422773E+22	4,422679E+22	1,452931E+22	1,452942E+22	8,845452E+22	2,905873E+22	1,175132E+23
288	4,422702E+22	4,422852E+22	1,452946E+22	1,452871E+22	8,845554E+22	2,905817E+22	1,175137E+23
289	4,422950E+22	4,422863E+22	1,452830E+22	1,452910E+22	8,845814E+22	2,905741E+22	1,175155E+23
290	4,422901E+22	4,422821E+22	1,452849E+22	1,452779E+22	8,845722E+22	2,905628E+22	1,175135E+23
291	4,422901E+22	4,423056E+22	1,452822E+22	1,452797E+22	8,845957E+22	2,905619E+22	1,175158E+23
292	4,423025E+22	4,422949E+22	1,452745E+22	1,452826E+22	8,845974E+22	2,905571E+22	1,175154E+23
293	4,422869E+22	4,422953E+22	1,452833E+22	1,452738E+22	8,845822E+22	2,905572E+22	1,175139E+23
294	4,422957E+22	4,423060E+22	1,452796E+22	1,452828E+22	8,846016E+22	2,905624E+22	1,175164E+23
295	4,423008E+22	4,422830E+22	1,452797E+22	1,452827E+22	8,845838E+22	2,905624E+22	1,175146E+23
296	4,422817E+22	4,422906E+22	1,452906E+22	1,452814E+22	8,845723E+22	2,905720E+22	1,175144E+23
297	4,422898E+22	4,422905E+22	1,452871E+22	1,452966E+22	8,845804E+22	2,905837E+22	1,175164E+23
298	4,422793E+22	4,422709E+22	1,452950E+22	1,452946E+22	8,845502E+22	2,905896E+22	1,175140E+23
299	4,422652E+22	4,422819E+22	1,453036E+22	1,453000E+22	8,845471E+22	2,906036E+22	1,175151E+23
300	4,422765E+22	4,422658E+22	1,453007E+22	1,453104E+22	8,845423E+22	2,906111E+22	1,175153E+23
301	4,422617E+22	4,422552E+22	1,453129E+22	1,453032E+22	8,845169E+22	2,906161E+22	1,175133E+23
302	4,422590E+22	4,422709E+22	1,453125E+22	1,453114E+22	8,845298E+22	2,906239E+22	1,175154E+23
303	4,422659E+22	4,422525E+22	1,453073E+22	1,453138E+22	8,845183E+22	2,906211E+22	1,175139E+23
304	4,422461E+22	4,422593E+22	1,453147E+22	1,453056E+22	8,845053E+22	2,906203E+22	1,175126E+23
305	4,422584E+22	4,422683E+22	1,453063E+22	1,453130E+22	8,845266E+22	2,906193E+22	1,175146E+23
306	4,422659E+22	4,422527E+22	1,453038E+22	1,453028E+22	8,845187E+22	2,906067E+22	1,175125E+23
307	4,422596E+22	4,422727E+22	1,453055E+22	1,452962E+22	8,845323E+22	2,906016E+22	1,175134E+23
308	4,422801E+22	4,422732E+22	1,452931E+22	1,453016E+22	8,845534E+22	2,905947E+22	1,175148E+23
309	4,422751E+22	4,422686E+22	1,452958E+22	1,452893E+22	8,845436E+22	2,905851E+22	1,175129E+23
310	4,422712E+22	4,422921E+22	1,452940E+22	1,452913E+22	8,845633E+22	2,905853E+22	1,175149E+23
311	4,422876E+22	4,422779E+22	1,452852E+22	1,452940E+22	8,845655E+22	2,905792E+22	1,175145E+23
312	4,422742E+22	4,422772E+22	1,452944E+22	1,452850E+22	8,845514E+22	2,905794E+22	1,175131E+23
313	4,422794E+22	4,422879E+22	1,452927E+22	1,452952E+22	8,845673E+22	2,905879E+22	1,175155E+23
314	4,422845E+22	4,422673E+22	1,452928E+22	1,452955E+22	8,845518E+22	2,905884E+22	1,175140E+23
315	4,422628E+22	4,422765E+22	1,453038E+22	1,452960E+22	8,845393E+22	2,905998E+22	1,175139E+23
316	4,422692E+22	4,422714E+22	1,453001E+22	1,453114E+22	8,845406E+22	2,906116E+22	1,175152E+23
317	4,422634E+22	4,422494E+22	1,453094E+22	1,453080E+22	8,845127E+22	2,906174E+22	1,175130E+23
318	4,422483E+22	4,422632E+22	1,453183E+22	1,453121E+22	8,845115E+22	2,906304E+22	1,175142E+23
319	4,422616E+22	4,422475E+22	1,453132E+22	1,453225E+22	8,845091E+22	2,906357E+22	1,175145E+23
320	4,422446E+22	4,422399E+22	1,453243E+22	1,453157E+22	8,844845E+22	2,906400E+22	1,175125E+23
321	4,422362E+22	4,422562E+22	1,453247E+22	1,453246E+22	8,844923E+22	2,906492E+22	1,175142E+23
322	4,422467E+22	4,422378E+22	1,453192E+22	1,453253E+22	8,844845E+22	2,906445E+22	1,175129E+23
323	4,422310E+22	4,422443E+22	1,453260E+22	1,453165E+22	8,844753E+22	2,906425E+22	1,175118E+23
324	4,422449E+22	4,422498E+22	1,453170E+22	1,453234E+22	8,844946E+22	2,906404E+22	1,175135E+23
325	4,422567E+22	4,422357E+22	1,453148E+22	1,453130E+22	8,844923E+22	2,906278E+22	1,175120E+23
326	4,422453E+22	4,422604E+22	1,453160E+22	1,453068E+22	8,845057E+22	2,906228E+22	1,175128E+23
327	4,422652E+22	4,422606E+22	1,453019E+22	1,453130E+22	8,845258E+22	2,906149E+22	1,175141E+23
328	4,422608E+22	4,422546E+22	1,453050E+22	1,453003E+22	8,845153E+22	2,906052E+22	1,175121E+23
329	4,422540E+22	4,422756E+22	1,453059E+22	1,453019E+22	8,845297E+22	2,906079E+22	1,175138E+23
330	4,422739E+22	4,422624E+22	1,452979E+22	1,453038E+22	8,845363E+22	2,906016E+22	1,175138E+23
331	4,422600E+22	4,422621E+22	1,453071E+22	1,452966E+22	8,845221E+22	2,906037E+22	1,175126E+23
332	4,422594E+22	4,422702E+22	1,453054E+22	1,453089E+22	8,845296E+22	2,906143E+22	1,175144E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
333	4,422660E+22	4,422493E+22	1,453061E+22	1,453102E+22	8,845154E+22	2,906164E+22	1,175132E+23
334	4,422424E+22	4,422588E+22	1,453176E+22	1,453100E+22	8,845011E+22	2,906276E+22	1,175129E+23
335	4,422533E+22	4,422518E+22	1,453128E+22	1,453248E+22	8,845051E+22	2,906376E+22	1,175143E+23
336	4,422499E+22	4,422307E+22	1,453221E+22	1,453203E+22	8,844806E+22	2,906424E+22	1,175123E+23
337	4,422299E+22	4,422460E+22	1,453325E+22	1,453249E+22	8,844759E+22	2,906574E+22	1,175133E+23
338	4,422423E+22	4,422337E+22	1,453267E+22	1,453352E+22	8,844761E+22	2,906619E+22	1,175138E+23
339	4,422239E+22	4,422260E+22	1,453368E+22	1,453297E+22	8,844500E+22	2,906665E+22	1,175116E+23
340	4,422151E+22	4,422363E+22	1,453368E+22	1,453379E+22	8,844515E+22	2,906747E+22	1,175126E+23
341	4,422333E+22	4,422167E+22	1,453313E+22	1,453368E+22	8,844500E+22	2,906681E+22	1,175118E+23
342	4,422187E+22	4,422270E+22	1,453373E+22	1,453263E+22	8,844457E+22	2,906636E+22	1,175109E+23
343	4,422352E+22	4,422344E+22	1,453260E+22	1,453333E+22	8,844695E+22	2,906592E+22	1,175129E+23
344	4,422444E+22	4,422247E+22	1,453231E+22	1,453228E+22	8,844691E+22	2,906459E+22	1,175115E+23
345	4,422274E+22	4,422501E+22	1,453263E+22	1,453172E+22	8,844775E+22	2,906435E+22	1,175121E+23
346	4,422487E+22	4,422495E+22	1,453130E+22	1,453222E+22	8,844982E+22	2,906352E+22	1,175133E+23
347	4,422456E+22	4,422416E+22	1,453168E+22	1,453106E+22	8,844872E+22	2,906274E+22	1,175115E+23
348	4,422377E+22	4,422566E+22	1,453183E+22	1,453132E+22	8,844943E+22	2,906315E+22	1,175126E+23
349	4,422596E+22	4,422428E+22	1,453109E+22	1,453165E+22	8,845023E+22	2,906274E+22	1,175130E+23
350	4,422413E+22	4,422461E+22	1,453195E+22	1,453105E+22	8,844874E+22	2,906300E+22	1,175117E+23
351	4,422420E+22	4,422519E+22	1,453161E+22	1,453238E+22	8,844939E+22	2,906399E+22	1,175134E+23
352	4,422504E+22	4,422309E+22	1,453174E+22	1,453237E+22	8,844813E+22	2,906411E+22	1,175122E+23
353	4,422255E+22	4,422403E+22	1,453313E+22	1,453225E+22	8,844658E+22	2,906538E+22	1,175120E+23
354	4,422381E+22	4,422358E+22	1,453272E+22	1,453358E+22	8,844739E+22	2,906630E+22	1,175137E+23
355	4,422328E+22	4,422170E+22	1,453363E+22	1,453331E+22	8,844498E+22	2,906694E+22	1,175119E+23
356	4,422068E+22	4,422286E+22	1,453464E+22	1,453391E+22	8,844353E+22	2,906855E+22	1,175121E+23
357	4,422216E+22	4,422150E+22	1,453406E+22	1,453496E+22	8,844365E+22	2,906901E+22	1,175127E+23
358	4,422040E+22	4,422075E+22	1,453497E+22	1,453426E+22	8,844115E+22	2,906923E+22	1,175104E+23
359	4,422018E+22	4,422157E+22	1,453474E+22	1,453497E+22	8,844175E+22	2,906971E+22	1,175115E+23
360	4,422240E+22	4,421995E+22	1,453410E+22	1,453469E+22	8,844234E+22	2,906879E+22	1,175111E+23
361	4,422057E+22	4,422133E+22	1,453480E+22	1,453365E+22	8,844190E+22	2,906844E+22	1,175103E+23
362	4,422203E+22	4,422259E+22	1,453362E+22	1,453429E+22	8,844462E+22	2,906792E+22	1,175125E+23
363	4,422278E+22	4,422159E+22	1,453331E+22	1,453336E+22	8,844437E+22	2,906667E+22	1,175110E+23
364	4,422080E+22	4,422336E+22	1,453377E+22	1,453280E+22	8,844416E+22	2,906657E+22	1,175107E+23
365	4,422342E+22	4,422311E+22	1,453255E+22	1,453326E+22	8,844653E+22	2,906580E+22	1,175123E+23
366	4,422304E+22	4,422242E+22	1,453290E+22	1,453213E+22	8,844546E+22	2,906504E+22	1,175105E+23
367	4,422239E+22	4,422381E+22	1,453288E+22	1,453258E+22	8,844620E+22	2,906546E+22	1,175117E+23
368	4,422444E+22	4,422270E+22	1,453208E+22	1,453295E+22	8,844714E+22	2,906503E+22	1,175122E+23
369	4,422225E+22	4,422306E+22	1,453311E+22	1,453240E+22	8,844531E+22	2,906550E+22	1,175108E+23
370	4,422257E+22	4,422374E+22	1,453288E+22	1,453354E+22	8,844631E+22	2,906642E+22	1,175127E+23
371	4,422354E+22	4,422165E+22	1,453309E+22	1,453358E+22	8,844519E+22	2,906667E+22	1,175119E+23
372	4,422077E+22	4,422209E+22	1,453465E+22	1,453353E+22	8,844286E+22	2,906818E+22	1,175110E+23
373	4,422203E+22	4,422173E+22	1,453430E+22	1,453496E+22	8,844376E+22	2,906925E+22	1,175130E+23
374	4,422100E+22	4,422007E+22	1,453509E+22	1,453481E+22	8,844107E+22	2,906990E+22	1,175110E+23
375	4,421867E+22	4,422078E+22	1,453585E+22	1,453546E+22	8,843945E+22	2,907130E+22	1,175107E+23
376	4,422051E+22	4,421940E+22	1,453518E+22	1,453625E+22	8,843992E+22	2,907143E+22	1,175113E+23
377	4,421897E+22	4,421886E+22	1,453615E+22	1,453539E+22	8,843782E+22	2,907153E+22	1,175094E+23
378	4,421908E+22	4,422011E+22	1,453586E+22	1,453587E+22	8,843919E+22	2,907173E+22	1,175109E+23
379	4,422106E+22	4,421901E+22	1,453516E+22	1,453570E+22	8,844007E+22	2,907085E+22	1,175109E+23
380	4,421868E+22	4,422013E+22	1,453588E+22	1,453475E+22	8,843881E+22	2,907063E+22	1,175094E+23
381	4,422025E+22	4,422120E+22	1,453480E+22	1,453536E+22	8,844145E+22	2,907016E+22	1,175116E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
382	4,422095E+22	4,422017E+22	1,453449E+22	1,453439E+22	8,844112E+22	2,906888E+22	1,175100E+23
383	4,421950E+22	4,422140E+22	1,453477E+22	1,453389E+22	8,844089E+22	2,906867E+22	1,175096E+23
384	4,422228E+22	4,422128E+22	1,453354E+22	1,453431E+22	8,844356E+22	2,906785E+22	1,175114E+23
385	4,422159E+22	4,422085E+22	1,453396E+22	1,453335E+22	8,844244E+22	2,906731E+22	1,175097E+23
386	4,422083E+22	4,422253E+22	1,453393E+22	1,453378E+22	8,844336E+22	2,906771E+22	1,175111E+23
387	4,422280E+22	4,422148E+22	1,453320E+22	1,453425E+22	8,844428E+22	2,906744E+22	1,175117E+23
388	4,422045E+22	4,422119E+22	1,453444E+22	1,453365E+22	8,844164E+22	2,906809E+22	1,175097E+23
389	4,422110E+22	4,422184E+22	1,453441E+22	1,453471E+22	8,844293E+22	2,906911E+22	1,175120E+23
390	4,422177E+22	4,421998E+22	1,453463E+22	1,453483E+22	8,844175E+22	2,906946E+22	1,175112E+23
391	4,421890E+22	4,422017E+22	1,453601E+22	1,453501E+22	8,843907E+22	2,907103E+22	1,175101E+23
392	4,421996E+22	4,421996E+22	1,453557E+22	1,453644E+22	8,843992E+22	2,907201E+22	1,175119E+23
393	4,421879E+22	4,421818E+22	1,453641E+22	1,453629E+22	8,843697E+22	2,907270E+22	1,175097E+23
394	4,421693E+22	4,421898E+22	1,453710E+22	1,453668E+22	8,843591E+22	2,907378E+22	1,175097E+23
395	4,421918E+22	4,421781E+22	1,453635E+22	1,453741E+22	8,843699E+22	2,907376E+22	1,175108E+23
396	4,421748E+22	4,421702E+22	1,453738E+22	1,453651E+22	8,843450E+22	2,907389E+22	1,175084E+23
397	4,421765E+22	4,421870E+22	1,453709E+22	1,453699E+22	8,843635E+22	2,907408E+22	1,175104E+23
398	4,421916E+22	4,421792E+22	1,453630E+22	1,453684E+22	8,843708E+22	2,907315E+22	1,175102E+23
399	4,421702E+22	4,421846E+22	1,453686E+22	1,453595E+22	8,843548E+22	2,907281E+22	1,175083E+23
400	4,421883E+22	4,421944E+22	1,453578E+22	1,453634E+22	8,843827E+22	2,907211E+22	1,175104E+23
401	4,421959E+22	4,421844E+22	1,453554E+22	1,453536E+22	8,843803E+22	2,907090E+22	1,175089E+23
402	4,421837E+22	4,421992E+22	1,453579E+22	1,453481E+22	8,843829E+22	2,907060E+22	1,175089E+23
403	4,422092E+22	4,422018E+22	1,453452E+22	1,453543E+22	8,844109E+22	2,906995E+22	1,175110E+23
404	4,421975E+22	4,421940E+22	1,453508E+22	1,453460E+22	8,843915E+22	2,906968E+22	1,175088E+23
405	4,421919E+22	4,422099E+22	1,453521E+22	1,453499E+22	8,844019E+22	2,907019E+22	1,175104E+23
406	4,422103E+22	4,422000E+22	1,453458E+22	1,453543E+22	8,844103E+22	2,907000E+22	1,175110E+23
407	4,421906E+22	4,421916E+22	1,453576E+22	1,453496E+22	8,843822E+22	2,907072E+22	1,175089E+23
408	4,421955E+22	4,421992E+22	1,453577E+22	1,453598E+22	8,843947E+22	2,907175E+22	1,175112E+23
409	4,421976E+22	4,421832E+22	1,453603E+22	1,453632E+22	8,843808E+22	2,907236E+22	1,175104E+23
410	4,421685E+22	4,421850E+22	1,453729E+22	1,453648E+22	8,843535E+22	2,907377E+22	1,175091E+23
411	4,421792E+22	4,421825E+22	1,453682E+22	1,453790E+22	8,843617E+22	2,907472E+22	1,175109E+23
412	4,421692E+22	4,421597E+22	1,453774E+22	1,453762E+22	8,843289E+22	2,907536E+22	1,175083E+23
413	4,421560E+22	4,421693E+22	1,453847E+22	1,453781E+22	8,843254E+22	2,907627E+22	1,175088E+23
414	4,421765E+22	4,421634E+22	1,453768E+22	1,453850E+22	8,843399E+22	2,907618E+22	1,175102E+23
415	4,421600E+22	4,421545E+22	1,453845E+22	1,453774E+22	8,843145E+22	2,907620E+22	1,175076E+23
416	4,421596E+22	4,421733E+22	1,453812E+22	1,453808E+22	8,843328E+22	2,907620E+22	1,175095E+23
417	4,421733E+22	4,421655E+22	1,453737E+22	1,453793E+22	8,843388E+22	2,907531E+22	1,175092E+23
418	4,421558E+22	4,421697E+22	1,453788E+22	1,453687E+22	8,843256E+22	2,907474E+22	1,175073E+23
419	4,421758E+22	4,421806E+22	1,453678E+22	1,453728E+22	8,843564E+22	2,907406E+22	1,175097E+23
420	4,421815E+22	4,421673E+22	1,453666E+22	1,453644E+22	8,843488E+22	2,907311E+22	1,175080E+23
421	4,421696E+22	4,421850E+22	1,453692E+22	1,453598E+22	8,843546E+22	2,907291E+22	1,175084E+23
422	4,421912E+22	4,421898E+22	1,453567E+22	1,453668E+22	8,843810E+22	2,907235E+22	1,175105E+23
423	4,421823E+22	4,421757E+22	1,453615E+22	1,453593E+22	8,843580E+22	2,907208E+22	1,175079E+23
424	4,421786E+22	4,421916E+22	1,453638E+22	1,453610E+22	8,843702E+22	2,907248E+22	1,175095E+23
425	4,421954E+22	4,421824E+22	1,453589E+22	1,453659E+22	8,843778E+22	2,907249E+22	1,175103E+23
426	4,421749E+22	4,421757E+22	1,453708E+22	1,453617E+22	8,843506E+22	2,907325E+22	1,175083E+23
427	4,421758E+22	4,421857E+22	1,453705E+22	1,453737E+22	8,843616E+22	2,907442E+22	1,175106E+23
428	4,421736E+22	4,421640E+22	1,453744E+22	1,453785E+22	8,843376E+22	2,907528E+22	1,175090E+23
429	4,421488E+22	4,421649E+22	1,453873E+22	1,453788E+22	8,843137E+22	2,907662E+22	1,175080E+23
430	4,421610E+22	4,421636E+22	1,453825E+22	1,453917E+22	8,843245E+22	2,907743E+22	1,175099E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
431	4,421562E+22	4,421376E+22	1,453899E+22	1,453892E+22	8,842938E+22	2,907791E+22	1,175073E+23
432	4,421435E+22	4,421515E+22	1,453966E+22	1,453896E+22	8,842950E+22	2,907862E+22	1,175081E+23
433	4,421591E+22	4,421504E+22	1,453885E+22	1,453976E+22	8,843095E+22	2,907861E+22	1,175096E+23
434	4,421425E+22	4,421424E+22	1,453951E+22	1,453891E+22	8,842849E+22	2,907842E+22	1,175069E+23
435	4,421423E+22	4,421604E+22	1,453915E+22	1,453914E+22	8,843028E+22	2,907829E+22	1,175086E+23
436	4,421564E+22	4,421474E+22	1,453854E+22	1,453894E+22	8,843038E+22	2,907748E+22	1,175079E+23
437	4,421436E+22	4,421525E+22	1,453904E+22	1,453780E+22	8,842960E+22	2,907684E+22	1,175064E+23
438	4,421607E+22	4,421674E+22	1,453793E+22	1,453831E+22	8,843281E+22	2,907624E+22	1,175091E+23
439	4,421674E+22	4,421517E+22	1,453760E+22	1,453771E+22	8,843191E+22	2,907531E+22	1,175072E+23
440	4,421549E+22	4,421699E+22	1,453788E+22	1,453714E+22	8,843248E+22	2,907501E+22	1,175075E+23
441	4,421752E+22	4,421756E+22	1,453678E+22	1,453783E+22	8,843508E+22	2,907461E+22	1,175097E+23
442	4,421698E+22	4,421604E+22	1,453725E+22	1,453696E+22	8,843301E+22	2,907421E+22	1,175072E+23
443	4,421648E+22	4,421768E+22	1,453759E+22	1,453716E+22	8,843416E+22	2,907475E+22	1,175089E+23
444	4,421768E+22	4,421650E+22	1,453731E+22	1,453789E+22	8,843418E+22	2,907519E+22	1,175094E+23
445	4,421552E+22	4,421590E+22	1,453851E+22	1,453761E+22	8,843141E+22	2,907612E+22	1,175075E+23
446	4,421525E+22	4,421691E+22	1,453851E+22	1,453887E+22	8,843216E+22	2,907738E+22	1,175095E+23
447	4,421552E+22	4,421402E+22	1,453874E+22	1,453939E+22	8,842954E+22	2,907813E+22	1,175077E+23
448	4,421345E+22	4,421418E+22	1,454001E+22	1,453914E+22	8,842763E+22	2,907915E+22	1,175068E+23
449	4,421465E+22	4,421448E+22	1,453958E+22	1,454040E+22	8,842914E+22	2,907998E+22	1,175091E+23
450	4,421420E+22	4,421232E+22	1,454018E+22	1,454010E+22	8,842652E+22	2,908027E+22	1,175068E+23
451	4,421257E+22	4,421413E+22	1,454079E+22	1,454016E+22	8,842669E+22	2,908095E+22	1,175076E+23
452	4,421375E+22	4,421359E+22	1,454013E+22	1,454099E+22	8,842733E+22	2,908112E+22	1,175085E+23
453	4,421242E+22	4,421271E+22	1,454079E+22	1,454002E+22	8,842513E+22	2,908080E+22	1,175059E+23
454	4,421250E+22	4,421450E+22	1,454041E+22	1,454016E+22	8,842700E+22	2,908057E+22	1,175076E+23
455	4,421437E+22	4,421269E+22	1,453960E+22	1,454009E+22	8,842706E+22	2,907969E+22	1,175067E+23
456	4,421324E+22	4,421354E+22	1,454000E+22	1,453889E+22	8,842678E+22	2,907889E+22	1,175057E+23
457	4,421460E+22	4,421541E+22	1,453888E+22	1,453952E+22	8,843001E+22	2,907839E+22	1,175084E+23
458	4,421533E+22	4,421389E+22	1,453847E+22	1,453884E+22	8,842922E+22	2,907730E+22	1,175065E+23
459	4,421418E+22	4,421573E+22	1,453882E+22	1,453812E+22	8,842991E+22	2,907694E+22	1,175068E+23
460	4,421601E+22	4,421583E+22	1,453803E+22	1,453881E+22	8,843184E+22	2,907683E+22	1,175087E+23
461	4,421556E+22	4,421449E+22	1,453862E+22	1,453799E+22	8,843005E+22	2,907661E+22	1,175067E+23
462	4,421453E+22	4,421633E+22	1,453903E+22	1,453838E+22	8,843085E+22	2,907742E+22	1,175083E+23
463	4,421561E+22	4,421462E+22	1,453861E+22	1,453943E+22	8,843023E+22	2,907804E+22	1,175083E+23
464	4,421357E+22	4,421387E+22	1,453979E+22	1,453907E+22	8,842744E+22	2,907886E+22	1,175063E+23
465	4,421334E+22	4,421488E+22	1,453985E+22	1,454031E+22	8,842822E+22	2,908016E+22	1,175084E+23
466	4,421410E+22	4,421207E+22	1,453998E+22	1,454067E+22	8,842617E+22	2,908065E+22	1,175068E+23
467	4,421214E+22	4,421255E+22	1,454123E+22	1,454034E+22	8,842469E+22	2,908157E+22	1,175063E+23
468	4,421286E+22	4,421288E+22	1,454098E+22	1,454172E+22	8,842574E+22	2,908270E+22	1,175084E+23
469	4,421227E+22	4,421105E+22	1,454154E+22	1,454143E+22	8,842332E+22	2,908297E+22	1,175063E+23
470	4,421034E+22	4,421280E+22	1,454216E+22	1,454144E+22	8,842314E+22	2,908360E+22	1,175067E+23
471	4,421199E+22	4,421151E+22	1,454133E+22	1,454226E+22	8,842350E+22	2,908359E+22	1,175071E+23
472	4,421113E+22	4,421056E+22	1,454189E+22	1,454104E+22	8,842169E+22	2,908293E+22	1,175046E+23
473	4,421117E+22	4,421274E+22	1,454148E+22	1,454121E+22	8,842391E+22	2,908270E+22	1,175066E+23
474	4,421317E+22	4,421132E+22	1,454045E+22	1,454113E+22	8,842449E+22	2,908158E+22	1,175061E+23
475	4,421185E+22	4,421250E+22	1,454078E+22	1,453992E+22	8,842435E+22	2,908070E+22	1,175050E+23
476	4,421292E+22	4,421409E+22	1,453994E+22	1,454056E+22	8,842701E+22	2,908050E+22	1,175075E+23
477	4,421389E+22	4,421263E+22	1,453963E+22	1,453977E+22	8,842652E+22	2,907940E+22	1,175059E+23
478	4,421264E+22	4,421441E+22	1,454014E+22	1,453907E+22	8,842704E+22	2,907921E+22	1,175062E+23
479	4,421452E+22	4,421393E+22	1,453930E+22	1,454001E+22	8,842846E+22	2,907931E+22	1,175078E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
480	4,421392E+22	4,421270E+22	1,453988E+22	1,453932E+22	8,842662E+22	2,907921E+22	1,175058E+23
481	4,421241E+22	4,421466E+22	1,454032E+22	1,453993E+22	8,842707E+22	2,908025E+22	1,175073E+23
482	4,421371E+22	4,421274E+22	1,453978E+22	1,454093E+22	8,842645E+22	2,908071E+22	1,175072E+23
483	4,421200E+22	4,421198E+22	1,454096E+22	1,454038E+22	8,842397E+22	2,908134E+22	1,175053E+23
484	4,421176E+22	4,421276E+22	1,454127E+22	1,454157E+22	8,842452E+22	2,908283E+22	1,175074E+23
485	4,421259E+22	4,421048E+22	1,454142E+22	1,454189E+22	8,842307E+22	2,908331E+22	1,175064E+23
486	4,421022E+22	4,421132E+22	1,454271E+22	1,454165E+22	8,842153E+22	2,908436E+22	1,175059E+23
487	4,421077E+22	4,421113E+22	1,454234E+22	1,454318E+22	8,842190E+22	2,908551E+22	1,175074E+23
488	4,421036E+22	4,420925E+22	1,454283E+22	1,454273E+22	8,841961E+22	2,908556E+22	1,175052E+23
489	4,420851E+22	4,421092E+22	1,454340E+22	1,454265E+22	8,841944E+22	2,908604E+22	1,175055E+23
490	4,421059E+22	4,420962E+22	1,454236E+22	1,454332E+22	8,842021E+22	2,908568E+22	1,175059E+23
491	4,421000E+22	4,420902E+22	1,454279E+22	1,454202E+22	8,841902E+22	2,908481E+22	1,175038E+23
492	4,420967E+22	4,421124E+22	1,454254E+22	1,454232E+22	8,842091E+22	2,908485E+22	1,175058E+23
493	4,421159E+22	4,421032E+22	1,454148E+22	1,454222E+22	8,842191E+22	2,908370E+22	1,175056E+23
494	4,421020E+22	4,421142E+22	1,454190E+22	1,454095E+22	8,842163E+22	2,908285E+22	1,175045E+23
495	4,421150E+22	4,421229E+22	1,454105E+22	1,454160E+22	8,842380E+22	2,908266E+22	1,175065E+23
496	4,421270E+22	4,421087E+22	1,454078E+22	1,454073E+22	8,842357E+22	2,908151E+22	1,175051E+23
497	4,421107E+22	4,421281E+22	1,454137E+22	1,454022E+22	8,842388E+22	2,908159E+22	1,175055E+23
498	4,421278E+22	4,421247E+22	1,454040E+22	1,454131E+22	8,842525E+22	2,908171E+22	1,175070E+23
499	4,421208E+22	4,421125E+22	1,454094E+22	1,454069E+22	8,842332E+22	2,908163E+22	1,175050E+23
500	4,421041E+22	4,421273E+22	1,454166E+22	1,454134E+22	8,842314E+22	2,908300E+22	1,175061E+23
501	4,421205E+22	4,421099E+22	1,454115E+22	1,454220E+22	8,842304E+22	2,908335E+22	1,175064E+23
502	4,421043E+22	4,421027E+22	1,454242E+22	1,454162E+22	8,842070E+22	2,908404E+22	1,175047E+23
503	4,421025E+22	4,421072E+22	1,454269E+22	1,454296E+22	8,842097E+22	2,908565E+22	1,175066E+23
504	4,421090E+22	4,420874E+22	1,454280E+22	1,454330E+22	8,841964E+22	2,908610E+22	1,175057E+23
505	4,420803E+22	4,420973E+22	1,454409E+22	1,454315E+22	8,841776E+22	2,908723E+22	1,175050E+23
506	4,420882E+22	4,420932E+22	1,454353E+22	1,454451E+22	8,841815E+22	2,908804E+22	1,175062E+23
507	4,420877E+22	4,420736E+22	1,454393E+22	1,454383E+22	8,841613E+22	2,908776E+22	1,175039E+23
508	4,420695E+22	4,420889E+22	1,454465E+22	1,454371E+22	8,841584E+22	2,908836E+22	1,175042E+23
509	4,420913E+22	4,420821E+22	1,454352E+22	1,454433E+22	8,841735E+22	2,908785E+22	1,175052E+23
510	4,420835E+22	4,420798E+22	1,454390E+22	1,454312E+22	8,841632E+22	2,908702E+22	1,175033E+23
511	4,420803E+22	4,420972E+22	1,454357E+22	1,454352E+22	8,841775E+22	2,908709E+22	1,175048E+23
512	4,421015E+22	4,420883E+22	1,454253E+22	1,454326E+22	8,841898E+22	2,908578E+22	1,175048E+23
513	4,420875E+22	4,420994E+22	1,454301E+22	1,454198E+22	8,841869E+22	2,908499E+22	1,175037E+23
514	4,421027E+22	4,421068E+22	1,454208E+22	1,454258E+22	8,842095E+22	2,908466E+22	1,175056E+23
515	4,421142E+22	4,420945E+22	1,454179E+22	1,454180E+22	8,842087E+22	2,908358E+22	1,175045E+23
516	4,420925E+22	4,421122E+22	1,454260E+22	1,454155E+22	8,842047E+22	2,908415E+22	1,175046E+23
517	4,421078E+22	4,421111E+22	1,454164E+22	1,454267E+22	8,842189E+22	2,908431E+22	1,175062E+23
518	4,421026E+22	4,420963E+22	1,454227E+22	1,454203E+22	8,841989E+22	2,908430E+22	1,175042E+23
519	4,420892E+22	4,421036E+22	1,454299E+22	1,454266E+22	8,841928E+22	2,908566E+22	1,175049E+23
520	4,421077E+22	4,420894E+22	1,454253E+22	1,454342E+22	8,841970E+22	2,908595E+22	1,175056E+23
521	4,420880E+22	4,420858E+22	1,454382E+22	1,454296E+22	8,841738E+22	2,908678E+22	1,175042E+23
522	4,420831E+22	4,420918E+22	1,454396E+22	1,454435E+22	8,841749E+22	2,908830E+22	1,175058E+23
523	4,420888E+22	4,420731E+22	1,454402E+22	1,454464E+22	8,841620E+22	2,908866E+22	1,175049E+23
524	4,420588E+22	4,420782E+22	1,454551E+22	1,454448E+22	8,841369E+22	2,908999E+22	1,175037E+23
525	4,420692E+22	4,420764E+22	1,454489E+22	1,454565E+22	8,841456E+22	2,909054E+22	1,175051E+23
526	4,420718E+22	4,420568E+22	1,454524E+22	1,454497E+22	8,841286E+22	2,909021E+22	1,175031E+23
527	4,420548E+22	4,420687E+22	1,454582E+22	1,454497E+22	8,841234E+22	2,909079E+22	1,175031E+23
528	4,420767E+22	4,420669E+22	1,454458E+22	1,454557E+22	8,841436E+22	2,909015E+22	1,175045E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
529	4,420668E+22	4,420664E+22	1,454492E+22	1,454436E+22	8,841332E+22	2,908928E+22	1,175026E+23
530	4,420669E+22	4,420821E+22	1,454447E+22	1,454455E+22	8,841490E+22	2,908902E+22	1,175039E+23
531	4,420908E+22	4,420739E+22	1,454342E+22	1,454408E+22	8,841646E+22	2,908749E+22	1,175040E+23
532	4,420744E+22	4,420832E+22	1,454417E+22	1,454292E+22	8,841576E+22	2,908708E+22	1,175028E+23
533	4,420865E+22	4,420956E+22	1,454325E+22	1,454357E+22	8,841821E+22	2,908682E+22	1,175050E+23
534	4,420954E+22	4,420832E+22	1,454301E+22	1,454303E+22	8,841785E+22	2,908604E+22	1,175039E+23
535	4,420739E+22	4,420932E+22	1,454381E+22	1,454296E+22	8,841671E+22	2,908677E+22	1,175035E+23
536	4,420922E+22	4,420912E+22	1,454290E+22	1,454395E+22	8,841834E+22	2,908685E+22	1,175052E+23
537	4,420870E+22	4,420771E+22	1,454358E+22	1,454330E+22	8,841640E+22	2,908688E+22	1,175033E+23
538	4,420762E+22	4,420845E+22	1,454419E+22	1,454389E+22	8,841607E+22	2,908808E+22	1,175042E+23
539	4,420928E+22	4,420737E+22	1,454374E+22	1,454468E+22	8,841666E+22	2,908841E+22	1,175051E+23
540	4,420669E+22	4,420701E+22	1,454527E+22	1,454446E+22	8,841370E+22	2,908972E+22	1,175034E+23
541	4,420597E+22	4,420781E+22	1,454540E+22	1,454574E+22	8,841377E+22	2,909114E+22	1,175049E+23
542	4,420678E+22	4,420560E+22	1,454550E+22	1,454600E+22	8,841237E+22	2,909150E+22	1,175039E+23
543	4,420414E+22	4,420535E+22	1,454688E+22	1,454581E+22	8,840949E+22	2,909269E+22	1,175022E+23
544	4,420547E+22	4,420549E+22	1,454618E+22	1,454684E+22	8,841096E+22	2,909302E+22	1,175040E+23
545	4,420558E+22	4,420404E+22	1,454642E+22	1,454623E+22	8,840962E+22	2,909265E+22	1,175023E+23
546	4,420398E+22	4,420540E+22	1,454674E+22	1,454620E+22	8,840937E+22	2,909293E+22	1,175023E+23
547	4,420627E+22	4,420547E+22	1,454546E+22	1,454661E+22	8,841174E+22	2,909207E+22	1,175038E+23
548	4,420521E+22	4,420521E+22	1,454601E+22	1,454536E+22	8,841043E+22	2,909137E+22	1,175018E+23
549	4,420526E+22	4,420706E+22	1,454559E+22	1,454533E+22	8,841232E+22	2,909092E+22	1,175032E+23
550	4,420776E+22	4,420619E+22	1,454461E+22	1,454499E+22	8,841395E+22	2,908960E+22	1,175036E+23
551	4,420590E+22	4,420651E+22	1,454533E+22	1,454411E+22	8,841242E+22	2,908945E+22	1,175019E+23
552	4,420689E+22	4,420801E+22	1,454441E+22	1,454487E+22	8,841489E+22	2,908928E+22	1,175042E+23
553	4,420767E+22	4,420668E+22	1,454416E+22	1,454441E+22	8,841434E+22	2,908857E+22	1,175029E+23
554	4,420594E+22	4,420727E+22	1,454484E+22	1,454420E+22	8,841322E+22	2,908904E+22	1,175023E+23
555	4,420807E+22	4,420729E+22	1,454397E+22	1,454501E+22	8,841536E+22	2,908898E+22	1,175043E+23
556	4,420727E+22	4,420594E+22	1,454490E+22	1,454450E+22	8,841321E+22	2,908940E+22	1,175026E+23
557	4,420574E+22	4,420729E+22	1,454557E+22	1,454509E+22	8,841302E+22	2,909066E+22	1,175037E+23
558	4,420713E+22	4,420620E+22	1,454521E+22	1,454609E+22	8,841333E+22	2,909130E+22	1,175046E+23
559	4,420443E+22	4,420495E+22	1,454676E+22	1,454600E+22	8,840938E+22	2,909276E+22	1,175021E+23
560	4,420398E+22	4,420568E+22	1,454688E+22	1,454712E+22	8,840966E+22	2,909401E+22	1,175037E+23
561	4,420497E+22	4,420345E+22	1,454691E+22	1,454735E+22	8,840843E+22	2,909426E+22	1,175027E+23
562	4,420280E+22	4,420316E+22	1,454802E+22	1,454709E+22	8,840596E+22	2,909511E+22	1,175011E+23
563	4,420417E+22	4,420385E+22	1,454719E+22	1,454803E+22	8,840803E+22	2,909522E+22	1,175032E+23
564	4,420388E+22	4,420266E+22	1,454753E+22	1,454753E+22	8,840654E+22	2,909506E+22	1,175016E+23
565	4,420227E+22	4,420437E+22	1,454782E+22	1,454723E+22	8,840664E+22	2,909505E+22	1,175017E+23
566	4,420481E+22	4,420424E+22	1,454664E+22	1,454754E+22	8,840906E+22	2,909418E+22	1,175032E+23
567	4,420386E+22	4,420338E+22	1,454719E+22	1,454632E+22	8,840725E+22	2,909351E+22	1,175008E+23
568	4,420389E+22	4,420544E+22	1,454676E+22	1,454627E+22	8,840933E+22	2,909303E+22	1,175024E+23
569	4,420592E+22	4,420481E+22	1,454575E+22	1,454616E+22	8,841073E+22	2,909192E+22	1,175026E+23
570	4,420422E+22	4,420492E+22	1,454625E+22	1,454540E+22	8,840914E+22	2,909164E+22	1,175008E+23
571	4,420537E+22	4,420638E+22	1,454534E+22	1,454602E+22	8,841175E+22	2,909136E+22	1,175031E+23
572	4,420615E+22	4,420493E+22	1,454531E+22	1,454562E+22	8,841108E+22	2,909093E+22	1,175020E+23
573	4,420456E+22	4,420585E+22	1,454603E+22	1,454521E+22	8,841041E+22	2,909124E+22	1,175017E+23
574	4,420668E+22	4,420591E+22	1,454533E+22	1,454617E+22	8,841260E+22	2,909150E+22	1,175041E+23
575	4,420547E+22	4,420416E+22	1,454630E+22	1,454595E+22	8,840963E+22	2,909225E+22	1,175019E+23
576	4,420362E+22	4,420563E+22	1,454703E+22	1,454658E+22	8,840925E+22	2,909361E+22	1,175029E+23
577	4,420486E+22	4,420435E+22	1,454670E+22	1,454762E+22	8,840921E+22	2,909433E+22	1,175035E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
578	4,420272E+22	4,420257E+22	1,454804E+22	1,454741E+22	8,840529E+22	2,909545E+22	1,175007E+23
579	4,420258E+22	4,420350E+22	1,454809E+22	1,454830E+22	8,840608E+22	2,909639E+22	1,175025E+23
580	4,420340E+22	4,420156E+22	1,454820E+22	1,454864E+22	8,840496E+22	2,909684E+22	1,175018E+23
581	4,420103E+22	4,420198E+22	1,454919E+22	1,454826E+22	8,840301E+22	2,909745E+22	1,175005E+23
582	4,420244E+22	4,420282E+22	1,454841E+22	1,454926E+22	8,840526E+22	2,909767E+22	1,175029E+23
583	4,420213E+22	4,420100E+22	1,454874E+22	1,454873E+22	8,840313E+22	2,909747E+22	1,175006E+23
584	4,420072E+22	4,420279E+22	1,454905E+22	1,454821E+22	8,840352E+22	2,909726E+22	1,175008E+23
585	4,420328E+22	4,420270E+22	1,454784E+22	1,454851E+22	8,840598E+22	2,909635E+22	1,175023E+23
586	4,420255E+22	4,420157E+22	1,454816E+22	1,454739E+22	8,840412E+22	2,909555E+22	1,174997E+23
587	4,420242E+22	4,420400E+22	1,454765E+22	1,454737E+22	8,840642E+22	2,909502E+22	1,175014E+23
588	4,420411E+22	4,420338E+22	1,454676E+22	1,454748E+22	8,840749E+22	2,909423E+22	1,175017E+23
589	4,420258E+22	4,420360E+22	1,454724E+22	1,454649E+22	8,840618E+22	2,909373E+22	1,174999E+23
590	4,420416E+22	4,420486E+22	1,454649E+22	1,454706E+22	8,840902E+22	2,909356E+22	1,175026E+23
591	4,420488E+22	4,420297E+22	1,454655E+22	1,454672E+22	8,840786E+22	2,909327E+22	1,175011E+23
592	4,420314E+22	4,420427E+22	1,454737E+22	1,454634E+22	8,840741E+22	2,909371E+22	1,175011E+23
593	4,420466E+22	4,420454E+22	1,454674E+22	1,454752E+22	8,840920E+22	2,909426E+22	1,175035E+23
594	4,420347E+22	4,420239E+22	1,454758E+22	1,454746E+22	8,840586E+22	2,909504E+22	1,175009E+23
595	4,420171E+22	4,420373E+22	1,454833E+22	1,454794E+22	8,840544E+22	2,909627E+22	1,175017E+23
596	4,420289E+22	4,420230E+22	1,454814E+22	1,454904E+22	8,840520E+22	2,909718E+22	1,175024E+23
597	4,420105E+22	4,420078E+22	1,454938E+22	1,454862E+22	8,840183E+22	2,909800E+22	1,174998E+23
598	4,420109E+22	4,420179E+22	1,454947E+22	1,454959E+22	8,840287E+22	2,909907E+22	1,175019E+23
599	4,420154E+22	4,419979E+22	1,454951E+22	1,455010E+22	8,840133E+22	2,909961E+22	1,175009E+23
600	4,419919E+22	4,420048E+22	1,455045E+22	1,454960E+22	8,839967E+22	2,910005E+22	1,174997E+23
601	4,420052E+22	4,420124E+22	1,454972E+22	1,455048E+22	8,840176E+22	2,910019E+22	1,175019E+23
602	4,420075E+22	4,419910E+22	1,454980E+22	1,454980E+22	8,839985E+22	2,909960E+22	1,174995E+23
603	4,419953E+22	4,420106E+22	1,455004E+22	1,454907E+22	8,840058E+22	2,909911E+22	1,174997E+23
604	4,420167E+22	4,420124E+22	1,454892E+22	1,454956E+22	8,840292E+22	2,909848E+22	1,175014E+23
605	4,420081E+22	4,420053E+22	1,454911E+22	1,454842E+22	8,840134E+22	2,909753E+22	1,174989E+23
606	4,420082E+22	4,420279E+22	1,454869E+22	1,454852E+22	8,840362E+22	2,909721E+22	1,175008E+23
607	4,420252E+22	4,420163E+22	1,454787E+22	1,454866E+22	8,840415E+22	2,909653E+22	1,175007E+23
608	4,420132E+22	4,420195E+22	1,454839E+22	1,454751E+22	8,840327E+22	2,909591E+22	1,174992E+23
609	4,420282E+22	4,420328E+22	1,454778E+22	1,454812E+22	8,840611E+22	2,909589E+22	1,175020E+23
610	4,420359E+22	4,420125E+22	1,454768E+22	1,454796E+22	8,840484E+22	2,909564E+22	1,175005E+23
611	4,420145E+22	4,420281E+22	1,454854E+22	1,454764E+22	8,840426E+22	2,909618E+22	1,175004E+23
612	4,420244E+22	4,420300E+22	1,454811E+22	1,454903E+22	8,840545E+22	2,909714E+22	1,175026E+23
613	4,420139E+22	4,420073E+22	1,454894E+22	1,454879E+22	8,840212E+22	2,909773E+22	1,174999E+23
614	4,420009E+22	4,420179E+22	1,454978E+22	1,454925E+22	8,840188E+22	2,909903E+22	1,175009E+23
615	4,420119E+22	4,419999E+22	1,454957E+22	1,455041E+22	8,840117E+22	2,909998E+22	1,175012E+23
616	4,419932E+22	4,419893E+22	1,455076E+22	1,454996E+22	8,839825E+22	2,910071E+22	1,174990E+23
617	4,419907E+22	4,420027E+22	1,455083E+22	1,455100E+22	8,839935E+22	2,910184E+22	1,175012E+23
618	4,419975E+22	4,419802E+22	1,455066E+22	1,455149E+22	8,839777E+22	2,910215E+22	1,174999E+23
619	4,419763E+22	4,419882E+22	1,455157E+22	1,455071E+22	8,839645E+22	2,910228E+22	1,174987E+23
620	4,419890E+22	4,419961E+22	1,455093E+22	1,455154E+22	8,839851E+22	2,910247E+22	1,175010E+23
621	4,419929E+22	4,419772E+22	1,455090E+22	1,455069E+22	8,839701E+22	2,910159E+22	1,174986E+23
622	4,419816E+22	4,419971E+22	1,455115E+22	1,455012E+22	8,839787E+22	2,910127E+22	1,174991E+23
623	4,419981E+22	4,419969E+22	1,454999E+22	1,455082E+22	8,839950E+22	2,910081E+22	1,175003E+23
624	4,419915E+22	4,419907E+22	1,455016E+22	1,454962E+22	8,839822E+22	2,909978E+22	1,174980E+23
625	4,419932E+22	4,420115E+22	1,454985E+22	1,454962E+22	8,840047E+22	2,909947E+22	1,174999E+23
626	4,420149E+22	4,419972E+22	1,454886E+22	1,454970E+22	8,840122E+22	2,909856E+22	1,174998E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
627	4,420035E+22	4,420034E+22	1,454941E+22	1,454844E+22	8,840069E+22	2,909786E+22	1,174985E+23
628	4,420114E+22	4,420199E+22	1,454900E+22	1,454930E+22	8,840313E+22	2,909830E+22	1,175014E+23
629	4,420161E+22	4,420025E+22	1,454889E+22	1,454919E+22	8,840186E+22	2,909808E+22	1,174999E+23
630	4,419952E+22	4,420134E+22	1,454992E+22	1,454902E+22	8,840086E+22	2,909894E+22	1,174998E+23
631	4,420025E+22	4,420094E+22	1,454959E+22	1,455048E+22	8,840120E+22	2,910007E+22	1,175013E+23
632	4,419965E+22	4,419863E+22	1,455039E+22	1,455013E+22	8,839828E+22	2,910052E+22	1,174988E+23
633	4,419836E+22	4,419961E+22	1,455127E+22	1,455061E+22	8,839798E+22	2,910189E+22	1,174999E+23
634	4,419961E+22	4,419788E+22	1,455081E+22	1,455190E+22	8,839749E+22	2,910271E+22	1,175002E+23
635	4,419766E+22	4,419724E+22	1,455190E+22	1,455135E+22	8,839491E+22	2,910326E+22	1,174982E+23
636	4,419708E+22	4,419872E+22	1,455212E+22	1,455241E+22	8,839580E+22	2,910453E+22	1,175003E+23
637	4,419804E+22	4,419660E+22	1,455187E+22	1,455257E+22	8,839464E+22	2,910443E+22	1,174991E+23
638	4,419630E+22	4,419722E+22	1,455283E+22	1,455170E+22	8,839353E+22	2,910453E+22	1,174981E+23
639	4,419720E+22	4,419784E+22	1,455219E+22	1,455259E+22	8,839503E+22	2,910479E+22	1,174998E+23
640	4,419757E+22	4,419630E+22	1,455207E+22	1,455179E+22	8,839387E+22	2,910386E+22	1,174977E+23
641	4,419626E+22	4,419831E+22	1,455231E+22	1,455133E+22	8,839458E+22	2,910364E+22	1,174982E+23
642	4,419828E+22	4,419794E+22	1,455093E+22	1,455206E+22	8,839622E+22	2,910299E+22	1,174992E+23
643	4,419799E+22	4,419744E+22	1,455107E+22	1,455061E+22	8,839543E+22	2,910168E+22	1,174971E+23
644	4,419812E+22	4,419965E+22	1,455090E+22	1,455063E+22	8,839777E+22	2,910152E+22	1,174993E+23
645	4,420029E+22	4,419851E+22	1,454991E+22	1,455059E+22	8,839880E+22	2,910050E+22	1,174993E+23
646	4,419901E+22	4,419920E+22	1,455059E+22	1,454959E+22	8,839821E+22	2,910019E+22	1,174984E+23
647	4,419900E+22	4,420052E+22	1,455029E+22	1,455068E+22	8,839952E+22	2,910097E+22	1,175005E+23
648	4,419950E+22	4,419857E+22	1,455026E+22	1,455059E+22	8,839808E+22	2,910085E+22	1,174989E+23
649	4,419760E+22	4,419926E+22	1,455140E+22	1,455038E+22	8,839686E+22	2,910178E+22	1,174986E+23
650	4,419877E+22	4,419846E+22	1,455086E+22	1,455184E+22	8,839722E+22	2,910270E+22	1,174999E+23
651	4,419829E+22	4,419651E+22	1,455161E+22	1,455139E+22	8,839480E+22	2,910300E+22	1,174978E+23
652	4,419655E+22	4,419794E+22	1,455256E+22	1,455204E+22	8,839449E+22	2,910460E+22	1,174991E+23
653	4,419766E+22	4,419661E+22	1,455205E+22	1,455321E+22	8,839427E+22	2,910526E+22	1,174995E+23
654	4,419595E+22	4,419584E+22	1,455324E+22	1,455267E+22	8,839180E+22	2,910591E+22	1,174977E+23
655	4,419507E+22	4,419694E+22	1,455355E+22	1,455364E+22	8,839201E+22	2,910719E+22	1,174992E+23
656	4,419638E+22	4,419491E+22	1,455326E+22	1,455366E+22	8,839128E+22	2,910693E+22	1,174982E+23
657	4,419463E+22	4,419543E+22	1,455421E+22	1,455285E+22	8,839007E+22	2,910706E+22	1,174971E+23
658	4,419552E+22	4,419600E+22	1,455325E+22	1,455390E+22	8,839151E+22	2,910715E+22	1,174987E+23
659	4,419597E+22	4,419473E+22	1,455298E+22	1,455304E+22	8,839070E+22	2,910603E+22	1,174967E+23
660	4,419461E+22	4,419674E+22	1,455330E+22	1,455258E+22	8,839135E+22	2,910588E+22	1,174972E+23
661	4,419709E+22	4,419656E+22	1,455187E+22	1,455297E+22	8,839365E+22	2,910484E+22	1,174985E+23
662	4,419721E+22	4,419602E+22	1,455207E+22	1,455148E+22	8,839323E+22	2,910354E+22	1,174968E+23
663	4,419665E+22	4,419820E+22	1,455205E+22	1,455158E+22	8,839486E+22	2,910364E+22	1,174985E+23
664	4,419860E+22	4,419741E+22	1,455110E+22	1,455167E+22	8,839601E+22	2,910277E+22	1,174988E+23
665	4,419696E+22	4,419777E+22	1,455194E+22	1,455088E+22	8,839473E+22	2,910281E+22	1,174975E+23
666	4,419706E+22	4,419855E+22	1,455152E+22	1,455206E+22	8,839561E+22	2,910358E+22	1,174992E+23
667	4,419794E+22	4,419651E+22	1,455148E+22	1,455185E+22	8,839444E+22	2,910333E+22	1,174978E+23
668	4,419603E+22	4,419717E+22	1,455271E+22	1,455172E+22	8,839320E+22	2,910442E+22	1,174976E+23
669	4,419730E+22	4,419671E+22	1,455210E+22	1,455307E+22	8,839402E+22	2,910517E+22	1,174992E+23
670	4,419679E+22	4,419501E+22	1,455287E+22	1,455279E+22	8,839180E+22	2,910566E+22	1,174975E+23
671	4,419435E+22	4,419637E+22	1,455395E+22	1,455354E+22	8,839072E+22	2,910749E+22	1,174982E+23
672	4,419565E+22	4,419504E+22	1,455351E+22	1,455456E+22	8,839069E+22	2,910808E+22	1,174988E+23
673	4,419412E+22	4,419397E+22	1,455480E+22	1,455393E+22	8,838810E+22	2,910873E+22	1,174968E+23
674	4,419347E+22	4,419477E+22	1,455485E+22	1,455485E+22	8,838824E+22	2,910970E+22	1,174979E+23
675	4,419483E+22	4,419305E+22	1,455442E+22	1,455483E+22	8,838788E+22	2,910925E+22	1,174971E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
676	4,419278E+22	4,419387E+22	1,455530E+22	1,455418E+22	8,838665E+22	2,910948E+22	1,174961E+23
677	4,419378E+22	4,419463E+22	1,455421E+22	1,455504E+22	8,838841E+22	2,910924E+22	1,174977E+23
678	4,419470E+22	4,419337E+22	1,455395E+22	1,455412E+22	8,838807E+22	2,910807E+22	1,174961E+23
679	4,419322E+22	4,419518E+22	1,455435E+22	1,455354E+22	8,838839E+22	2,910789E+22	1,174963E+23
680	4,419592E+22	4,419518E+22	1,455300E+22	1,455381E+22	8,839110E+22	2,910681E+22	1,174979E+23
681	4,419589E+22	4,419468E+22	1,455330E+22	1,455246E+22	8,839056E+22	2,910576E+22	1,174963E+23
682	4,419500E+22	4,419667E+22	1,455311E+22	1,455279E+22	8,839166E+22	2,910590E+22	1,174976E+23
683	4,419680E+22	4,419589E+22	1,455218E+22	1,455294E+22	8,839269E+22	2,910512E+22	1,174978E+23
684	4,419508E+22	4,419596E+22	1,455315E+22	1,455225E+22	8,839104E+22	2,910540E+22	1,174964E+23
685	4,419551E+22	4,419667E+22	1,455271E+22	1,455320E+22	8,839218E+22	2,910591E+22	1,174981E+23
686	4,419675E+22	4,419468E+22	1,455270E+22	1,455305E+22	8,839143E+22	2,910576E+22	1,174972E+23
687	4,419423E+22	4,419537E+22	1,455404E+22	1,455304E+22	8,838960E+22	2,910708E+22	1,174967E+23
688	4,419536E+22	4,419531E+22	1,455351E+22	1,455445E+22	8,839068E+22	2,910796E+22	1,174986E+23
689	4,419470E+22	4,419347E+22	1,455440E+22	1,455426E+22	8,838817E+22	2,910867E+22	1,174968E+23
690	4,419237E+22	4,419438E+22	1,455535E+22	1,455498E+22	8,838675E+22	2,911033E+22	1,174971E+23
691	4,419400E+22	4,419306E+22	1,455488E+22	1,455583E+22	8,838707E+22	2,911071E+22	1,174978E+23
692	4,419241E+22	4,419197E+22	1,455616E+22	1,455524E+22	8,838438E+22	2,911140E+22	1,174958E+23
693	4,419183E+22	4,419309E+22	1,455603E+22	1,455603E+22	8,838492E+22	2,911206E+22	1,174970E+23
694	4,419328E+22	4,419159E+22	1,455547E+22	1,455611E+22	8,838486E+22	2,911158E+22	1,174964E+23
695	4,419077E+22	4,419226E+22	1,455638E+22	1,455546E+22	8,838304E+22	2,911184E+22	1,174949E+23
696	4,419228E+22	4,419314E+22	1,455533E+22	1,455608E+22	8,838542E+22	2,911140E+22	1,174968E+23
697	4,419350E+22	4,419178E+22	1,455514E+22	1,455503E+22	8,838528E+22	2,911016E+22	1,174954E+23
698	4,419211E+22	4,419347E+22	1,455536E+22	1,455444E+22	8,838559E+22	2,910980E+22	1,174954E+23
699	4,419465E+22	4,419385E+22	1,455400E+22	1,455474E+22	8,838850E+22	2,910874E+22	1,174972E+23
700	4,419404E+22	4,419347E+22	1,455437E+22	1,455367E+22	8,838751E+22	2,910804E+22	1,174956E+23
701	4,419312E+22	4,419536E+22	1,455417E+22	1,455393E+22	8,838848E+22	2,910810E+22	1,174966E+23
702	4,419523E+22	4,419435E+22	1,455331E+22	1,455415E+22	8,838958E+22	2,910745E+22	1,174970E+23
703	4,419335E+22	4,419406E+22	1,455441E+22	1,455348E+22	8,838741E+22	2,910789E+22	1,174953E+23
704	4,419409E+22	4,419486E+22	1,455406E+22	1,455437E+22	8,838895E+22	2,910843E+22	1,174974E+23
705	4,419517E+22	4,419300E+22	1,455413E+22	1,455441E+22	8,838817E+22	2,910854E+22	1,174967E+23
706	4,419239E+22	4,419358E+22	1,455528E+22	1,455458E+22	8,838597E+22	2,910986E+22	1,174958E+23
707	4,419346E+22	4,419358E+22	1,455483E+22	1,455593E+22	8,838703E+22	2,911077E+22	1,174978E+23
708	4,419279E+22	4,419160E+22	1,455583E+22	1,455574E+22	8,838438E+22	2,911157E+22	1,174960E+23
709	4,419077E+22	4,419241E+22	1,455669E+22	1,455614E+22	8,838318E+22	2,911283E+22	1,174960E+23
710	4,419256E+22	4,419127E+22	1,455617E+22	1,455701E+22	8,838383E+22	2,911318E+22	1,174970E+23
711	4,419040E+22	4,419023E+22	1,455744E+22	1,455651E+22	8,838062E+22	2,911396E+22	1,174946E+23
712	4,418980E+22	4,419159E+22	1,455728E+22	1,455727E+22	8,838139E+22	2,911455E+22	1,174959E+23
713	4,419138E+22	4,419008E+22	1,455675E+22	1,455737E+22	8,838147E+22	2,911412E+22	1,174956E+23
714	4,418926E+22	4,419042E+22	1,455743E+22	1,455661E+22	8,837969E+22	2,911404E+22	1,174937E+23
715	4,419117E+22	4,419146E+22	1,455638E+22	1,455703E+22	8,838263E+22	2,911341E+22	1,174960E+23
716	4,419227E+22	4,419032E+22	1,455621E+22	1,455604E+22	8,838258E+22	2,911224E+22	1,174948E+23
717	4,419075E+22	4,419224E+22	1,455633E+22	1,455539E+22	8,838299E+22	2,911172E+22	1,174947E+23
718	4,419306E+22	4,419280E+22	1,455497E+22	1,455588E+22	8,838587E+22	2,911085E+22	1,174967E+23
719	4,419194E+22	4,419200E+22	1,455550E+22	1,455495E+22	8,838394E+22	2,911045E+22	1,174944E+23
720	4,419141E+22	4,419368E+22	1,455544E+22	1,455508E+22	8,838510E+22	2,911052E+22	1,174956E+23
721	4,419381E+22	4,419248E+22	1,455466E+22	1,455531E+22	8,838630E+22	2,910997E+22	1,174963E+23
722	4,419199E+22	4,419199E+22	1,455557E+22	1,455473E+22	8,838398E+22	2,911030E+22	1,174943E+23
723	4,419266E+22	4,419314E+22	1,455526E+22	1,455567E+22	8,838579E+22	2,911094E+22	1,174967E+23
724	4,419324E+22	4,419147E+22	1,455541E+22	1,455589E+22	8,838471E+22	2,911131E+22	1,174960E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
725	4,419052E+22	4,419203E+22	1,455657E+22	1,455591E+22	8,838255E+22	2,911248E+22	1,174950E+23
726	4,419181E+22	4,419194E+22	1,455618E+22	1,455720E+22	8,838374E+22	2,911338E+22	1,174971E+23
727	4,419078E+22	4,418966E+22	1,455732E+22	1,455703E+22	8,838044E+22	2,911435E+22	1,174948E+23
728	4,418896E+22	4,419059E+22	1,455819E+22	1,455736E+22	8,837956E+22	2,911555E+22	1,174951E+23
729	4,419060E+22	4,418954E+22	1,455763E+22	1,455838E+22	8,838014E+22	2,911601E+22	1,174962E+23
730	4,418836E+22	4,418832E+22	1,455860E+22	1,455801E+22	8,837668E+22	2,911660E+22	1,174933E+23
731	4,418812E+22	4,418972E+22	1,455842E+22	1,455859E+22	8,837784E+22	2,911702E+22	1,174949E+23
732	4,418988E+22	4,418832E+22	1,455789E+22	1,455857E+22	8,837819E+22	2,911645E+22	1,174946E+23
733	4,418821E+22	4,418883E+22	1,455842E+22	1,455750E+22	8,837705E+22	2,911591E+22	1,174930E+23
734	4,419014E+22	4,419022E+22	1,455735E+22	1,455789E+22	8,838036E+22	2,911525E+22	1,174956E+23
735	4,419047E+22	4,418919E+22	1,455728E+22	1,455708E+22	8,837966E+22	2,911435E+22	1,174940E+23
736	4,418886E+22	4,419114E+22	1,455747E+22	1,455646E+22	8,838000E+22	2,911394E+22	1,174939E+23
737	4,419116E+22	4,419143E+22	1,455623E+22	1,455705E+22	8,838259E+22	2,911328E+22	1,174959E+23
738	4,419036E+22	4,419005E+22	1,455659E+22	1,455617E+22	8,838040E+22	2,911277E+22	1,174932E+23
739	4,419025E+22	4,419163E+22	1,455661E+22	1,455622E+22	8,838188E+22	2,911283E+22	1,174947E+23
740	4,419251E+22	4,419070E+22	1,455587E+22	1,455658E+22	8,838321E+22	2,911245E+22	1,174957E+23
741	4,419063E+22	4,419042E+22	1,455664E+22	1,455597E+22	8,838105E+22	2,911261E+22	1,174937E+23
742	4,419098E+22	4,419182E+22	1,455641E+22	1,455702E+22	8,838280E+22	2,911342E+22	1,174962E+23
743	4,419107E+22	4,418990E+22	1,455679E+22	1,455729E+22	8,838097E+22	2,911408E+22	1,174950E+23
744	4,418862E+22	4,419022E+22	1,455812E+22	1,455714E+22	8,837884E+22	2,911526E+22	1,174941E+23
745	4,418995E+22	4,419006E+22	1,455782E+22	1,455846E+22	8,838001E+22	2,911628E+22	1,174963E+23
746	4,418887E+22	4,418751E+22	1,455871E+22	1,455844E+22	8,837638E+22	2,911715E+22	1,174935E+23
747	4,418704E+22	4,418860E+22	1,455953E+22	1,455881E+22	8,837565E+22	2,911834E+22	1,174940E+23
748	4,418846E+22	4,418778E+22	1,455889E+22	1,455991E+22	8,837624E+22	2,911880E+22	1,174950E+23
749	4,418671E+22	4,418655E+22	1,455966E+22	1,455927E+22	8,837326E+22	2,911893E+22	1,174922E+23
750	4,418691E+22	4,418816E+22	1,455946E+22	1,455966E+22	8,837507E+22	2,911913E+22	1,174942E+23
751	4,418844E+22	4,418681E+22	1,455904E+22	1,455956E+22	8,837525E+22	2,911860E+22	1,174938E+23
752	4,418690E+22	4,418758E+22	1,455962E+22	1,455840E+22	8,837447E+22	2,911802E+22	1,174925E+23
753	4,418846E+22	4,418913E+22	1,455857E+22	1,455896E+22	8,837759E+22	2,911754E+22	1,174951E+23
754	4,418852E+22	4,418769E+22	1,455830E+22	1,455835E+22	8,837621E+22	2,911665E+22	1,174929E+23
755	4,418729E+22	4,418932E+22	1,455858E+22	1,455767E+22	8,837660E+22	2,911625E+22	1,174929E+23
756	4,418968E+22	4,418952E+22	1,455737E+22	1,455821E+22	8,837920E+22	2,911558E+22	1,174948E+23
757	4,418934E+22	4,418820E+22	1,455757E+22	1,455717E+22	8,837754E+22	2,911475E+22	1,174923E+23
758	4,418922E+22	4,419016E+22	1,455758E+22	1,455726E+22	8,837938E+22	2,911484E+22	1,174942E+23
759	4,419061E+22	4,418940E+22	1,455704E+22	1,455782E+22	8,838001E+22	2,911486E+22	1,174949E+23
760	4,418866E+22	4,418921E+22	1,455798E+22	1,455721E+22	8,837788E+22	2,911520E+22	1,174931E+23
761	4,418893E+22	4,419036E+22	1,455794E+22	1,455832E+22	8,837929E+22	2,911626E+22	1,174956E+23
762	4,418909E+22	4,418786E+22	1,455823E+22	1,455869E+22	8,837695E+22	2,911692E+22	1,174939E+23
763	4,418700E+22	4,418796E+22	1,455963E+22	1,455851E+22	8,837496E+22	2,911814E+22	1,174931E+23
764	4,418802E+22	4,418799E+22	1,455927E+22	1,455995E+22	8,837601E+22	2,911922E+22	1,174952E+23
765	4,418705E+22	4,418561E+22	1,455988E+22	1,455993E+22	8,837266E+22	2,911981E+22	1,174925E+23
766	4,418529E+22	4,418689E+22	1,456062E+22	1,456026E+22	8,837218E+22	2,912088E+22	1,174931E+23
767	4,418655E+22	4,418602E+22	1,456014E+22	1,456125E+22	8,837256E+22	2,912139E+22	1,174939E+23
768	4,418536E+22	4,418492E+22	1,456094E+22	1,456028E+22	8,837028E+22	2,912122E+22	1,174915E+23
769	4,418562E+22	4,418674E+22	1,456079E+22	1,456060E+22	8,837236E+22	2,912140E+22	1,174938E+23
770	4,418689E+22	4,418532E+22	1,456016E+22	1,456062E+22	8,837221E+22	2,912078E+22	1,174930E+23
771	4,418524E+22	4,418611E+22	1,456075E+22	1,455953E+22	8,837135E+22	2,912029E+22	1,174916E+23
772	4,418643E+22	4,418775E+22	1,455970E+22	1,456018E+22	8,837417E+22	2,911989E+22	1,174941E+23
773	4,418700E+22	4,418600E+22	1,455924E+22	1,455945E+22	8,837300E+22	2,911869E+22	1,174917E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
774	4,418613E+22	4,418762E+22	1,455951E+22	1,455868E+22	8,837375E+22	2,911819E+22	1,174919E+23
775	4,418831E+22	4,418788E+22	1,455846E+22	1,455926E+22	8,837619E+22	2,911773E+22	1,174939E+23
776	4,418805E+22	4,418683E+22	1,455873E+22	1,455821E+22	8,837488E+22	2,911694E+22	1,174918E+23
777	4,418753E+22	4,418903E+22	1,455884E+22	1,455850E+22	8,837656E+22	2,911734E+22	1,174939E+23
778	4,418857E+22	4,418783E+22	1,455826E+22	1,455924E+22	8,837641E+22	2,911750E+22	1,174939E+23
779	4,418691E+22	4,418723E+22	1,455941E+22	1,455861E+22	8,837414E+22	2,911802E+22	1,174922E+23
780	4,418706E+22	4,418832E+22	1,455944E+22	1,455967E+22	8,837538E+22	2,911911E+22	1,174945E+23
781	4,418757E+22	4,418572E+22	1,455954E+22	1,455999E+22	8,837328E+22	2,911953E+22	1,174928E+23
782	4,418542E+22	4,418608E+22	1,456085E+22	1,455987E+22	8,837150E+22	2,912072E+22	1,174922E+23
783	4,418580E+22	4,418627E+22	1,456059E+22	1,456143E+22	8,837207E+22	2,912202E+22	1,174941E+23
784	4,418508E+22	4,418404E+22	1,456123E+22	1,456127E+22	8,836912E+22	2,912249E+22	1,174916E+23
785	4,418357E+22	4,418534E+22	1,456201E+22	1,456152E+22	8,836891E+22	2,912353E+22	1,174924E+23
786	4,418494E+22	4,418417E+22	1,456143E+22	1,456245E+22	8,836911E+22	2,912388E+22	1,174930E+23
787	4,418416E+22	4,418312E+22	1,456227E+22	1,456139E+22	8,836728E+22	2,912366E+22	1,174909E+23
788	4,418396E+22	4,418523E+22	1,456204E+22	1,456174E+22	8,836919E+22	2,912378E+22	1,174930E+23
789	4,418518E+22	4,418391E+22	1,456113E+22	1,456180E+22	8,836909E+22	2,912293E+22	1,174920E+23
790	4,418361E+22	4,418466E+22	1,456163E+22	1,456069E+22	8,836827E+22	2,912232E+22	1,174906E+23
791	4,418458E+22	4,418604E+22	1,456076E+22	1,456129E+22	8,837063E+22	2,912205E+22	1,174927E+23
792	4,418574E+22	4,418442E+22	1,456034E+22	1,456035E+22	8,837016E+22	2,912069E+22	1,174909E+23
793	4,418501E+22	4,418620E+22	1,456064E+22	1,455964E+22	8,837121E+22	2,912028E+22	1,174915E+23
794	4,418680E+22	4,418637E+22	1,455954E+22	1,456041E+22	8,837317E+22	2,911995E+22	1,174931E+23
795	4,418651E+22	4,418536E+22	1,455990E+22	1,455947E+22	8,837187E+22	2,911937E+22	1,174912E+23
796	4,418552E+22	4,418755E+22	1,456013E+22	1,455979E+22	8,837307E+22	2,911993E+22	1,174930E+23
797	4,418693E+22	4,418606E+22	1,455946E+22	1,456050E+22	8,837298E+22	2,911996E+22	1,174929E+23
798	4,418548E+22	4,418533E+22	1,456065E+22	1,455984E+22	8,837081E+22	2,912049E+22	1,174913E+23
799	4,418520E+22	4,418638E+22	1,456088E+22	1,456099E+22	8,837158E+22	2,912188E+22	1,174935E+23
800	4,418576E+22	4,418403E+22	1,456096E+22	1,456135E+22	8,836979E+22	2,912231E+22	1,174921E+23
801	4,418340E+22	4,418453E+22	1,456225E+22	1,456138E+22	8,836793E+22	2,912363E+22	1,174916E+23
802	4,418369E+22	4,418431E+22	1,456192E+22	1,456298E+22	8,836800E+22	2,912490E+22	1,174929E+23
803	4,418353E+22	4,418190E+22	1,456264E+22	1,456263E+22	8,836543E+22	2,912527E+22	1,174907E+23
804	4,418199E+22	4,418349E+22	1,456342E+22	1,456269E+22	8,836548E+22	2,912611E+22	1,174916E+23
805	4,418364E+22	4,418244E+22	1,456258E+22	1,456354E+22	8,836608E+22	2,912611E+22	1,174922E+23
806	4,418260E+22	4,418172E+22	1,456331E+22	1,456250E+22	8,836431E+22	2,912581E+22	1,174901E+23
807	4,418173E+22	4,418394E+22	1,456317E+22	1,456293E+22	8,836567E+22	2,912610E+22	1,174918E+23
808	4,418325E+22	4,418257E+22	1,456225E+22	1,456287E+22	8,836582E+22	2,912512E+22	1,174909E+23
809	4,418206E+22	4,418318E+22	1,456276E+22	1,456175E+22	8,836523E+22	2,912451E+22	1,174897E+23
810	4,418322E+22	4,418418E+22	1,456182E+22	1,456235E+22	8,836740E+22	2,912417E+22	1,174916E+23
811	4,418479E+22	4,418263E+22	1,456146E+22	1,456141E+22	8,836742E+22	2,912287E+22	1,174903E+23
812	4,418358E+22	4,418484E+22	1,456174E+22	1,456078E+22	8,836842E+22	2,912252E+22	1,174909E+23
813	4,418529E+22	4,418502E+22	1,456049E+22	1,456164E+22	8,837031E+22	2,912212E+22	1,174924E+23
814	4,418497E+22	4,418391E+22	1,456094E+22	1,456069E+22	8,836888E+22	2,912162E+22	1,174905E+23
815	4,418365E+22	4,418583E+22	1,456146E+22	1,456098E+22	8,836948E+22	2,912244E+22	1,174919E+23
816	4,418534E+22	4,418437E+22	1,456088E+22	1,456159E+22	8,836971E+22	2,912247E+22	1,174922E+23
817	4,418388E+22	4,418367E+22	1,456209E+22	1,456111E+22	8,836755E+22	2,912321E+22	1,174908E+23
818	4,418309E+22	4,418446E+22	1,456227E+22	1,456248E+22	8,836755E+22	2,912475E+22	1,174923E+23
819	4,418381E+22	4,418213E+22	1,456239E+22	1,456292E+22	8,836593E+22	2,912531E+22	1,174912E+23
820	4,418132E+22	4,418265E+22	1,456365E+22	1,456285E+22	8,836398E+22	2,912651E+22	1,174905E+23
821	4,418209E+22	4,418231E+22	1,456317E+22	1,456432E+22	8,836440E+22	2,912748E+22	1,174919E+23
822	4,418226E+22	4,418011E+22	1,456383E+22	1,456379E+22	8,836237E+22	2,912762E+22	1,174900E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\ominus$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
823	4,418026E+22	4,418183E+22	1,456473E+22	1,456385E+22	8,836209E+22	2,912858E+22	1,174907E+23
824	4,418183E+22	4,418119E+22	1,456383E+22	1,456465E+22	8,836302E+22	2,912848E+22	1,174915E+23
825	4,418064E+22	4,418050E+22	1,456448E+22	1,456377E+22	8,836114E+22	2,912825E+22	1,174894E+23
826	4,417967E+22	4,418211E+22	1,456431E+22	1,456420E+22	8,836177E+22	2,912851E+22	1,174903E+23
827	4,418192E+22	4,418055E+22	1,456342E+22	1,456399E+22	8,836247E+22	2,912741E+22	1,174899E+23
828	4,418084E+22	4,418139E+22	1,456385E+22	1,456273E+22	8,836223E+22	2,912658E+22	1,174888E+23
829	4,418228E+22	4,418255E+22	1,456272E+22	1,456333E+22	8,836484E+22	2,912605E+22	1,174909E+23
830	4,418360E+22	4,418144E+22	1,456230E+22	1,456243E+22	8,836505E+22	2,912474E+22	1,174898E+23
831	4,418171E+22	4,418372E+22	1,456282E+22	1,456190E+22	8,836543E+22	2,912473E+22	1,174902E+23
832	4,418351E+22	4,418386E+22	1,456171E+22	1,456267E+22	8,836737E+22	2,912439E+22	1,174918E+23
833	4,418329E+22	4,418253E+22	1,456228E+22	1,456186E+22	8,836582E+22	2,912414E+22	1,174900E+23
834	4,418185E+22	4,418384E+22	1,456287E+22	1,456227E+22	8,836569E+22	2,912514E+22	1,174908E+23
835	4,418378E+22	4,418226E+22	1,456236E+22	1,456299E+22	8,836603E+22	2,912535E+22	1,174914E+23
836	4,418186E+22	4,418186E+22	1,456349E+22	1,456263E+22	8,836371E+22	2,912612E+22	1,174898E+23
837	4,418123E+22	4,418249E+22	1,456344E+22	1,456406E+22	8,836372E+22	2,912750E+22	1,174912E+23
838	4,418209E+22	4,418016E+22	1,456356E+22	1,456436E+22	8,836225E+22	2,912792E+22	1,174902E+23
839	4,417955E+22	4,418073E+22	1,456502E+22	1,456414E+22	8,836028E+22	2,912917E+22	1,174894E+23
840	4,418061E+22	4,418068E+22	1,456457E+22	1,456537E+22	8,836130E+22	2,912995E+22	1,174912E+23
841	4,418064E+22	4,417878E+22	1,456520E+22	1,456497E+22	8,835942E+22	2,913017E+22	1,174896E+23
842	4,417809E+22	4,418024E+22	1,456604E+22	1,456515E+22	8,835832E+22	2,913119E+22	1,174895E+23
843	4,417982E+22	4,417949E+22	1,456514E+22	1,456596E+22	8,835931E+22	2,913110E+22	1,174904E+23
844	4,417867E+22	4,417878E+22	1,456570E+22	1,456498E+22	8,835745E+22	2,913067E+22	1,174881E+23
845	4,417837E+22	4,418012E+22	1,456529E+22	1,456531E+22	8,835850E+22	2,913059E+22	1,174891E+23
846	4,418099E+22	4,417886E+22	1,456432E+22	1,456496E+22	8,835985E+22	2,912928E+22	1,174891E+23
847	4,417960E+22	4,418000E+22	1,456485E+22	1,456373E+22	8,835960E+22	2,912859E+22	1,174882E+23
848	4,418086E+22	4,418164E+22	1,456374E+22	1,456431E+22	8,836250E+22	2,912805E+22	1,174905E+23
849	4,418195E+22	4,418058E+22	1,456337E+22	1,456359E+22	8,836254E+22	2,912696E+22	1,174895E+23
850	4,417977E+22	4,418207E+22	1,456406E+22	1,456310E+22	8,836184E+22	2,912717E+22	1,174890E+23
851	4,418198E+22	4,418197E+22	1,456311E+22	1,456383E+22	8,836395E+22	2,912695E+22	1,174909E+23
852	4,418167E+22	4,418064E+22	1,456365E+22	1,456306E+22	8,836231E+22	2,912671E+22	1,174890E+23
853	4,418029E+22	4,418178E+22	1,456406E+22	1,456363E+22	8,836206E+22	2,912770E+22	1,174898E+23
854	4,418203E+22	4,418053E+22	1,456347E+22	1,456442E+22	8,836256E+22	2,912789E+22	1,174904E+23
855	4,417975E+22	4,418010E+22	1,456473E+22	1,456409E+22	8,835985E+22	2,912882E+22	1,174887E+23
856	4,417943E+22	4,418086E+22	1,456478E+22	1,456532E+22	8,836029E+22	2,913010E+22	1,174904E+23
857	4,418054E+22	4,417863E+22	1,456496E+22	1,456561E+22	8,835917E+22	2,913057E+22	1,174897E+23
858	4,417779E+22	4,417879E+22	1,456652E+22	1,456541E+22	8,835658E+22	2,913193E+22	1,174885E+23
859	4,417894E+22	4,417888E+22	1,456611E+22	1,456668E+22	8,835782E+22	2,913279E+22	1,174906E+23
860	4,417846E+22	4,417724E+22	1,456659E+22	1,456636E+22	8,835570E+22	2,913296E+22	1,174887E+23
861	4,417612E+22	4,417832E+22	1,456716E+22	1,456658E+22	8,835444E+22	2,913375E+22	1,174882E+23
862	4,417819E+22	4,417755E+22	1,456617E+22	1,456719E+22	8,835574E+22	2,913335E+22	1,174891E+23
863	4,417721E+22	4,417692E+22	1,456677E+22	1,456605E+22	8,835413E+22	2,913283E+22	1,174870E+23
864	4,417732E+22	4,417868E+22	1,456634E+22	1,456617E+22	8,835600E+22	2,913251E+22	1,174885E+23
865	4,417978E+22	4,417790E+22	1,456534E+22	1,456596E+22	8,835768E+22	2,913130E+22	1,174890E+23
866	4,417784E+22	4,417882E+22	1,456593E+22	1,456486E+22	8,835666E+22	2,913079E+22	1,174874E+23
867	4,417917E+22	4,418027E+22	1,456496E+22	1,456542E+22	8,835943E+22	2,913038E+22	1,174898E+23
868	4,418008E+22	4,417913E+22	1,456463E+22	1,456470E+22	8,835920E+22	2,912933E+22	1,174885E+23
869	4,417837E+22	4,418008E+22	1,456518E+22	1,456428E+22	8,835844E+22	2,912945E+22	1,174879E+23
870	4,418063E+22	4,418002E+22	1,456423E+22	1,456499E+22	8,836065E+22	2,912922E+22	1,174899E+23
871	4,417998E+22	4,417888E+22	1,456486E+22	1,456439E+22	8,835885E+22	2,912925E+22	1,174881E+23

1	14	15	16	17	18	19	20
Years	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
872	4,417854E+22	4,418028E+22	1,456526E+22	1,456496E+22	8,835882E+22	2,913022E+22	1,174890E+23
873	4,418019E+22	4,417911E+22	1,456471E+22	1,456587E+22	8,835930E+22	2,913058E+22	1,174899E+23
874	4,417784E+22	4,417810E+22	1,456614E+22	1,456548E+22	8,835594E+22	2,913162E+22	1,174876E+23
875	4,417792E+22	4,417883E+22	1,456635E+22	1,456656E+22	8,835675E+22	2,913291E+22	1,174897E+23
876	4,417878E+22	4,417692E+22	1,456651E+22	1,456685E+22	8,835570E+22	2,913336E+22	1,174891E+23
877	4,417601E+22	4,417691E+22	1,456785E+22	1,456682E+22	8,835292E+22	2,913466E+22	1,174876E+23
878	4,417687E+22	4,417723E+22	1,456734E+22	1,456806E+22	8,835410E+22	2,913540E+22	1,174895E+23
879	4,417623E+22	4,417550E+22	1,456784E+22	1,456776E+22	8,835173E+22	2,913560E+22	1,174873E+23
880	4,417439E+22	4,417661E+22	1,456834E+22	1,456773E+22	8,835100E+22	2,913607E+22	1,174871E+23
881	4,417691E+22	4,417605E+22	1,456727E+22	1,456828E+22	8,835296E+22	2,913555E+22	1,174885E+23
882	4,417590E+22	4,417514E+22	1,456791E+22	1,456711E+22	8,835104E+22	2,913502E+22	1,174861E+23
883	4,417612E+22	4,417727E+22	1,456751E+22	1,456722E+22	8,835339E+22	2,913474E+22	1,174881E+23
884	4,417805E+22	4,417686E+22	1,456643E+22	1,456706E+22	8,835491E+22	2,913349E+22	1,174884E+23
885	4,417621E+22	4,417720E+22	1,456690E+22	1,456606E+22	8,835341E+22	2,913296E+22	1,174864E+23
886	4,417767E+22	4,417857E+22	1,456598E+22	1,456645E+22	8,835623E+22	2,913243E+22	1,174887E+23
887	4,417858E+22	4,417732E+22	1,456577E+22	1,456575E+22	8,835590E+22	2,913153E+22	1,174874E+23
888	4,417705E+22	4,417844E+22	1,456633E+22	1,456529E+22	8,835549E+22	2,913163E+22	1,174871E+23
889	4,417908E+22	4,417873E+22	1,456537E+22	1,456624E+22	8,835781E+22	2,913161E+22	1,174894E+23
890	4,417792E+22	4,417723E+22	1,456612E+22	1,456580E+22	8,835515E+22	2,913191E+22	1,174871E+23
891	4,417672E+22	4,417853E+22	1,456667E+22	1,456633E+22	8,835525E+22	2,913301E+22	1,174883E+23
892	4,417828E+22	4,417742E+22	1,456620E+22	1,456718E+22	8,835570E+22	2,913338E+22	1,174891E+23
893	4,417634E+22	4,417598E+22	1,456752E+22	1,456686E+22	8,835232E+22	2,913438E+22	1,174867E+23
894	4,417636E+22	4,417690E+22	1,456774E+22	1,456786E+22	8,835325E+22	2,913560E+22	1,174889E+23
895	4,417675E+22	4,417523E+22	1,456792E+22	1,456832E+22	8,835197E+22	2,913624E+22	1,174882E+23
896	4,417394E+22	4,417535E+22	1,456913E+22	1,456825E+22	8,834929E+22	2,913738E+22	1,174867E+23
897	4,417482E+22	4,417564E+22	1,456857E+22	1,456949E+22	8,835046E+22	2,913806E+22	1,174885E+23
898	4,417437E+22	4,417340E+22	1,456913E+22	1,456905E+22	8,834777E+22	2,913818E+22	1,174860E+23
899	4,417321E+22	4,417458E+22	1,456963E+22	1,456879E+22	8,834778E+22	2,913842E+22	1,174862E+23
900	4,417552E+22	4,417456E+22	1,456849E+22	1,456928E+22	8,835009E+22	2,913778E+22	1,174879E+23
901	4,417460E+22	4,417366E+22	1,456886E+22	1,456824E+22	8,834826E+22	2,913710E+22	1,174854E+23
902	4,417454E+22	4,417599E+22	1,456844E+22	1,456825E+22	8,835053E+22	2,913669E+22	1,174872E+23
903	4,417623E+22	4,417556E+22	1,456748E+22	1,456812E+22	8,835179E+22	2,913560E+22	1,174874E+23
904	4,417475E+22	4,417578E+22	1,456796E+22	1,456699E+22	8,835053E+22	2,913495E+22	1,174855E+23
905	4,417629E+22	4,417718E+22	1,456708E+22	1,456746E+22	8,835347E+22	2,913454E+22	1,174880E+23
906	4,417701E+22	4,417552E+22	1,456701E+22	1,456693E+22	8,835253E+22	2,913394E+22	1,174865E+23
907	4,417554E+22	4,417678E+22	1,456761E+22	1,456658E+22	8,835232E+22	2,913419E+22	1,174865E+23
908	4,417711E+22	4,417731E+22	1,456665E+22	1,456763E+22	8,835443E+22	2,913428E+22	1,174887E+23
909	4,417625E+22	4,417522E+22	1,456728E+22	1,456727E+22	8,835148E+22	2,913455E+22	1,174860E+23
910	4,417523E+22	4,417653E+22	1,456793E+22	1,456759E+22	8,835177E+22	2,913552E+22	1,174873E+23
911	4,417668E+22	4,417557E+22	1,456759E+22	1,456845E+22	8,835225E+22	2,913605E+22	1,174883E+23
912	4,417474E+22	4,417433E+22	1,456892E+22	1,456812E+22	8,834907E+22	2,913704E+22	1,174861E+23
913	4,417437E+22	4,417557E+22	1,456910E+22	1,456927E+22	8,834994E+22	2,913836E+22	1,174883E+23
914	4,417435E+22	4,417337E+22	1,456936E+22	1,456983E+22	8,834772E+22	2,913918E+22	1,174869E+23
915	4,417195E+22	4,417334E+22	1,457058E+22	1,456962E+22	8,834528E+22	2,914020E+22	1,174855E+23
916	4,417299E+22	4,417377E+22	1,456994E+22	1,457070E+22	8,834676E+22	2,914064E+22	1,174874E+23
917	4,417311E+22	4,417121E+22	1,457026E+22	1,457027E+22	8,834432E+22	2,914053E+22	1,174848E+23
918	4,417207E+22	4,417286E+22	1,457069E+22	1,456985E+22	8,834492E+22	2,914053E+22	1,174855E+23
919	4,417396E+22	4,417331E+22	1,456955E+22	1,457043E+22	8,834727E+22	2,913997E+22	1,174872E+23
920	4,417297E+22	4,417258E+22	1,456984E+22	1,456932E+22	8,834555E+22	2,913915E+22	1,174847E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
921	4,417288E+22	4,417486E+22	1,456945E+22	1,456928E+22	8,834773E+22	2,913873E+22	1,174865E+23
922	4,417452E+22	4,417382E+22	1,456866E+22	1,456913E+22	8,834833E+22	2,913779E+22	1,174861E+23
923	4,417347E+22	4,417400E+22	1,456920E+22	1,456799E+22	8,834747E+22	2,913719E+22	1,174847E+23
924	4,417467E+22	4,417570E+22	1,456833E+22	1,456856E+22	8,835037E+22	2,913689E+22	1,174873E+23
925	4,417543E+22	4,417379E+22	1,456806E+22	1,456831E+22	8,834922E+22	2,913637E+22	1,174856E+23
926	4,417389E+22	4,417512E+22	1,456866E+22	1,456789E+22	8,834901E+22	2,913655E+22	1,174856E+23
927	4,417533E+22	4,417565E+22	1,456787E+22	1,456895E+22	8,835098E+22	2,913683E+22	1,174878E+23
928	4,417485E+22	4,417357E+22	1,456852E+22	1,456846E+22	8,834842E+22	2,913697E+22	1,174854E+23
929	4,417379E+22	4,417498E+22	1,456926E+22	1,456877E+22	8,834877E+22	2,913804E+22	1,174868E+23
930	4,417480E+22	4,417376E+22	1,456913E+22	1,456981E+22	8,834856E+22	2,913894E+22	1,174875E+23
931	4,417278E+22	4,417261E+22	1,457044E+22	1,456958E+22	8,834539E+22	2,914003E+22	1,174854E+23
932	4,417191E+22	4,417389E+22	1,457060E+22	1,457077E+22	8,834580E+22	2,914137E+22	1,174872E+23
933	4,417239E+22	4,417104E+22	1,457064E+22	1,457136E+22	8,834343E+22	2,914200E+22	1,174854E+23
934	4,417048E+22	4,417102E+22	1,457178E+22	1,457085E+22	8,834150E+22	2,914263E+22	1,174841E+23
935	4,417160E+22	4,417186E+22	1,457116E+22	1,457185E+22	8,834346E+22	2,914302E+22	1,174865E+23
936	4,417185E+22	4,416984E+22	1,457132E+22	1,457132E+22	8,834169E+22	2,914264E+22	1,174843E+23
937	4,417047E+22	4,417195E+22	1,457169E+22	1,457093E+22	8,834242E+22	2,914262E+22	1,174850E+23
938	4,417194E+22	4,417205E+22	1,457072E+22	1,457155E+22	8,834398E+22	2,914228E+22	1,174863E+23
939	4,417126E+22	4,417114E+22	1,457106E+22	1,457035E+22	8,834240E+22	2,914142E+22	1,174838E+23
940	4,417114E+22	4,417339E+22	1,457069E+22	1,457026E+22	8,834453E+22	2,914096E+22	1,174855E+23
941	4,417322E+22	4,417180E+22	1,456973E+22	1,457029E+22	8,834502E+22	2,914002E+22	1,174850E+23
942	4,417227E+22	4,417219E+22	1,457021E+22	1,456913E+22	8,834446E+22	2,913934E+22	1,174838E+23
943	4,417309E+22	4,417423E+22	1,456937E+22	1,456987E+22	8,834732E+22	2,913924E+22	1,174866E+23
944	4,417389E+22	4,417240E+22	1,456904E+22	1,456959E+22	8,834629E+22	2,913863E+22	1,174849E+23
945	4,417245E+22	4,417373E+22	1,456974E+22	1,456907E+22	8,834619E+22	2,913881E+22	1,174850E+23
946	4,417375E+22	4,417378E+22	1,456926E+22	1,457009E+22	8,834753E+22	2,913934E+22	1,174869E+23
947	4,417338E+22	4,417184E+22	1,457003E+22	1,456961E+22	8,834521E+22	2,913964E+22	1,174849E+23
948	4,417176E+22	4,417351E+22	1,457082E+22	1,457006E+22	8,834527E+22	2,914087E+22	1,174861E+23
949	4,417260E+22	4,417180E+22	1,457051E+22	1,457139E+22	8,834439E+22	2,914190E+22	1,174863E+23
950	4,417063E+22	4,417055E+22	1,457179E+22	1,457108E+22	8,834119E+22	2,914287E+22	1,174841E+23
951	4,416985E+22	4,417179E+22	1,457196E+22	1,457222E+22	8,834164E+22	2,914418E+22	1,174858E+23
952	4,417087E+22	4,416907E+22	1,457186E+22	1,457263E+22	8,833994E+22	2,914449E+22	1,174844E+23
953	4,416921E+22	4,416942E+22	1,457293E+22	1,457201E+22	8,833863E+22	2,914494E+22	1,174836E+23
954	4,416997E+22	4,417027E+22	1,457246E+22	1,457307E+22	8,834024E+22	2,914553E+22	1,174858E+23
955	4,417014E+22	4,416866E+22	1,457257E+22	1,457253E+22	8,833880E+22	2,914510E+22	1,174839E+23
956	4,416841E+22	4,417078E+22	1,457295E+22	1,457209E+22	8,833918E+22	2,914503E+22	1,174842E+23
957	4,417023E+22	4,417014E+22	1,457184E+22	1,457274E+22	8,834037E+22	2,914458E+22	1,174849E+23
958	4,416999E+22	4,416915E+22	1,457212E+22	1,457135E+22	8,833914E+22	2,914348E+22	1,174826E+23
959	4,416979E+22	4,417162E+22	1,457178E+22	1,457132E+22	8,834141E+22	2,914310E+22	1,174845E+23
960	4,417196E+22	4,417042E+22	1,457065E+22	1,457138E+22	8,834238E+22	2,914203E+22	1,174844E+23
961	4,417084E+22	4,417107E+22	1,457108E+22	1,457027E+22	8,834191E+22	2,914135E+22	1,174833E+23
962	4,417132E+22	4,417277E+22	1,457054E+22	1,457105E+22	8,834409E+22	2,914159E+22	1,174857E+23
963	4,417238E+22	4,417096E+22	1,457031E+22	1,457067E+22	8,834335E+22	2,914097E+22	1,174843E+23
964	4,417075E+22	4,417224E+22	1,457117E+22	1,457014E+22	8,834299E+22	2,914131E+22	1,174843E+23
965	4,417214E+22	4,417179E+22	1,457064E+22	1,457139E+22	8,834393E+22	2,914204E+22	1,174860E+23
966	4,417164E+22	4,416994E+22	1,457141E+22	1,457101E+22	8,834157E+22	2,914242E+22	1,174840E+23
967	4,416951E+22	4,417173E+22	1,457221E+22	1,457166E+22	8,834124E+22	2,914388E+22	1,174851E+23
968	4,417051E+22	4,416991E+22	1,457176E+22	1,457294E+22	8,834042E+22	2,914470E+22	1,174851E+23
969	4,416891E+22	4,416859E+22	1,457299E+22	1,457245E+22	8,833750E+22	2,914544E+22	1,174829E+23

1	14	15	16	17	18	19	20
Years	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
970	4,416822E+22	4,416960E+22	1,457337E+22	1,457349E+22	8,833782E+22	2,914686E+22	1,174847E+23
971	4,416946E+22	4,416739E+22	1,457325E+22	1,457380E+22	8,833686E+22	2,914705E+22	1,174839E+23
972	4,416742E+22	4,416820E+22	1,457430E+22	1,457321E+22	8,833562E+22	2,914751E+22	1,174831E+23
973	4,416807E+22	4,416868E+22	1,457368E+22	1,457441E+22	8,833675E+22	2,914808E+22	1,174848E+23
974	4,416833E+22	4,416703E+22	1,457374E+22	1,457372E+22	8,833536E+22	2,914746E+22	1,174828E+23
975	4,416665E+22	4,416907E+22	1,457411E+22	1,457321E+22	8,833572E+22	2,914732E+22	1,174830E+23
976	4,416889E+22	4,416842E+22	1,457284E+22	1,457374E+22	8,833731E+22	2,914657E+22	1,174839E+23
977	4,416888E+22	4,416769E+22	1,457305E+22	1,457234E+22	8,833657E+22	2,914538E+22	1,174820E+23
978	4,416835E+22	4,417005E+22	1,457287E+22	1,457245E+22	8,833840E+22	2,914532E+22	1,174837E+23
979	4,417035E+22	4,416926E+22	1,457175E+22	1,457254E+22	8,833961E+22	2,914429E+22	1,174839E+23
980	4,416908E+22	4,416989E+22	1,457225E+22	1,457141E+22	8,833896E+22	2,914366E+22	1,174826E+23
981	4,416979E+22	4,417081E+22	1,457172E+22	1,457223E+22	8,834061E+22	2,914395E+22	1,174846E+23
982	4,417106E+22	4,416906E+22	1,457157E+22	1,457176E+22	8,834013E+22	2,914333E+22	1,174835E+23
983	4,416909E+22	4,417050E+22	1,457254E+22	1,457140E+22	8,833959E+22	2,914394E+22	1,174835E+23
984	4,417024E+22	4,417022E+22	1,457190E+22	1,457277E+22	8,834046E+22	2,914468E+22	1,174851E+23
985	4,416959E+22	4,416842E+22	1,457262E+22	1,457249E+22	8,833802E+22	2,914511E+22	1,174831E+23
986	4,416729E+22	4,416966E+22	1,457366E+22	1,457317E+22	8,833695E+22	2,914683E+22	1,174838E+23
987	4,416869E+22	4,416799E+22	1,457321E+22	1,457429E+22	8,833668E+22	2,914750E+22	1,174842E+23
988	4,416727E+22	4,416678E+22	1,457445E+22	1,457371E+22	8,833405E+22	2,914816E+22	1,174822E+23
989	4,416675E+22	4,416749E+22	1,457474E+22	1,457485E+22	8,833425E+22	2,914959E+22	1,174838E+23
990	4,416791E+22	4,416574E+22	1,457454E+22	1,457512E+22	8,833365E+22	2,914967E+22	1,174833E+23
991	4,416541E+22	4,416676E+22	1,457557E+22	1,457460E+22	8,833217E+22	2,915017E+22	1,174823E+23
992	4,416624E+22	4,416713E+22	1,457479E+22	1,457563E+22	8,833337E+22	2,915043E+22	1,174838E+23
993	4,416687E+22	4,416536E+22	1,457477E+22	1,457474E+22	8,833223E+22	2,914950E+22	1,174817E+23
994	4,416517E+22	4,416714E+22	1,457531E+22	1,457420E+22	8,833231E+22	2,914951E+22	1,174818E+23
995	4,416751E+22	4,416703E+22	1,457395E+22	1,457469E+22	8,833454E+22	2,914865E+22	1,174832E+23
996	4,416722E+22	4,416657E+22	1,457413E+22	1,457341E+22	8,833379E+22	2,914754E+22	1,174813E+23
997	4,416667E+22	4,416848E+22	1,457390E+22	1,457369E+22	8,833515E+22	2,914759E+22	1,174827E+23
998	4,416887E+22	4,416768E+22	1,457282E+22	1,457366E+22	8,833654E+22	2,914649E+22	1,174830E+23
999	4,416755E+22	4,416828E+22	1,457343E+22	1,457253E+22	8,833583E+22	2,914596E+22	1,174818E+23
1000	4,416847E+22	4,416916E+22	1,457285E+22	1,457330E+22	8,833763E+22	2,914615E+22	1,174838E+23
1001	4,416969E+22	4,416755E+22	1,457271E+22	1,457292E+22	8,833724E+22	2,914563E+22	1,174829E+23
1002	4,416715E+22	4,416878E+22	1,457392E+22	1,457282E+22	8,833593E+22	2,914674E+22	1,174827E+23
1003	4,416806E+22	4,416872E+22	1,457328E+22	1,457424E+22	8,833678E+22	2,914752E+22	1,174843E+23
1004	4,416749E+22	4,416666E+22	1,457407E+22	1,457395E+22	8,833415E+22	2,914801E+22	1,174822E+23
1005	4,416562E+22	4,416715E+22	1,457506E+22	1,457461E+22	8,833277E+22	2,914967E+22	1,174824E+23
1006	4,416733E+22	4,416577E+22	1,457462E+22	1,457557E+22	8,833310E+22	2,915019E+22	1,174833E+23
1007	4,416569E+22	4,416502E+22	1,457584E+22	1,457506E+22	8,833071E+22	2,915089E+22	1,174816E+23
1008	4,416498E+22	4,416602E+22	1,457596E+22	1,457618E+22	8,833099E+22	2,915214E+22	1,174831E+23
1009	4,416601E+22	4,416449E+22	1,457570E+22	1,457639E+22	8,833050E+22	2,915209E+22	1,174826E+23
1010	4,416336E+22	4,416503E+22	1,457691E+22	1,457583E+22	8,832839E+22	2,915274E+22	1,174811E+23
1011	4,416437E+22	4,416555E+22	1,457608E+22	1,457667E+22	8,832992E+22	2,915275E+22	1,174827E+23
1012	4,416527E+22	4,416381E+22	1,457600E+22	1,457578E+22	8,832908E+22	2,915178E+22	1,174809E+23
1013	4,416377E+22	4,416511E+22	1,457641E+22	1,457540E+22	8,832888E+22	2,915181E+22	1,174807E+23
1014	4,416611E+22	4,416546E+22	1,457498E+22	1,457590E+22	8,833157E+22	2,915088E+22	1,174825E+23
1015	4,416559E+22	4,416522E+22	1,457512E+22	1,457467E+22	8,833081E+22	2,914979E+22	1,174806E+23
1016	4,416530E+22	4,416695E+22	1,457481E+22	1,457478E+22	8,833225E+22	2,914959E+22	1,174818E+23
1017	4,416775E+22	4,416621E+22	1,457378E+22	1,457458E+22	8,833396E+22	2,914836E+22	1,174823E+23
1018	4,416619E+22	4,416656E+22	1,457470E+22	1,457356E+22	8,833275E+22	2,914825E+22	1,174810E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1019	4,416677E+22	4,416790E+22	1,457418E+22	1,457438E+22	8,833467E+22	2,914855E+22	1,174832E+23
1020	4,416763E+22	4,416631E+22	1,457408E+22	1,457426E+22	8,833394E+22	2,914834E+22	1,174823E+23
1021	4,416505E+22	4,416672E+22	1,457528E+22	1,457436E+22	8,833177E+22	2,914964E+22	1,174814E+23
1022	4,416625E+22	4,416659E+22	1,457467E+22	1,457568E+22	8,833284E+22	2,915035E+22	1,174832E+23
1023	4,416577E+22	4,416457E+22	1,457546E+22	1,457535E+22	8,833034E+22	2,915082E+22	1,174812E+23
1024	4,416427E+22	4,416515E+22	1,457633E+22	1,457593E+22	8,832942E+22	2,915226E+22	1,174817E+23
1025	4,416594E+22	4,416416E+22	1,457585E+22	1,457685E+22	8,833010E+22	2,915270E+22	1,174828E+23
1026	4,416369E+22	4,416346E+22	1,457726E+22	1,457650E+22	8,832715E+22	2,915376E+22	1,174809E+23
1027	4,416274E+22	4,416477E+22	1,457734E+22	1,457749E+22	8,832751E+22	2,915482E+22	1,174823E+23
1028	4,416391E+22	4,416291E+22	1,457709E+22	1,457764E+22	8,832682E+22	2,915472E+22	1,174815E+23
1029	4,416166E+22	4,416269E+22	1,457819E+22	1,457706E+22	8,832435E+22	2,915525E+22	1,174796E+23
1030	4,416300E+22	4,416348E+22	1,457728E+22	1,457776E+22	8,832648E+22	2,915503E+22	1,174815E+23
1031	4,416374E+22	4,416220E+22	1,457710E+22	1,457695E+22	8,832593E+22	2,915405E+22	1,174800E+23
1032	4,416235E+22	4,416370E+22	1,457726E+22	1,457657E+22	8,832605E+22	2,915383E+22	1,174799E+23
1033	4,416474E+22	4,416426E+22	1,457582E+22	1,457693E+22	8,832900E+22	2,915275E+22	1,174817E+23
1034	4,416414E+22	4,416376E+22	1,457621E+22	1,457568E+22	8,832790E+22	2,915190E+22	1,174798E+23
1035	4,416388E+22	4,416575E+22	1,457597E+22	1,457561E+22	8,832962E+22	2,915158E+22	1,174812E+23
1036	4,416632E+22	4,416496E+22	1,457506E+22	1,457555E+22	8,833128E+22	2,915061E+22	1,174819E+23
1037	4,416458E+22	4,416468E+22	1,457599E+22	1,457486E+22	8,832926E+22	2,915085E+22	1,174801E+23
1038	4,416486E+22	4,416622E+22	1,457549E+22	1,457580E+22	8,833108E+22	2,915129E+22	1,174824E+23
1039	4,416553E+22	4,416456E+22	1,457540E+22	1,457581E+22	8,833009E+22	2,915122E+22	1,174813E+23
1040	4,416341E+22	4,416452E+22	1,457646E+22	1,457579E+22	8,832793E+22	2,915225E+22	1,174802E+23
1041	4,416494E+22	4,416456E+22	1,457587E+22	1,457689E+22	8,832950E+22	2,915277E+22	1,174823E+23
1042	4,416429E+22	4,416262E+22	1,457686E+22	1,457664E+22	8,832691E+22	2,915349E+22	1,174804E+23
1043	4,416238E+22	4,416383E+22	1,457774E+22	1,457716E+22	8,832621E+22	2,915490E+22	1,174811E+23
1044	4,416376E+22	4,416301E+22	1,457732E+22	1,457824E+22	8,832676E+22	2,915555E+22	1,174823E+23
1045	4,416146E+22	4,416148E+22	1,457871E+22	1,457799E+22	8,832294E+22	2,915670E+22	1,174796E+23
1046	4,416076E+22	4,416273E+22	1,457876E+22	1,457878E+22	8,832349E+22	2,915755E+22	1,174810E+23
1047	4,416213E+22	4,416090E+22	1,457841E+22	1,457889E+22	8,832303E+22	2,915729E+22	1,174803E+23
1048	4,416038E+22	4,416060E+22	1,457923E+22	1,457822E+22	8,832098E+22	2,915746E+22	1,174784E+23
1049	4,416181E+22	4,416193E+22	1,457820E+22	1,457884E+22	8,832374E+22	2,915705E+22	1,174808E+23
1050	4,416216E+22	4,416086E+22	1,457812E+22	1,457817E+22	8,832302E+22	2,915628E+22	1,174793E+23
1051	4,416071E+22	4,416272E+22	1,457828E+22	1,457758E+22	8,832343E+22	2,915586E+22	1,174793E+23
1052	4,416330E+22	4,416309E+22	1,457696E+22	1,457787E+22	8,832639E+22	2,915483E+22	1,174812E+23
1053	4,416281E+22	4,416191E+22	1,457739E+22	1,457669E+22	8,832472E+22	2,915408E+22	1,174788E+23
1054	4,416253E+22	4,416411E+22	1,457721E+22	1,457661E+22	8,832664E+22	2,915382E+22	1,174805E+23
1055	4,416447E+22	4,416353E+22	1,457631E+22	1,457680E+22	8,832800E+22	2,915312E+22	1,174811E+23
1056	4,416277E+22	4,416304E+22	1,457707E+22	1,457627E+22	8,832581E+22	2,915333E+22	1,174791E+23
1057	4,416316E+22	4,416448E+22	1,457657E+22	1,457711E+22	8,832764E+22	2,915368E+22	1,174813E+23
1058	4,416376E+22	4,416258E+22	1,457670E+22	1,457717E+22	8,832634E+22	2,915387E+22	1,174802E+23
1059	4,416184E+22	4,416289E+22	1,457775E+22	1,457694E+22	8,832473E+22	2,915469E+22	1,174794E+23
1060	4,416343E+22	4,416297E+22	1,457730E+22	1,457814E+22	8,832640E+22	2,915544E+22	1,174818E+23
1061	4,416248E+22	4,416071E+22	1,457831E+22	1,457812E+22	8,832319E+22	2,915643E+22	1,174796E+23
1062	4,416032E+22	4,416217E+22	1,457921E+22	1,457864E+22	8,832249E+22	2,915785E+22	1,174803E+23
1063	4,416146E+22	4,416124E+22	1,457880E+22	1,457974E+22	8,832270E+22	2,915854E+22	1,174812E+23
1064	4,415971E+22	4,415924E+22	1,457996E+22	1,457935E+22	8,831895E+22	2,915931E+22	1,174783E+23
1065	4,415935E+22	4,416063E+22	1,457992E+22	1,457989E+22	8,831998E+22	2,915980E+22	1,174798E+23
1066	4,416060E+22	4,415903E+22	1,457963E+22	1,458007E+22	8,831964E+22	2,915970E+22	1,174793E+23
1067	4,415873E+22	4,415944E+22	1,458031E+22	1,457929E+22	8,831816E+22	2,915960E+22	1,174778E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1068	4,416013E+22	4,416093E+22	1,457932E+22	1,457999E+22	8,832106E+22	2,915931E+22	1,174804E+23
1069	4,416049E+22	4,415929E+22	1,457925E+22	1,457934E+22	8,831978E+22	2,915858E+22	1,174784E+23
1070	4,415927E+22	4,416119E+22	1,457946E+22	1,457855E+22	8,832046E+22	2,915801E+22	1,174785E+23
1071	4,416183E+22	4,416162E+22	1,457817E+22	1,457886E+22	8,832345E+22	2,915703E+22	1,174805E+23
1072	4,416158E+22	4,416013E+22	1,457843E+22	1,457780E+22	8,832171E+22	2,915622E+22	1,174779E+23
1073	4,416103E+22	4,416262E+22	1,457822E+22	1,457777E+22	8,832365E+22	2,915599E+22	1,174796E+23
1074	4,416253E+22	4,416202E+22	1,457744E+22	1,457821E+22	8,832454E+22	2,915565E+22	1,174802E+23
1075	4,416087E+22	4,416154E+22	1,457819E+22	1,457751E+22	8,832241E+22	2,915570E+22	1,174781E+23
1076	4,416165E+22	4,416274E+22	1,457786E+22	1,457831E+22	8,832440E+22	2,915618E+22	1,174806E+23
1077	4,416234E+22	4,416037E+22	1,457805E+22	1,457843E+22	8,832272E+22	2,915648E+22	1,174792E+23
1078	4,416036E+22	4,416109E+22	1,457918E+22	1,457818E+22	8,832144E+22	2,915736E+22	1,174788E+23
1079	4,416139E+22	4,416150E+22	1,457878E+22	1,457955E+22	8,832289E+22	2,915834E+22	1,174812E+23
1080	4,416043E+22	4,415896E+22	1,457963E+22	1,457965E+22	8,831939E+22	2,915928E+22	1,174787E+23
1081	4,415834E+22	4,416035E+22	1,458052E+22	1,457999E+22	8,831869E+22	2,916051E+22	1,174792E+23
1082	4,415944E+22	4,415923E+22	1,458022E+22	1,458110E+22	8,831867E+22	2,916132E+22	1,174800E+23
1083	4,415796E+22	4,415750E+22	1,458125E+22	1,458050E+22	8,831547E+22	2,916175E+22	1,174772E+23
1084	4,415787E+22	4,415898E+22	1,458121E+22	1,458109E+22	8,831685E+22	2,916230E+22	1,174792E+23
1085	4,415889E+22	4,415728E+22	1,458084E+22	1,458144E+22	8,831616E+22	2,916228E+22	1,174784E+23
1086	4,415707E+22	4,415804E+22	1,458145E+22	1,458057E+22	8,831512E+22	2,916202E+22	1,174771E+23
1087	4,415840E+22	4,415947E+22	1,458051E+22	1,458116E+22	8,831788E+22	2,916167E+22	1,174795E+23
1088	4,415927E+22	4,415752E+22	1,458024E+22	1,458037E+22	8,831679E+22	2,916061E+22	1,174774E+23
1089	4,415821E+22	4,415956E+22	1,458042E+22	1,457938E+22	8,831777E+22	2,915980E+22	1,174776E+23
1090	4,416025E+22	4,416014E+22	1,457928E+22	1,457989E+22	8,832038E+22	2,915917E+22	1,174796E+23
1091	4,415974E+22	4,415909E+22	1,457946E+22	1,457887E+22	8,831883E+22	2,915833E+22	1,174772E+23
1092	4,415923E+22	4,416132E+22	1,457937E+22	1,457901E+22	8,832054E+22	2,915838E+22	1,174789E+23
1093	4,416070E+22	4,416007E+22	1,457869E+22	1,457954E+22	8,832077E+22	2,915823E+22	1,174790E+23
1094	4,415944E+22	4,415966E+22	1,457946E+22	1,457869E+22	8,831909E+22	2,915815E+22	1,174772E+23
1095	4,416016E+22	4,416093E+22	1,457925E+22	1,457951E+22	8,832109E+22	2,915877E+22	1,174799E+23
1096	4,416097E+22	4,415850E+22	1,457929E+22	1,457978E+22	8,831947E+22	2,915907E+22	1,174785E+23
1097	4,415865E+22	4,415952E+22	1,458045E+22	1,457954E+22	8,831817E+22	2,915999E+22	1,174782E+23
1098	4,415909E+22	4,415993E+22	1,458023E+22	1,458111E+22	8,831902E+22	2,916135E+22	1,174804E+23
1099	4,415822E+22	4,415733E+22	1,458104E+22	1,458102E+22	8,831555E+22	2,916206E+22	1,174776E+23
1100	4,415655E+22	4,415838E+22	1,458199E+22	1,458131E+22	8,831493E+22	2,916330E+22	1,174782E+23
1101	4,415769E+22	4,415691E+22	1,458164E+22	1,458245E+22	8,831459E+22	2,916410E+22	1,174787E+23
1102	4,415634E+22	4,415563E+22	1,458258E+22	1,458179E+22	8,831198E+22	2,916437E+22	1,174763E+23
1103	4,415601E+22	4,415750E+22	1,458250E+22	1,458243E+22	8,831351E+22	2,916494E+22	1,174784E+23
1104	4,415729E+22	4,415563E+22	1,458187E+22	1,458275E+22	8,831292E+22	2,916462E+22	1,174775E+23
1105	4,415566E+22	4,415651E+22	1,458245E+22	1,458158E+22	8,831216E+22	2,916404E+22	1,174762E+23
1106	4,415691E+22	4,415798E+22	1,458162E+22	1,458213E+22	8,831488E+22	2,916375E+22	1,174786E+23
1107	4,415785E+22	4,415624E+22	1,458128E+22	1,458118E+22	8,831410E+22	2,916246E+22	1,174766E+23
1108	4,415685E+22	4,415826E+22	1,458154E+22	1,458039E+22	8,831510E+22	2,916193E+22	1,174770E+23
1109	4,415837E+22	4,415858E+22	1,458042E+22	1,458117E+22	8,831695E+22	2,916158E+22	1,174785E+23
1110	4,415796E+22	4,415757E+22	1,458060E+22	1,458016E+22	8,831552E+22	2,916076E+22	1,174763E+23
1111	4,415754E+22	4,415954E+22	1,458063E+22	1,458026E+22	8,831708E+22	2,916088E+22	1,174780E+23
1112	4,415951E+22	4,415796E+22	1,457978E+22	1,458074E+22	8,831747E+22	2,916052E+22	1,174780E+23
1113	4,415836E+22	4,415785E+22	1,458058E+22	1,457975E+22	8,831621E+22	2,916033E+22	1,174765E+23
1114	4,415846E+22	4,415944E+22	1,458057E+22	1,458079E+22	8,831789E+22	2,916136E+22	1,174793E+23
1115	4,415887E+22	4,415740E+22	1,458060E+22	1,458109E+22	8,831627E+22	2,916169E+22	1,174780E+23
1116	4,415655E+22	4,415807E+22	1,458192E+22	1,458101E+22	8,831462E+22	2,916292E+22	1,174775E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1117	4,415677E+22	4,415782E+22	1,458179E+22	1,458262E+22	8,831460E+22	2,916441E+22	1,174790E+23
1118	4,415640E+22	4,415521E+22	1,458256E+22	1,458240E+22	8,831160E+22	2,916496E+22	1,174766E+23
1119	4,415483E+22	4,415618E+22	1,458349E+22	1,458267E+22	8,831101E+22	2,916616E+22	1,174772E+23
1120	4,415620E+22	4,415478E+22	1,458285E+22	1,458389E+22	8,831098E+22	2,916674E+22	1,174777E+23
1121	4,415485E+22	4,415402E+22	1,458361E+22	1,458309E+22	8,830886E+22	2,916670E+22	1,174756E+23
1122	4,415414E+22	4,415601E+22	1,458365E+22	1,458374E+22	8,831015E+22	2,916740E+22	1,174775E+23
1123	4,415563E+22	4,415437E+22	1,458296E+22	1,458373E+22	8,831000E+22	2,916669E+22	1,174767E+23
1124	4,415443E+22	4,415503E+22	1,458361E+22	1,458248E+22	8,830946E+22	2,916609E+22	1,174756E+23
1125	4,415532E+22	4,415626E+22	1,458284E+22	1,458309E+22	8,831159E+22	2,916593E+22	1,174775E+23
1126	4,415624E+22	4,415487E+22	1,458244E+22	1,458223E+22	8,831111E+22	2,916467E+22	1,174758E+23
1127	4,415491E+22	4,415686E+22	1,458273E+22	1,458161E+22	8,831178E+22	2,916435E+22	1,174761E+23
1128	4,415670E+22	4,415681E+22	1,458142E+22	1,458248E+22	8,831351E+22	2,916390E+22	1,174774E+23
1129	4,415664E+22	4,415580E+22	1,458158E+22	1,458128E+22	8,831244E+22	2,916286E+22	1,174753E+23
1130	4,415616E+22	4,415783E+22	1,458177E+22	1,458141E+22	8,831399E+22	2,916318E+22	1,174772E+23
1131	4,415817E+22	4,415658E+22	1,458093E+22	1,458178E+22	8,831476E+22	2,916271E+22	1,174775E+23
1132	4,415693E+22	4,415651E+22	1,458188E+22	1,458102E+22	8,831345E+22	2,916290E+22	1,174763E+23
1133	4,415627E+22	4,415786E+22	1,458200E+22	1,458229E+22	8,831414E+22	2,916429E+22	1,174784E+23
1134	4,415671E+22	4,415569E+22	1,458211E+22	1,458260E+22	8,831240E+22	2,916470E+22	1,174771E+23
1135	4,415449E+22	4,415595E+22	1,458352E+22	1,458247E+22	8,831044E+22	2,916599E+22	1,174764E+23
1136	4,415518E+22	4,415530E+22	1,458314E+22	1,458403E+22	8,831048E+22	2,916716E+22	1,174776E+23
1137	4,415496E+22	4,415300E+22	1,458379E+22	1,458366E+22	8,830796E+22	2,916746E+22	1,174754E+23
1138	4,415303E+22	4,415444E+22	1,458475E+22	1,458406E+22	8,830747E+22	2,916880E+22	1,174763E+23
1139	4,415427E+22	4,415353E+22	1,458400E+22	1,458513E+22	8,830780E+22	2,916913E+22	1,174769E+23
1140	4,415319E+22	4,415270E+22	1,458484E+22	1,458430E+22	8,830589E+22	2,916915E+22	1,174750E+23
1141	4,415229E+22	4,415435E+22	1,458496E+22	1,458486E+22	8,830664E+22	2,916982E+22	1,174765E+23
1142	4,415411E+22	4,415283E+22	1,458424E+22	1,458470E+22	8,830695E+22	2,916894E+22	1,174759E+23
1143	4,415288E+22	4,415340E+22	1,458491E+22	1,458352E+22	8,830628E+22	2,916844E+22	1,174747E+23
1144	4,415375E+22	4,415452E+22	1,458386E+22	1,458431E+22	8,830827E+22	2,916817E+22	1,174764E+23
1145	4,415466E+22	4,415338E+22	1,458335E+22	1,458346E+22	8,830804E+22	2,916681E+22	1,174748E+23
1146	4,415321E+22	4,415526E+22	1,458373E+22	1,458291E+22	8,830847E+22	2,916665E+22	1,174751E+23
1147	4,415534E+22	4,415531E+22	1,458241E+22	1,458350E+22	8,831065E+22	2,916590E+22	1,174766E+23
1148	4,415573E+22	4,415425E+22	1,458266E+22	1,458227E+22	8,830998E+22	2,916493E+22	1,174749E+23
1149	4,415469E+22	4,415619E+22	1,458303E+22	1,458249E+22	8,831088E+22	2,916552E+22	1,174764E+23
1150	4,415649E+22	4,415534E+22	1,458227E+22	1,458299E+22	8,831183E+22	2,916526E+22	1,174771E+23
1151	4,415483E+22	4,415502E+22	1,458338E+22	1,458243E+22	8,830985E+22	2,916580E+22	1,174757E+23
1152	4,415417E+22	4,415583E+22	1,458338E+22	1,458378E+22	8,831000E+22	2,916716E+22	1,174772E+23
1153	4,415495E+22	4,415357E+22	1,458343E+22	1,458395E+22	8,830852E+22	2,916738E+22	1,174759E+23
1154	4,415271E+22	4,415370E+22	1,458490E+22	1,458387E+22	8,830640E+22	2,916877E+22	1,174752E+23
1155	4,415353E+22	4,415344E+22	1,458443E+22	1,458528E+22	8,830697E+22	2,916971E+22	1,174767E+23
1156	4,415343E+22	4,415142E+22	1,458506E+22	1,458505E+22	8,830485E+22	2,917011E+22	1,174750E+23
1157	4,415090E+22	4,415285E+22	1,458609E+22	1,458552E+22	8,830375E+22	2,917160E+22	1,174754E+23
1158	4,415237E+22	4,415205E+22	1,458537E+22	1,458644E+22	8,830441E+22	2,917181E+22	1,174762E+23
1159	4,415146E+22	4,415096E+22	1,458628E+22	1,458547E+22	8,830241E+22	2,917175E+22	1,174742E+23
1160	4,415084E+22	4,415233E+22	1,458614E+22	1,458595E+22	8,830317E+22	2,917210E+22	1,174753E+23
1161	4,415273E+22	4,415112E+22	1,458529E+22	1,458573E+22	8,830385E+22	2,917102E+22	1,174749E+23
1162	4,415109E+22	4,415191E+22	1,458595E+22	1,458476E+22	8,830300E+22	2,917071E+22	1,174737E+23
1163	4,415196E+22	4,415327E+22	1,458479E+22	1,458543E+22	8,830523E+22	2,917022E+22	1,174755E+23
1164	4,415329E+22	4,415200E+22	1,458433E+22	1,458459E+22	8,830529E+22	2,916892E+22	1,174742E+23
1165	4,415177E+22	4,415360E+22	1,458484E+22	1,458397E+22	8,830537E+22	2,916881E+22	1,174742E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1166	4,415420E+22	4,415379E+22	1,458361E+22	1,458445E+22	8,830799E+22	2,916805E+22	1,174760E+23
1167	4,415441E+22	4,415278E+22	1,458399E+22	1,458335E+22	8,830719E+22	2,916735E+22	1,174745E+23
1168	4,415308E+22	4,415456E+22	1,458420E+22	1,458379E+22	8,830764E+22	2,916799E+22	1,174756E+23
1169	4,415457E+22	4,415377E+22	1,458347E+22	1,458435E+22	8,830834E+22	2,916783E+22	1,174762E+23
1170	4,415271E+22	4,415316E+22	1,458473E+22	1,458393E+22	8,830587E+22	2,916865E+22	1,174745E+23
1171	4,415234E+22	4,415384E+22	1,458469E+22	1,458504E+22	8,830618E+22	2,916973E+22	1,174759E+23
1172	4,415353E+22	4,415156E+22	1,458477E+22	1,458524E+22	8,830509E+22	2,917000E+22	1,174751E+23
1173	4,415086E+22	4,415171E+22	1,458630E+22	1,458524E+22	8,830257E+22	2,917154E+22	1,174741E+23
1174	4,415161E+22	4,415190E+22	1,458584E+22	1,458668E+22	8,830351E+22	2,917252E+22	1,174760E+23
1175	4,415136E+22	4,414990E+22	1,458654E+22	1,458650E+22	8,830126E+22	2,917304E+22	1,174743E+23
1176	4,414903E+22	4,415093E+22	1,458738E+22	1,458689E+22	8,829996E+22	2,917428E+22	1,174742E+23
1177	4,415082E+22	4,415022E+22	1,458662E+22	1,458759E+22	8,830104E+22	2,917421E+22	1,174752E+23
1178	4,414986E+22	4,414912E+22	1,458751E+22	1,458666E+22	8,829899E+22	2,917417E+22	1,174732E+23
1179	4,414927E+22	4,415079E+22	1,458722E+22	1,458699E+22	8,830006E+22	2,917422E+22	1,174743E+23
1180	4,415126E+22	4,414980E+22	1,458629E+22	1,458692E+22	8,830106E+22	2,917321E+22	1,174743E+23
1181	4,414918E+22	4,415039E+22	1,458700E+22	1,458602E+22	8,829957E+22	2,917302E+22	1,174726E+23
1182	4,415049E+22	4,415180E+22	1,458592E+22	1,458652E+22	8,830228E+22	2,917243E+22	1,174747E+23
1183	4,415209E+22	4,415036E+22	1,458553E+22	1,458556E+22	8,830245E+22	2,917109E+22	1,174735E+23
1184	4,415068E+22	4,415176E+22	1,458588E+22	1,458496E+22	8,830244E+22	2,917084E+22	1,174733E+23
1185	4,415295E+22	4,415237E+22	1,458467E+22	1,458544E+22	8,830531E+22	2,917011E+22	1,174754E+23
1186	4,415249E+22	4,415145E+22	1,458516E+22	1,458465E+22	8,830394E+22	2,916982E+22	1,174738E+23
1187	4,415097E+22	4,415321E+22	1,458540E+22	1,458504E+22	8,830418E+22	2,917044E+22	1,174746E+23
1188	4,415276E+22	4,415213E+22	1,458476E+22	1,458569E+22	8,830490E+22	2,917045E+22	1,174753E+23
1189	4,415073E+22	4,415108E+22	1,458614E+22	1,458529E+22	8,830181E+22	2,917144E+22	1,174732E+23
1190	4,415071E+22	4,415185E+22	1,458616E+22	1,458634E+22	8,830256E+22	2,917250E+22	1,174751E+23
1191	4,415183E+22	4,414966E+22	1,458628E+22	1,458667E+22	8,830149E+22	2,917295E+22	1,174744E+23
1192	4,414903E+22	4,414978E+22	1,458757E+22	1,458682E+22	8,829881E+22	2,917439E+22	1,174732E+23
1193	4,414977E+22	4,415017E+22	1,458712E+22	1,458816E+22	8,829993E+22	2,917528E+22	1,174752E+23
1194	4,414945E+22	4,414808E+22	1,458790E+22	1,458794E+22	8,829753E+22	2,917584E+22	1,174734E+23
1195	4,414745E+22	4,414913E+22	1,458864E+22	1,458798E+22	8,829658E+22	2,917661E+22	1,174732E+23
1196	4,414949E+22	4,414856E+22	1,458784E+22	1,458864E+22	8,829805E+22	2,917648E+22	1,174745E+23
1197	4,414801E+22	4,414753E+22	1,458874E+22	1,458782E+22	8,829553E+22	2,917656E+22	1,174721E+23
1198	4,414740E+22	4,414942E+22	1,458842E+22	1,458815E+22	8,829682E+22	2,917657E+22	1,174734E+23
1199	4,414939E+22	4,414840E+22	1,458752E+22	1,458812E+22	8,829778E+22	2,917565E+22	1,174734E+23
1200	4,414773E+22	4,414858E+22	1,458798E+22	1,458716E+22	8,829631E+22	2,917514E+22	1,174714E+23
1201	4,414938E+22	4,415007E+22	1,458692E+22	1,458747E+22	8,829945E+22	2,917439E+22	1,174738E+23
1202	4,415085E+22	4,414884E+22	1,458659E+22	1,458660E+22	8,829969E+22	2,917319E+22	1,174729E+23
1203	4,414932E+22	4,415048E+22	1,458689E+22	1,458593E+22	8,829980E+22	2,917282E+22	1,174726E+23
1204	4,415133E+22	4,415126E+22	1,458574E+22	1,458664E+22	8,830260E+22	2,917238E+22	1,174750E+23
1205	4,415030E+22	4,414995E+22	1,458642E+22	1,458604E+22	8,830026E+22	2,917247E+22	1,174727E+23
1206	4,414907E+22	4,415142E+22	1,458681E+22	1,458633E+22	8,830049E+22	2,917314E+22	1,174736E+23
1207	4,415109E+22	4,415011E+22	1,458626E+22	1,458698E+22	8,830119E+22	2,917325E+22	1,174744E+23
1208	4,414924E+22	4,414876E+22	1,458742E+22	1,458666E+22	8,829800E+22	2,917408E+22	1,174721E+23
1209	4,414918E+22	4,414990E+22	1,458745E+22	1,458772E+22	8,829908E+22	2,917517E+22	1,174742E+23
1210	4,414982E+22	4,414803E+22	1,458760E+22	1,458823E+22	8,829785E+22	2,917583E+22	1,174737E+23
1211	4,414708E+22	4,414821E+22	1,458885E+22	1,458818E+22	8,829529E+22	2,917703E+22	1,174723E+23
1212	4,414812E+22	4,414858E+22	1,458847E+22	1,458943E+22	8,829670E+22	2,917789E+22	1,174746E+23
1213	4,414754E+22	4,414625E+22	1,458935E+22	1,458917E+22	8,829379E+22	2,917852E+22	1,174723E+23
1214	4,414577E+22	4,414744E+22	1,459009E+22	1,458910E+22	8,829321E+22	2,917919E+22	1,174724E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1215	4,414766E+22	4,414696E+22	1,458923E+22	1,458988E+22	8,829462E+22	2,917911E+22	1,174737E+23
1216	4,414607E+22	4,414571E+22	1,458981E+22	1,458922E+22	8,829178E+22	2,917903E+22	1,174708E+23
1217	4,414575E+22	4,414767E+22	1,458946E+22	1,458941E+22	8,829342E+22	2,917888E+22	1,174723E+23
1218	4,414787E+22	4,414664E+22	1,458857E+22	1,458931E+22	8,829451E+22	2,917788E+22	1,174724E+23
1219	4,414668E+22	4,414697E+22	1,458890E+22	1,458803E+22	8,829365E+22	2,917694E+22	1,174706E+23
1220	4,414845E+22	4,414878E+22	1,458788E+22	1,458833E+22	8,829723E+22	2,917621E+22	1,174734E+23
1221	4,414912E+22	4,414766E+22	1,458770E+22	1,458766E+22	8,829678E+22	2,917536E+22	1,174721E+23
1222	4,414741E+22	4,414937E+22	1,458813E+22	1,458707E+22	8,829679E+22	2,917520E+22	1,174720E+23
1223	4,414926E+22	4,414984E+22	1,458714E+22	1,458790E+22	8,829910E+22	2,917504E+22	1,174741E+23
1224	4,414851E+22	4,414788E+22	1,458767E+22	1,458740E+22	8,829639E+22	2,917507E+22	1,174715E+23
1225	4,414769E+22	4,414921E+22	1,458810E+22	1,458760E+22	8,829689E+22	2,917570E+22	1,174726E+23
1226	4,414954E+22	4,414807E+22	1,458758E+22	1,458839E+22	8,829761E+22	2,917597E+22	1,174736E+23
1227	4,414772E+22	4,414704E+22	1,458859E+22	1,458801E+22	8,829476E+22	2,917660E+22	1,174714E+23
1228	4,414748E+22	4,414848E+22	1,458867E+22	1,458916E+22	8,829596E+22	2,917783E+22	1,174738E+23
1229	4,414764E+22	4,414646E+22	1,458904E+22	1,458971E+22	8,829410E+22	2,917875E+22	1,174728E+23
1230	4,414524E+22	4,414645E+22	1,459041E+22	1,458943E+22	8,829169E+22	2,917984E+22	1,174715E+23
1231	4,414629E+22	4,414674E+22	1,459009E+22	1,459063E+22	8,829304E+22	2,918072E+22	1,174738E+23
1232	4,414575E+22	4,414418E+22	1,459067E+22	1,459047E+22	8,828993E+22	2,918114E+22	1,174711E+23
1233	4,414394E+22	4,414552E+22	1,459133E+22	1,459042E+22	8,828945E+22	2,918175E+22	1,174712E+23
1234	4,414553E+22	4,414530E+22	1,459038E+22	1,459131E+22	8,829083E+22	2,918170E+22	1,174725E+23
1235	4,414443E+22	4,414405E+22	1,459076E+22	1,459039E+22	8,828848E+22	2,918115E+22	1,174696E+23
1236	4,414461E+22	4,414614E+22	1,459042E+22	1,459042E+22	8,829075E+22	2,918084E+22	1,174716E+23
1237	4,414655E+22	4,414517E+22	1,458965E+22	1,459026E+22	8,829171E+22	2,917991E+22	1,174716E+23
1238	4,414550E+22	4,414571E+22	1,459006E+22	1,458890E+22	8,829120E+22	2,917896E+22	1,174702E+23
1239	4,414686E+22	4,414769E+22	1,458912E+22	1,458937E+22	8,829455E+22	2,917850E+22	1,174730E+23
1240	4,414723E+22	4,414617E+22	1,458878E+22	1,458897E+22	8,829340E+22	2,917775E+22	1,174711E+23
1241	4,414569E+22	4,414754E+22	1,458933E+22	1,458838E+22	8,829323E+22	2,917770E+22	1,174709E+23
1242	4,414753E+22	4,414785E+22	1,458840E+22	1,458922E+22	8,829538E+22	2,917762E+22	1,174730E+23
1243	4,414722E+22	4,414585E+22	1,458879E+22	1,458856E+22	8,829307E+22	2,917735E+22	1,174704E+23
1244	4,414651E+22	4,414749E+22	1,458925E+22	1,458881E+22	8,829400E+22	2,917805E+22	1,174720E+23
1245	4,414760E+22	4,414654E+22	1,458889E+22	1,458978E+22	8,829414E+22	2,917868E+22	1,174728E+23
1246	4,414570E+22	4,414570E+22	1,459003E+22	1,458938E+22	8,829139E+22	2,917941E+22	1,174708E+23
1247	4,414538E+22	4,414695E+22	1,459027E+22	1,459054E+22	8,829233E+22	2,918081E+22	1,174731E+23
1248	4,414562E+22	4,414437E+22	1,459050E+22	1,459113E+22	8,828999E+22	2,918163E+22	1,174716E+23
1249	4,414356E+22	4,414425E+22	1,459190E+22	1,459077E+22	8,828781E+22	2,918267E+22	1,174705E+23
1250	4,414435E+22	4,414470E+22	1,459150E+22	1,459204E+22	8,828905E+22	2,918354E+22	1,174726E+23
1251	4,414395E+22	4,414234E+22	1,459179E+22	1,459185E+22	8,828629E+22	2,918364E+22	1,174699E+23
1252	4,414227E+22	4,414391E+22	1,459234E+22	1,459177E+22	8,828619E+22	2,918411E+22	1,174703E+23
1253	4,414367E+22	4,414363E+22	1,459153E+22	1,459258E+22	8,828730E+22	2,918410E+22	1,174714E+23
1254	4,414317E+22	4,414251E+22	1,459193E+22	1,459134E+22	8,828568E+22	2,918327E+22	1,174689E+23
1255	4,414347E+22	4,414474E+22	1,459164E+22	1,459128E+22	8,828821E+22	2,918292E+22	1,174711E+23
1256	4,414517E+22	4,414370E+22	1,459071E+22	1,459125E+22	8,828887E+22	2,918196E+22	1,174708E+23
1257	4,414396E+22	4,414433E+22	1,459117E+22	1,459000E+22	8,828829E+22	2,918117E+22	1,174695E+23
1258	4,414477E+22	4,414634E+22	1,459028E+22	1,459063E+22	8,829111E+22	2,918091E+22	1,174720E+23
1259	4,414554E+22	4,414453E+22	1,458981E+22	1,459016E+22	8,829006E+22	2,917997E+22	1,174700E+23
1260	4,414440E+22	4,414575E+22	1,459039E+22	1,458952E+22	8,829015E+22	2,917991E+22	1,174701E+23
1261	4,414600E+22	4,414605E+22	1,458964E+22	1,459043E+22	8,829204E+22	2,918007E+22	1,174721E+23
1262	4,414585E+22	4,414425E+22	1,459008E+22	1,458973E+22	8,829011E+22	2,917981E+22	1,174699E+23
1263	4,414473E+22	4,414611E+22	1,459063E+22	1,459016E+22	8,829084E+22	2,918079E+22	1,174716E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1264	4,414551E+22	4,414487E+22	1,459019E+22	1,459132E+22	8,829038E+22	2,918151E+22	1,174719E+23
1265	4,414385E+22	4,414365E+22	1,459150E+22	1,459086E+22	8,828750E+22	2,918236E+22	1,174699E+23
1266	4,414339E+22	4,414486E+22	1,459181E+22	1,459193E+22	8,828825E+22	2,918375E+22	1,174720E+23
1267	4,414404E+22	4,414224E+22	1,459182E+22	1,459240E+22	8,828628E+22	2,918422E+22	1,174705E+23
1268	4,414199E+22	4,414237E+22	1,459312E+22	1,459207E+22	8,828436E+22	2,918519E+22	1,174696E+23
1269	4,414214E+22	4,414304E+22	1,459279E+22	1,459345E+22	8,828518E+22	2,918624E+22	1,174714E+23
1270	4,414197E+22	4,414084E+22	1,459306E+22	1,459312E+22	8,828281E+22	2,918617E+22	1,174690E+23
1271	4,414057E+22	4,414239E+22	1,459365E+22	1,459295E+22	8,828297E+22	2,918660E+22	1,174696E+23
1272	4,414221E+22	4,414182E+22	1,459268E+22	1,459369E+22	8,828404E+22	2,918638E+22	1,174704E+23
1273	4,414209E+22	4,414078E+22	1,459312E+22	1,459235E+22	8,828287E+22	2,918547E+22	1,174683E+23
1274	4,414196E+22	4,414332E+22	1,459280E+22	1,459234E+22	8,828528E+22	2,918515E+22	1,174704E+23
1275	4,414358E+22	4,414241E+22	1,459164E+22	1,459238E+22	8,828599E+22	2,918402E+22	1,174700E+23
1276	4,414237E+22	4,414301E+22	1,459211E+22	1,459121E+22	8,828538E+22	2,918331E+22	1,174687E+23
1277	4,414286E+22	4,414467E+22	1,459144E+22	1,459184E+22	8,828753E+22	2,918328E+22	1,174708E+23
1278	4,414412E+22	4,414283E+22	1,459104E+22	1,459119E+22	8,828695E+22	2,918223E+22	1,174692E+23
1279	4,414314E+22	4,414410E+22	1,459165E+22	1,459060E+22	8,828724E+22	2,918225E+22	1,174695E+23
1280	4,414439E+22	4,414423E+22	1,459083E+22	1,459170E+22	8,828861E+22	2,918253E+22	1,174711E+23
1281	4,414417E+22	4,414260E+22	1,459135E+22	1,459111E+22	8,828678E+22	2,918247E+22	1,174692E+23
1282	4,414260E+22	4,414449E+22	1,459201E+22	1,459159E+22	8,828709E+22	2,918360E+22	1,174707E+23
1283	4,414371E+22	4,414302E+22	1,459150E+22	1,459266E+22	8,828673E+22	2,918416E+22	1,174709E+23
1284	4,414233E+22	4,414174E+22	1,459284E+22	1,459214E+22	8,828407E+22	2,918498E+22	1,174690E+23
1285	4,414144E+22	4,414290E+22	1,459330E+22	1,459326E+22	8,828434E+22	2,918656E+22	1,174709E+23
1286	4,414219E+22	4,414053E+22	1,459328E+22	1,459371E+22	8,828273E+22	2,918699E+22	1,174697E+23
1287	4,413998E+22	4,414080E+22	1,459451E+22	1,459352E+22	8,828078E+22	2,918802E+22	1,174688E+23
1288	4,414003E+22	4,414112E+22	1,459404E+22	1,459495E+22	8,828116E+22	2,918899E+22	1,174702E+23
1289	4,414047E+22	4,413882E+22	1,459435E+22	1,459442E+22	8,827929E+22	2,918877E+22	1,174681E+23
1290	4,413911E+22	4,414059E+22	1,459490E+22	1,459406E+22	8,827970E+22	2,918896E+22	1,174687E+23
1291	4,414111E+22	4,414021E+22	1,459371E+22	1,459467E+22	8,828132E+22	2,918838E+22	1,174697E+23
1292	4,414082E+22	4,413951E+22	1,459407E+22	1,459336E+22	8,828034E+22	2,918743E+22	1,174678E+23
1293	4,413991E+22	4,414219E+22	1,459390E+22	1,459347E+22	8,828210E+22	2,918737E+22	1,174695E+23
1294	4,414169E+22	4,414121E+22	1,459277E+22	1,459343E+22	8,828290E+22	2,918620E+22	1,174691E+23
1295	4,414070E+22	4,414149E+22	1,459330E+22	1,459230E+22	8,828219E+22	2,918560E+22	1,174678E+23
1296	4,414134E+22	4,414272E+22	1,459257E+22	1,459297E+22	8,828407E+22	2,918554E+22	1,174696E+23
1297	4,414302E+22	4,414085E+22	1,459223E+22	1,459235E+22	8,828387E+22	2,918458E+22	1,174684E+23
1298	4,414161E+22	4,414248E+22	1,459285E+22	1,459185E+22	8,828409E+22	2,918470E+22	1,174688E+23
1299	4,414281E+22	4,414272E+22	1,459188E+22	1,459304E+22	8,828553E+22	2,918492E+22	1,174705E+23
1300	4,414253E+22	4,414108E+22	1,459249E+22	1,459247E+22	8,828361E+22	2,918496E+22	1,174686E+23
1301	4,414059E+22	4,414272E+22	1,459345E+22	1,459291E+22	8,828330E+22	2,918635E+22	1,174697E+23
1302	4,414198E+22	4,414124E+22	1,459302E+22	1,459383E+22	8,828322E+22	2,918685E+22	1,174701E+23
1303	4,414059E+22	4,413997E+22	1,459438E+22	1,459345E+22	8,828056E+22	2,918783E+22	1,174684E+23
1304	4,413927E+22	4,414090E+22	1,459473E+22	1,459476E+22	8,828017E+22	2,918949E+22	1,174697E+23
1305	4,414013E+22	4,413860E+22	1,459470E+22	1,459528E+22	8,827873E+22	2,918998E+22	1,174687E+23
1306	4,413784E+22	4,413894E+22	1,459586E+22	1,459500E+22	8,827678E+22	2,919086E+22	1,174676E+23
1307	4,413851E+22	4,413916E+22	1,459521E+22	1,459624E+22	8,827767E+22	2,919144E+22	1,174691E+23
1308	4,413935E+22	4,413716E+22	1,459543E+22	1,459552E+22	8,827651E+22	2,919095E+22	1,174675E+23
1309	4,413763E+22	4,413905E+22	1,459610E+22	1,459510E+22	8,827669E+22	2,919120E+22	1,174679E+23
1310	4,413951E+22	4,413909E+22	1,459488E+22	1,459565E+22	8,827860E+22	2,919053E+22	1,174691E+23
1311	4,413901E+22	4,413847E+22	1,459519E+22	1,459452E+22	8,827747E+22	2,918970E+22	1,174672E+23
1312	4,413785E+22	4,414047E+22	1,459500E+22	1,459471E+22	8,827832E+22	2,918971E+22	1,174680E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1313	4,414023E+22	4,413923E+22	1,459395E+22	1,459457E+22	8,827946E+22	2,918853E+22	1,174680E+23
1314	4,413937E+22	4,413960E+22	1,459443E+22	1,459335E+22	8,827897E+22	2,918778E+22	1,174668E+23
1315	4,414033E+22	4,414091E+22	1,459353E+22	1,459403E+22	8,828124E+22	2,918756E+22	1,174688E+23
1316	4,414179E+22	4,413952E+22	1,459316E+22	1,459348E+22	8,828131E+22	2,918665E+22	1,174680E+23
1317	4,413964E+22	4,414123E+22	1,459402E+22	1,459311E+22	8,828087E+22	2,918713E+22	1,174680E+23
1318	4,414089E+22	4,414147E+22	1,459323E+22	1,459421E+22	8,828236E+22	2,918743E+22	1,174698E+23
1319	4,414071E+22	4,413958E+22	1,459397E+22	1,459375E+22	8,828029E+22	2,918771E+22	1,174680E+23
1320	4,413862E+22	4,414063E+22	1,459496E+22	1,459427E+22	8,827925E+22	2,918923E+22	1,174685E+23
1321	4,414028E+22	4,413907E+22	1,459458E+22	1,459528E+22	8,827935E+22	2,918986E+22	1,174692E+23
1322	4,413848E+22	4,413803E+22	1,459583E+22	1,459501E+22	8,827651E+22	2,919084E+22	1,174674E+23
1323	4,413737E+22	4,413891E+22	1,459593E+22	1,459636E+22	8,827628E+22	2,919229E+22	1,174686E+23
1324	4,413846E+22	4,413668E+22	1,459585E+22	1,459674E+22	8,827514E+22	2,919259E+22	1,174677E+23
1325	4,413614E+22	4,413706E+22	1,459715E+22	1,459627E+22	8,827320E+22	2,919342E+22	1,174666E+23
1326	4,413720E+22	4,413760E+22	1,459649E+22	1,459720E+22	8,827480E+22	2,919369E+22	1,174685E+23
1327	4,413792E+22	4,413587E+22	1,459668E+22	1,459655E+22	8,827379E+22	2,919323E+22	1,174670E+23
1328	4,413565E+22	4,413761E+22	1,459729E+22	1,459625E+22	8,827326E+22	2,919354E+22	1,174668E+23
1329	4,413759E+22	4,413756E+22	1,459609E+22	1,459684E+22	8,827515E+22	2,919294E+22	1,174681E+23
1330	4,413700E+22	4,413685E+22	1,459636E+22	1,459569E+22	8,827385E+22	2,919205E+22	1,174659E+23
1331	4,413651E+22	4,413853E+22	1,459598E+22	1,459581E+22	8,827504E+22	2,919179E+22	1,174668E+23
1332	4,413923E+22	4,413751E+22	1,459488E+22	1,459559E+22	8,827674E+22	2,919047E+22	1,174672E+23
1333	4,413808E+22	4,413808E+22	1,459547E+22	1,459443E+22	8,827616E+22	2,918990E+22	1,174661E+23
1334	4,413889E+22	4,413981E+22	1,459463E+22	1,459509E+22	8,827870E+22	2,918972E+22	1,174684E+23
1335	4,414005E+22	4,413853E+22	1,459434E+22	1,459476E+22	8,827858E+22	2,918910E+22	1,174677E+23
1336	4,413758E+22	4,413952E+22	1,459536E+22	1,459446E+22	8,827710E+22	2,918982E+22	1,174669E+23
1337	4,413918E+22	4,413945E+22	1,459475E+22	1,459551E+22	8,827864E+22	2,919026E+22	1,174689E+23
1338	4,413892E+22	4,413757E+22	1,459548E+22	1,459508E+22	8,827649E+22	2,919056E+22	1,174671E+23
1339	4,413699E+22	4,413844E+22	1,459628E+22	1,459572E+22	8,827542E+22	2,919200E+22	1,174674E+23
1340	4,413846E+22	4,413727E+22	1,459580E+22	1,459679E+22	8,827573E+22	2,919259E+22	1,174683E+23
1341	4,413631E+22	4,413622E+22	1,459712E+22	1,459653E+22	8,827253E+22	2,919365E+22	1,174662E+23
1342	4,413549E+22	4,413720E+22	1,459728E+22	1,459763E+22	8,827270E+22	2,919491E+22	1,174676E+23
1343	4,413691E+22	4,413515E+22	1,459719E+22	1,459795E+22	8,827206E+22	2,919515E+22	1,174672E+23
1344	4,413449E+22	4,413517E+22	1,459852E+22	1,459744E+22	8,826966E+22	2,919596E+22	1,174656E+23
1345	4,413569E+22	4,413588E+22	1,459792E+22	1,459836E+22	8,827158E+22	2,919628E+22	1,174679E+23
1346	4,413592E+22	4,413449E+22	1,459796E+22	1,459778E+22	8,827042E+22	2,919574E+22	1,174662E+23
1347	4,413379E+22	4,413592E+22	1,459831E+22	1,459756E+22	8,826971E+22	2,919587E+22	1,174656E+23
1348	4,413598E+22	4,413585E+22	1,459706E+22	1,459801E+22	8,827183E+22	2,919507E+22	1,174669E+23
1349	4,413552E+22	4,413503E+22	1,459740E+22	1,459675E+22	8,827055E+22	2,919415E+22	1,174647E+23
1350	4,413545E+22	4,413701E+22	1,459702E+22	1,459668E+22	8,827246E+22	2,919370E+22	1,174662E+23
1351	4,413805E+22	4,413640E+22	1,459592E+22	1,459662E+22	8,827445E+22	2,919253E+22	1,174670E+23
1352	4,413631E+22	4,413677E+22	1,459657E+22	1,459562E+22	8,827308E+22	2,919220E+22	1,174653E+23
1353	4,413714E+22	4,413840E+22	1,459592E+22	1,459632E+22	8,827553E+22	2,919224E+22	1,174678E+23
1354	4,413807E+22	4,413699E+22	1,459571E+22	1,459600E+22	8,827507E+22	2,919171E+22	1,174668E+23
1355	4,413607E+22	4,413748E+22	1,459663E+22	1,459576E+22	8,827355E+22	2,919239E+22	1,174659E+23
1356	4,413774E+22	4,413745E+22	1,459602E+22	1,459678E+22	8,827519E+22	2,919280E+22	1,174680E+23
1357	4,413709E+22	4,413565E+22	1,459684E+22	1,459650E+22	8,827274E+22	2,919334E+22	1,174661E+23
1358	4,413511E+22	4,413680E+22	1,459758E+22	1,459712E+22	8,827191E+22	2,919470E+22	1,174666E+23
1359	4,413645E+22	4,413570E+22	1,459711E+22	1,459831E+22	8,827215E+22	2,919542E+22	1,174676E+23
1360	4,413427E+22	4,413415E+22	1,459853E+22	1,459797E+22	8,826842E+22	2,919650E+22	1,174649E+23
1361	4,413400E+22	4,413512E+22	1,459880E+22	1,459888E+22	8,826912E+22	2,919768E+22	1,174668E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1362	4,413523E+22	4,413343E+22	1,459867E+22	1,459912E+22	8,826866E+22	2,919780E+22	1,174665E+23
1363	4,413290E+22	4,413340E+22	1,459975E+22	1,459871E+22	8,826630E+22	2,919846E+22	1,174648E+23
1364	4,413377E+22	4,413443E+22	1,459904E+22	1,459961E+22	8,826820E+22	2,919864E+22	1,174668E+23
1365	4,413374E+22	4,413296E+22	1,459911E+22	1,459907E+22	8,826670E+22	2,919819E+22	1,174649E+23
1366	4,413208E+22	4,413430E+22	1,459942E+22	1,459863E+22	8,826638E+22	2,919805E+22	1,174644E+23
1367	4,413465E+22	4,413437E+22	1,459812E+22	1,459907E+22	8,826902E+22	2,919719E+22	1,174662E+23
1368	4,413422E+22	4,413325E+22	1,459849E+22	1,459781E+22	8,826747E+22	2,919630E+22	1,174638E+23
1369	4,413431E+22	4,413548E+22	1,459819E+22	1,459775E+22	8,826979E+22	2,919595E+22	1,174657E+23
1370	4,413639E+22	4,413528E+22	1,459705E+22	1,459778E+22	8,827167E+22	2,919484E+22	1,174665E+23
1371	4,413475E+22	4,413517E+22	1,459761E+22	1,459691E+22	8,826992E+22	2,919453E+22	1,174644E+23
1372	4,413559E+22	4,413672E+22	1,459706E+22	1,459747E+22	8,827230E+22	2,919454E+22	1,174668E+23
1373	4,413647E+22	4,413513E+22	1,459698E+22	1,459718E+22	8,827160E+22	2,919416E+22	1,174658E+23
1374	4,413457E+22	4,413567E+22	1,459794E+22	1,459688E+22	8,827024E+22	2,919482E+22	1,174651E+23
1375	4,413597E+22	4,413599E+22	1,459731E+22	1,459811E+22	8,827196E+22	2,919543E+22	1,174674E+23
1376	4,413484E+22	4,413383E+22	1,459819E+22	1,459802E+22	8,826866E+22	2,919621E+22	1,174649E+23
1377	4,413312E+22	4,413487E+22	1,459907E+22	1,459859E+22	8,826799E+22	2,919767E+22	1,174657E+23
1378	4,413445E+22	4,413388E+22	1,459863E+22	1,459968E+22	8,826833E+22	2,919831E+22	1,174666E+23
1379	4,413280E+22	4,413201E+22	1,459988E+22	1,459934E+22	8,826481E+22	2,919922E+22	1,174640E+23
1380	4,413255E+22	4,413328E+22	1,460012E+22	1,460011E+22	8,826583E+22	2,920023E+22	1,174661E+23
1381	4,413335E+22	4,413183E+22	1,459999E+22	1,460046E+22	8,826518E+22	2,920045E+22	1,174656E+23
1382	4,413094E+22	4,413201E+22	1,460095E+22	1,459999E+22	8,826295E+22	2,920094E+22	1,174639E+23
1383	4,413178E+22	4,413305E+22	1,460018E+22	1,460091E+22	8,826483E+22	2,920109E+22	1,174659E+23
1384	4,413187E+22	4,413098E+22	1,460030E+22	1,460030E+22	8,826285E+22	2,920060E+22	1,174634E+23
1385	4,413094E+22	4,413231E+22	1,460063E+22	1,459966E+22	8,826326E+22	2,920030E+22	1,174636E+23
1386	4,413339E+22	4,413283E+22	1,459929E+22	1,460004E+22	8,826622E+22	2,919933E+22	1,174656E+23
1387	4,413309E+22	4,413176E+22	1,459942E+22	1,459893E+22	8,826485E+22	2,919834E+22	1,174632E+23
1388	4,413287E+22	4,413424E+22	1,459912E+22	1,459881E+22	8,826711E+22	2,919793E+22	1,174650E+23
1389	4,413453E+22	4,413398E+22	1,459815E+22	1,459891E+22	8,826851E+22	2,919706E+22	1,174656E+23
1390	4,413317E+22	4,413373E+22	1,459877E+22	1,459793E+22	8,826690E+22	2,919671E+22	1,174636E+23
1391	4,413401E+22	4,413522E+22	1,459830E+22	1,459858E+22	8,826922E+22	2,919688E+22	1,174661E+23
1392	4,413467E+22	4,413318E+22	1,459836E+22	1,459847E+22	8,826785E+22	2,919683E+22	1,174647E+23
1393	4,413290E+22	4,413377E+22	1,459937E+22	1,459828E+22	8,826667E+22	2,919765E+22	1,174643E+23
1394	4,413381E+22	4,413435E+22	1,459872E+22	1,459963E+22	8,826816E+22	2,919836E+22	1,174665E+23
1395	4,413301E+22	4,413172E+22	1,459944E+22	1,459962E+22	8,826473E+22	2,919906E+22	1,174638E+23
1396	4,413153E+22	4,413277E+22	1,460037E+22	1,459996E+22	8,826431E+22	2,920033E+22	1,174646E+23
1397	4,413282E+22	4,413194E+22	1,460004E+22	1,460099E+22	8,826477E+22	2,920103E+22	1,174658E+23
1398	4,413127E+22	4,413035E+22	1,460124E+22	1,460054E+22	8,826162E+22	2,920178E+22	1,174634E+23
1399	4,413063E+22	4,413200E+22	1,460143E+22	1,460141E+22	8,826264E+22	2,920284E+22	1,174655E+23
1400	4,413101E+22	4,413016E+22	1,460134E+22	1,460186E+22	8,826117E+22	2,920320E+22	1,174644E+23
1401	4,412899E+22	4,413013E+22	1,460232E+22	1,460129E+22	8,825912E+22	2,920360E+22	1,174627E+23
1402	4,412998E+22	4,413129E+22	1,460148E+22	1,460206E+22	8,826126E+22	2,920354E+22	1,174648E+23
1403	4,413075E+22	4,412890E+22	1,460134E+22	1,460144E+22	8,825964E+22	2,920279E+22	1,174624E+23
1404	4,412996E+22	4,413065E+22	1,460161E+22	1,460066E+22	8,826062E+22	2,920227E+22	1,174629E+23
1405	4,413200E+22	4,413159E+22	1,460028E+22	1,460113E+22	8,826359E+22	2,920141E+22	1,174650E+23
1406	4,413153E+22	4,413070E+22	1,460036E+22	1,459998E+22	8,826224E+22	2,920034E+22	1,174626E+23
1407	4,413117E+22	4,413317E+22	1,460015E+22	1,459988E+22	8,826434E+22	2,920003E+22	1,174644E+23
1408	4,413273E+22	4,413223E+22	1,459940E+22	1,460000E+22	8,826496E+22	2,919939E+22	1,174644E+23
1409	4,413177E+22	4,413183E+22	1,460015E+22	1,459902E+22	8,826360E+22	2,919917E+22	1,174628E+23
1410	4,413226E+22	4,413357E+22	1,459969E+22	1,459978E+22	8,826583E+22	2,919946E+22	1,174653E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1411	4,413294E+22	4,413128E+22	1,459954E+22	1,459996E+22	8,826422E+22	2,919950E+22	1,174637E+23
1412	4,413108E+22	4,413197E+22	1,460053E+22	1,459973E+22	8,826305E+22	2,920027E+22	1,174633E+23
1413	4,413186E+22	4,413249E+22	1,460003E+22	1,460109E+22	8,826435E+22	2,920112E+22	1,174655E+23
1414	4,413145E+22	4,412993E+22	1,460075E+22	1,460089E+22	8,826139E+22	2,920164E+22	1,174630E+23
1415	4,413005E+22	4,413118E+22	1,460172E+22	1,460119E+22	8,826123E+22	2,920291E+22	1,174641E+23
1416	4,413096E+22	4,413011E+22	1,460156E+22	1,460232E+22	8,826107E+22	2,920389E+22	1,174650E+23
1417	4,412940E+22	4,412868E+22	1,460277E+22	1,460195E+22	8,825808E+22	2,920471E+22	1,174628E+23
1418	4,412826E+22	4,413045E+22	1,460289E+22	1,460284E+22	8,825870E+22	2,920573E+22	1,174644E+23
1419	4,412910E+22	4,412802E+22	1,460257E+22	1,460333E+22	8,825711E+22	2,920591E+22	1,174630E+23
1420	4,412760E+22	4,412795E+22	1,460343E+22	1,460245E+22	8,825555E+22	2,920588E+22	1,174614E+23
1421	4,412865E+22	4,412938E+22	1,460260E+22	1,460314E+22	8,825803E+22	2,920574E+22	1,174638E+23
1422	4,412960E+22	4,412757E+22	1,460230E+22	1,460240E+22	8,825717E+22	2,920470E+22	1,174619E+23
1423	4,412850E+22	4,412976E+22	1,460252E+22	1,460168E+22	8,825826E+22	2,920420E+22	1,174625E+23
1424	4,413002E+22	4,413038E+22	1,460140E+22	1,460224E+22	8,826041E+22	2,920364E+22	1,174640E+23
1425	4,412985E+22	4,412929E+22	1,460160E+22	1,460104E+22	8,825914E+22	2,920264E+22	1,174618E+23
1426	4,412936E+22	4,413168E+22	1,460147E+22	1,460091E+22	8,826104E+22	2,920238E+22	1,174634E+23
1427	4,413134E+22	4,413020E+22	1,460056E+22	1,460122E+22	8,826154E+22	2,920178E+22	1,174633E+23
1428	4,413045E+22	4,412989E+22	1,460128E+22	1,460027E+22	8,826033E+22	2,920154E+22	1,174619E+23
1429	4,413051E+22	4,413188E+22	1,460086E+22	1,460120E+22	8,826240E+22	2,920206E+22	1,174645E+23
1430	4,413121E+22	4,412973E+22	1,460064E+22	1,460137E+22	8,826094E+22	2,920201E+22	1,174630E+23
1431	4,412942E+22	4,413041E+22	1,460171E+22	1,460107E+22	8,825984E+22	2,920278E+22	1,174626E+23
1432	4,413014E+22	4,413050E+22	1,460149E+22	1,460237E+22	8,826064E+22	2,920386E+22	1,174645E+23
1433	4,412998E+22	4,412808E+22	1,460233E+22	1,460211E+22	8,825806E+22	2,920444E+22	1,174625E+23
1434	4,412808E+22	4,412967E+22	1,460333E+22	1,460247E+22	8,825776E+22	2,920580E+22	1,174636E+23
1435	4,412887E+22	4,412823E+22	1,460295E+22	1,460386E+22	8,825710E+22	2,920681E+22	1,174639E+23
1436	4,412725E+22	4,412677E+22	1,460408E+22	1,460341E+22	8,825402E+22	2,920749E+22	1,174615E+23
1437	4,412617E+22	4,412845E+22	1,460419E+22	1,460422E+22	8,825461E+22	2,920841E+22	1,174630E+23
1438	4,412754E+22	4,412611E+22	1,460369E+22	1,460450E+22	8,825365E+22	2,920820E+22	1,174618E+23
1439	4,412639E+22	4,412640E+22	1,460446E+22	1,460351E+22	8,825279E+22	2,920797E+22	1,174608E+23
1440	4,412721E+22	4,412781E+22	1,460377E+22	1,460423E+22	8,825502E+22	2,920800E+22	1,174630E+23
1441	4,412810E+22	4,412642E+22	1,460346E+22	1,460350E+22	8,825452E+22	2,920696E+22	1,174615E+23
1442	4,412658E+22	4,412872E+22	1,460370E+22	1,460277E+22	8,825530E+22	2,920647E+22	1,174618E+23
1443	4,412838E+22	4,412861E+22	1,460249E+22	1,460340E+22	8,825699E+22	2,920589E+22	1,174629E+23
1444	4,412855E+22	4,412738E+22	1,460269E+22	1,460208E+22	8,825593E+22	2,920477E+22	1,174607E+23
1445	4,412794E+22	4,412982E+22	1,460262E+22	1,460202E+22	8,825776E+22	2,920464E+22	1,174624E+23
1446	4,412992E+22	4,412867E+22	1,460160E+22	1,460239E+22	8,825859E+22	2,920399E+22	1,174626E+23
1447	4,412883E+22	4,412863E+22	1,460227E+22	1,460153E+22	8,825746E+22	2,920380E+22	1,174613E+23
1448	4,412854E+22	4,413021E+22	1,460214E+22	1,460255E+22	8,825875E+22	2,920469E+22	1,174634E+23
1449	4,412955E+22	4,412809E+22	1,460206E+22	1,460263E+22	8,825764E+22	2,920469E+22	1,174623E+23
1450	4,412766E+22	4,412878E+22	1,460325E+22	1,460228E+22	8,825644E+22	2,920554E+22	1,174620E+23
1451	4,412853E+22	4,412845E+22	1,460297E+22	1,460376E+22	8,825698E+22	2,920674E+22	1,174637E+23
1452	4,412827E+22	4,412616E+22	1,460377E+22	1,460354E+22	8,825444E+22	2,920731E+22	1,174617E+23
1453	4,412578E+22	4,412786E+22	1,460475E+22	1,460406E+22	8,825365E+22	2,920881E+22	1,174625E+23
1454	4,412666E+22	4,412645E+22	1,460420E+22	1,460537E+22	8,825311E+22	2,920957E+22	1,174627E+23
1455	4,412542E+22	4,412486E+22	1,460525E+22	1,460475E+22	8,825029E+22	2,920999E+22	1,174603E+23
1456	4,412452E+22	4,412624E+22	1,460553E+22	1,460544E+22	8,825076E+22	2,921096E+22	1,174617E+23
1457	4,412628E+22	4,412441E+22	1,460498E+22	1,460558E+22	8,825069E+22	2,921056E+22	1,174613E+23
1458	4,412480E+22	4,412521E+22	1,460570E+22	1,460458E+22	8,825001E+22	2,921028E+22	1,174603E+23
1459	4,412554E+22	4,412636E+22	1,460485E+22	1,460546E+22	8,825190E+22	2,921031E+22	1,174622E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1460	4,412643E+22	4,412496E+22	1,460452E+22	1,460461E+22	8,825140E+22	2,920913E+22	1,174605E+23
1461	4,412486E+22	4,412712E+22	1,460483E+22	1,460385E+22	8,825198E+22	2,920868E+22	1,174607E+23
1462	4,412699E+22	4,412700E+22	1,460350E+22	1,460438E+22	8,825399E+22	2,920788E+22	1,174619E+23
1463	4,412733E+22	4,412589E+22	1,460368E+22	1,460311E+22	8,825323E+22	2,920679E+22	1,174600E+23
1464	4,412639E+22	4,412815E+22	1,460382E+22	1,460323E+22	8,825454E+22	2,920705E+22	1,174616E+23
1465	4,412824E+22	4,412734E+22	1,460282E+22	1,460369E+22	8,825558E+22	2,920650E+22	1,174621E+23
1466	4,412695E+22	4,412731E+22	1,460356E+22	1,460284E+22	8,825426E+22	2,920640E+22	1,174607E+23
1467	4,412696E+22	4,412813E+22	1,460343E+22	1,460390E+22	8,825509E+22	2,920733E+22	1,174624E+23
1468	4,412815E+22	4,412606E+22	1,460342E+22	1,460385E+22	8,825420E+22	2,920727E+22	1,174615E+23
1469	4,412596E+22	4,412692E+22	1,460470E+22	1,460360E+22	8,825288E+22	2,920830E+22	1,174612E+23
1470	4,412656E+22	4,412680E+22	1,460430E+22	1,460515E+22	8,825336E+22	2,920945E+22	1,174628E+23
1471	4,412611E+22	4,412465E+22	1,460504E+22	1,460502E+22	8,825076E+22	2,921006E+22	1,174608E+23
1472	4,412344E+22	4,412580E+22	1,460622E+22	1,460556E+22	8,824925E+22	2,921178E+22	1,174610E+23
1473	4,412475E+22	4,412448E+22	1,460565E+22	1,460670E+22	8,824924E+22	2,921234E+22	1,174616E+23
1474	4,412378E+22	4,412306E+22	1,460663E+22	1,460595E+22	8,824685E+22	2,921258E+22	1,174594E+23
1475	4,412320E+22	4,412415E+22	1,460677E+22	1,460670E+22	8,824735E+22	2,921347E+22	1,174608E+23
1476	4,412494E+22	4,412283E+22	1,460615E+22	1,460678E+22	8,824777E+22	2,921292E+22	1,174607E+23
1477	4,412301E+22	4,412390E+22	1,460682E+22	1,460584E+22	8,824690E+22	2,921266E+22	1,174596E+23
1478	4,412379E+22	4,412501E+22	1,460586E+22	1,460658E+22	8,824879E+22	2,921245E+22	1,174612E+23
1479	4,412498E+22	4,412350E+22	1,460549E+22	1,460559E+22	8,824848E+22	2,921109E+22	1,174596E+23
1480	4,412338E+22	4,412524E+22	1,460603E+22	1,460485E+22	8,824862E+22	2,921088E+22	1,174595E+23
1481	4,412562E+22	4,412555E+22	1,460469E+22	1,460538E+22	8,825117E+22	2,921008E+22	1,174612E+23
1482	4,412566E+22	4,412468E+22	1,460485E+22	1,460426E+22	8,825033E+22	2,920912E+22	1,174594E+23
1483	4,412464E+22	4,412645E+22	1,460494E+22	1,460461E+22	8,825109E+22	2,920955E+22	1,174606E+23
1484	4,412664E+22	4,412561E+22	1,460399E+22	1,460496E+22	8,825225E+22	2,920895E+22	1,174612E+23
1485	4,412526E+22	4,412547E+22	1,460483E+22	1,460411E+22	8,825074E+22	2,920894E+22	1,174597E+23
1486	4,412548E+22	4,412636E+22	1,460466E+22	1,460508E+22	8,825184E+22	2,920974E+22	1,174616E+23
1487	4,412667E+22	4,412444E+22	1,460467E+22	1,460510E+22	8,825112E+22	2,920977E+22	1,174609E+23
1488	4,412393E+22	4,412509E+22	1,460620E+22	1,460507E+22	8,824902E+22	2,921126E+22	1,174603E+23
1489	4,412431E+22	4,412526E+22	1,460578E+22	1,460664E+22	8,824956E+22	2,921243E+22	1,174620E+23
1490	4,412384E+22	4,412289E+22	1,460653E+22	1,460651E+22	8,824673E+22	2,921304E+22	1,174598E+23
1491	4,412169E+22	4,412328E+22	1,460762E+22	1,460703E+22	8,824498E+22	2,921464E+22	1,174596E+23
1492	4,412342E+22	4,412222E+22	1,460699E+22	1,460795E+22	8,824564E+22	2,921494E+22	1,174606E+23
1493	4,412230E+22	4,412129E+22	1,460791E+22	1,460720E+22	8,824359E+22	2,921511E+22	1,174587E+23
1494	4,412162E+22	4,412280E+22	1,460786E+22	1,460790E+22	8,824441E+22	2,921575E+22	1,174602E+23
1495	4,412318E+22	4,412176E+22	1,460716E+22	1,460792E+22	8,824494E+22	2,921509E+22	1,174600E+23
1496	4,412108E+22	4,412237E+22	1,460806E+22	1,460698E+22	8,824345E+22	2,921504E+22	1,174585E+23
1497	4,412206E+22	4,412357E+22	1,460711E+22	1,460755E+22	8,824563E+22	2,921465E+22	1,174603E+23
1498	4,412344E+22	4,412207E+22	1,460673E+22	1,460659E+22	8,824551E+22	2,921332E+22	1,174588E+23
1499	4,412208E+22	4,412322E+22	1,460714E+22	1,460604E+22	8,824530E+22	2,921318E+22	1,174585E+23
1500	4,412420E+22	4,412389E+22	1,460576E+22	1,460662E+22	8,824809E+22	2,921238E+22	1,174605E+23
1501	4,412394E+22	4,412323E+22	1,460588E+22	1,460560E+22	8,824717E+22	2,921148E+22	1,174587E+23
1502	4,412313E+22	4,412480E+22	1,460592E+22	1,460582E+22	8,824794E+22	2,921173E+22	1,174597E+23
1503	4,412536E+22	4,412401E+22	1,460505E+22	1,460602E+22	8,824938E+22	2,921107E+22	1,174604E+23
1504	4,412382E+22	4,412361E+22	1,460621E+22	1,460524E+22	8,824743E+22	2,921145E+22	1,174589E+23
1505	4,412373E+22	4,412493E+22	1,460613E+22	1,460623E+22	8,824866E+22	2,921236E+22	1,174610E+23
1506	4,412451E+22	4,412313E+22	1,460617E+22	1,460649E+22	8,824764E+22	2,921266E+22	1,174603E+23
1507	4,412169E+22	4,412297E+22	1,460765E+22	1,460669E+22	8,824466E+22	2,921433E+22	1,174590E+23
1508	4,412228E+22	4,412305E+22	1,460724E+22	1,460814E+22	8,824534E+22	2,921538E+22	1,174607E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1509	4,412198E+22	4,412070E+22	1,460794E+22	1,460796E+22	8,824269E+22	2,921590E+22	1,174586E+23
1510	4,412027E+22	4,412122E+22	1,460884E+22	1,460833E+22	8,824149E+22	2,921717E+22	1,174587E+23
1511	4,412210E+22	4,412064E+22	1,460815E+22	1,460918E+22	8,824274E+22	2,921733E+22	1,174601E+23
1512	4,412052E+22	4,411979E+22	1,460923E+22	1,460854E+22	8,824031E+22	2,921776E+22	1,174581E+23
1513	4,411961E+22	4,412171E+22	1,460914E+22	1,460910E+22	8,824133E+22	2,921824E+22	1,174596E+23
1514	4,412125E+22	4,412042E+22	1,460845E+22	1,460906E+22	8,824167E+22	2,921752E+22	1,174592E+23
1515	4,411949E+22	4,412020E+22	1,460927E+22	1,460813E+22	8,823969E+22	2,921741E+22	1,174571E+23
1516	4,412076E+22	4,412161E+22	1,460825E+22	1,460857E+22	8,824238E+22	2,921682E+22	1,174592E+23
1517	4,412192E+22	4,412041E+22	1,460779E+22	1,460774E+22	8,824233E+22	2,921552E+22	1,174578E+23
1518	4,412061E+22	4,412177E+22	1,460800E+22	1,460722E+22	8,824238E+22	2,921522E+22	1,174576E+23
1519	4,412276E+22	4,412262E+22	1,460663E+22	1,460772E+22	8,824538E+22	2,921435E+22	1,174597E+23
1520	4,412238E+22	4,412164E+22	1,460704E+22	1,460671E+22	8,824402E+22	2,921375E+22	1,174578E+23
1521	4,412165E+22	4,412348E+22	1,460717E+22	1,460676E+22	8,824513E+22	2,921393E+22	1,174591E+23
1522	4,412383E+22	4,412266E+22	1,460643E+22	1,460709E+22	8,824649E+22	2,921352E+22	1,174600E+23
1523	4,412214E+22	4,412164E+22	1,460764E+22	1,460664E+22	8,824378E+22	2,921428E+22	1,174581E+23
1524	4,412173E+22	4,412315E+22	1,460757E+22	1,460774E+22	8,824488E+22	2,921530E+22	1,174602E+23
1525	4,412219E+22	4,412128E+22	1,460759E+22	1,460814E+22	8,824347E+22	2,921573E+22	1,174592E+23
1526	4,411983E+22	4,412072E+22	1,460890E+22	1,460821E+22	8,824055E+22	2,921711E+22	1,174577E+23
1527	4,412083E+22	4,412092E+22	1,460847E+22	1,460944E+22	8,824175E+22	2,921791E+22	1,174597E+23
1528	4,412051E+22	4,411867E+22	1,460933E+22	1,460925E+22	8,823918E+22	2,921859E+22	1,174578E+23
1529	4,411859E+22	4,411986E+22	1,461021E+22	1,460952E+22	8,823846E+22	2,921973E+22	1,174582E+23
1530	4,412010E+22	4,411959E+22	1,460954E+22	1,461047E+22	8,823969E+22	2,922002E+22	1,174597E+23
1531	4,411848E+22	4,411802E+22	1,461055E+22	1,460992E+22	8,823650E+22	2,922046E+22	1,174570E+23
1532	4,411773E+22	4,411983E+22	1,461045E+22	1,461027E+22	8,823756E+22	2,922072E+22	1,174583E+23
1533	4,411951E+22	4,411858E+22	1,460967E+22	1,461019E+22	8,823809E+22	2,921985E+22	1,174579E+23
1534	4,411824E+22	4,411823E+22	1,461023E+22	1,460920E+22	8,823647E+22	2,921943E+22	1,174559E+23
1535	4,411959E+22	4,412008E+22	1,460914E+22	1,460960E+22	8,823967E+22	2,921874E+22	1,174584E+23
1536	4,412038E+22	4,411905E+22	1,460880E+22	1,460893E+22	8,823943E+22	2,921773E+22	1,174572E+23
1537	4,411897E+22	4,412073E+22	1,460903E+22	1,460828E+22	8,823970E+22	2,921731E+22	1,174570E+23
1538	4,412125E+22	4,412139E+22	1,460782E+22	1,460875E+22	8,824264E+22	2,921658E+22	1,174592E+23
1539	4,412102E+22	4,411968E+22	1,460829E+22	1,460782E+22	8,824070E+22	2,921612E+22	1,174568E+23
1540	4,412024E+22	4,412171E+22	1,460852E+22	1,460785E+22	8,824195E+22	2,921637E+22	1,174583E+23
1541	4,412190E+22	4,412111E+22	1,460780E+22	1,460844E+22	8,824301E+22	2,921624E+22	1,174593E+23
1542	4,412012E+22	4,411991E+22	1,460885E+22	1,460816E+22	8,824003E+22	2,921701E+22	1,174570E+23
1543	4,411975E+22	4,412135E+22	1,460879E+22	1,460919E+22	8,824110E+22	2,921798E+22	1,174591E+23
1544	4,412022E+22	4,411915E+22	1,460902E+22	1,460962E+22	8,823937E+22	2,921864E+22	1,174580E+23
1545	4,411817E+22	4,411893E+22	1,461029E+22	1,460946E+22	8,823710E+22	2,921975E+22	1,174568E+23
1546	4,411934E+22	4,411924E+22	1,460993E+22	1,461071E+22	8,823858E+22	2,922064E+22	1,174592E+23
1547	4,411881E+22	4,411671E+22	1,461076E+22	1,461070E+22	8,823553E+22	2,922146E+22	1,174570E+23
1548	4,411669E+22	4,411831E+22	1,461159E+22	1,461091E+22	8,823499E+22	2,922250E+22	1,174575E+23
1549	4,411789E+22	4,411797E+22	1,461090E+22	1,461186E+22	8,823586E+22	2,922276E+22	1,174586E+23
1550	4,411674E+22	4,411600E+22	1,461170E+22	1,461116E+22	8,823274E+22	2,922286E+22	1,174556E+23
1551	4,411637E+22	4,411791E+22	1,461150E+22	1,461126E+22	8,823428E+22	2,922276E+22	1,174570E+23
1552	4,411804E+22	4,411679E+22	1,461081E+22	1,461126E+22	8,823483E+22	2,922207E+22	1,174569E+23
1553	4,411670E+22	4,411709E+22	1,461125E+22	1,461020E+22	8,823380E+22	2,922145E+22	1,174552E+23
1554	4,411795E+22	4,411909E+22	1,461021E+22	1,461071E+22	8,823704E+22	2,922092E+22	1,174580E+23
1555	4,411873E+22	4,411747E+22	1,460990E+22	1,461013E+22	8,823620E+22	2,922003E+22	1,174562E+23
1556	4,411754E+22	4,411915E+22	1,461021E+22	1,460931E+22	8,823669E+22	2,921952E+22	1,174562E+23
1557	4,411971E+22	4,411984E+22	1,460907E+22	1,460982E+22	8,823955E+22	2,921889E+22	1,174584E+23

1		14	15	16	17	18	19	20
Years	Longitude $\odot$				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year	
	Astronomical season (northern hemisphere)							
	Spring	Summer	Autumn	Winter				
	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°	
1558	4,411972E+22	4,411790E+22	1,460941E+22	1,460901E+22	8,823761E+22	2,921843E+22	1,174560E+23	
1559	4,411868E+22	4,412014E+22	1,460966E+22	1,460910E+22	8,823882E+22	2,921876E+22	1,174576E+23	
1560	4,411983E+22	4,411953E+22	1,460911E+22	1,460995E+22	8,823936E+22	2,921905E+22	1,174584E+23	
1561	4,411808E+22	4,411830E+22	1,461014E+22	1,460954E+22	8,823638E+22	2,921968E+22	1,174561E+23	
1562	4,411803E+22	4,411946E+22	1,461022E+22	1,461053E+22	8,823749E+22	2,922075E+22	1,174582E+23	
1563	4,411870E+22	4,411677E+22	1,461044E+22	1,461099E+22	8,823548E+22	2,922143E+22	1,174569E+23	
1564	4,411666E+22	4,411693E+22	1,461173E+22	1,461074E+22	8,823359E+22	2,922247E+22	1,174561E+23	
1565	4,411734E+22	4,411769E+22	1,461139E+22	1,461211E+22	8,823503E+22	2,922350E+22	1,174585E+23	
1566	4,411682E+22	4,411505E+22	1,461202E+22	1,461216E+22	8,823188E+22	2,922418E+22	1,174561E+23	
1567	4,411473E+22	4,411663E+22	1,461283E+22	1,461216E+22	8,823136E+22	2,922499E+22	1,174564E+23	
1568	4,411592E+22	4,411612E+22	1,461225E+22	1,461310E+22	8,823204E+22	2,922534E+22	1,174574E+23	
1569	4,411504E+22	4,411440E+22	1,461291E+22	1,461219E+22	8,822944E+22	2,922510E+22	1,174545E+23	
1570	4,411493E+22	4,411636E+22	1,461272E+22	1,461236E+22	8,823129E+22	2,922509E+22	1,174564E+23	
1571	4,411645E+22	4,411505E+22	1,461194E+22	1,461255E+22	8,823150E+22	2,922449E+22	1,174560E+23	
1572	4,411513E+22	4,411571E+22	1,461231E+22	1,461143E+22	8,823084E+22	2,922374E+22	1,174546E+23	
1573	4,411627E+22	4,411767E+22	1,461133E+22	1,461189E+22	8,823394E+22	2,922322E+22	1,174572E+23	
1574	4,411750E+22	4,411571E+22	1,461088E+22	1,461120E+22	8,823321E+22	2,922208E+22	1,174553E+23	
1575	4,411650E+22	4,411753E+22	1,461122E+22	1,461020E+22	8,823403E+22	2,922142E+22	1,174554E+23	
1576	4,411818E+22	4,411830E+22	1,461029E+22	1,461091E+22	8,823648E+22	2,922120E+22	1,174577E+23	
1577	4,411785E+22	4,411680E+22	1,461061E+22	1,461019E+22	8,823464E+22	2,922080E+22	1,174554E+23	
1578	4,411672E+22	4,411878E+22	1,461097E+22	1,461046E+22	8,823549E+22	2,922142E+22	1,174569E+23	
1579	4,411775E+22	4,411741E+22	1,461049E+22	1,461142E+22	8,823516E+22	2,922192E+22	1,174571E+23	
1580	4,411642E+22	4,411622E+22	1,461152E+22	1,461086E+22	8,823264E+22	2,922238E+22	1,174550E+23	
1581	4,411638E+22	4,411742E+22	1,461167E+22	1,461184E+22	8,823380E+22	2,922351E+22	1,174573E+23	
1582	4,411726E+22	4,411477E+22	1,461173E+22	1,461239E+22	8,823202E+22	2,922412E+22	1,174561E+23	
1583	4,411501E+22	4,411535E+22	1,461300E+22	1,461211E+22	8,823037E+22	2,922510E+22	1,174555E+23	
1584	4,411510E+22	4,411617E+22	1,461282E+22	1,461362E+22	8,823127E+22	2,922643E+22	1,174577E+23	
1585	4,411464E+22	4,411359E+22	1,461338E+22	1,461346E+22	8,822823E+22	2,922685E+22	1,174551E+23	
1586	4,411295E+22	4,411480E+22	1,461423E+22	1,461338E+22	8,822775E+22	2,922761E+22	1,174554E+23	
1587	4,411422E+22	4,411389E+22	1,461359E+22	1,461433E+22	8,822811E+22	2,922792E+22	1,174560E+23	
1588	4,411355E+22	4,411258E+22	1,461412E+22	1,461336E+22	8,822614E+22	2,922749E+22	1,174536E+23	
1589	4,411316E+22	4,411490E+22	1,461390E+22	1,461361E+22	8,822807E+22	2,922751E+22	1,174556E+23	
1590	4,411492E+22	4,411352E+22	1,461287E+22	1,461381E+22	8,822844E+22	2,922668E+22	1,174551E+23	
1591	4,411383E+22	4,411425E+22	1,461324E+22	1,461243E+22	8,822808E+22	2,922567E+22	1,174537E+23	
1592	4,411488E+22	4,411621E+22	1,461244E+22	1,461287E+22	8,823109E+22	2,922530E+22	1,174564E+23	
1593	4,411619E+22	4,411448E+22	1,461195E+22	1,461205E+22	8,823067E+22	2,922400E+22	1,174547E+23	
1594	4,411512E+22	4,411620E+22	1,461244E+22	1,461125E+22	8,823132E+22	2,922369E+22	1,174550E+23	
1595	4,411625E+22	4,411669E+22	1,461155E+22	1,461225E+22	8,823294E+22	2,922379E+22	1,174567E+23	
1596	4,411587E+22	4,411514E+22	1,461188E+22	1,461160E+22	8,823100E+22	2,922347E+22	1,174545E+23	
1597	4,411474E+22	4,411682E+22	1,461235E+22	1,461187E+22	8,823156E+22	2,922422E+22	1,174558E+23	
1598	4,411633E+22	4,411509E+22	1,461171E+22	1,461279E+22	8,823142E+22	2,922449E+22	1,174559E+23	
1599	4,411519E+22	4,411420E+22	1,461273E+22	1,461205E+22	8,822940E+22	2,922477E+22	1,174542E+23	
1600	4,411466E+22	4,411575E+22	1,461305E+22	1,461320E+22	8,823041E+22	2,922625E+22	1,174567E+23	
1601	4,411515E+22	4,411361E+22	1,461308E+22	1,461374E+22	8,822876E+22	2,922682E+22	1,174556E+23	
1602	4,411287E+22	4,411396E+22	1,461448E+22	1,461356E+22	8,822683E+22	2,922804E+22	1,174549E+23	
1603	4,411278E+22	4,411411E+22	1,461436E+22	1,461508E+22	8,822690E+22	2,922944E+22	1,174563E+23	
1604	4,411278E+22	4,411152E+22	1,461485E+22	1,461478E+22	8,822430E+22	2,922962E+22	1,174539E+23	
1605	4,411124E+22	4,411269E+22	1,461564E+22	1,461465E+22	8,822393E+22	2,923029E+22	1,174542E+23	
1606	4,411282E+22	4,411183E+22	1,461469E+22	1,461566E+22	8,822465E+22	2,923035E+22	1,174550E+23	

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1607	4,411222E+22	4,411108E+22	1,461506E+22	1,461457E+22	8,822330E+22	2,922963E+22	1,174529E+23
1608	4,411152E+22	4,411352E+22	1,461494E+22	1,461485E+22	8,822504E+22	2,922979E+22	1,174548E+23
1609	4,411340E+22	4,411239E+22	1,461389E+22	1,461475E+22	8,822579E+22	2,922864E+22	1,174544E+23
1610	4,411271E+22	4,411287E+22	1,461435E+22	1,461330E+22	8,822559E+22	2,922765E+22	1,174532E+23
1611	4,411337E+22	4,411448E+22	1,461366E+22	1,461381E+22	8,822785E+22	2,922747E+22	1,174553E+23
1612	4,411458E+22	4,411309E+22	1,461316E+22	1,461311E+22	8,822768E+22	2,922627E+22	1,174539E+23
1613	4,411310E+22	4,411474E+22	1,461371E+22	1,461254E+22	8,822784E+22	2,922624E+22	1,174541E+23
1614	4,411436E+22	4,411484E+22	1,461266E+22	1,461367E+22	8,822920E+22	2,922633E+22	1,174555E+23
1615	4,411433E+22	4,411325E+22	1,461297E+22	1,461285E+22	8,822758E+22	2,922583E+22	1,174534E+23
1616	4,411318E+22	4,411487E+22	1,461362E+22	1,461315E+22	8,822805E+22	2,922677E+22	1,174548E+23
1617	4,411486E+22	4,411354E+22	1,461296E+22	1,461395E+22	8,822840E+22	2,922691E+22	1,174553E+23
1618	4,411373E+22	4,411271E+22	1,461411E+22	1,461338E+22	8,822643E+22	2,922749E+22	1,174539E+23
1619	4,411248E+22	4,411409E+22	1,461455E+22	1,461473E+22	8,822658E+22	2,922928E+22	1,174559E+23
1620	4,411297E+22	4,411194E+22	1,461460E+22	1,461526E+22	8,822491E+22	2,922986E+22	1,174548E+23
1621	4,411072E+22	4,411188E+22	1,461608E+22	1,461501E+22	8,822260E+22	2,923109E+22	1,174537E+23
1622	4,411113E+22	4,411168E+22	1,461569E+22	1,461645E+22	8,822281E+22	2,923214E+22	1,174549E+23
1623	4,411142E+22	4,410938E+22	1,461603E+22	1,461597E+22	8,822080E+22	2,923200E+22	1,174528E+23
1624	4,410959E+22	4,411098E+22	1,461683E+22	1,461596E+22	8,822057E+22	2,923279E+22	1,174534E+23
1625	4,411106E+22	4,411068E+22	1,461573E+22	1,461682E+22	8,822175E+22	2,923255E+22	1,174543E+23
1626	4,411065E+22	4,410987E+22	1,461616E+22	1,461570E+22	8,822052E+22	2,923186E+22	1,174524E+23
1627	4,410980E+22	4,411196E+22	1,461614E+22	1,461588E+22	8,822176E+22	2,923202E+22	1,174538E+23
1628	4,411198E+22	4,411091E+22	1,461509E+22	1,461566E+22	8,822289E+22	2,923075E+22	1,174536E+23
1629	4,411119E+22	4,411130E+22	1,461563E+22	1,461431E+22	8,822249E+22	2,922994E+22	1,174524E+23
1630	4,411182E+22	4,411276E+22	1,461472E+22	1,461503E+22	8,822459E+22	2,922974E+22	1,174543E+23
1631	4,411293E+22	4,411159E+22	1,461415E+22	1,461438E+22	8,822452E+22	2,922853E+22	1,174531E+23
1632	4,411125E+22	4,411306E+22	1,461482E+22	1,461395E+22	8,822430E+22	2,922876E+22	1,174531E+23
1633	4,411278E+22	4,411318E+22	1,461377E+22	1,461483E+22	8,822596E+22	2,922860E+22	1,174546E+23
1634	4,411321E+22	4,411149E+22	1,461418E+22	1,461399E+22	8,822470E+22	2,922817E+22	1,174529E+23
1635	4,411165E+22	4,411299E+22	1,461497E+22	1,461437E+22	8,822464E+22	2,922934E+22	1,174540E+23
1636	4,411311E+22	4,411209E+22	1,461440E+22	1,461526E+22	8,822520E+22	2,922966E+22	1,174549E+23
1637	4,411154E+22	4,411119E+22	1,461568E+22	1,461487E+22	8,822272E+22	2,923055E+22	1,174533E+23
1638	4,411032E+22	4,411208E+22	1,461598E+22	1,461627E+22	8,822239E+22	2,923225E+22	1,174546E+23
1639	4,411115E+22	4,410988E+22	1,461598E+22	1,461663E+22	8,822103E+22	2,923260E+22	1,174536E+23
1640	4,410893E+22	4,410967E+22	1,461747E+22	1,461640E+22	8,821860E+22	2,923387E+22	1,174525E+23
1641	4,410946E+22	4,410988E+22	1,461695E+22	1,461766E+22	8,821934E+22	2,923461E+22	1,174539E+23
1642	4,410996E+22	4,410785E+22	1,461722E+22	1,461726E+22	8,821781E+22	2,923448E+22	1,174523E+23
1643	4,410760E+22	4,410940E+22	1,461804E+22	1,461732E+22	8,821700E+22	2,923536E+22	1,174524E+23
1644	4,410929E+22	4,410929E+22	1,461698E+22	1,461802E+22	8,821859E+22	2,923500E+22	1,174536E+23
1645	4,410906E+22	4,410824E+22	1,461746E+22	1,461676E+22	8,821730E+22	2,923422E+22	1,174515E+23
1646	4,410851E+22	4,411005E+22	1,461722E+22	1,461688E+22	8,821856E+22	2,923410E+22	1,174527E+23
1647	4,411074E+22	4,410933E+22	1,461609E+22	1,461659E+22	8,822008E+22	2,923268E+22	1,174528E+23
1648	4,410946E+22	4,410986E+22	1,461668E+22	1,461551E+22	8,821932E+22	2,923219E+22	1,174515E+23
1649	4,410992E+22	4,411157E+22	1,461571E+22	1,461618E+22	8,822150E+22	2,923188E+22	1,174534E+23
1650	4,411139E+22	4,411013E+22	1,461522E+22	1,461560E+22	8,822152E+22	2,923082E+22	1,174523E+23
1651	4,410962E+22	4,411118E+22	1,461602E+22	1,461514E+22	8,822080E+22	2,923116E+22	1,174520E+23
1652	4,411150E+22	4,411146E+22	1,461506E+22	1,461593E+22	8,822296E+22	2,923099E+22	1,174539E+23
1653	4,411177E+22	4,410981E+22	1,461560E+22	1,461520E+22	8,822158E+22	2,923080E+22	1,174524E+23
1654	4,411001E+22	4,411125E+22	1,461626E+22	1,461578E+22	8,822126E+22	2,923204E+22	1,174533E+23
1655	4,411121E+22	4,411051E+22	1,461571E+22	1,461672E+22	8,822171E+22	2,923243E+22	1,174541E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1656	4,410934E+22	4,410933E+22	1,461714E+22	1,461646E+22	8,821867E+22	2,923361E+22	1,174523E+23
1657	4,410835E+22	4,411012E+22	1,461737E+22	1,461757E+22	8,821847E+22	2,923494E+22	1,174534E+23
1658	4,410959E+22	4,410781E+22	1,461736E+22	1,461792E+22	8,821739E+22	2,923528E+22	1,174527E+23
1659	4,410706E+22	4,410760E+22	1,461885E+22	1,461774E+22	8,821466E+22	2,923659E+22	1,174513E+23
1660	4,410760E+22	4,410827E+22	1,461829E+22	1,461899E+22	8,821587E+22	2,923728E+22	1,174531E+23
1661	4,410793E+22	4,410639E+22	1,461859E+22	1,461862E+22	8,821432E+22	2,923722E+22	1,174515E+23
1662	4,410588E+22	4,410761E+22	1,461920E+22	1,461860E+22	8,821349E+22	2,923780E+22	1,174513E+23
1663	4,410791E+22	4,410761E+22	1,461809E+22	1,461905E+22	8,821552E+22	2,923714E+22	1,174527E+23
1664	4,410762E+22	4,410658E+22	1,461859E+22	1,461783E+22	8,821420E+22	2,923643E+22	1,174506E+23
1665	4,410704E+22	4,410865E+22	1,461824E+22	1,461781E+22	8,821569E+22	2,923605E+22	1,174517E+23
1666	4,410930E+22	4,410811E+22	1,461709E+22	1,461772E+22	8,821740E+22	2,923481E+22	1,174522E+23
1667	4,410754E+22	4,410836E+22	1,461775E+22	1,461679E+22	8,821591E+22	2,923454E+22	1,174504E+23
1668	4,410830E+22	4,411001E+22	1,461689E+22	1,461735E+22	8,821831E+22	2,923424E+22	1,174526E+23
1669	4,411001E+22	4,410837E+22	1,461650E+22	1,461671E+22	8,821839E+22	2,923321E+22	1,174516E+23
1670	4,410848E+22	4,410918E+22	1,461715E+22	1,461626E+22	8,821766E+22	2,923341E+22	1,174511E+23
1671	4,411026E+22	4,410988E+22	1,461624E+22	1,461705E+22	8,822015E+22	2,923329E+22	1,174534E+23
1672	4,410989E+22	4,410838E+22	1,461689E+22	1,461661E+22	8,821827E+22	2,923350E+22	1,174518E+23
1673	4,410779E+22	4,410988E+22	1,461757E+22	1,461712E+22	8,821767E+22	2,923469E+22	1,174524E+23
1674	4,410923E+22	4,410887E+22	1,461710E+22	1,461811E+22	8,821810E+22	2,923521E+22	1,174533E+23
1675	4,410718E+22	4,410715E+22	1,461864E+22	1,461788E+22	8,821433E+22	2,923652E+22	1,174508E+23
1676	4,410656E+22	4,410802E+22	1,461889E+22	1,461889E+22	8,821458E+22	2,923779E+22	1,174524E+23
1677	4,410781E+22	4,410583E+22	1,461887E+22	1,461933E+22	8,821364E+22	2,923820E+22	1,174518E+23
1678	4,410530E+22	4,410563E+22	1,462006E+22	1,461926E+22	8,821094E+22	2,923932E+22	1,174503E+23
1679	4,410590E+22	4,410662E+22	1,461947E+22	1,462038E+22	8,821253E+22	2,923985E+22	1,174524E+23
1680	4,410616E+22	4,410470E+22	1,461981E+22	1,461996E+22	8,821086E+22	2,923978E+22	1,174506E+23
1681	4,410442E+22	4,410601E+22	1,462033E+22	1,461955E+22	8,821042E+22	2,923988E+22	1,174503E+23
1682	4,410672E+22	4,410611E+22	1,461920E+22	1,461996E+22	8,821284E+22	2,923916E+22	1,174520E+23
1683	4,410587E+22	4,410508E+22	1,461975E+22	1,461889E+22	8,821095E+22	2,923864E+22	1,174496E+23
1684	4,410522E+22	4,410738E+22	1,461940E+22	1,461892E+22	8,821260E+22	2,923833E+22	1,174509E+23
1685	4,410735E+22	4,410673E+22	1,461832E+22	1,461894E+22	8,821408E+22	2,923726E+22	1,174513E+23
1686	4,410603E+22	4,410651E+22	1,461878E+22	1,461802E+22	8,821254E+22	2,923679E+22	1,174493E+23
1687	4,410719E+22	4,410818E+22	1,461795E+22	1,461841E+22	8,821538E+22	2,923636E+22	1,174517E+23
1688	4,410872E+22	4,410672E+22	1,461765E+22	1,461788E+22	8,821544E+22	2,923553E+22	1,174510E+23
1689	4,410708E+22	4,410780E+22	1,461825E+22	1,461735E+22	8,821487E+22	2,923560E+22	1,174505E+23
1690	4,410857E+22	4,410864E+22	1,461744E+22	1,461835E+22	8,821721E+22	2,923578E+22	1,174530E+23
1691	4,410756E+22	4,410681E+22	1,461828E+22	1,461811E+22	8,821437E+22	2,923639E+22	1,174508E+23
1692	4,410571E+22	4,410799E+22	1,461910E+22	1,461851E+22	8,821369E+22	2,923761E+22	1,174513E+23
1693	4,410732E+22	4,410671E+22	1,461872E+22	1,461948E+22	8,821403E+22	2,923820E+22	1,174522E+23
1694	4,410559E+22	4,410471E+22	1,461998E+22	1,461930E+22	8,821030E+22	2,923928E+22	1,174496E+23
1695	4,410499E+22	4,410596E+22	1,462020E+22	1,462028E+22	8,821096E+22	2,924048E+22	1,174514E+23
1696	4,410583E+22	4,410417E+22	1,462016E+22	1,462087E+22	8,820999E+22	2,924103E+22	1,174510E+23
1697	4,410340E+22	4,410414E+22	1,462125E+22	1,462056E+22	8,820754E+22	2,924180E+22	1,174493E+23
1698	4,410434E+22	4,410514E+22	1,462071E+22	1,462155E+22	8,820948E+22	2,924225E+22	1,174517E+23
1699	4,410439E+22	4,410303E+22	1,462113E+22	1,462107E+22	8,820743E+22	2,924219E+22	1,174496E+23
1700	4,410287E+22	4,410445E+22	1,462165E+22	1,462054E+22	8,820732E+22	2,924220E+22	1,174495E+23
1701	4,410500E+22	4,410468E+22	1,462052E+22	1,462108E+22	8,820968E+22	2,924160E+22	1,174513E+23
1702	4,410410E+22	4,410340E+22	1,462077E+22	1,462022E+22	8,820750E+22	2,924099E+22	1,174485E+23
1703	4,410365E+22	4,410574E+22	1,462043E+22	1,462019E+22	8,820939E+22	2,924062E+22	1,174500E+23
1704	4,410585E+22	4,410498E+22	1,461937E+22	1,462018E+22	8,821083E+22	2,923955E+22	1,174504E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1705	4,410491E+22	4,410482E+22	1,461972E+22	1,461895E+22	8,820973E+22	2,923867E+22	1,174484E+23
1706	4,410624E+22	4,410678E+22	1,461896E+22	1,461934E+22	8,821302E+22	2,923829E+22	1,174513E+23
1707	4,410698E+22	4,410538E+22	1,461883E+22	1,461902E+22	8,821237E+22	2,923785E+22	1,174502E+23
1708	4,410509E+22	4,410658E+22	1,461961E+22	1,461857E+22	8,821167E+22	2,923818E+22	1,174499E+23
1709	4,410634E+22	4,410715E+22	1,461897E+22	1,461970E+22	8,821349E+22	2,923867E+22	1,174522E+23
1710	4,410559E+22	4,410463E+22	1,461966E+22	1,461957E+22	8,821022E+22	2,923924E+22	1,174495E+23
1711	4,410414E+22	4,410568E+22	1,462050E+22	1,461988E+22	8,820982E+22	2,924038E+22	1,174502E+23
1712	4,410560E+22	4,410453E+22	1,462011E+22	1,462097E+22	8,821013E+22	2,924108E+22	1,174512E+23
1713	4,410396E+22	4,410287E+22	1,462120E+22	1,462067E+22	8,820683E+22	2,924187E+22	1,174487E+23
1714	4,410332E+22	4,410447E+22	1,462141E+22	1,462172E+22	8,820780E+22	2,924313E+22	1,174509E+23
1715	4,410367E+22	4,410261E+22	1,462154E+22	1,462233E+22	8,820627E+22	2,924386E+22	1,174501E+23
1716	4,410162E+22	4,410250E+22	1,462271E+22	1,462176E+22	8,820412E+22	2,924447E+22	1,174486E+23
1717	4,410264E+22	4,410342E+22	1,462223E+22	1,462265E+22	8,820606E+22	2,924488E+22	1,174509E+23
1718	4,410281E+22	4,410112E+22	1,462236E+22	1,462225E+22	8,820393E+22	2,924461E+22	1,174485E+23
1719	4,410126E+22	4,410270E+22	1,462280E+22	1,462174E+22	8,820397E+22	2,924455E+22	1,174485E+23
1720	4,410294E+22	4,410317E+22	1,462161E+22	1,462244E+22	8,820611E+22	2,924405E+22	1,174502E+23
1721	4,410243E+22	4,410186E+22	1,462167E+22	1,462136E+22	8,820430E+22	2,924303E+22	1,174473E+23
1722	4,410246E+22	4,410414E+22	1,462137E+22	1,462120E+22	8,820661E+22	2,924257E+22	1,174492E+23
1723	4,410448E+22	4,410340E+22	1,462046E+22	1,462117E+22	8,820789E+22	2,924163E+22	1,174495E+23
1724	4,410374E+22	4,410344E+22	1,462090E+22	1,461987E+22	8,820718E+22	2,924077E+22	1,174479E+23
1725	4,410464E+22	4,410557E+22	1,462028E+22	1,462043E+22	8,821021E+22	2,924071E+22	1,174509E+23
1726	4,410509E+22	4,410386E+22	1,462001E+22	1,462040E+22	8,820895E+22	2,924042E+22	1,174494E+23
1727	4,410324E+22	4,410473E+22	1,462093E+22	1,461999E+22	8,820797E+22	2,924092E+22	1,174489E+23
1728	4,410437E+22	4,410509E+22	1,462037E+22	1,462115E+22	8,820946E+22	2,924152E+22	1,174510E+23
1729	4,410406E+22	4,410247E+22	1,462091E+22	1,462084E+22	8,820653E+22	2,924175E+22	1,174483E+23
1730	4,410279E+22	4,410374E+22	1,462175E+22	1,462118E+22	8,820653E+22	2,924293E+22	1,174495E+23
1731	4,410358E+22	4,410284E+22	1,462148E+22	1,462242E+22	8,820642E+22	2,924390E+22	1,174503E+23
1732	4,410191E+22	4,410144E+22	1,462263E+22	1,462208E+22	8,820335E+22	2,924471E+22	1,174481E+23
1733	4,410124E+22	4,410297E+22	1,462298E+22	1,462310E+22	8,820422E+22	2,924608E+22	1,174503E+23
1734	4,410181E+22	4,410062E+22	1,462294E+22	1,462369E+22	8,820243E+22	2,924663E+22	1,174491E+23
1735	4,410012E+22	4,410048E+22	1,462411E+22	1,462299E+22	8,820060E+22	2,924711E+22	1,174477E+23
1736	4,410087E+22	4,410155E+22	1,462354E+22	1,462392E+22	8,820242E+22	2,924746E+22	1,174499E+23
1737	4,410109E+22	4,409944E+22	1,462338E+22	1,462347E+22	8,820053E+22	2,924685E+22	1,174474E+23
1738	4,409967E+22	4,410124E+22	1,462373E+22	1,462298E+22	8,820091E+22	2,924672E+22	1,174476E+23
1739	4,410110E+22	4,410156E+22	1,462266E+22	1,462365E+22	8,820266E+22	2,924632E+22	1,174490E+23
1740	4,410117E+22	4,410031E+22	1,462278E+22	1,462229E+22	8,820147E+22	2,924508E+22	1,174466E+23
1741	4,410136E+22	4,410269E+22	1,462257E+22	1,462206E+22	8,820405E+22	2,924463E+22	1,174487E+23
1742	4,410321E+22	4,410185E+22	1,462152E+22	1,462219E+22	8,820506E+22	2,924371E+22	1,174488E+23
1743	4,410226E+22	4,410205E+22	1,462206E+22	1,462102E+22	8,820431E+22	2,924308E+22	1,174474E+23
1744	4,410249E+22	4,410418E+22	1,462154E+22	1,462177E+22	8,820667E+22	2,924330E+22	1,174500E+23
1745	4,410319E+22	4,410219E+22	1,462118E+22	1,462169E+22	8,820537E+22	2,924287E+22	1,174482E+23
1746	4,410173E+22	4,410283E+22	1,462214E+22	1,462125E+22	8,820456E+22	2,924340E+22	1,174480E+23
1747	4,410255E+22	4,410309E+22	1,462175E+22	1,462249E+22	8,820565E+22	2,924424E+22	1,174499E+23
1748	4,410248E+22	4,410068E+22	1,462232E+22	1,462214E+22	8,820317E+22	2,924446E+22	1,174476E+23
1749	4,410095E+22	4,410216E+22	1,462324E+22	1,462263E+22	8,820311E+22	2,924586E+22	1,174490E+23
1750	4,410154E+22	4,410108E+22	1,462284E+22	1,462404E+22	8,820262E+22	2,924688E+22	1,174495E+23
1751	4,410015E+22	4,409945E+22	1,462409E+22	1,462357E+22	8,819960E+22	2,924767E+22	1,174473E+23
1752	4,409932E+22	4,410093E+22	1,462448E+22	1,462446E+22	8,820025E+22	2,924894E+22	1,174492E+23
1753	4,410029E+22	4,409864E+22	1,462418E+22	1,462485E+22	8,819893E+22	2,924903E+22	1,174480E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1754	4,409863E+22	4,409871E+22	1,462525E+22	1,462415E+22	8,819734E+22	2,924940E+22	1,174467E+23
1755	4,409870E+22	4,410001E+22	1,462474E+22	1,462520E+22	8,819871E+22	2,924994E+22	1,174486E+23
1756	4,409915E+22	4,409806E+22	1,462455E+22	1,462464E+22	8,819721E+22	2,924919E+22	1,174464E+23
1757	4,409800E+22	4,409976E+22	1,462496E+22	1,462409E+22	8,819776E+22	2,924905E+22	1,174468E+23
1758	4,409976E+22	4,409978E+22	1,462374E+22	1,462472E+22	8,819953E+22	2,924846E+22	1,174480E+23
1759	4,410020E+22	4,409860E+22	1,462389E+22	1,462327E+22	8,819880E+22	2,924716E+22	1,174460E+23
1760	4,409994E+22	4,410127E+22	1,462370E+22	1,462312E+22	8,820122E+22	2,924682E+22	1,174480E+23
1761	4,410166E+22	4,410060E+22	1,462249E+22	1,462331E+22	8,820226E+22	2,924580E+22	1,174481E+23
1762	4,410060E+22	4,410074E+22	1,462308E+22	1,462229E+22	8,820134E+22	2,924537E+22	1,174467E+23
1763	4,410040E+22	4,410251E+22	1,462281E+22	1,462309E+22	8,820291E+22	2,924590E+22	1,174488E+23
1764	4,410155E+22	4,410036E+22	1,462254E+22	1,462287E+22	8,820191E+22	2,924541E+22	1,174473E+23
1765	4,410030E+22	4,410097E+22	1,462356E+22	1,462248E+22	8,820127E+22	2,924604E+22	1,174473E+23
1766	4,410092E+22	4,410105E+22	1,462305E+22	1,462390E+22	8,820197E+22	2,924695E+22	1,174489E+23
1767	4,410075E+22	4,409890E+22	1,462369E+22	1,462364E+22	8,819965E+22	2,924733E+22	1,174470E+23
1768	4,409878E+22	4,410048E+22	1,462465E+22	1,462415E+22	8,819926E+22	2,924879E+22	1,174481E+23
1769	4,409966E+22	4,409919E+22	1,462415E+22	1,462540E+22	8,819885E+22	2,924956E+22	1,174484E+23
1770	4,409860E+22	4,409758E+22	1,462541E+22	1,462483E+22	8,819618E+22	2,925024E+22	1,174464E+23
1771	4,409738E+22	4,409904E+22	1,462591E+22	1,462570E+22	8,819642E+22	2,925161E+22	1,174480E+23
1772	4,409848E+22	4,409701E+22	1,462557E+22	1,462604E+22	8,819549E+22	2,925161E+22	1,174471E+23
1773	4,409670E+22	4,409723E+22	1,462657E+22	1,462547E+22	8,819393E+22	2,925204E+22	1,174460E+23
1774	4,409668E+22	4,409821E+22	1,462590E+22	1,462660E+22	8,819489E+22	2,925250E+22	1,174474E+23
1775	4,409770E+22	4,409617E+22	1,462573E+22	1,462589E+22	8,819387E+22	2,925162E+22	1,174455E+23
1776	4,409664E+22	4,409797E+22	1,462610E+22	1,462516E+22	8,819461E+22	2,925126E+22	1,174459E+23
1777	4,409874E+22	4,409818E+22	1,462469E+22	1,462564E+22	8,819693E+22	2,925033E+22	1,174473E+23
1778	4,409907E+22	4,409738E+22	1,462480E+22	1,462425E+22	8,819645E+22	2,924905E+22	1,174455E+23
1779	4,409793E+22	4,410016E+22	1,462481E+22	1,462426E+22	8,819809E+22	2,924907E+22	1,174472E+23
1780	4,409970E+22	4,409944E+22	1,462370E+22	1,462443E+22	8,819914E+22	2,924813E+22	1,174473E+23
1781	4,409882E+22	4,409917E+22	1,462442E+22	1,462349E+22	8,819799E+22	2,924791E+22	1,174459E+23
1782	4,409875E+22	4,410044E+22	1,462410E+22	1,462437E+22	8,819919E+22	2,924847E+22	1,174477E+23
1783	4,410032E+22	4,409823E+22	1,462386E+22	1,462417E+22	8,819855E+22	2,924803E+22	1,174466E+23
1784	4,409862E+22	4,409909E+22	1,462487E+22	1,462386E+22	8,819771E+22	2,924873E+22	1,174464E+23
1785	4,409924E+22	4,409939E+22	1,462419E+22	1,462533E+22	8,819863E+22	2,924952E+22	1,174481E+23
1786	4,409903E+22	4,409729E+22	1,462488E+22	1,462507E+22	8,819631E+22	2,924995E+22	1,174463E+23
1787	4,409668E+22	4,409867E+22	1,462612E+22	1,462551E+22	8,819535E+22	2,925163E+22	1,174470E+23
1788	4,409791E+22	4,409743E+22	1,462569E+22	1,462656E+22	8,819534E+22	2,925225E+22	1,174476E+23
1789	4,409686E+22	4,409584E+22	1,462695E+22	1,462607E+22	8,819270E+22	2,925302E+22	1,174457E+23
1790	4,409529E+22	4,409712E+22	1,462729E+22	1,462711E+22	8,819241E+22	2,925440E+22	1,174468E+23
1791	4,409648E+22	4,409518E+22	1,462691E+22	1,462749E+22	8,819166E+22	2,925440E+22	1,174461E+23
1792	4,409459E+22	4,409546E+22	1,462781E+22	1,462687E+22	8,819006E+22	2,925468E+22	1,174447E+23
1793	4,409524E+22	4,409633E+22	1,462693E+22	1,462778E+22	8,819157E+22	2,925471E+22	1,174463E+23
1794	4,409669E+22	4,409458E+22	1,462669E+22	1,462689E+22	8,819127E+22	2,925357E+22	1,174448E+23
1795	4,409530E+22	4,409655E+22	1,462718E+22	1,462613E+22	8,819184E+22	2,925331E+22	1,174451E+23
1796	4,409732E+22	4,409713E+22	1,462581E+22	1,462656E+22	8,819444E+22	2,925236E+22	1,174468E+23
1797	4,409738E+22	4,409642E+22	1,462595E+22	1,462539E+22	8,819380E+22	2,925134E+22	1,174451E+23
1798	4,409595E+22	4,409852E+22	1,462597E+22	1,462554E+22	8,819447E+22	2,925150E+22	1,174460E+23
1799	4,409813E+22	4,409747E+22	1,462498E+22	1,462567E+22	8,819560E+22	2,925065E+22	1,174462E+23
1800	4,409732E+22	4,409716E+22	1,462565E+22	1,462467E+22	8,819448E+22	2,925032E+22	1,174448E+23
1801	4,409753E+22	4,409839E+22	1,462517E+22	1,462554E+22	8,819592E+22	2,925071E+22	1,174466E+23
1802	4,409893E+22	4,409667E+22	1,462492E+22	1,462543E+22	8,819560E+22	2,925035E+22	1,174460E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1803	4,409652E+22	4,409767E+22	1,462613E+22	1,462525E+22	8,819419E+22	2,925138E+22	1,174456E+23
1804	4,409718E+22	4,409801E+22	1,462563E+22	1,462661E+22	8,819519E+22	2,925224E+22	1,174474E+23
1805	4,409713E+22	4,409573E+22	1,462644E+22	1,462641E+22	8,819285E+22	2,925285E+22	1,174457E+23
1806	4,409468E+22	4,409657E+22	1,462767E+22	1,462690E+22	8,819124E+22	2,925457E+22	1,174458E+23
1807	4,409616E+22	4,409530E+22	1,462727E+22	1,462798E+22	8,819146E+22	2,925525E+22	1,174467E+23
1808	4,409476E+22	4,409390E+22	1,462839E+22	1,462758E+22	8,818865E+22	2,925596E+22	1,174446E+23
1809	4,409337E+22	4,409518E+22	1,462844E+22	1,462862E+22	8,818855E+22	2,925706E+22	1,174456E+23
1810	4,409483E+22	4,409340E+22	1,462796E+22	1,462889E+22	8,818823E+22	2,925684E+22	1,174451E+23
1811	4,409297E+22	4,409365E+22	1,462897E+22	1,462807E+22	8,818661E+22	2,925703E+22	1,174436E+23
1812	4,409410E+22	4,409485E+22	1,462810E+22	1,462867E+22	8,818895E+22	2,925676E+22	1,174457E+23
1813	4,409551E+22	4,409339E+22	1,462785E+22	1,462781E+22	8,818890E+22	2,925566E+22	1,174446E+23
1814	4,409356E+22	4,409523E+22	1,462831E+22	1,462720E+22	8,818879E+22	2,925552E+22	1,174443E+23
1815	4,409553E+22	4,409577E+22	1,462700E+22	1,462771E+22	8,819130E+22	2,925470E+22	1,174460E+23
1816	4,409532E+22	4,409484E+22	1,462715E+22	1,462659E+22	8,819016E+22	2,925374E+22	1,174439E+23
1817	4,409446E+22	4,409657E+22	1,462701E+22	1,462668E+22	8,819103E+22	2,925369E+22	1,174447E+23
1818	4,409696E+22	4,409564E+22	1,462598E+22	1,462678E+22	8,819260E+22	2,925276E+22	1,174454E+23
1819	4,409584E+22	4,409544E+22	1,462679E+22	1,462585E+22	8,819129E+22	2,925265E+22	1,174439E+23
1820	4,409600E+22	4,409707E+22	1,462638E+22	1,462671E+22	8,819307E+22	2,925309E+22	1,174462E+23
1821	4,409710E+22	4,409552E+22	1,462621E+22	1,462682E+22	8,819262E+22	2,925303E+22	1,174456E+23
1822	4,409441E+22	4,409589E+22	1,462755E+22	1,462672E+22	8,819029E+22	2,925427E+22	1,174446E+23
1823	4,409541E+22	4,409593E+22	1,462724E+22	1,462799E+22	8,819134E+22	2,925523E+22	1,174466E+23
1824	4,409524E+22	4,409365E+22	1,462802E+22	1,462778E+22	8,818890E+22	2,925580E+22	1,174447E+23
1825	4,409300E+22	4,409437E+22	1,462901E+22	1,462832E+22	8,818737E+22	2,925732E+22	1,174447E+23
1826	4,409428E+22	4,409350E+22	1,462848E+22	1,462944E+22	8,818778E+22	2,925793E+22	1,174457E+23
1827	4,409253E+22	4,409215E+22	1,462964E+22	1,462906E+22	8,818468E+22	2,925870E+22	1,174434E+23
1828	4,409154E+22	4,409351E+22	1,462973E+22	1,462985E+22	8,818505E+22	2,925957E+22	1,174446E+23
1829	4,409340E+22	4,409192E+22	1,462923E+22	1,463004E+22	8,818533E+22	2,925927E+22	1,174446E+23
1830	4,409157E+22	4,409187E+22	1,463019E+22	1,462914E+22	8,818344E+22	2,925934E+22	1,174428E+23
1831	4,409281E+22	4,409324E+22	1,462940E+22	1,462970E+22	8,818605E+22	2,925910E+22	1,174452E+23
1832	4,409370E+22	4,409215E+22	1,462902E+22	1,462893E+22	8,818585E+22	2,925796E+22	1,174438E+23
1833	4,409179E+22	4,409367E+22	1,462928E+22	1,462843E+22	8,818546E+22	2,925770E+22	1,174432E+23
1834	4,409384E+22	4,409418E+22	1,462797E+22	1,462887E+22	8,818802E+22	2,925684E+22	1,174449E+23
1835	4,409371E+22	4,409302E+22	1,462824E+22	1,462771E+22	8,818673E+22	2,925595E+22	1,174427E+23
1836	4,409325E+22	4,409489E+22	1,462814E+22	1,462764E+22	8,818815E+22	2,925579E+22	1,174439E+23
1837	4,409568E+22	4,409432E+22	1,462713E+22	1,462791E+22	8,819000E+22	2,925504E+22	1,174450E+23
1838	4,409402E+22	4,409393E+22	1,462798E+22	1,462717E+22	8,818795E+22	2,925516E+22	1,174431E+23
1839	4,409416E+22	4,409552E+22	1,462777E+22	1,462807E+22	8,818967E+22	2,925584E+22	1,174455E+23
1840	4,409501E+22	4,409385E+22	1,462768E+22	1,462819E+22	8,818886E+22	2,925587E+22	1,174447E+23
1841	4,409275E+22	4,409376E+22	1,462892E+22	1,462809E+22	8,818651E+22	2,925702E+22	1,174435E+23
1842	4,409384E+22	4,409392E+22	1,462859E+22	1,462931E+22	8,818776E+22	2,925790E+22	1,174457E+23
1843	4,409331E+22	4,409168E+22	1,462944E+22	1,462923E+22	8,818499E+22	2,925867E+22	1,174437E+23
1844	4,409109E+22	4,409270E+22	1,463037E+22	1,462972E+22	8,818379E+22	2,926009E+22	1,174439E+23
1845	4,409230E+22	4,409196E+22	1,462980E+22	1,463095E+22	8,818426E+22	2,926075E+22	1,174450E+23
1846	4,409054E+22	4,409015E+22	1,463098E+22	1,463049E+22	8,818069E+22	2,926147E+22	1,174422E+23
1847	4,409018E+22	4,409149E+22	1,463114E+22	1,463102E+22	8,818167E+22	2,926216E+22	1,174438E+23
1848	4,409188E+22	4,409023E+22	1,463056E+22	1,463109E+22	8,818211E+22	2,926165E+22	1,174438E+23
1849	4,409018E+22	4,409024E+22	1,463128E+22	1,463025E+22	8,818042E+22	2,926153E+22	1,174419E+23
1850	4,409109E+22	4,409197E+22	1,463039E+22	1,463081E+22	8,818306E+22	2,926120E+22	1,174443E+23
1851	4,409157E+22	4,409079E+22	1,463010E+22	1,463013E+22	8,818236E+22	2,926023E+22	1,174426E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1852	4,409008E+22	4,409217E+22	1,463037E+22	1,462945E+22	8,818225E+22	2,925983E+22	1,174421E+23
1853	4,409244E+22	4,409270E+22	1,462907E+22	1,462994E+22	8,818514E+22	2,925901E+22	1,174441E+23
1854	4,409233E+22	4,409118E+22	1,462936E+22	1,462884E+22	8,818351E+22	2,925820E+22	1,174417E+23
1855	4,409208E+22	4,409317E+22	1,462938E+22	1,462880E+22	8,818526E+22	2,925818E+22	1,174434E+23
1856	4,409395E+22	4,409299E+22	1,462835E+22	1,462918E+22	8,818695E+22	2,925754E+22	1,174445E+23
1857	4,409239E+22	4,409225E+22	1,462909E+22	1,462857E+22	8,818464E+22	2,925767E+22	1,174423E+23
1858	4,409249E+22	4,409377E+22	1,462900E+22	1,462936E+22	8,818626E+22	2,925836E+22	1,174446E+23
1859	4,409325E+22	4,409194E+22	1,462908E+22	1,462949E+22	8,818519E+22	2,925857E+22	1,174438E+23
1860	4,409117E+22	4,409187E+22	1,463037E+22	1,462930E+22	8,818304E+22	2,925967E+22	1,174427E+23
1861	4,409199E+22	4,409238E+22	1,463002E+22	1,463071E+22	8,818437E+22	2,926073E+22	1,174451E+23
1862	4,409101E+22	4,408981E+22	1,463085E+22	1,463079E+22	8,818082E+22	2,926164E+22	1,174425E+23
1863	4,408901E+22	4,409068E+22	1,463187E+22	1,463122E+22	8,817969E+22	2,926309E+22	1,174428E+23
1864	4,409026E+22	4,409010E+22	1,463127E+22	1,463231E+22	8,818035E+22	2,926358E+22	1,174439E+23
1865	4,408913E+22	4,408803E+22	1,463220E+22	1,463177E+22	8,817716E+22	2,926398E+22	1,174411E+23
1866	4,408887E+22	4,408975E+22	1,463231E+22	1,463214E+22	8,817862E+22	2,926445E+22	1,174431E+23
1867	4,409019E+22	4,408877E+22	1,463175E+22	1,463227E+22	8,817896E+22	2,926402E+22	1,174430E+23
1868	4,408839E+22	4,408902E+22	1,463238E+22	1,463138E+22	8,817741E+22	2,926376E+22	1,174412E+23
1869	4,408919E+22	4,409080E+22	1,463148E+22	1,463202E+22	8,817998E+22	2,926349E+22	1,174435E+23
1870	4,408972E+22	4,408893E+22	1,463125E+22	1,463132E+22	8,817865E+22	2,926256E+22	1,174412E+23
1871	4,408891E+22	4,409016E+22	1,463159E+22	1,463050E+22	8,817908E+22	2,926209E+22	1,174412E+23
1872	4,409116E+22	4,409104E+22	1,463024E+22	1,463095E+22	8,818220E+22	2,926119E+22	1,174434E+23
1873	4,409116E+22	4,408954E+22	1,463032E+22	1,463001E+22	8,818070E+22	2,926032E+22	1,174410E+23
1874	4,409059E+22	4,409189E+22	1,463035E+22	1,462997E+22	8,818248E+22	2,926032E+22	1,174428E+23
1875	4,409202E+22	4,409162E+22	1,462955E+22	1,463044E+22	8,818364E+22	2,925999E+22	1,174436E+23
1876	4,409072E+22	4,409075E+22	1,463041E+22	1,462972E+22	8,818148E+22	2,926013E+22	1,174416E+23
1877	4,409085E+22	4,409221E+22	1,463039E+22	1,463057E+22	8,818307E+22	2,926096E+22	1,174440E+23
1878	4,409133E+22	4,408992E+22	1,463058E+22	1,463086E+22	8,818125E+22	2,926145E+22	1,174427E+23
1879	4,408939E+22	4,408985E+22	1,463190E+22	1,463076E+22	8,817925E+22	2,926266E+22	1,174419E+23
1880	4,408968E+22	4,409059E+22	1,463148E+22	1,463227E+22	8,818027E+22	2,926375E+22	1,174440E+23
1881	4,408906E+22	4,408765E+22	1,463211E+22	1,463241E+22	8,817672E+22	2,926452E+22	1,174412E+23
1882	4,408741E+22	4,408859E+22	1,463311E+22	1,463259E+22	8,817600E+22	2,926570E+22	1,174417E+23
1883	4,408870E+22	4,408815E+22	1,463260E+22	1,463356E+22	8,817684E+22	2,926616E+22	1,174430E+23
1884	4,408777E+22	4,408648E+22	1,463346E+22	1,463284E+22	8,817425E+22	2,926630E+22	1,174405E+23
1885	4,408716E+22	4,408861E+22	1,463351E+22	1,463328E+22	8,817578E+22	2,926679E+22	1,174426E+23
1886	4,408798E+22	4,408734E+22	1,463298E+22	1,463352E+22	8,817532E+22	2,926651E+22	1,174418E+23
1887	4,408652E+22	4,408731E+22	1,463366E+22	1,463257E+22	8,817383E+22	2,926623E+22	1,174401E+23
1888	4,408735E+22	4,408911E+22	1,463272E+22	1,463310E+22	8,817645E+22	2,926582E+22	1,174423E+23
1889	4,408858E+22	4,408692E+22	1,463224E+22	1,463244E+22	8,817549E+22	2,926468E+22	1,174402E+23
1890	4,408794E+22	4,408846E+22	1,463253E+22	1,463152E+22	8,817640E+22	2,926406E+22	1,174405E+23
1891	4,408980E+22	4,408970E+22	1,463127E+22	1,463210E+22	8,817949E+22	2,926336E+22	1,174429E+23
1892	4,408966E+22	4,408844E+22	1,463133E+22	1,463114E+22	8,817810E+22	2,926247E+22	1,174406E+23
1893	4,408887E+22	4,409080E+22	1,463150E+22	1,463116E+22	8,817967E+22	2,926266E+22	1,174423E+23
1894	4,409014E+22	4,408984E+22	1,463090E+22	1,463166E+22	8,817998E+22	2,926256E+22	1,174425E+23
1895	4,408917E+22	4,408870E+22	1,463192E+22	1,463094E+22	8,817787E+22	2,926286E+22	1,174407E+23
1896	4,408891E+22	4,409040E+22	1,463192E+22	1,463186E+22	8,817930E+22	2,926378E+22	1,174431E+23
1897	4,408944E+22	4,408785E+22	1,463187E+22	1,463243E+22	8,817729E+22	2,926430E+22	1,174416E+23
1898	4,408739E+22	4,408793E+22	1,463315E+22	1,463230E+22	8,817532E+22	2,926544E+22	1,174408E+23
1899	4,408760E+22	4,408861E+22	1,463283E+22	1,463379E+22	8,817621E+22	2,926662E+22	1,174428E+23
1900	4,408744E+22	4,408581E+22	1,463342E+22	1,463369E+22	8,817326E+22	2,926711E+22	1,174404E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1901	4,408598E+22	4,408703E+22	1,463442E+22	1,463379E+22	8,817301E+22	2,926820E+22	1,174412E+23
1902	4,408697E+22	4,408639E+22	1,463402E+22	1,463479E+22	8,817336E+22	2,926882E+22	1,174422E+23
1903	4,408607E+22	4,408492E+22	1,463489E+22	1,463410E+22	8,817099E+22	2,926899E+22	1,174400E+23
1904	4,408493E+22	4,408726E+22	1,463485E+22	1,463456E+22	8,817218E+22	2,926941E+22	1,174416E+23
1905	4,408612E+22	4,408541E+22	1,463409E+22	1,463488E+22	8,817153E+22	2,926897E+22	1,174405E+23
1906	4,408516E+22	4,408531E+22	1,463469E+22	1,463369E+22	8,817047E+22	2,926838E+22	1,174388E+23
1907	4,408609E+22	4,408723E+22	1,463379E+22	1,463415E+22	8,817333E+22	2,926794E+22	1,174413E+23
1908	4,408753E+22	4,408558E+22	1,463319E+22	1,463339E+22	8,817311E+22	2,926658E+22	1,174397E+23
1909	4,408662E+22	4,408754E+22	1,463345E+22	1,463256E+22	8,817416E+22	2,926601E+22	1,174402E+23
1910	4,408785E+22	4,408846E+22	1,463241E+22	1,463325E+22	8,817630E+22	2,926566E+22	1,174420E+23
1911	4,408795E+22	4,408699E+22	1,463263E+22	1,463227E+22	8,817494E+22	2,926491E+22	1,174399E+23
1912	4,408695E+22	4,408919E+22	1,463291E+22	1,463226E+22	8,817614E+22	2,926517E+22	1,174413E+23
1913	4,408859E+22	4,408774E+22	1,463219E+22	1,463297E+22	8,817633E+22	2,926515E+22	1,174415E+23
1914	4,408768E+22	4,408666E+22	1,463318E+22	1,463228E+22	8,817435E+22	2,926546E+22	1,174398E+23
1915	4,408698E+22	4,408852E+22	1,463322E+22	1,463338E+22	8,817550E+22	2,926660E+22	1,174421E+23
1916	4,408754E+22	4,408619E+22	1,463308E+22	1,463392E+22	8,817373E+22	2,926700E+22	1,174407E+23
1917	4,408561E+22	4,408626E+22	1,463438E+22	1,463373E+22	8,817187E+22	2,926811E+22	1,174400E+23
1918	4,408581E+22	4,408654E+22	1,463431E+22	1,463512E+22	8,817235E+22	2,926943E+22	1,174418E+23
1919	4,408603E+22	4,408391E+22	1,463497E+22	1,463490E+22	8,816994E+22	2,926986E+22	1,174398E+23
1920	4,408410E+22	4,408552E+22	1,463595E+22	1,463498E+22	8,816962E+22	2,927093E+22	1,174406E+23
1921	4,408501E+22	4,408468E+22	1,463531E+22	1,463621E+22	8,816969E+22	2,927152E+22	1,174412E+23
1922	4,408401E+22	4,408322E+22	1,463610E+22	1,463545E+22	8,816723E+22	2,927155E+22	1,174388E+23
1923	4,408289E+22	4,408542E+22	1,463607E+22	1,463586E+22	8,816831E+22	2,927193E+22	1,174402E+23
1924	4,408464E+22	4,408365E+22	1,463515E+22	1,463597E+22	8,816829E+22	2,927112E+22	1,174394E+23
1925	4,408402E+22	4,408383E+22	1,463566E+22	1,463471E+22	8,816785E+22	2,927037E+22	1,174382E+23
1926	4,408476E+22	4,408566E+22	1,463489E+22	1,463520E+22	8,817043E+22	2,927009E+22	1,174405E+23
1927	4,408613E+22	4,408434E+22	1,463431E+22	1,463447E+22	8,817047E+22	2,926878E+22	1,174392E+23
1928	4,408473E+22	4,408648E+22	1,463463E+22	1,463367E+22	8,817121E+22	2,926830E+22	1,174395E+23
1929	4,408620E+22	4,408670E+22	1,463353E+22	1,463447E+22	8,817290E+22	2,926800E+22	1,174409E+23
1930	4,408656E+22	4,408506E+22	1,463382E+22	1,463340E+22	8,817162E+22	2,926722E+22	1,174388E+23
1931	4,408541E+22	4,408724E+22	1,463419E+22	1,463347E+22	8,817265E+22	2,926766E+22	1,174403E+23
1932	4,408699E+22	4,408609E+22	1,463337E+22	1,463421E+22	8,817308E+22	2,926759E+22	1,174407E+23
1933	4,408588E+22	4,408527E+22	1,463432E+22	1,463366E+22	8,817115E+22	2,926799E+22	1,174391E+23
1934	4,408481E+22	4,408668E+22	1,463461E+22	1,463485E+22	8,817149E+22	2,926946E+22	1,174409E+23
1935	4,408572E+22	4,408435E+22	1,463458E+22	1,463530E+22	8,817007E+22	2,926988E+22	1,174399E+23
1936	4,408378E+22	4,408452E+22	1,463593E+22	1,463500E+22	8,816830E+22	2,927093E+22	1,174392E+23
1937	4,408424E+22	4,408446E+22	1,463575E+22	1,463651E+22	8,816870E+22	2,927227E+22	1,174410E+23
1938	4,408442E+22	4,408209E+22	1,463636E+22	1,463627E+22	8,816651E+22	2,927263E+22	1,174391E+23
1939	4,408197E+22	4,408384E+22	1,463732E+22	1,463646E+22	8,816582E+22	2,927378E+22	1,174396E+23
1940	4,408291E+22	4,408313E+22	1,463651E+22	1,463760E+22	8,816604E+22	2,927411E+22	1,174401E+23
1941	4,408227E+22	4,408154E+22	1,463718E+22	1,463671E+22	8,816381E+22	2,927389E+22	1,174377E+23
1942	4,408127E+22	4,408329E+22	1,463731E+22	1,463698E+22	8,816456E+22	2,927430E+22	1,174389E+23
1943	4,408349E+22	4,408196E+22	1,463634E+22	1,463696E+22	8,816544E+22	2,927330E+22	1,174387E+23
1944	4,408257E+22	4,408260E+22	1,463678E+22	1,463569E+22	8,816516E+22	2,927247E+22	1,174376E+23
1945	4,408322E+22	4,408424E+22	1,463589E+22	1,463638E+22	8,816746E+22	2,927227E+22	1,174397E+23
1946	4,408453E+22	4,408297E+22	1,463534E+22	1,463558E+22	8,816750E+22	2,927092E+22	1,174384E+23
1947	4,408298E+22	4,408489E+22	1,463579E+22	1,463478E+22	8,816787E+22	2,927057E+22	1,174384E+23
1948	4,408471E+22	4,408512E+22	1,463465E+22	1,463549E+22	8,816983E+22	2,927014E+22	1,174400E+23
1949	4,408520E+22	4,408352E+22	1,463493E+22	1,463453E+22	8,816872E+22	2,926945E+22	1,174382E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1950	4,408367E+22	4,408541E+22	1,463553E+22	1,463478E+22	8,816908E+22	2,927031E+22	1,174394E+23
1951	4,408516E+22	4,408453E+22	1,463472E+22	1,463564E+22	8,816970E+22	2,927036E+22	1,174401E+23
1952	4,408377E+22	4,408374E+22	1,463571E+22	1,463511E+22	8,816750E+22	2,927082E+22	1,174383E+23
1953	4,408309E+22	4,408447E+22	1,463597E+22	1,463635E+22	8,816756E+22	2,927232E+22	1,174399E+23
1954	4,408427E+22	4,408221E+22	1,463600E+22	1,463663E+22	8,816648E+22	2,927263E+22	1,174391E+23
1955	4,408213E+22	4,408261E+22	1,463742E+22	1,463636E+22	8,816474E+22	2,927378E+22	1,174385E+23
1956	4,408240E+22	4,408287E+22	1,463709E+22	1,463785E+22	8,816527E+22	2,927495E+22	1,174402E+23
1957	4,408231E+22	4,408070E+22	1,463761E+22	1,463768E+22	8,816302E+22	2,927530E+22	1,174383E+23
1958	4,407964E+22	4,408194E+22	1,463871E+22	1,463787E+22	8,816158E+22	2,927658E+22	1,174382E+23
1959	4,408099E+22	4,408121E+22	1,463787E+22	1,463882E+22	8,816220E+22	2,927670E+22	1,174389E+23
1960	4,408062E+22	4,407979E+22	1,463846E+22	1,463780E+22	8,816041E+22	2,927626E+22	1,174367E+23
1961	4,408010E+22	4,408125E+22	1,463843E+22	1,463815E+22	8,816135E+22	2,927658E+22	1,174379E+23
1962	4,408231E+22	4,408042E+22	1,463739E+22	1,463806E+22	8,816273E+22	2,927545E+22	1,174382E+23
1963	4,408097E+22	4,408137E+22	1,463781E+22	1,463687E+22	8,816233E+22	2,927468E+22	1,174370E+23
1964	4,408157E+22	4,408303E+22	1,463686E+22	1,463746E+22	8,816460E+22	2,927431E+22	1,174389E+23
1965	4,408307E+22	4,408163E+22	1,463633E+22	1,463659E+22	8,816471E+22	2,927292E+22	1,174376E+23
1966	4,408145E+22	4,408301E+22	1,463705E+22	1,463582E+22	8,816446E+22	2,927288E+22	1,174373E+23
1967	4,408322E+22	4,408353E+22	1,463595E+22	1,463656E+22	8,816676E+22	2,927251E+22	1,174393E+23
1968	4,408337E+22	4,408217E+22	1,463622E+22	1,463577E+22	8,816553E+22	2,927199E+22	1,174375E+23
1969	4,408179E+22	4,408353E+22	1,463675E+22	1,463629E+22	8,816531E+22	2,927305E+22	1,174384E+23
1970	4,408340E+22	4,408266E+22	1,463601E+22	1,463708E+22	8,816606E+22	2,927309E+22	1,174392E+23
1971	4,408202E+22	4,408174E+22	1,463708E+22	1,463651E+22	8,816376E+22	2,927360E+22	1,174374E+23
1972	4,408157E+22	4,408263E+22	1,463729E+22	1,463762E+22	8,816420E+22	2,927491E+22	1,174391E+23
1973	4,408280E+22	4,408061E+22	1,463729E+22	1,463791E+22	8,816341E+22	2,927520E+22	1,174386E+23
1974	4,408010E+22	4,408075E+22	1,463893E+22	1,463779E+22	8,816085E+22	2,927672E+22	1,174376E+23
1975	4,408015E+22	4,408136E+22	1,463857E+22	1,463928E+22	8,816150E+22	2,927785E+22	1,174394E+23
1976	4,408001E+22	4,407902E+22	1,463905E+22	1,463909E+22	8,815903E+22	2,927815E+22	1,174372E+23
1977	4,407787E+22	4,407949E+22	1,464003E+22	1,463927E+22	8,815736E+22	2,927930E+22	1,174367E+23
1978	4,407972E+22	4,407902E+22	1,463911E+22	1,464000E+22	8,815874E+22	2,927910E+22	1,174378E+23
1979	4,407928E+22	4,407803E+22	1,463960E+22	1,463894E+22	8,815731E+22	2,927855E+22	1,174359E+23
1980	4,407869E+22	4,407999E+22	1,463939E+22	1,463923E+22	8,815869E+22	2,927862E+22	1,174373E+23
1981	4,408071E+22	4,407947E+22	1,463831E+22	1,463913E+22	8,816018E+22	2,927743E+22	1,174376E+23
1982	4,407910E+22	4,407994E+22	1,463900E+22	1,463796E+22	8,815904E+22	2,927695E+22	1,174360E+23
1983	4,407988E+22	4,408164E+22	1,463810E+22	1,463841E+22	8,816152E+22	2,927651E+22	1,174380E+23
1984	4,408145E+22	4,408020E+22	1,463760E+22	1,463761E+22	8,816164E+22	2,927521E+22	1,174369E+23
1985	4,408007E+22	4,408094E+22	1,463825E+22	1,463710E+22	8,816101E+22	2,927535E+22	1,174364E+23
1986	4,408174E+22	4,408174E+22	1,463714E+22	1,463791E+22	8,816348E+22	2,927505E+22	1,174385E+23
1987	4,408155E+22	4,408056E+22	1,463738E+22	1,463726E+22	8,816211E+22	2,927464E+22	1,174368E+23
1988	4,408017E+22	4,408177E+22	1,463785E+22	1,463766E+22	8,816194E+22	2,927550E+22	1,174374E+23
1989	4,408198E+22	4,408091E+22	1,463718E+22	1,463830E+22	8,816289E+22	2,927548E+22	1,174384E+23
1990	4,408048E+22	4,407975E+22	1,463854E+22	1,463774E+22	8,816024E+22	2,927627E+22	1,174365E+23
1991	4,407981E+22	4,408105E+22	1,463882E+22	1,463881E+22	8,816086E+22	2,927763E+22	1,174385E+23
1992	4,408058E+22	4,407925E+22	1,463884E+22	1,463929E+22	8,815983E+22	2,927813E+22	1,174380E+23
1993	4,407782E+22	4,407869E+22	1,464039E+22	1,463939E+22	8,815651E+22	2,927978E+22	1,174363E+23
1994	4,407803E+22	4,407921E+22	1,464001E+22	1,464075E+22	8,815724E+22	2,928076E+22	1,174380E+23
1995	4,407812E+22	4,407689E+22	1,464041E+22	1,464048E+22	8,815501E+22	2,928089E+22	1,174359E+23
1996	4,407651E+22	4,407749E+22	1,464115E+22	1,464048E+22	8,815399E+22	2,928163E+22	1,174356E+23
1997	4,407854E+22	4,407750E+22	1,464015E+22	1,464112E+22	8,815604E+22	2,928126E+22	1,174373E+23
1998	4,407771E+22	4,407663E+22	1,464077E+22	1,464013E+22	8,815434E+22	2,928090E+22	1,174352E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1999	4,407690E+22	4,407901E+22	1,464054E+22	1,464032E+22	8,815590E+22	2,928086E+22	1,174368E+23
2000	4,407887E+22	4,407834E+22	1,463950E+22	1,464018E+22	8,815721E+22	2,927969E+22	1,174369E+23
2001	4,407761E+22	4,407790E+22	1,464017E+22	1,463910E+22	8,815551E+22	2,927927E+22	1,174348E+23
2002	4,407862E+22	4,407974E+22	1,463928E+22	1,463945E+22	8,815836E+22	2,927873E+22	1,174371E+23
2003	4,407996E+22	4,407849E+22	1,463873E+22	1,463880E+22	8,815845E+22	2,927754E+22	1,174360E+23
2004	4,407853E+22	4,407941E+22	1,463921E+22	1,463836E+22	8,815794E+22	2,927757E+22	1,174355E+23
2005	4,408016E+22	4,408037E+22	1,463810E+22	1,463915E+22	8,816052E+22	2,927725E+22	1,174378E+23
2006	4,407978E+22	4,407877E+22	1,463863E+22	1,463851E+22	8,815854E+22	2,927714E+22	1,174357E+23
2007	4,407854E+22	4,408023E+22	1,463921E+22	1,463873E+22	8,815877E+22	2,927794E+22	1,174367E+23
2008	4,408033E+22	4,407942E+22	1,463867E+22	1,463946E+22	8,815975E+22	2,927813E+22	1,174379E+23
2009	4,407875E+22	4,407769E+22	1,464005E+22	1,463920E+22	8,815644E+22	2,927925E+22	1,174357E+23
2010	4,407778E+22	4,407924E+22	1,464033E+22	1,464034E+22	8,815702E+22	2,928066E+22	1,174377E+23
2011	4,407818E+22	4,407742E+22	1,464030E+22	1,464095E+22	8,815559E+22	2,928125E+22	1,174368E+23
2012	4,407583E+22	4,407651E+22	1,464166E+22	1,464091E+22	8,815234E+22	2,928257E+22	1,174349E+23
2013	4,407651E+22	4,407709E+22	1,464121E+22	1,464203E+22	8,815360E+22	2,928324E+22	1,174368E+23
2014	4,407664E+22	4,407483E+22	1,464172E+22	1,464171E+22	8,815147E+22	2,928343E+22	1,174349E+23
2015	4,407501E+22	4,407614E+22	1,464239E+22	1,464157E+22	8,815114E+22	2,928396E+22	1,174351E+23
2016	4,407672E+22	4,407653E+22	1,464140E+22	1,464228E+22	8,815325E+22	2,928368E+22	1,174369E+23
2017	4,407587E+22	4,407505E+22	1,464196E+22	1,464142E+22	8,815092E+22	2,928338E+22	1,174343E+23
2018	4,407521E+22	4,407731E+22	1,464177E+22	1,464140E+22	8,815252E+22	2,928317E+22	1,174357E+23
2019	4,407723E+22	4,407666E+22	1,464069E+22	1,464126E+22	8,815388E+22	2,928195E+22	1,174358E+23
2020	4,407640E+22	4,407607E+22	1,464114E+22	1,464014E+22	8,815247E+22	2,928128E+22	1,174337E+23
2021	4,407737E+22	4,407819E+22	1,464022E+22	1,464051E+22	8,815556E+22	2,928072E+22	1,174363E+23
2022	4,407833E+22	4,407703E+22	1,463981E+22	1,464005E+22	8,815536E+22	2,927987E+22	1,174352E+23
2023	4,407678E+22	4,407820E+22	1,464031E+22	1,463954E+22	8,815499E+22	2,927984E+22	1,174348E+23
2024	4,407847E+22	4,407898E+22	1,463939E+22	1,464032E+22	8,815745E+22	2,927970E+22	1,174371E+23
2025	4,407834E+22	4,407667E+22	1,463998E+22	1,463976E+22	8,815501E+22	2,927974E+22	1,174347E+23
2026	4,407708E+22	4,407832E+22	1,464066E+22	1,463993E+22	8,815541E+22	2,928059E+22	1,174360E+23
2027	4,407837E+22	4,407778E+22	1,464014E+22	1,464087E+22	8,815614E+22	2,928101E+22	1,174371E+23
2028	4,407665E+22	4,407594E+22	1,464136E+22	1,464075E+22	8,815259E+22	2,928211E+22	1,174347E+23
2029	4,407563E+22	4,407745E+22	1,464162E+22	1,464182E+22	8,815308E+22	2,928344E+22	1,174365E+23
2030	4,407606E+22	4,407525E+22	1,464175E+22	1,464244E+22	8,815131E+22	2,928419E+22	1,174355E+23
2031	4,407409E+22	4,407463E+22	1,464302E+22	1,464215E+22	8,814873E+22	2,928518E+22	1,174339E+23
2032	4,407503E+22	4,407541E+22	1,464260E+22	1,464324E+22	8,815044E+22	2,928584E+22	1,174363E+23
2033	4,407516E+22	4,407292E+22	1,464304E+22	1,464307E+22	8,814807E+22	2,928611E+22	1,174342E+23
2034	4,407338E+22	4,407471E+22	1,464366E+22	1,464284E+22	8,814809E+22	2,928650E+22	1,174346E+23
2035	4,407478E+22	4,407513E+22	1,464262E+22	1,464355E+22	8,814991E+22	2,928617E+22	1,174361E+23
2036	4,407426E+22	4,407328E+22	1,464301E+22	1,464256E+22	8,814754E+22	2,928557E+22	1,174331E+23
2037	4,407391E+22	4,407559E+22	1,464275E+22	1,464232E+22	8,814950E+22	2,928507E+22	1,174346E+23
2038	4,407576E+22	4,407488E+22	1,464180E+22	1,464227E+22	8,815064E+22	2,928407E+22	1,174347E+23
2039	4,407483E+22	4,407486E+22	1,464218E+22	1,464114E+22	8,814970E+22	2,928331E+22	1,174330E+23
2040	4,407566E+22	4,407711E+22	1,464133E+22	1,464166E+22	8,815276E+22	2,928299E+22	1,174358E+23
2041	4,407657E+22	4,407532E+22	1,464098E+22	1,464137E+22	8,815189E+22	2,928234E+22	1,174342E+23
2042	4,407527E+22	4,407648E+22	1,464156E+22	1,464070E+22	8,815175E+22	2,928226E+22	1,174340E+23
2043	4,407685E+22	4,407727E+22	1,464072E+22	1,464150E+22	8,815412E+22	2,928223E+22	1,174363E+23
2044	4,407693E+22	4,407482E+22	1,464121E+22	1,464105E+22	8,815175E+22	2,928226E+22	1,174340E+23
2045	4,407545E+22	4,407667E+22	1,464191E+22	1,464125E+22	8,815212E+22	2,928316E+22	1,174353E+23
2046	4,407616E+22	4,407609E+22	1,464155E+22	1,464243E+22	8,815225E+22	2,928398E+22	1,174362E+23
2047	4,407444E+22	4,407431E+22	1,464274E+22	1,464221E+22	8,814874E+22	2,928495E+22	1,174337E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2048	4,407372E+22	4,407549E+22	1,464310E+22	1,464323E+22	8,814921E+22	2,928633E+22	1,174355E+23
2049	4,407449E+22	4,407281E+22	1,464320E+22	1,464385E+22	8,814730E+22	2,928705E+22	1,174343E+23
2050	4,407274E+22	4,407259E+22	1,464442E+22	1,464342E+22	8,814533E+22	2,928784E+22	1,174332E+23
2051	4,407324E+22	4,407389E+22	1,464398E+22	1,464457E+22	8,814713E+22	2,928855E+22	1,174357E+23
2052	4,407337E+22	4,407146E+22	1,464416E+22	1,464440E+22	8,814483E+22	2,928855E+22	1,174334E+23
2053	4,407154E+22	4,407324E+22	1,464476E+22	1,464396E+22	8,814478E+22	2,928872E+22	1,174335E+23
2054	4,407287E+22	4,407346E+22	1,464386E+22	1,464464E+22	8,814634E+22	2,928849E+22	1,174348E+23
2055	4,407263E+22	4,407181E+22	1,464414E+22	1,464348E+22	8,814445E+22	2,928762E+22	1,174321E+23
2056	4,407248E+22	4,407412E+22	1,464393E+22	1,464334E+22	8,814659E+22	2,928727E+22	1,174339E+23
2057	4,407423E+22	4,407315E+22	1,464292E+22	1,464352E+22	8,814738E+22	2,928644E+22	1,174338E+23
2058	4,407330E+22	4,407342E+22	1,464324E+22	1,464239E+22	8,814672E+22	2,928563E+22	1,174323E+23
2059	4,407395E+22	4,407563E+22	1,464247E+22	1,464291E+22	8,814958E+22	2,928539E+22	1,174350E+23
2060	4,407528E+22	4,407350E+22	1,464200E+22	1,464254E+22	8,814877E+22	2,928453E+22	1,174333E+23
2061	4,407415E+22	4,407477E+22	1,464265E+22	1,464169E+22	8,814891E+22	2,928434E+22	1,174333E+23
2062	4,407527E+22	4,407562E+22	1,464204E+22	1,464267E+22	8,815090E+22	2,928472E+22	1,174356E+23
2063	4,407497E+22	4,407358E+22	1,464253E+22	1,464231E+22	8,814856E+22	2,928484E+22	1,174334E+23
2064	4,407330E+22	4,407525E+22	1,464336E+22	1,464270E+22	8,814855E+22	2,928606E+22	1,174346E+23
2065	4,407392E+22	4,407390E+22	1,464306E+22	1,464402E+22	8,814782E+22	2,928708E+22	1,174349E+23
2066	4,407265E+22	4,407211E+22	1,464422E+22	1,464363E+22	8,814476E+22	2,928786E+22	1,174326E+23
2067	4,407203E+22	4,407336E+22	1,464458E+22	1,464459E+22	8,814539E+22	2,928917E+22	1,174346E+23
2068	4,407306E+22	4,407075E+22	1,464446E+22	1,464524E+22	8,814381E+22	2,928970E+22	1,174335E+23
2069	4,407121E+22	4,407106E+22	1,464560E+22	1,464471E+22	8,814227E+22	2,929030E+22	1,174326E+23
2070	4,407115E+22	4,407245E+22	1,464528E+22	1,464596E+22	8,814360E+22	2,929124E+22	1,174348E+23
2071	4,407127E+22	4,407018E+22	1,464540E+22	1,464558E+22	8,814145E+22	2,929099E+22	1,174324E+23
2072	4,406983E+22	4,407160E+22	1,464605E+22	1,464506E+22	8,814144E+22	2,929111E+22	1,174325E+23
2073	4,407126E+22	4,407136E+22	1,464511E+22	1,464577E+22	8,814262E+22	2,929088E+22	1,174335E+23
2074	4,407126E+22	4,407006E+22	1,464529E+22	1,464457E+22	8,814132E+22	2,928986E+22	1,174312E+23
2075	4,407080E+22	4,407264E+22	1,464505E+22	1,464454E+22	8,814343E+22	2,928959E+22	1,174330E+23
2076	4,407270E+22	4,407163E+22	1,464382E+22	1,464479E+22	8,814433E+22	2,928862E+22	1,174330E+23
2077	4,407197E+22	4,407194E+22	1,464415E+22	1,464344E+22	8,814391E+22	2,928759E+22	1,174315E+23
2078	4,407250E+22	4,407405E+22	1,464361E+22	1,464396E+22	8,814654E+22	2,928757E+22	1,174341E+23
2079	4,407389E+22	4,407223E+22	1,464315E+22	1,464347E+22	8,814612E+22	2,928662E+22	1,174327E+23
2080	4,407270E+22	4,407337E+22	1,464399E+22	1,464283E+22	8,814608E+22	2,928682E+22	1,174329E+23
2081	4,407331E+22	4,407393E+22	1,464347E+22	1,464411E+22	8,814723E+22	2,928757E+22	1,174348E+23
2082	4,407293E+22	4,407187E+22	1,464395E+22	1,464383E+22	8,814480E+22	2,928778E+22	1,174326E+23
2083	4,407113E+22	4,407321E+22	1,464486E+22	1,464424E+22	8,814434E+22	2,928911E+22	1,174334E+23
2084	4,407231E+22	4,407150E+22	1,464435E+22	1,464548E+22	8,814380E+22	2,928983E+22	1,174336E+23
2085	4,407131E+22	4,406993E+22	1,464544E+22	1,464487E+22	8,814124E+22	2,929032E+22	1,174316E+23
2086	4,407034E+22	4,407155E+22	1,464595E+22	1,464593E+22	8,814189E+22	2,929188E+22	1,174338E+23
2087	4,407106E+22	4,406960E+22	1,464575E+22	1,464651E+22	8,814066E+22	2,929227E+22	1,174329E+23
2088	4,406914E+22	4,406980E+22	1,464699E+22	1,464605E+22	8,813894E+22	2,929304E+22	1,174320E+23
2089	4,406896E+22	4,407057E+22	1,464673E+22	1,464729E+22	8,813953E+22	2,929402E+22	1,174336E+23
2090	4,406952E+22	4,406827E+22	1,464676E+22	1,464676E+22	8,813779E+22	2,929352E+22	1,174313E+23
2091	4,406820E+22	4,406965E+22	1,464735E+22	1,464621E+22	8,813785E+22	2,929356E+22	1,174314E+23
2092	4,406995E+22	4,406941E+22	1,464611E+22	1,464698E+22	8,813936E+22	2,929310E+22	1,174325E+23
2093	4,406999E+22	4,406860E+22	1,464615E+22	1,464571E+22	8,813859E+22	2,929185E+22	1,174304E+23
2094	4,406922E+22	4,407128E+22	1,464603E+22	1,464576E+22	8,814050E+22	2,929179E+22	1,174323E+23
2095	4,407118E+22	4,407049E+22	1,464482E+22	1,464578E+22	8,814167E+22	2,929060E+22	1,174323E+23
2096	4,407083E+22	4,407055E+22	1,464530E+22	1,464439E+22	8,814138E+22	2,928969E+22	1,174311E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2097	4,407106E+22	4,407226E+22	1,464492E+22	1,464499E+22	8,814332E+22	2,928991E+22	1,174332E+23
2098	4,407233E+22	4,407076E+22	1,464449E+22	1,464463E+22	8,814309E+22	2,928912E+22	1,174322E+23
2099	4,407062E+22	4,407185E+22	1,464539E+22	1,464421E+22	8,814247E+22	2,928961E+22	1,174321E+23
2100	4,407118E+22	4,407199E+22	1,464471E+22	1,464565E+22	8,814317E+22	2,929036E+22	1,174335E+23
2101	4,407111E+22	4,406986E+22	1,464517E+22	1,464522E+22	8,814097E+22	2,929039E+22	1,174314E+23
2102	4,406937E+22	4,407102E+22	1,464622E+22	1,464564E+22	8,814039E+22	2,929186E+22	1,174322E+23
2103	4,407069E+22	4,406975E+22	1,464567E+22	1,464673E+22	8,814045E+22	2,929240E+22	1,174328E+23
2104	4,406984E+22	4,406834E+22	1,464684E+22	1,464622E+22	8,813817E+22	2,929307E+22	1,174312E+23
2105	4,406829E+22	4,406985E+22	1,464742E+22	1,464742E+22	8,813815E+22	2,929484E+22	1,174330E+23
2106	4,406900E+22	4,406806E+22	1,464721E+22	1,464796E+22	8,813706E+22	2,929517E+22	1,174322E+23
2107	4,406706E+22	4,406790E+22	1,464849E+22	1,464741E+22	8,813495E+22	2,929590E+22	1,174309E+23
2108	4,406734E+22	4,406832E+22	1,464796E+22	1,464855E+22	8,813566E+22	2,929650E+22	1,174322E+23
2109	4,406824E+22	4,406629E+22	1,464783E+22	1,464782E+22	8,813453E+22	2,929565E+22	1,174302E+23
2110	4,406665E+22	4,406797E+22	1,464844E+22	1,464740E+22	8,813462E+22	2,929583E+22	1,174305E+23
2111	4,406827E+22	4,406835E+22	1,464708E+22	1,464807E+22	8,813663E+22	2,929515E+22	1,174318E+23
2112	4,406850E+22	4,406748E+22	1,464718E+22	1,464681E+22	8,813597E+22	2,929399E+22	1,174300E+23
2113	4,406761E+22	4,406974E+22	1,464720E+22	1,464682E+22	8,813736E+22	2,929403E+22	1,174314E+23
2114	4,406989E+22	4,406903E+22	1,464603E+22	1,464672E+22	8,813891E+22	2,929275E+22	1,174317E+23
2115	4,406934E+22	4,406897E+22	1,464662E+22	1,464544E+22	8,813831E+22	2,929206E+22	1,174304E+23
2116	4,406950E+22	4,407054E+22	1,464605E+22	1,464624E+22	8,814004E+22	2,929230E+22	1,174323E+23
2117	4,407058E+22	4,406918E+22	1,464557E+22	1,464596E+22	8,813976E+22	2,929154E+22	1,174313E+23
2118	4,406856E+22	4,407005E+22	1,464663E+22	1,464573E+22	8,813861E+22	2,929236E+22	1,174310E+23
2119	4,406933E+22	4,407020E+22	1,464594E+22	1,464695E+22	8,813954E+22	2,929289E+22	1,174324E+23
2120	4,406976E+22	4,406790E+22	1,464649E+22	1,464648E+22	8,813766E+22	2,929296E+22	1,174306E+23
2121	4,406779E+22	4,406894E+22	1,464764E+22	1,464696E+22	8,813673E+22	2,929460E+22	1,174313E+23
2122	4,406900E+22	4,406815E+22	1,464714E+22	1,464808E+22	8,813714E+22	2,929522E+22	1,174324E+23
2123	4,406768E+22	4,406683E+22	1,464840E+22	1,464769E+22	8,813451E+22	2,929609E+22	1,174306E+23
2124	4,406616E+22	4,406795E+22	1,464879E+22	1,464892E+22	8,813411E+22	2,929771E+22	1,174318E+23
2125	4,406716E+22	4,406611E+22	1,464852E+22	1,464924E+22	8,813328E+22	2,929776E+22	1,174310E+23
2126	4,406528E+22	4,406582E+22	1,464980E+22	1,464870E+22	8,813110E+22	2,929849E+22	1,174296E+23
2127	4,406571E+22	4,406664E+22	1,464912E+22	1,464964E+22	8,813234E+22	2,929877E+22	1,174311E+23
2128	4,406687E+22	4,406486E+22	1,464895E+22	1,464902E+22	8,813174E+22	2,929797E+22	1,174297E+23
2129	4,406490E+22	4,406645E+22	1,464956E+22	1,464869E+22	8,813135E+22	2,929825E+22	1,174296E+23
2130	4,406667E+22	4,406704E+22	1,464824E+22	1,464924E+22	8,813371E+22	2,929748E+22	1,174312E+23
2131	4,406700E+22	4,406594E+22	1,464840E+22	1,464786E+22	8,813294E+22	2,929625E+22	1,174292E+23
2132	4,406638E+22	4,406784E+22	1,464824E+22	1,464781E+22	8,813422E+22	2,929606E+22	1,174303E+23
2133	4,406868E+22	4,406746E+22	1,464704E+22	1,464765E+22	8,813614E+22	2,929469E+22	1,174308E+23
2134	4,406761E+22	4,406748E+22	1,464774E+22	1,464668E+22	8,813509E+22	2,929442E+22	1,174295E+23
2135	4,406744E+22	4,406930E+22	1,464717E+22	1,464747E+22	8,813674E+22	2,929464E+22	1,174314E+23
2136	4,406879E+22	4,406765E+22	1,464679E+22	1,464730E+22	8,813644E+22	2,929409E+22	1,174305E+23
2137	4,406672E+22	4,406796E+22	1,464797E+22	1,464706E+22	8,813469E+22	2,929504E+22	1,174297E+23
2138	4,406790E+22	4,406826E+22	1,464735E+22	1,464818E+22	8,813616E+22	2,929553E+22	1,174317E+23
2139	4,406822E+22	4,406604E+22	1,464798E+22	1,464779E+22	8,813426E+22	2,929577E+22	1,174300E+23
2140	4,406614E+22	4,406708E+22	1,464897E+22	1,464842E+22	8,813322E+22	2,929739E+22	1,174306E+23
2141	4,406712E+22	4,406660E+22	1,464845E+22	1,464954E+22	8,813372E+22	2,929799E+22	1,174317E+23
2142	4,406546E+22	4,406505E+22	1,464984E+22	1,464927E+22	8,813051E+22	2,929911E+22	1,174296E+23
2143	4,406414E+22	4,406615E+22	1,465016E+22	1,465018E+22	8,813028E+22	2,930034E+22	1,174306E+23
2144	4,406565E+22	4,406416E+22	1,464986E+22	1,465046E+22	8,812980E+22	2,930032E+22	1,174301E+23
2145	4,406355E+22	4,406382E+22	1,465112E+22	1,464995E+22	8,812737E+22	2,930106E+22	1,174284E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2146	4,406406E+22	4,406510E+22	1,465037E+22	1,465086E+22	8,812916E+22	2,930122E+22	1,174304E+23
2147	4,406497E+22	4,406349E+22	1,465018E+22	1,465028E+22	8,812846E+22	2,930046E+22	1,174289E+23
2148	4,406330E+22	4,406479E+22	1,465058E+22	1,464988E+22	8,812808E+22	2,930046E+22	1,174285E+23
2149	4,406539E+22	4,406544E+22	1,464923E+22	1,465019E+22	8,813083E+22	2,929942E+22	1,174303E+23
2150	4,406564E+22	4,406434E+22	1,464947E+22	1,464888E+22	8,812998E+22	2,929835E+22	1,174283E+23
2151	4,406496E+22	4,406652E+22	1,464927E+22	1,464871E+22	8,813148E+22	2,929798E+22	1,174295E+23
2152	4,406722E+22	4,406623E+22	1,464812E+22	1,464878E+22	8,813345E+22	2,929690E+22	1,174304E+23
2153	4,406562E+22	4,406595E+22	1,464892E+22	1,464802E+22	8,813157E+22	2,929695E+22	1,174285E+23
2154	4,406564E+22	4,406763E+22	1,464846E+22	1,464877E+22	8,813327E+22	2,929724E+22	1,174305E+23
2155	4,406715E+22	4,406572E+22	1,464819E+22	1,464857E+22	8,813287E+22	2,929677E+22	1,174296E+23
2156	4,406544E+22	4,406573E+22	1,464918E+22	1,464834E+22	8,813118E+22	2,929752E+22	1,174287E+23
2157	4,406657E+22	4,406645E+22	1,464860E+22	1,464942E+22	8,813302E+22	2,929802E+22	1,174310E+23
2158	4,406630E+22	4,406450E+22	1,464933E+22	1,464928E+22	8,813080E+22	2,929861E+22	1,174294E+23
2159	4,406389E+22	4,406572E+22	1,465033E+22	1,464981E+22	8,812961E+22	2,930014E+22	1,174298E+23
2160	4,406510E+22	4,406502E+22	1,464991E+22	1,465096E+22	8,813012E+22	2,930087E+22	1,174310E+23
2161	4,406333E+22	4,406292E+22	1,465136E+22	1,465068E+22	8,812625E+22	2,930204E+22	1,174283E+23
2162	4,406235E+22	4,406409E+22	1,465166E+22	1,465146E+22	8,812644E+22	2,930312E+22	1,174296E+23
2163	4,406390E+22	4,406224E+22	1,465129E+22	1,465177E+22	8,812614E+22	2,930306E+22	1,174292E+23
2164	4,406192E+22	4,406185E+22	1,465221E+22	1,465135E+22	8,812377E+22	2,930355E+22	1,174273E+23
2165	4,406251E+22	4,406354E+22	1,465140E+22	1,465213E+22	8,812605E+22	2,930353E+22	1,174296E+23
2166	4,406333E+22	4,406194E+22	1,465126E+22	1,465152E+22	8,812527E+22	2,930277E+22	1,174280E+23
2167	4,406193E+22	4,406333E+22	1,465159E+22	1,465075E+22	8,812526E+22	2,930234E+22	1,174276E+23
2168	4,406433E+22	4,406406E+22	1,465028E+22	1,465103E+22	8,812840E+22	2,930132E+22	1,174297E+23
2169	4,406403E+22	4,406288E+22	1,465062E+22	1,464989E+22	8,812690E+22	2,930051E+22	1,174274E+23
2170	4,406317E+22	4,406528E+22	1,465048E+22	1,464982E+22	8,812845E+22	2,930030E+22	1,174288E+23
2171	4,406515E+22	4,406485E+22	1,464941E+22	1,465005E+22	8,813000E+22	2,929947E+22	1,174295E+23
2172	4,406390E+22	4,406398E+22	1,465004E+22	1,464936E+22	8,812788E+22	2,929940E+22	1,174273E+23
2173	4,406435E+22	4,406565E+22	1,464961E+22	1,464996E+22	8,813000E+22	2,929957E+22	1,174296E+23
2174	4,406572E+22	4,406385E+22	1,464943E+22	1,464988E+22	8,812957E+22	2,929931E+22	1,174289E+23
2175	4,406396E+22	4,406422E+22	1,465039E+22	1,464954E+22	8,812818E+22	2,929993E+22	1,174281E+23
2176	4,406493E+22	4,406512E+22	1,464991E+22	1,465080E+22	8,813005E+22	2,930071E+22	1,174308E+23
2177	4,406400E+22	4,406293E+22	1,465082E+22	1,465084E+22	8,812694E+22	2,930166E+22	1,174286E+23
2178	4,406178E+22	4,406389E+22	1,465191E+22	1,465123E+22	8,812567E+22	2,930314E+22	1,174288E+23
2179	4,406306E+22	4,406287E+22	1,465154E+22	1,465232E+22	8,812593E+22	2,930386E+22	1,174298E+23
2180	4,406169E+22	4,406049E+22	1,465268E+22	1,465205E+22	8,812218E+22	2,930473E+22	1,174269E+23
2181	4,406084E+22	4,406202E+22	1,465289E+22	1,465275E+22	8,812285E+22	2,930564E+22	1,174285E+23
2182	4,406199E+22	4,406060E+22	1,465248E+22	1,465321E+22	8,812259E+22	2,930569E+22	1,174283E+23
2183	4,406012E+22	4,406050E+22	1,465325E+22	1,465254E+22	8,812062E+22	2,930579E+22	1,174264E+23
2184	4,406108E+22	4,406217E+22	1,465251E+22	1,465319E+22	8,812325E+22	2,930570E+22	1,174290E+23
2185	4,406173E+22	4,406041E+22	1,465246E+22	1,465252E+22	8,812213E+22	2,930497E+22	1,174271E+23
2186	4,406054E+22	4,406189E+22	1,465283E+22	1,465164E+22	8,812243E+22	2,930447E+22	1,174269E+23
2187	4,406267E+22	4,406272E+22	1,465158E+22	1,465207E+22	8,812538E+22	2,930365E+22	1,174290E+23
2188	4,406231E+22	4,406126E+22	1,465165E+22	1,465121E+22	8,812356E+22	2,930286E+22	1,174264E+23
2189	4,406151E+22	4,406363E+22	1,465154E+22	1,465114E+22	8,812513E+22	2,930269E+22	1,174278E+23
2190	4,406346E+22	4,406303E+22	1,465054E+22	1,465143E+22	8,812649E+22	2,930198E+22	1,174285E+23
2191	4,406263E+22	4,406215E+22	1,465108E+22	1,465045E+22	8,812478E+22	2,930153E+22	1,174263E+23
2192	4,406335E+22	4,406404E+22	1,465075E+22	1,465104E+22	8,812739E+22	2,930179E+22	1,174292E+23
2193	4,406404E+22	4,406234E+22	1,465072E+22	1,465114E+22	8,812638E+22	2,930186E+22	1,174282E+23
2194	4,406196E+22	4,406289E+22	1,465185E+22	1,465087E+22	8,812485E+22	2,930271E+22	1,174276E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2195	4,406259E+22	4,406362E+22	1,465152E+22	1,465222E+22	8,812620E+22	2,930374E+22	1,174299E+23
2196	4,406189E+22	4,406070E+22	1,465227E+22	1,465235E+22	8,812259E+22	2,930462E+22	1,174272E+23
2197	4,406006E+22	4,406155E+22	1,465335E+22	1,465260E+22	8,812161E+22	2,930595E+22	1,174276E+23
2198	4,406125E+22	4,406066E+22	1,465293E+22	1,465378E+22	8,812192E+22	2,930671E+22	1,174286E+23
2199	4,406003E+22	4,405865E+22	1,465386E+22	1,465336E+22	8,811867E+22	2,930722E+22	1,174259E+23
2200	4,405928E+22	4,406056E+22	1,465403E+22	1,465410E+22	8,811984E+22	2,930813E+22	1,174280E+23
2201	4,405999E+22	4,405914E+22	1,465373E+22	1,465458E+22	8,811912E+22	2,930831E+22	1,174274E+23
2202	4,405849E+22	4,405901E+22	1,465457E+22	1,465364E+22	8,811750E+22	2,930821E+22	1,174257E+23
2203	4,405955E+22	4,406059E+22	1,465388E+22	1,465416E+22	8,812014E+22	2,930805E+22	1,174282E+23
2204	4,406032E+22	4,405860E+22	1,465356E+22	1,465357E+22	8,811893E+22	2,930714E+22	1,174261E+23
2205	4,405910E+22	4,406029E+22	1,465390E+22	1,465274E+22	8,811939E+22	2,930664E+22	1,174260E+23
2206	4,406067E+22	4,406129E+22	1,465265E+22	1,465339E+22	8,812196E+22	2,930604E+22	1,174280E+23
2207	4,406056E+22	4,405981E+22	1,465259E+22	1,465239E+22	8,812037E+22	2,930498E+22	1,174253E+23
2208	4,406027E+22	4,406197E+22	1,465256E+22	1,465225E+22	8,812224E+22	2,930481E+22	1,174271E+23
2209	4,406203E+22	4,406130E+22	1,465172E+22	1,465255E+22	8,812333E+22	2,930427E+22	1,174276E+23
2210	4,406143E+22	4,406062E+22	1,465233E+22	1,465148E+22	8,812204E+22	2,930380E+22	1,174258E+23
2211	4,406169E+22	4,406262E+22	1,465216E+22	1,465222E+22	8,812432E+22	2,930438E+22	1,174287E+23
2212	4,406210E+22	4,406072E+22	1,465200E+22	1,465260E+22	8,812282E+22	2,930461E+22	1,174274E+23
2213	4,406001E+22	4,406103E+22	1,465325E+22	1,465235E+22	8,812105E+22	2,930561E+22	1,174267E+23
2214	4,406042E+22	4,406151E+22	1,465302E+22	1,465375E+22	8,812193E+22	2,930677E+22	1,174287E+23
2215	4,406018E+22	4,405852E+22	1,465359E+22	1,465366E+22	8,811870E+22	2,930725E+22	1,174260E+23
2216	4,405863E+22	4,405951E+22	1,465464E+22	1,465392E+22	8,811814E+22	2,930856E+22	1,174267E+23
2217	4,405924E+22	4,405889E+22	1,465429E+22	1,465522E+22	8,811813E+22	2,930951E+22	1,174276E+23
2218	4,405805E+22	4,405721E+22	1,465521E+22	1,465472E+22	8,811525E+22	2,930993E+22	1,174252E+23
2219	4,405726E+22	4,405911E+22	1,465549E+22	1,465540E+22	8,811637E+22	2,931089E+22	1,174273E+23
2220	4,405827E+22	4,405728E+22	1,465499E+22	1,465583E+22	8,811555E+22	2,931082E+22	1,174264E+23
2221	4,405714E+22	4,405716E+22	1,465581E+22	1,465474E+22	8,811430E+22	2,931055E+22	1,174249E+23
2222	4,405793E+22	4,405890E+22	1,465509E+22	1,465532E+22	8,811684E+22	2,931041E+22	1,174272E+23
2223	4,405877E+22	4,405710E+22	1,465453E+22	1,465469E+22	8,811588E+22	2,930922E+22	1,174251E+23
2224	4,405763E+22	4,405895E+22	1,465483E+22	1,465395E+22	8,811658E+22	2,930878E+22	1,174254E+23
2225	4,405885E+22	4,405977E+22	1,465371E+22	1,465463E+22	8,811862E+22	2,930834E+22	1,174270E+23
2226	4,405919E+22	4,405818E+22	1,465373E+22	1,465341E+22	8,811737E+22	2,930714E+22	1,174245E+23
2227	4,405907E+22	4,406037E+22	1,465381E+22	1,465320E+22	8,811944E+22	2,930701E+22	1,174264E+23
2228	4,406074E+22	4,405954E+22	1,465284E+22	1,465366E+22	8,812029E+22	2,930650E+22	1,174268E+23
2229	4,405993E+22	4,405909E+22	1,465356E+22	1,465271E+22	8,811902E+22	2,930627E+22	1,174253E+23
2230	4,405948E+22	4,406118E+22	1,465351E+22	1,465365E+22	8,812066E+22	2,930716E+22	1,174278E+23
2231	4,406001E+22	4,405904E+22	1,465329E+22	1,465398E+22	8,811905E+22	2,930727E+22	1,174263E+23
2232	4,405832E+22	4,405908E+22	1,465460E+22	1,465371E+22	8,811740E+22	2,930830E+22	1,174257E+23
2233	4,405844E+22	4,405942E+22	1,465449E+22	1,465515E+22	8,811786E+22	2,930963E+22	1,174275E+23
2234	4,405848E+22	4,405661E+22	1,465506E+22	1,465500E+22	8,811509E+22	2,931005E+22	1,174251E+23
2235	4,405678E+22	4,405781E+22	1,465612E+22	1,465535E+22	8,811459E+22	2,931147E+22	1,174261E+23
2236	4,405728E+22	4,405708E+22	1,465559E+22	1,465679E+22	8,811436E+22	2,931238E+22	1,174267E+23
2237	4,405639E+22	4,405536E+22	1,465654E+22	1,465615E+22	8,811175E+22	2,931269E+22	1,174244E+23
2238	4,405550E+22	4,405722E+22	1,465685E+22	1,465668E+22	8,811272E+22	2,931352E+22	1,174262E+23
2239	4,405694E+22	4,405552E+22	1,465611E+22	1,465686E+22	8,811246E+22	2,931297E+22	1,174254E+23
2240	4,405593E+22	4,405558E+22	1,465686E+22	1,465576E+22	8,811151E+22	2,931261E+22	1,174241E+23
2241	4,405592E+22	4,405752E+22	1,465622E+22	1,465648E+22	8,811345E+22	2,931270E+22	1,174261E+23
2242	4,405688E+22	4,405588E+22	1,465564E+22	1,465579E+22	8,811276E+22	2,931143E+22	1,174242E+23
2243	4,405589E+22	4,405745E+22	1,465602E+22	1,465504E+22	8,811334E+22	2,931106E+22	1,174244E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2244	4,405743E+22	4,405789E+22	1,465479E+22	1,465574E+22	8,811532E+22	2,931053E+22	1,174258E+23
2245	4,405819E+22	4,405639E+22	1,465484E+22	1,465444E+22	8,811458E+22	2,930928E+22	1,174239E+23
2246	4,405763E+22	4,405882E+22	1,465498E+22	1,465434E+22	8,811645E+22	2,930932E+22	1,174258E+23
2247	4,405918E+22	4,405823E+22	1,465390E+22	1,465485E+22	8,811741E+22	2,930875E+22	1,174262E+23
2248	4,405821E+22	4,405775E+22	1,465471E+22	1,465407E+22	8,811596E+22	2,930878E+22	1,174247E+23
2249	4,405722E+22	4,405948E+22	1,465492E+22	1,465509E+22	8,811670E+22	2,931001E+22	1,174267E+23
2250	4,405817E+22	4,405711E+22	1,465477E+22	1,465527E+22	8,811528E+22	2,931004E+22	1,174253E+23
2251	4,405667E+22	4,405702E+22	1,465613E+22	1,465501E+22	8,811369E+22	2,931114E+22	1,174248E+23
2252	4,405672E+22	4,405721E+22	1,465585E+22	1,465662E+22	8,811393E+22	2,931247E+22	1,174264E+23
2253	4,405673E+22	4,405472E+22	1,465642E+22	1,465652E+22	8,811144E+22	2,931294E+22	1,174244E+23
2254	4,405464E+22	4,405613E+22	1,465750E+22	1,465690E+22	8,811077E+22	2,931440E+22	1,174252E+23
2255	4,405550E+22	4,405530E+22	1,465685E+22	1,465812E+22	8,811080E+22	2,931496E+22	1,174258E+23
2256	4,405500E+22	4,405365E+22	1,465779E+22	1,465731E+22	8,810865E+22	2,931510E+22	1,174237E+23
2257	4,405375E+22	4,405553E+22	1,465816E+22	1,465778E+22	8,810927E+22	2,931593E+22	1,174252E+23
2258	4,405526E+22	4,405404E+22	1,465739E+22	1,465788E+22	8,810929E+22	2,931527E+22	1,174246E+23
2259	4,405409E+22	4,405425E+22	1,465809E+22	1,465692E+22	8,810834E+22	2,931501E+22	1,174234E+23
2260	4,405398E+22	4,405585E+22	1,465728E+22	1,465780E+22	8,810983E+22	2,931508E+22	1,174249E+23
2261	4,405541E+22	4,405407E+22	1,465676E+22	1,465701E+22	8,810948E+22	2,931376E+22	1,174232E+23
2262	4,405453E+22	4,405565E+22	1,465712E+22	1,465614E+22	8,811019E+22	2,931325E+22	1,174234E+23
2263	4,405645E+22	4,405622E+22	1,465572E+22	1,465668E+22	8,811267E+22	2,931240E+22	1,174251E+23
2264	4,405715E+22	4,405511E+22	1,465578E+22	1,465544E+22	8,811225E+22	2,931123E+22	1,174235E+23
2265	4,405566E+22	4,405765E+22	1,465615E+22	1,465552E+22	8,811331E+22	2,931167E+22	1,174250E+23
2266	4,405712E+22	4,405705E+22	1,465521E+22	1,465605E+22	8,811416E+22	2,931126E+22	1,174254E+23
2267	4,405623E+22	4,405613E+22	1,465618E+22	1,465538E+22	8,811236E+22	2,931156E+22	1,174239E+23
2268	4,405535E+22	4,405726E+22	1,465633E+22	1,465648E+22	8,811261E+22	2,931281E+22	1,174254E+23
2269	4,405672E+22	4,405486E+22	1,465620E+22	1,465668E+22	8,811158E+22	2,931288E+22	1,174245E+23
2270	4,405492E+22	4,405495E+22	1,465752E+22	1,465650E+22	8,810987E+22	2,931402E+22	1,174239E+23
2271	4,405504E+22	4,405544E+22	1,465706E+22	1,465810E+22	8,811048E+22	2,931516E+22	1,174256E+23
2272	4,405508E+22	4,405315E+22	1,465762E+22	1,465798E+22	8,810823E+22	2,931560E+22	1,174238E+23
2273	4,405257E+22	4,405439E+22	1,465892E+22	1,465826E+22	8,810697E+22	2,931718E+22	1,174241E+23
2274	4,405380E+22	4,405365E+22	1,465830E+22	1,465920E+22	8,810746E+22	2,931750E+22	1,174250E+23
2275	4,405334E+22	4,405198E+22	1,465923E+22	1,465842E+22	8,810532E+22	2,931765E+22	1,174230E+23
2276	4,405179E+22	4,405370E+22	1,465944E+22	1,465903E+22	8,810549E+22	2,931846E+22	1,174240E+23
2277	4,405336E+22	4,405238E+22	1,465861E+22	1,465920E+22	8,810574E+22	2,931781E+22	1,174236E+23
2278	4,405202E+22	4,405259E+22	1,465923E+22	1,465825E+22	8,810461E+22	2,931748E+22	1,174221E+23
2279	4,405255E+22	4,405405E+22	1,465824E+22	1,465892E+22	8,810660E+22	2,931716E+22	1,174238E+23
2280	4,405445E+22	4,405249E+22	1,465766E+22	1,465799E+22	8,810693E+22	2,931565E+22	1,174226E+23
2281	4,405325E+22	4,405420E+22	1,465816E+22	1,465711E+22	8,810744E+22	2,931527E+22	1,174227E+23
2282	4,405511E+22	4,405511E+22	1,465685E+22	1,465760E+22	8,811021E+22	2,931445E+22	1,174247E+23
2283	4,405546E+22	4,405408E+22	1,465700E+22	1,465662E+22	8,810954E+22	2,931362E+22	1,174232E+23
2284	4,405363E+22	4,405604E+22	1,465739E+22	1,465688E+22	8,810967E+22	2,931428E+22	1,174239E+23
2285	4,405539E+22	4,405507E+22	1,465661E+22	1,465741E+22	8,811046E+22	2,931401E+22	1,174245E+23
2286	4,405454E+22	4,405400E+22	1,465757E+22	1,465671E+22	8,810854E+22	2,931429E+22	1,174228E+23
2287	4,405402E+22	4,405506E+22	1,465755E+22	1,465777E+22	8,810908E+22	2,931532E+22	1,174244E+23
2288	4,405526E+22	4,405313E+22	1,465738E+22	1,465805E+22	8,810839E+22	2,931543E+22	1,174238E+23
2289	4,405279E+22	4,405343E+22	1,465882E+22	1,465796E+22	8,810621E+22	2,931678E+22	1,174230E+23
2290	4,405292E+22	4,405397E+22	1,465850E+22	1,465942E+22	8,810689E+22	2,931791E+22	1,174248E+23
2291	4,405314E+22	4,405158E+22	1,465916E+22	1,465928E+22	8,810472E+22	2,931845E+22	1,174232E+23
2292	4,405066E+22	4,405236E+22	1,466039E+22	1,465955E+22	8,810302E+22	2,931995E+22	1,174230E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2293	4,405215E+22	4,405165E+22	1,465979E+22	1,466048E+22	8,810380E+22	2,932027E+22	1,174241E+23
2294	4,405136E+22	4,405019E+22	1,466056E+22	1,465978E+22	8,810155E+22	2,932035E+22	1,174219E+23
2295	4,404999E+22	4,405192E+22	1,466048E+22	1,466039E+22	8,810191E+22	2,932087E+22	1,174228E+23
2296	4,405179E+22	4,405078E+22	1,465956E+22	1,466049E+22	8,810258E+22	2,932005E+22	1,174226E+23
2297	4,405046E+22	4,405087E+22	1,466027E+22	1,465938E+22	8,810132E+22	2,931965E+22	1,174210E+23
2298	4,405148E+22	4,405256E+22	1,465933E+22	1,465975E+22	8,810404E+22	2,931908E+22	1,174231E+23
2299	4,405338E+22	4,405129E+22	1,465876E+22	1,465888E+22	8,810467E+22	2,931763E+22	1,174223E+23
2300	4,405165E+22	4,405286E+22	1,465927E+22	1,465817E+22	8,810450E+22	2,931744E+22	1,174219E+23
2301	4,405336E+22	4,405381E+22	1,465809E+22	1,465879E+22	8,810716E+22	2,931688E+22	1,174240E+23
2302	4,405336E+22	4,405253E+22	1,465830E+22	1,465792E+22	8,810589E+22	2,931622E+22	1,174221E+23
2303	4,405199E+22	4,405406E+22	1,465859E+22	1,465815E+22	8,810605E+22	2,931674E+22	1,174228E+23
2304	4,405405E+22	4,405316E+22	1,465775E+22	1,465864E+22	8,810721E+22	2,931639E+22	1,174236E+23
2305	4,405285E+22	4,405208E+22	1,465883E+22	1,465803E+22	8,810493E+22	2,931686E+22	1,174218E+23
2306	4,405234E+22	4,405351E+22	1,465886E+22	1,465904E+22	8,810585E+22	2,931791E+22	1,174238E+23
2307	4,405334E+22	4,405178E+22	1,465875E+22	1,465952E+22	8,810512E+22	2,931827E+22	1,174234E+23
2308	4,405061E+22	4,405158E+22	1,466027E+22	1,465950E+22	8,810219E+22	2,931977E+22	1,174220E+23
2309	4,405114E+22	4,405191E+22	1,466010E+22	1,466083E+22	8,810306E+22	2,932092E+22	1,174240E+23
2310	4,405128E+22	4,404953E+22	1,466071E+22	1,466062E+22	8,810081E+22	2,932133E+22	1,174221E+23
2311	4,404907E+22	4,405026E+22	1,466167E+22	1,466085E+22	8,809934E+22	2,932252E+22	1,174219E+23
2312	4,405039E+22	4,404998E+22	1,466092E+22	1,466180E+22	8,810037E+22	2,932273E+22	1,174231E+23
2313	4,404917E+22	4,404860E+22	1,466172E+22	1,466115E+22	8,809777E+22	2,932287E+22	1,174206E+23
2314	4,404820E+22	4,405037E+22	1,466165E+22	1,466152E+22	8,809856E+22	2,932317E+22	1,174217E+23
2315	4,405039E+22	4,404934E+22	1,466073E+22	1,466156E+22	8,809973E+22	2,932229E+22	1,174220E+23
2316	4,404918E+22	4,404916E+22	1,466137E+22	1,466040E+22	8,809834E+22	2,932177E+22	1,174201E+23
2317	4,405039E+22	4,405101E+22	1,466054E+22	1,466074E+22	8,810140E+22	2,932128E+22	1,174227E+23
2318	4,405176E+22	4,405010E+22	1,465992E+22	1,465998E+22	8,810186E+22	2,931990E+22	1,174218E+23
2319	4,405002E+22	4,405142E+22	1,466026E+22	1,465940E+22	8,810145E+22	2,931966E+22	1,174211E+23
2320	4,405163E+22	4,405232E+22	1,465915E+22	1,466001E+22	8,810394E+22	2,931916E+22	1,174231E+23
2321	4,405158E+22	4,405070E+22	1,465949E+22	1,465915E+22	8,810228E+22	2,931863E+22	1,174209E+23
2322	4,405058E+22	4,405217E+22	1,465984E+22	1,465921E+22	8,810275E+22	2,931905E+22	1,174218E+23
2323	4,405260E+22	4,405157E+22	1,465903E+22	1,465987E+22	8,810417E+22	2,931891E+22	1,174231E+23
2324	4,405095E+22	4,405034E+22	1,466010E+22	1,465944E+22	8,810130E+22	2,931954E+22	1,174208E+23
2325	4,405042E+22	4,405181E+22	1,466031E+22	1,466051E+22	8,810223E+22	2,932082E+22	1,174231E+23
2326	4,405117E+22	4,405006E+22	1,466027E+22	1,466097E+22	8,810123E+22	2,932124E+22	1,174225E+23
2327	4,404893E+22	4,404945E+22	1,466166E+22	1,466089E+22	8,809838E+22	2,932255E+22	1,174209E+23
2328	4,404957E+22	4,404997E+22	1,466145E+22	1,466211E+22	8,809955E+22	2,932356E+22	1,174231E+23
2329	4,404938E+22	4,404762E+22	1,466209E+22	1,466198E+22	8,809700E+22	2,932407E+22	1,174211E+23
2330	4,404718E+22	4,404863E+22	1,466298E+22	1,466214E+22	8,809582E+22	2,932512E+22	1,174209E+23
2331	4,404843E+22	4,404857E+22	1,466216E+22	1,466320E+22	8,809700E+22	2,932536E+22	1,174224E+23
2332	4,404724E+22	4,404671E+22	1,466293E+22	1,466251E+22	8,809396E+22	2,932544E+22	1,174194E+23
2333	4,404695E+22	4,404844E+22	1,466295E+22	1,466265E+22	8,809539E+22	2,932560E+22	1,174210E+23
2334	4,404910E+22	4,404769E+22	1,466195E+22	1,466256E+22	8,809679E+22	2,932451E+22	1,174213E+23
2335	4,404805E+22	4,404761E+22	1,466237E+22	1,466142E+22	8,809566E+22	2,932379E+22	1,174194E+23
2336	4,404889E+22	4,404988E+22	1,466147E+22	1,466178E+22	8,809876E+22	2,932325E+22	1,174220E+23
2337	4,404965E+22	4,404883E+22	1,466098E+22	1,466116E+22	8,809848E+22	2,932215E+22	1,174206E+23
2338	4,404819E+22	4,404995E+22	1,466143E+22	1,466046E+22	8,809814E+22	2,932189E+22	1,174200E+23
2339	4,405004E+22	4,405075E+22	1,466035E+22	1,466115E+22	8,810079E+22	2,932150E+22	1,174223E+23
2340	4,405001E+22	4,404870E+22	1,466072E+22	1,466038E+22	8,809871E+22	2,932110E+22	1,174198E+23
2341	4,404929E+22	4,405024E+22	1,466118E+22	1,466049E+22	8,809952E+22	2,932167E+22	1,174212E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2342	4,405078E+22	4,405000E+22	1,466036E+22	1,466127E+22	8,810078E+22	2,932163E+22	1,174224E+23
2343	4,404926E+22	4,404858E+22	1,466129E+22	1,466094E+22	8,809784E+22	2,932223E+22	1,174201E+23
2344	4,404871E+22	4,405004E+22	1,466160E+22	1,466189E+22	8,809875E+22	2,932349E+22	1,174222E+23
2345	4,404931E+22	4,404812E+22	1,466172E+22	1,466232E+22	8,809743E+22	2,932404E+22	1,174215E+23
2346	4,404729E+22	4,404758E+22	1,466313E+22	1,466208E+22	8,809488E+22	2,932521E+22	1,174201E+23
2347	4,404769E+22	4,404841E+22	1,466288E+22	1,466345E+22	8,809611E+22	2,932633E+22	1,174224E+23
2348	4,404709E+22	4,404582E+22	1,466347E+22	1,466348E+22	8,809291E+22	2,932695E+22	1,174199E+23
2349	4,404518E+22	4,404671E+22	1,466441E+22	1,466359E+22	8,809188E+22	2,932800E+22	1,174199E+23
2350	4,404648E+22	4,404678E+22	1,466353E+22	1,466451E+22	8,809326E+22	2,932805E+22	1,174213E+23
2351	4,404603E+22	4,404473E+22	1,466401E+22	1,466368E+22	8,809076E+22	2,932769E+22	1,174184E+23
2352	4,404586E+22	4,404683E+22	1,466397E+22	1,466365E+22	8,809268E+22	2,932761E+22	1,174203E+23
2353	4,404760E+22	4,404637E+22	1,466300E+22	1,466360E+22	8,809397E+22	2,932660E+22	1,174206E+23
2354	4,404643E+22	4,404649E+22	1,466339E+22	1,466243E+22	8,809292E+22	2,932583E+22	1,174187E+23
2355	4,404702E+22	4,404882E+22	1,466255E+22	1,466293E+22	8,809584E+22	2,932548E+22	1,174213E+23
2356	4,404775E+22	4,404707E+22	1,466215E+22	1,466237E+22	8,809482E+22	2,932452E+22	1,174193E+23
2357	4,404691E+22	4,404788E+22	1,466271E+22	1,466158E+22	8,809479E+22	2,932429E+22	1,174191E+23
2358	4,404863E+22	4,404893E+22	1,466161E+22	1,466226E+22	8,809756E+22	2,932387E+22	1,174214E+23
2359	4,404876E+22	4,404687E+22	1,466176E+22	1,466165E+22	8,809562E+22	2,932341E+22	1,174190E+23
2360	4,404771E+22	4,404880E+22	1,466225E+22	1,466178E+22	8,809651E+22	2,932403E+22	1,174205E+23
2361	4,404873E+22	4,404850E+22	1,466163E+22	1,466266E+22	8,809723E+22	2,932429E+22	1,174215E+23
2362	4,404743E+22	4,404697E+22	1,466269E+22	1,466219E+22	8,809440E+22	2,932488E+22	1,174193E+23
2363	4,404694E+22	4,404844E+22	1,466308E+22	1,466317E+22	8,809538E+22	2,932624E+22	1,174216E+23
2364	4,404734E+22	4,404608E+22	1,466327E+22	1,466373E+22	8,809342E+22	2,932700E+22	1,174204E+23
2365	4,404551E+22	4,404555E+22	1,466472E+22	1,466355E+22	8,809106E+22	2,932827E+22	1,174193E+23
2366	4,404543E+22	4,404664E+22	1,466436E+22	1,466498E+22	8,809207E+22	2,932934E+22	1,174214E+23
2367	4,404517E+22	4,404376E+22	1,466467E+22	1,466507E+22	8,808894E+22	2,932974E+22	1,174187E+23
2368	4,404365E+22	4,404473E+22	1,466554E+22	1,466490E+22	8,808838E+22	2,933044E+22	1,174188E+23
2369	4,404501E+22	4,404485E+22	1,466472E+22	1,466567E+22	8,808986E+22	2,933038E+22	1,174202E+23
2370	4,404484E+22	4,404325E+22	1,466512E+22	1,466460E+22	8,808809E+22	2,932971E+22	1,174178E+23
2371	4,404440E+22	4,404580E+22	1,466504E+22	1,466463E+22	8,809019E+22	2,932967E+22	1,174199E+23
2372	4,404556E+22	4,404511E+22	1,466414E+22	1,466473E+22	8,809067E+22	2,932887E+22	1,174195E+23
2373	4,404463E+22	4,404496E+22	1,466464E+22	1,466358E+22	8,808959E+22	2,932822E+22	1,174178E+23
2374	4,404512E+22	4,404718E+22	1,466381E+22	1,466402E+22	8,809231E+22	2,932783E+22	1,174201E+23
2375	4,404651E+22	4,404506E+22	1,466319E+22	1,466353E+22	8,809157E+22	2,932672E+22	1,174183E+23
2376	4,404586E+22	4,404607E+22	1,466370E+22	1,466268E+22	8,809193E+22	2,932638E+22	1,174183E+23
2377	4,404717E+22	4,404737E+22	1,466271E+22	1,466350E+22	8,809454E+22	2,932621E+22	1,174207E+23
2378	4,404717E+22	4,404565E+22	1,466285E+22	1,466287E+22	8,809282E+22	2,932572E+22	1,174185E+23
2379	4,404589E+22	4,404761E+22	1,466348E+22	1,466310E+22	8,809351E+22	2,932658E+22	1,174201E+23
2380	4,404675E+22	4,404668E+22	1,466310E+22	1,466402E+22	8,809343E+22	2,932711E+22	1,174205E+23
2381	4,404587E+22	4,404485E+22	1,466433E+22	1,466350E+22	8,809072E+22	2,932783E+22	1,174185E+23
2382	4,404498E+22	4,404655E+22	1,466470E+22	1,466450E+22	8,809153E+22	2,932920E+22	1,174207E+23
2383	4,404548E+22	4,404401E+22	1,466460E+22	1,466527E+22	8,808949E+22	2,932987E+22	1,174194E+23
2384	4,404347E+22	4,404362E+22	1,466595E+22	1,466507E+22	8,808709E+22	2,933102E+22	1,174181E+23
2385	4,404326E+22	4,404469E+22	1,466566E+22	1,466646E+22	8,808796E+22	2,933212E+22	1,174201E+23
2386	4,404353E+22	4,404195E+22	1,466590E+22	1,466626E+22	8,808548E+22	2,933216E+22	1,174176E+23
2387	4,404231E+22	4,404322E+22	1,466673E+22	1,466599E+22	8,808553E+22	2,933272E+22	1,174182E+23
2388	4,404349E+22	4,404321E+22	1,466599E+22	1,466676E+22	8,808671E+22	2,933275E+22	1,174195E+23
2389	4,404338E+22	4,404181E+22	1,466642E+22	1,466570E+22	8,808519E+22	2,933212E+22	1,174173E+23
2390	4,404235E+22	4,404462E+22	1,466628E+22	1,466577E+22	8,808698E+22	2,933204E+22	1,174190E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2391	4,404379E+22	4,404341E+22	1,466517E+22	1,466600E+22	8,808719E+22	2,933117E+22	1,174184E+23
2392	4,404322E+22	4,404309E+22	1,466565E+22	1,466469E+22	8,808631E+22	2,933034E+22	1,174167E+23
2393	4,404378E+22	4,404528E+22	1,466489E+22	1,466510E+22	8,808906E+22	2,932999E+22	1,174190E+23
2394	4,404535E+22	4,404356E+22	1,466419E+22	1,466453E+22	8,808892E+22	2,932872E+22	1,174176E+23
2395	4,404448E+22	4,404500E+22	1,466469E+22	1,466382E+22	8,808948E+22	2,932851E+22	1,174180E+23
2396	4,404520E+22	4,404600E+22	1,466393E+22	1,466479E+22	8,809121E+22	2,932872E+22	1,174199E+23
2397	4,404541E+22	4,404410E+22	1,466428E+22	1,466417E+22	8,808952E+22	2,932845E+22	1,174180E+23
2398	4,404393E+22	4,404593E+22	1,466501E+22	1,466433E+22	8,808986E+22	2,932934E+22	1,174192E+23
2399	4,404511E+22	4,404453E+22	1,466449E+22	1,466540E+22	8,808964E+22	2,932989E+22	1,174195E+23
2400	4,404427E+22	4,404279E+22	1,466567E+22	1,466490E+22	8,808706E+22	2,933057E+22	1,174176E+23
2401	4,404292E+22	4,404455E+22	1,466607E+22	1,466604E+22	8,808747E+22	2,933210E+22	1,174196E+23
2402	4,404343E+22	4,404230E+22	1,466585E+22	1,466676E+22	8,808573E+22	2,933261E+22	1,174183E+23
2403	4,404162E+22	4,404196E+22	1,466717E+22	1,466650E+22	8,808358E+22	2,933367E+22	1,174173E+23
2404	4,404149E+22	4,404262E+22	1,466707E+22	1,466776E+22	8,808411E+22	2,933483E+22	1,174189E+23
2405	4,404226E+22	4,404009E+22	1,466734E+22	1,466739E+22	8,808235E+22	2,933472E+22	1,174171E+23
2406	4,404065E+22	4,404180E+22	1,466812E+22	1,466705E+22	8,808245E+22	2,933516E+22	1,174176E+23
2407	4,404177E+22	4,404170E+22	1,466714E+22	1,466800E+22	8,808347E+22	2,933514E+22	1,174186E+23
2408	4,404149E+22	4,404037E+22	1,466749E+22	1,466692E+22	8,808186E+22	2,933441E+22	1,174163E+23
2409	4,404032E+22	4,404295E+22	1,466741E+22	1,466698E+22	8,808327E+22	2,933438E+22	1,174177E+23
2410	4,404226E+22	4,404178E+22	1,466619E+22	1,466702E+22	8,808404E+22	2,933321E+22	1,174173E+23
2411	4,404206E+22	4,404162E+22	1,466660E+22	1,466571E+22	8,808368E+22	2,933231E+22	1,174160E+23
2412	4,404247E+22	4,404364E+22	1,466602E+22	1,466620E+22	8,808610E+22	2,933222E+22	1,174183E+23
2413	4,404407E+22	4,404219E+22	1,466537E+22	1,466570E+22	8,808626E+22	2,933107E+22	1,174173E+23
2414	4,404263E+22	4,404387E+22	1,466594E+22	1,466503E+22	8,808649E+22	2,933097E+22	1,174175E+23
2415	4,404354E+22	4,404425E+22	1,466512E+22	1,466612E+22	8,808779E+22	2,933124E+22	1,174190E+23
2416	4,404391E+22	4,404211E+22	1,466555E+22	1,466540E+22	8,808602E+22	2,933096E+22	1,174170E+23
2417	4,404224E+22	4,404388E+22	1,466640E+22	1,466560E+22	8,808611E+22	2,933200E+22	1,174181E+23
2418	4,404337E+22	4,404277E+22	1,466579E+22	1,466668E+22	8,808615E+22	2,933247E+22	1,174186E+23
2419	4,404231E+22	4,404128E+22	1,466692E+22	1,466634E+22	8,808359E+22	2,933326E+22	1,174168E+23
2420	4,404061E+22	4,404264E+22	1,466751E+22	1,466756E+22	8,808325E+22	2,933507E+22	1,174183E+23
2421	4,404152E+22	4,404036E+22	1,466737E+22	1,466818E+22	8,808188E+22	2,933555E+22	1,174174E+23
2422	4,403978E+22	4,404018E+22	1,466867E+22	1,466775E+22	8,807997E+22	2,933643E+22	1,174164E+23
2423	4,404006E+22	4,404058E+22	1,466839E+22	1,466908E+22	8,808064E+22	2,933747E+22	1,174181E+23
2424	4,404082E+22	4,403840E+22	1,466860E+22	1,466863E+22	8,807922E+22	2,933722E+22	1,174164E+23
2425	4,403872E+22	4,404029E+22	1,466934E+22	1,466836E+22	8,807901E+22	2,933770E+22	1,174167E+23
2426	4,403978E+22	4,404037E+22	1,466822E+22	1,466924E+22	8,808015E+22	2,933745E+22	1,174176E+23
2427	4,403979E+22	4,403892E+22	1,466850E+22	1,466811E+22	8,807870E+22	2,933661E+22	1,174153E+23
2428	4,403878E+22	4,404092E+22	1,466860E+22	1,466807E+22	8,807969E+22	2,933667E+22	1,174164E+23
2429	4,404120E+22	4,404006E+22	1,466738E+22	1,466802E+22	8,808126E+22	2,933540E+22	1,174167E+23
2430	4,404073E+22	4,404032E+22	1,466771E+22	1,466670E+22	8,808105E+22	2,933441E+22	1,174155E+23
2431	4,404100E+22	4,404214E+22	1,466702E+22	1,466741E+22	8,808314E+22	2,933443E+22	1,174176E+23
2432	4,404244E+22	4,404083E+22	1,466643E+22	1,466687E+22	8,808328E+22	2,933330E+22	1,174166E+23
2433	4,404078E+22	4,404220E+22	1,466717E+22	1,466622E+22	8,808297E+22	2,933339E+22	1,174164E+23
2434	4,404190E+22	4,404260E+22	1,466636E+22	1,466721E+22	8,808450E+22	2,933357E+22	1,174181E+23
2435	4,404241E+22	4,404051E+22	1,466679E+22	1,466662E+22	8,808292E+22	2,933341E+22	1,174163E+23
2436	4,404034E+22	4,404191E+22	1,466787E+22	1,466699E+22	8,808225E+22	2,933486E+22	1,174171E+23
2437	4,404142E+22	4,404108E+22	1,466726E+22	1,466818E+22	8,808250E+22	2,933544E+22	1,174179E+23
2438	4,404006E+22	4,403965E+22	1,466837E+22	1,466785E+22	8,807971E+22	2,933622E+22	1,174159E+23
2439	4,403880E+22	4,404038E+22	1,466888E+22	1,466912E+22	8,807918E+22	2,933800E+22	1,174172E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2440	4,404009E+22	4,403821E+22	1,466874E+22	1,466952E+22	8,807830E+22	2,933826E+22	1,174166E+23
2441	4,403823E+22	4,403825E+22	1,467005E+22	1,466904E+22	8,807648E+22	2,933909E+22	1,174156E+23
2442	4,403840E+22	4,403912E+22	1,466963E+22	1,467027E+22	8,807751E+22	2,933990E+22	1,174174E+23
2443	4,403891E+22	4,403722E+22	1,466973E+22	1,466989E+22	8,807613E+22	2,933962E+22	1,174158E+23
2444	4,403652E+22	4,403863E+22	1,467064E+22	1,466964E+22	8,807515E+22	2,934028E+22	1,174154E+23
2445	4,403800E+22	4,403863E+22	1,466951E+22	1,467036E+22	8,807663E+22	2,933988E+22	1,174165E+23
2446	4,403819E+22	4,403728E+22	1,466972E+22	1,466913E+22	8,807547E+22	2,933884E+22	1,174143E+23
2447	4,403769E+22	4,403893E+22	1,466963E+22	1,466919E+22	8,807663E+22	2,933882E+22	1,174154E+23
2448	4,404009E+22	4,403846E+22	1,466837E+22	1,466910E+22	8,807855E+22	2,933747E+22	1,174160E+23
2449	4,403917E+22	4,403902E+22	1,466872E+22	1,466788E+22	8,807819E+22	2,933660E+22	1,174148E+23
2450	4,403935E+22	4,404095E+22	1,466800E+22	1,466852E+22	8,808030E+22	2,933652E+22	1,174168E+23
2451	4,404089E+22	4,403951E+22	1,466750E+22	1,466798E+22	8,808040E+22	2,933547E+22	1,174159E+23
2452	4,403913E+22	4,404028E+22	1,466855E+22	1,466737E+22	8,807941E+22	2,933591E+22	1,174153E+23
2453	4,404030E+22	4,404086E+22	1,466781E+22	1,466838E+22	8,808116E+22	2,933619E+22	1,174174E+23
2454	4,404041E+22	4,403900E+22	1,466823E+22	1,466796E+22	8,807941E+22	2,933619E+22	1,174156E+23
2455	4,403833E+22	4,403987E+22	1,466919E+22	1,466861E+22	8,807820E+22	2,933780E+22	1,174160E+23
2456	4,403945E+22	4,403906E+22	1,466861E+22	1,466974E+22	8,807852E+22	2,933835E+22	1,174169E+23
2457	4,403817E+22	4,403754E+22	1,466975E+22	1,466933E+22	8,807571E+22	2,933908E+22	1,174148E+23
2458	4,403726E+22	4,403847E+22	1,467018E+22	1,467040E+22	8,807574E+22	2,934058E+22	1,174163E+23
2459	4,403869E+22	4,403666E+22	1,467001E+22	1,467077E+22	8,807535E+22	2,934078E+22	1,174161E+23
2460	4,403641E+22	4,403650E+22	1,467151E+22	1,467038E+22	8,807291E+22	2,934188E+22	1,174148E+23
2461	4,403637E+22	4,403775E+22	1,467105E+22	1,467157E+22	8,807412E+22	2,934263E+22	1,174167E+23
2462	4,403673E+22	4,403580E+22	1,467106E+22	1,467117E+22	8,807253E+22	2,934223E+22	1,174148E+23
2463	4,403482E+22	4,403636E+22	1,467184E+22	1,467094E+22	8,807118E+22	2,934278E+22	1,174140E+23
2464	4,403675E+22	4,403657E+22	1,467063E+22	1,467144E+22	8,807332E+22	2,934208E+22	1,174154E+23
2465	4,403693E+22	4,403552E+22	1,467075E+22	1,467019E+22	8,807245E+22	2,934094E+22	1,174134E+23
2466	4,403639E+22	4,403767E+22	1,467053E+22	1,467020E+22	8,807407E+22	2,934073E+22	1,174148E+23
2467	4,403859E+22	4,403757E+22	1,466925E+22	1,467015E+22	8,807615E+22	2,933940E+22	1,174156E+23
2468	4,403734E+22	4,403762E+22	1,466990E+22	1,466899E+22	8,807496E+22	2,933889E+22	1,174138E+23
2469	4,403767E+22	4,403954E+22	1,466932E+22	1,466952E+22	8,807721E+22	2,933883E+22	1,174160E+23
2470	4,403920E+22	4,403803E+22	1,466885E+22	1,466905E+22	8,807723E+22	2,933790E+22	1,174151E+23
2471	4,403763E+22	4,403814E+22	1,466986E+22	1,466872E+22	8,807578E+22	2,933858E+22	1,174144E+23
2472	4,403866E+22	4,403896E+22	1,466911E+22	1,466981E+22	8,807762E+22	2,933892E+22	1,174165E+23
2473	4,403840E+22	4,403721E+22	1,466950E+22	1,466954E+22	8,807561E+22	2,933904E+22	1,174146E+23
2474	4,403653E+22	4,403801E+22	1,467037E+22	1,467009E+22	8,807454E+22	2,934046E+22	1,174150E+23
2475	4,403795E+22	4,403721E+22	1,466986E+22	1,467107E+22	8,807517E+22	2,934093E+22	1,174161E+23
2476	4,403666E+22	4,403549E+22	1,467125E+22	1,467061E+22	8,807215E+22	2,934185E+22	1,174140E+23
2477	4,403569E+22	4,403688E+22	1,467170E+22	1,467157E+22	8,807256E+22	2,934327E+22	1,174158E+23
2478	4,403658E+22	4,403538E+22	1,467151E+22	1,467206E+22	8,807196E+22	2,934357E+22	1,174155E+23
2479	4,403422E+22	4,403464E+22	1,467287E+22	1,467186E+22	8,806887E+22	2,934473E+22	1,174136E+23
2480	4,403425E+22	4,403577E+22	1,467238E+22	1,467292E+22	8,807002E+22	2,934530E+22	1,174153E+23
2481	4,403482E+22	4,403376E+22	1,467231E+22	1,467245E+22	8,806858E+22	2,934476E+22	1,174133E+23
2482	4,403350E+22	4,403445E+22	1,467284E+22	1,467204E+22	8,806795E+22	2,934488E+22	1,174128E+23
2483	4,403567E+22	4,403510E+22	1,467157E+22	1,467248E+22	8,807077E+22	2,934405E+22	1,174148E+23
2484	4,403552E+22	4,403415E+22	1,467182E+22	1,467130E+22	8,806966E+22	2,934312E+22	1,174128E+23
2485	4,403477E+22	4,403671E+22	1,467162E+22	1,467125E+22	8,807148E+22	2,934287E+22	1,174143E+23
2486	4,403678E+22	4,403651E+22	1,467043E+22	1,467121E+22	8,807329E+22	2,934165E+22	1,174149E+23
2487	4,403586E+22	4,403563E+22	1,467110E+22	1,467018E+22	8,807148E+22	2,934128E+22	1,174128E+23
2488	4,403631E+22	4,403758E+22	1,467057E+22	1,467062E+22	8,807390E+22	2,934119E+22	1,174151E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude ⊙	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2489	4,403759E+22	4,403623E+22	1,467008E+22	1,467032E+22	8,807382E+22	2,934041E+22	1,174142E+23
2490	4,403596E+22	4,403647E+22	1,467094E+22	1,467008E+22	8,807243E+22	2,934102E+22	1,174134E+23
2491	4,403690E+22	4,403747E+22	1,467021E+22	1,467120E+22	8,807438E+22	2,934141E+22	1,174158E+23
2492	4,403650E+22	4,403528E+22	1,467087E+22	1,467094E+22	8,807178E+22	2,934181E+22	1,174136E+23
2493	4,403484E+22	4,403631E+22	1,467183E+22	1,467130E+22	8,807115E+22	2,934313E+22	1,174143E+23
2494	4,403628E+22	4,403566E+22	1,467138E+22	1,467228E+22	8,807195E+22	2,934366E+22	1,174156E+23
2495	4,403497E+22	4,403339E+22	1,467275E+22	1,467205E+22	8,806837E+22	2,934480E+22	1,174132E+23
2496	4,403371E+22	4,403512E+22	1,467318E+22	1,467301E+22	8,806883E+22	2,934619E+22	1,174150E+23
2497	4,403424E+22	4,403367E+22	1,467289E+22	1,467360E+22	8,806790E+22	2,934649E+22	1,174144E+23
2498	4,403222E+22	4,403265E+22	1,467406E+22	1,467328E+22	8,806487E+22	2,934734E+22	1,174122E+23
2499	4,403274E+22	4,403382E+22	1,467349E+22	1,467411E+22	8,806656E+22	2,934759E+22	1,174142E+23
2500	4,403343E+22	4,403176E+22	1,467351E+22	1,467356E+22	8,806519E+22	2,934707E+22	1,174123E+23
2501	4,403221E+22	4,403312E+22	1,467396E+22	1,467301E+22	8,806533E+22	2,934698E+22	1,174123E+23
2502	4,403406E+22	4,403417E+22	1,467269E+22	1,467352E+22	8,806823E+22	2,934622E+22	1,174144E+23
2503	4,403383E+22	4,403268E+22	1,467291E+22	1,467251E+22	8,806651E+22	2,934542E+22	1,174119E+23
2504	4,403316E+22	4,403515E+22	1,467278E+22	1,467230E+22	8,806831E+22	2,934508E+22	1,174134E+23
2505	4,403513E+22	4,403486E+22	1,467162E+22	1,467229E+22	8,806999E+22	2,934390E+22	1,174139E+23
2506	4,403457E+22	4,403385E+22	1,467214E+22	1,467127E+22	8,806842E+22	2,934342E+22	1,174118E+23
2507	4,403501E+22	4,403599E+22	1,467163E+22	1,467177E+22	8,807100E+22	2,934340E+22	1,174144E+23
2508	4,403586E+22	4,403464E+22	1,467131E+22	1,467169E+22	8,807050E+22	2,934300E+22	1,174135E+23
2509	4,403414E+22	4,403511E+22	1,467216E+22	1,467139E+22	8,806925E+22	2,934355E+22	1,174128E+23
2510	4,403503E+22	4,403591E+22	1,467160E+22	1,467251E+22	8,807094E+22	2,934411E+22	1,174151E+23
2511	4,403493E+22	4,403306E+22	1,467228E+22	1,467232E+22	8,806800E+22	2,934460E+22	1,174126E+23
2512	4,403334E+22	4,403427E+22	1,467331E+22	1,467256E+22	8,806761E+22	2,934587E+22	1,174135E+23
2513	4,403432E+22	4,403393E+22	1,467288E+22	1,467370E+22	8,806824E+22	2,934657E+22	1,174148E+23
2514	4,403289E+22	4,403171E+22	1,467405E+22	1,467356E+22	8,806460E+22	2,934761E+22	1,174122E+23
2515	4,403153E+22	4,403345E+22	1,467444E+22	1,467444E+22	8,806497E+22	2,934889E+22	1,174139E+23
2516	4,403208E+22	4,403160E+22	1,467430E+22	1,467501E+22	8,806368E+22	2,934931E+22	1,174130E+23
2517	4,403051E+22	4,403081E+22	1,467534E+22	1,467443E+22	8,806132E+22	2,934977E+22	1,174111E+23
2518	4,403132E+22	4,403219E+22	1,467477E+22	1,467521E+22	8,806351E+22	2,934997E+22	1,174135E+23
2519	4,403213E+22	4,402993E+22	1,467468E+22	1,467480E+22	8,806206E+22	2,934947E+22	1,174115E+23
2520	4,403079E+22	4,403176E+22	1,467507E+22	1,467417E+22	8,806255E+22	2,934925E+22	1,174118E+23
2521	4,403227E+22	4,403294E+22	1,467380E+22	1,467471E+22	8,806521E+22	2,934851E+22	1,174137E+23
2522	4,403233E+22	4,403111E+22	1,467389E+22	1,467361E+22	8,806344E+22	2,934750E+22	1,174109E+23
2523	4,403192E+22	4,403356E+22	1,467379E+22	1,467323E+22	8,806548E+22	2,934701E+22	1,174125E+23
2524	4,403371E+22	4,403313E+22	1,467279E+22	1,467332E+22	8,806684E+22	2,934611E+22	1,174129E+23
2525	4,403298E+22	4,403256E+22	1,467329E+22	1,467234E+22	8,806554E+22	2,934563E+22	1,174112E+23
2526	4,403315E+22	4,403481E+22	1,467284E+22	1,467300E+22	8,806796E+22	2,934584E+22	1,174138E+23
2527	4,403392E+22	4,403275E+22	1,467256E+22	1,467313E+22	8,806668E+22	2,934569E+22	1,174124E+23
2528	4,403244E+22	4,403320E+22	1,467349E+22	1,467268E+22	8,806564E+22	2,934618E+22	1,174118E+23
2529	4,403332E+22	4,403403E+22	1,467300E+22	1,467381E+22	8,806735E+22	2,934681E+22	1,174142E+23
2530	4,403346E+22	4,403114E+22	1,467357E+22	1,467366E+22	8,806460E+22	2,934723E+22	1,174118E+23
2531	4,403171E+22	4,403262E+22	1,467463E+22	1,467389E+22	8,806433E+22	2,934852E+22	1,174128E+23
2532	4,403211E+22	4,403225E+22	1,467433E+22	1,467522E+22	8,806436E+22	2,934955E+22	1,174139E+23
2533	4,403064E+22	4,403015E+22	1,467545E+22	1,467499E+22	8,806079E+22	2,935044E+22	1,174112E+23
2534	4,402954E+22	4,403156E+22	1,467589E+22	1,467580E+22	8,806110E+22	2,935169E+22	1,174128E+23
2535	4,403049E+22	4,402918E+22	1,467567E+22	1,467636E+22	8,805967E+22	2,935203E+22	1,174117E+23
2536	4,402926E+22	4,402881E+22	1,467660E+22	1,467560E+22	8,805807E+22	2,935220E+22	1,174103E+23
2537	4,402974E+22	4,403068E+22	1,467598E+22	1,467642E+22	8,806042E+22	2,935240E+22	1,174128E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2538	4,403054E+22	4,402865E+22	1,467566E+22	1,467601E+22	8,805919E+22	2,935167E+22	1,174109E+23
2539	4,402918E+22	4,403051E+22	1,467606E+22	1,467521E+22	8,805968E+22	2,935127E+22	1,174110E+23
2540	4,403051E+22	4,403143E+22	1,467499E+22	1,467573E+22	8,806195E+22	2,935072E+22	1,174127E+23
2541	4,403080E+22	4,402977E+22	1,467501E+22	1,467450E+22	8,806057E+22	2,934951E+22	1,174101E+23
2542	4,403043E+22	4,403209E+22	1,467499E+22	1,467424E+22	8,806252E+22	2,934923E+22	1,174118E+23
2543	4,403209E+22	4,403133E+22	1,467397E+22	1,467461E+22	8,806342E+22	2,934859E+22	1,174120E+23
2544	4,403135E+22	4,403097E+22	1,467442E+22	1,467367E+22	8,806231E+22	2,934809E+22	1,174104E+23
2545	4,403129E+22	4,403315E+22	1,467407E+22	1,467439E+22	8,806444E+22	2,934845E+22	1,174129E+23
2546	4,403249E+22	4,403081E+22	1,467367E+22	1,467444E+22	8,806330E+22	2,934812E+22	1,174114E+23
2547	4,403123E+22	4,403134E+22	1,467467E+22	1,467381E+22	8,806257E+22	2,934848E+22	1,174111E+23
2548	4,403172E+22	4,403226E+22	1,467442E+22	1,467505E+22	8,806398E+22	2,934947E+22	1,174135E+23
2549	4,403150E+22	4,402983E+22	1,467498E+22	1,467495E+22	8,806134E+22	2,934993E+22	1,174113E+23
2550	4,402945E+22	4,403121E+22	1,467613E+22	1,467534E+22	8,806066E+22	2,935148E+22	1,174121E+23
2551	4,402976E+22	4,403011E+22	1,467585E+22	1,467680E+22	8,805987E+22	2,935266E+22	1,174125E+23
2552	4,402873E+22	4,402793E+22	1,467692E+22	1,467639E+22	8,805666E+22	2,935332E+22	1,174100E+23
2553	4,402783E+22	4,402942E+22	1,467731E+22	1,467713E+22	8,805725E+22	2,935444E+22	1,174117E+23
2554	4,402919E+22	4,402718E+22	1,467683E+22	1,467767E+22	8,805637E+22	2,935450E+22	1,174109E+23
2555	4,402798E+22	4,402739E+22	1,467766E+22	1,467678E+22	8,805537E+22	2,935443E+22	1,174098E+23
2556	4,402797E+22	4,402942E+22	1,467714E+22	1,467766E+22	8,805739E+22	2,935480E+22	1,174122E+23
2557	4,402865E+22	4,402759E+22	1,467678E+22	1,467707E+22	8,805624E+22	2,935385E+22	1,174101E+23
2558	4,402756E+22	4,402911E+22	1,467727E+22	1,467619E+22	8,805666E+22	2,935346E+22	1,174101E+23
2559	4,402897E+22	4,402942E+22	1,467619E+22	1,467678E+22	8,805839E+22	2,935297E+22	1,174114E+23
2560	4,402944E+22	4,402802E+22	1,467616E+22	1,467556E+22	8,805746E+22	2,935172E+22	1,174092E+23
2561	4,402874E+22	4,403055E+22	1,467613E+22	1,467546E+22	8,805929E+22	2,935159E+22	1,174109E+23
2562	4,403046E+22	4,402975E+22	1,467493E+22	1,467595E+22	8,806021E+22	2,935088E+22	1,174111E+23
2563	4,402989E+22	4,402941E+22	1,467539E+22	1,467483E+22	8,805930E+22	2,935023E+22	1,174095E+23
2564	4,402974E+22	4,403140E+22	1,467529E+22	1,467555E+22	8,806114E+22	2,935084E+22	1,174120E+23
2565	4,403101E+22	4,402941E+22	1,467493E+22	1,467549E+22	8,806042E+22	2,935042E+22	1,174108E+23
2566	4,402970E+22	4,402986E+22	1,467611E+22	1,467501E+22	8,805957E+22	2,935112E+22	1,174107E+23
2567	4,402969E+22	4,403045E+22	1,467594E+22	1,467653E+22	8,806013E+22	2,935247E+22	1,174126E+23
2568	4,402937E+22	4,402811E+22	1,467647E+22	1,467652E+22	8,805747E+22	2,935299E+22	1,174105E+23
2569	4,402715E+22	4,402915E+22	1,467767E+22	1,467694E+22	8,805630E+22	2,935461E+22	1,174109E+23
2570	4,402803E+22	4,402773E+22	1,467717E+22	1,467831E+22	8,805576E+22	2,935548E+22	1,174112E+23
2571	4,402744E+22	4,402576E+22	1,467812E+22	1,467764E+22	8,805320E+22	2,935575E+22	1,174090E+23
2572	4,402628E+22	4,402759E+22	1,467861E+22	1,467841E+22	8,805387E+22	2,935703E+22	1,174109E+23
2573	4,402741E+22	4,402611E+22	1,467800E+22	1,467883E+22	8,805352E+22	2,935684E+22	1,174104E+23
2574	4,402607E+22	4,402626E+22	1,467890E+22	1,467798E+22	8,805233E+22	2,935688E+22	1,174092E+23
2575	4,402593E+22	4,402771E+22	1,467845E+22	1,467886E+22	8,805364E+22	2,935731E+22	1,174109E+23
2576	4,402702E+22	4,402584E+22	1,467802E+22	1,467812E+22	8,805287E+22	2,935614E+22	1,174090E+23
2577	4,402599E+22	4,402727E+22	1,467850E+22	1,467725E+22	8,805325E+22	2,935575E+22	1,174090E+23
2578	4,402767E+22	4,402758E+22	1,467716E+22	1,467794E+22	8,805526E+22	2,935511E+22	1,174104E+23
2579	4,402817E+22	4,402656E+22	1,467702E+22	1,467669E+22	8,805473E+22	2,935372E+22	1,174084E+23
2580	4,402713E+22	4,402913E+22	1,467715E+22	1,467673E+22	8,805626E+22	2,935388E+22	1,174101E+23
2581	4,402887E+22	4,402851E+22	1,467598E+22	1,467704E+22	8,805738E+22	2,935302E+22	1,174104E+23
2582	4,402861E+22	4,402791E+22	1,467662E+22	1,467589E+22	8,805652E+22	2,935251E+22	1,174090E+23
2583	4,402827E+22	4,402950E+22	1,467667E+22	1,467669E+22	8,805777E+22	2,935335E+22	1,174111E+23
2584	4,402941E+22	4,402781E+22	1,467637E+22	1,467673E+22	8,805722E+22	2,935310E+22	1,174103E+23
2585	4,402755E+22	4,402828E+22	1,467763E+22	1,467648E+22	8,805583E+22	2,935411E+22	1,174099E+23
2586	4,402747E+22	4,402852E+22	1,467729E+22	1,467815E+22	8,805599E+22	2,935544E+22	1,174114E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2587	4,402742E+22	4,402608E+22	1,467779E+22	1,467798E+22	8,805351E+22	2,935577E+22	1,174093E+23
2588	4,402534E+22	4,402690E+22	1,467906E+22	1,467837E+22	8,805224E+22	2,935743E+22	1,174097E+23
2589	4,402638E+22	4,402591E+22	1,467848E+22	1,467954E+22	8,805230E+22	2,935802E+22	1,174103E+23
2590	4,402599E+22	4,402419E+22	1,467944E+22	1,467890E+22	8,805019E+22	2,935834E+22	1,174085E+23
2591	4,402442E+22	4,402592E+22	1,467995E+22	1,467978E+22	8,805034E+22	2,935973E+22	1,174101E+23
2592	4,402553E+22	4,402472E+22	1,467932E+22	1,468013E+22	8,805024E+22	2,935946E+22	1,174097E+23
2593	4,402414E+22	4,402459E+22	1,468025E+22	1,467920E+22	8,804873E+22	2,935945E+22	1,174082E+23
2594	4,402442E+22	4,402567E+22	1,467956E+22	1,467998E+22	8,805009E+22	2,935954E+22	1,174096E+23
2595	4,402585E+22	4,402405E+22	1,467900E+22	1,467908E+22	8,804989E+22	2,935808E+22	1,174080E+23
2596	4,402454E+22	4,402562E+22	1,467953E+22	1,467837E+22	8,805015E+22	2,935789E+22	1,174080E+23
2597	4,402599E+22	4,402654E+22	1,467812E+22	1,467901E+22	8,805253E+22	2,935713E+22	1,174097E+23
2598	4,402661E+22	4,402542E+22	1,467806E+22	1,467783E+22	8,805203E+22	2,935589E+22	1,174079E+23
2599	4,402545E+22	4,402745E+22	1,467835E+22	1,467788E+22	8,805290E+22	2,935623E+22	1,174091E+23
2600	4,402752E+22	4,402692E+22	1,467725E+22	1,467809E+22	8,805444E+22	2,935534E+22	1,174098E+23
2601	4,402710E+22	4,402623E+22	1,467802E+22	1,467705E+22	8,805333E+22	2,935507E+22	1,174084E+23
2602	4,402669E+22	4,402772E+22	1,467794E+22	1,467804E+22	8,805441E+22	2,935597E+22	1,174104E+23
2603	4,402765E+22	4,402622E+22	1,467758E+22	1,467815E+22	8,805387E+22	2,935573E+22	1,174096E+23
2604	4,402537E+22	4,402642E+22	1,467899E+22	1,467809E+22	8,805179E+22	2,935708E+22	1,174089E+23
2605	4,402541E+22	4,402670E+22	1,467862E+22	1,467953E+22	8,805211E+22	2,935815E+22	1,174103E+23
2606	4,402586E+22	4,402399E+22	1,467916E+22	1,467930E+22	8,804985E+22	2,935846E+22	1,174083E+23
2607	4,402371E+22	4,402466E+22	1,468050E+22	1,467970E+22	8,804837E+22	2,936019E+22	1,174086E+23
2608	4,402479E+22	4,402423E+22	1,467990E+22	1,468085E+22	8,804901E+22	2,936075E+22	1,174098E+23
2609	4,402397E+22	4,402274E+22	1,468088E+22	1,468028E+22	8,804670E+22	2,936116E+22	1,174079E+23
2610	4,402245E+22	4,402423E+22	1,468120E+22	1,468114E+22	8,804668E+22	2,936234E+22	1,174090E+23
2611	4,402382E+22	4,402300E+22	1,468049E+22	1,468127E+22	8,804682E+22	2,936176E+22	1,174086E+23
2612	4,402246E+22	4,402272E+22	1,468145E+22	1,468034E+22	8,804519E+22	2,936179E+22	1,174070E+23
2613	4,402285E+22	4,402417E+22	1,468063E+22	1,468095E+22	8,804702E+22	2,936158E+22	1,174086E+23
2614	4,402450E+22	4,402269E+22	1,468006E+22	1,468017E+22	8,804719E+22	2,936023E+22	1,174074E+23
2615	4,402286E+22	4,402413E+22	1,468059E+22	1,467961E+22	8,804699E+22	2,936020E+22	1,174072E+23
2616	4,402444E+22	4,402519E+22	1,467924E+22	1,468020E+22	8,804964E+22	2,935944E+22	1,174091E+23
2617	4,402511E+22	4,402388E+22	1,467928E+22	1,467895E+22	8,804899E+22	2,935823E+22	1,174072E+23
2618	4,402430E+22	4,402554E+22	1,467943E+22	1,467895E+22	8,804983E+22	2,935839E+22	1,174082E+23
2619	4,402637E+22	4,402533E+22	1,467835E+22	1,467911E+22	8,805170E+22	2,935746E+22	1,174092E+23
2620	4,402540E+22	4,402469E+22	1,467925E+22	1,467835E+22	8,805009E+22	2,935760E+22	1,174077E+23
2621	4,402449E+22	4,402642E+22	1,467917E+22	1,467934E+22	8,805091E+22	2,935851E+22	1,174094E+23
2622	4,402559E+22	4,402463E+22	1,467893E+22	1,467957E+22	8,805023E+22	2,935850E+22	1,174087E+23
2623	4,402331E+22	4,402417E+22	1,468044E+22	1,467952E+22	8,804748E+22	2,935996E+22	1,174074E+23
2624	4,402380E+22	4,402456E+22	1,468010E+22	1,468085E+22	8,804836E+22	2,936095E+22	1,174093E+23
2625	4,402424E+22	4,402202E+22	1,468067E+22	1,468064E+22	8,804627E+22	2,936131E+22	1,174076E+23
2626	4,402213E+22	4,402275E+22	1,468179E+22	1,468114E+22	8,804488E+22	2,936293E+22	1,174078E+23
2627	4,402306E+22	4,402276E+22	1,468114E+22	1,468223E+22	8,804582E+22	2,936337E+22	1,174092E+23
2628	4,402189E+22	4,402113E+22	1,468221E+22	1,468175E+22	8,804301E+22	2,936395E+22	1,174070E+23
2629	4,402048E+22	4,402264E+22	1,468246E+22	1,468228E+22	8,804312E+22	2,936474E+22	1,174079E+23
2630	4,402235E+22	4,402126E+22	1,468172E+22	1,468235E+22	8,804361E+22	2,936407E+22	1,174077E+23
2631	4,402083E+22	4,402079E+22	1,468266E+22	1,468148E+22	8,804162E+22	2,936414E+22	1,174058E+23
2632	4,402131E+22	4,402268E+22	1,468180E+22	1,468208E+22	8,804399E+22	2,936389E+22	1,174079E+23
2633	4,402270E+22	4,402136E+22	1,468123E+22	1,468139E+22	8,804407E+22	2,936262E+22	1,174067E+23
2634	4,402137E+22	4,402251E+22	1,468157E+22	1,468083E+22	8,804388E+22	2,936239E+22	1,174063E+23
2635	4,402328E+22	4,402362E+22	1,468022E+22	1,468118E+22	8,804690E+22	2,936140E+22	1,174083E+23

1	14	15	16	17	18	19	20
Longitude $\ominus$	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2636	4,402379E+22	4,402224E+22	1,468037E+22	1,468001E+22	8,804603E+22	2,936038E+22	1,174064E+23
2637	4,402285E+22	4,402423E+22	1,468052E+22	1,467988E+22	8,804708E+22	2,936041E+22	1,174075E+23
2638	4,402482E+22	4,402403E+22	1,467953E+22	1,468028E+22	8,804885E+22	2,935981E+22	1,174087E+23
2639	4,402327E+22	4,402306E+22	1,468057E+22	1,467978E+22	8,804633E+22	2,936035E+22	1,174067E+23
2640	4,402250E+22	4,402465E+22	1,468060E+22	1,468075E+22	8,804714E+22	2,936135E+22	1,174085E+23
2641	4,402370E+22	4,402256E+22	1,468044E+22	1,468097E+22	8,804626E+22	2,936141E+22	1,174077E+23
2642	4,402190E+22	4,402179E+22	1,468173E+22	1,468090E+22	8,804369E+22	2,936262E+22	1,174063E+23
2643	4,402247E+22	4,402261E+22	1,468138E+22	1,468213E+22	8,804507E+22	2,936351E+22	1,174086E+23
2644	4,402238E+22	4,402042E+22	1,468202E+22	1,468213E+22	8,804280E+22	2,936414E+22	1,174069E+23
2645	4,401995E+22	4,402149E+22	1,468308E+22	1,468248E+22	8,804144E+22	2,936556E+22	1,174070E+23
2646	4,402105E+22	4,402130E+22	1,468252E+22	1,468356E+22	8,804235E+22	2,936608E+22	1,174084E+23
2647	4,401982E+22	4,401916E+22	1,468364E+22	1,468304E+22	8,803899E+22	2,936668E+22	1,174057E+23
2648	4,401880E+22	4,402072E+22	1,468385E+22	1,468343E+22	8,803953E+22	2,936728E+22	1,174068E+23
2649	4,402070E+22	4,401950E+22	1,468307E+22	1,468353E+22	8,804020E+22	2,936660E+22	1,174068E+23
2650	4,401941E+22	4,401895E+22	1,468366E+22	1,468277E+22	8,803837E+22	2,936643E+22	1,174048E+23
2651	4,401994E+22	4,402124E+22	1,468274E+22	1,468328E+22	8,804117E+22	2,936602E+22	1,174072E+23
2652	4,402118E+22	4,401992E+22	1,468220E+22	1,468260E+22	8,804110E+22	2,936480E+22	1,174059E+23
2653	4,402002E+22	4,402109E+22	1,468252E+22	1,468169E+22	8,804111E+22	2,936421E+22	1,174053E+23
2654	4,402222E+22	4,402224E+22	1,468128E+22	1,468202E+22	8,804446E+22	2,936330E+22	1,174078E+23
2655	4,402222E+22	4,402073E+22	1,468157E+22	1,468105E+22	8,804295E+22	2,936262E+22	1,174056E+23
2656	4,402101E+22	4,402291E+22	1,468183E+22	1,468105E+22	8,804393E+22	2,936289E+22	1,174068E+23
2657	4,402259E+22	4,402261E+22	1,468095E+22	1,468164E+22	8,804520E+22	2,936259E+22	1,174078E+23
2658	4,402133E+22	4,402098E+22	1,468182E+22	1,468125E+22	8,804232E+22	2,936307E+22	1,174054E+23
2659	4,402098E+22	4,402250E+22	1,468187E+22	1,468207E+22	8,804349E+22	2,936394E+22	1,174074E+23
2660	4,402212E+22	4,402048E+22	1,468176E+22	1,468240E+22	8,804260E+22	2,936415E+22	1,174068E+23
2661	4,402031E+22	4,402012E+22	1,468297E+22	1,468218E+22	8,804043E+22	2,936515E+22	1,174056E+23
2662	4,402083E+22	4,402121E+22	1,468270E+22	1,468354E+22	8,804204E+22	2,936624E+22	1,174083E+23
2663	4,402014E+22	4,401886E+22	1,468348E+22	1,468366E+22	8,803900E+22	2,936714E+22	1,174061E+23
2664	4,401790E+22	4,401977E+22	1,468463E+22	1,468386E+22	8,803767E+22	2,936848E+22	1,174062E+23
2665	4,401910E+22	4,401930E+22	1,468410E+22	1,468483E+22	8,803840E+22	2,936894E+22	1,174073E+23
2666	4,401831E+22	4,401688E+22	1,468489E+22	1,468431E+22	8,803519E+22	2,936921E+22	1,174044E+23
2667	4,401747E+22	4,401880E+22	1,468497E+22	1,468460E+22	8,803627E+22	2,936956E+22	1,174058E+23
2668	4,401892E+22	4,401793E+22	1,468413E+22	1,468486E+22	8,803684E+22	2,936900E+22	1,174058E+23
2669	4,401767E+22	4,401775E+22	1,468457E+22	1,468386E+22	8,803542E+22	2,936843E+22	1,174038E+23
2670	4,401858E+22	4,401993E+22	1,468374E+22	1,468427E+22	8,803851E+22	2,936801E+22	1,174065E+23
2671	4,401966E+22	4,401841E+22	1,468334E+22	1,468355E+22	8,803807E+22	2,936689E+22	1,174050E+23
2672	4,401874E+22	4,401969E+22	1,468373E+22	1,468255E+22	8,803843E+22	2,936629E+22	1,174047E+23
2673	4,402059E+22	4,402090E+22	1,468261E+22	1,468304E+22	8,804149E+22	2,936565E+22	1,174071E+23
2674	4,402051E+22	4,401913E+22	1,468268E+22	1,468239E+22	8,803964E+22	2,936508E+22	1,174047E+23
2675	4,401926E+22	4,402124E+22	1,468298E+22	1,468244E+22	8,804050E+22	2,936543E+22	1,174059E+23
2676	4,402067E+22	4,402070E+22	1,468220E+22	1,468314E+22	8,804138E+22	2,936533E+22	1,174067E+23
2677	4,401982E+22	4,401903E+22	1,468295E+22	1,468247E+22	8,803885E+22	2,936542E+22	1,174043E+23
2678	4,401983E+22	4,402065E+22	1,468310E+22	1,468326E+22	8,804048E+22	2,936636E+22	1,174068E+23
2679	4,402041E+22	4,401879E+22	1,468313E+22	1,468374E+22	8,803919E+22	2,936687E+22	1,174061E+23
2680	4,401838E+22	4,401871E+22	1,468447E+22	1,468355E+22	8,803709E+22	2,936802E+22	1,174051E+23
2681	4,401852E+22	4,401975E+22	1,468435E+22	1,468497E+22	8,803828E+22	2,936932E+22	1,174076E+23
2682	4,401811E+22	4,401675E+22	1,468492E+22	1,468515E+22	8,803486E+22	2,937006E+22	1,174049E+23
2683	4,401621E+22	4,401756E+22	1,468602E+22	1,468515E+22	8,803377E+22	2,937118E+22	1,174049E+23
2684	4,401732E+22	4,401723E+22	1,468541E+22	1,468618E+22	8,803454E+22	2,937159E+22	1,174061E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude ⊙	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2685	4,401666E+22	4,401512E+22	1,468596E+22	1,468550E+22	8,803179E+22	2,937146E+22	1,174032E+23
2686	4,401599E+22	4,401739E+22	1,468601E+22	1,468582E+22	8,803338E+22	2,937183E+22	1,174052E+23
2687	4,401706E+22	4,401655E+22	1,468525E+22	1,468613E+22	8,803361E+22	2,937137E+22	1,174050E+23
2688	4,401618E+22	4,401634E+22	1,468576E+22	1,468489E+22	8,803252E+22	2,937065E+22	1,174032E+23
2689	4,401717E+22	4,401844E+22	1,468503E+22	1,468518E+22	8,803561E+22	2,937021E+22	1,174058E+23
2690	4,401840E+22	4,401667E+22	1,468440E+22	1,468457E+22	8,803507E+22	2,936897E+22	1,174040E+23
2691	4,401737E+22	4,401815E+22	1,468482E+22	1,468364E+22	8,803553E+22	2,936846E+22	1,174040E+23
2692	4,401856E+22	4,401949E+22	1,468373E+22	1,468439E+22	8,803805E+22	2,936813E+22	1,174062E+23
2693	4,401855E+22	4,401765E+22	1,468371E+22	1,468367E+22	8,803620E+22	2,936738E+22	1,174036E+23
2694	4,401780E+22	4,401946E+22	1,468412E+22	1,468368E+22	8,803726E+22	2,936779E+22	1,174051E+23
2695	4,401906E+22	4,401875E+22	1,468348E+22	1,468440E+22	8,803781E+22	2,936788E+22	1,174057E+23
2696	4,401851E+22	4,401730E+22	1,468431E+22	1,468364E+22	8,803581E+22	2,936795E+22	1,174038E+23
2697	4,401819E+22	4,401909E+22	1,468461E+22	1,468455E+22	8,803728E+22	2,936915E+22	1,174064E+23
2698	4,401853E+22	4,401712E+22	1,468449E+22	1,468528E+22	8,803565E+22	2,936977E+22	1,174054E+23
2699	4,401647E+22	4,401695E+22	1,468589E+22	1,468505E+22	8,803341E+22	2,937095E+22	1,174044E+23
2700	4,401630E+22	4,401770E+22	1,468585E+22	1,468649E+22	8,803400E+22	2,937234E+22	1,174063E+23
2701	4,401630E+22	4,401467E+22	1,468622E+22	1,468640E+22	8,803097E+22	2,937262E+22	1,174036E+23
2702	4,401478E+22	4,401556E+22	1,468726E+22	1,468637E+22	8,803034E+22	2,937363E+22	1,174040E+23
2703	4,401537E+22	4,401548E+22	1,468669E+22	1,468751E+22	8,803084E+22	2,937419E+22	1,174050E+23
2704	4,401481E+22	4,401377E+22	1,468719E+22	1,468673E+22	8,802859E+22	2,937392E+22	1,174025E+23
2705	4,401411E+22	4,401603E+22	1,468732E+22	1,468700E+22	8,803014E+22	2,937432E+22	1,174045E+23
2706	4,401554E+22	4,401482E+22	1,468637E+22	1,468727E+22	8,803036E+22	2,937364E+22	1,174040E+23
2707	4,401503E+22	4,401463E+22	1,468687E+22	1,468588E+22	8,802966E+22	2,937274E+22	1,174024E+23
2708	4,401568E+22	4,401687E+22	1,468616E+22	1,468625E+22	8,803255E+22	2,937240E+22	1,174050E+23
2709	4,401690E+22	4,401532E+22	1,468535E+22	1,468562E+22	8,803221E+22	2,937097E+22	1,174032E+23
2710	4,401589E+22	4,401683E+22	1,468579E+22	1,468484E+22	8,803272E+22	2,937063E+22	1,174033E+23
2711	4,401661E+22	4,401796E+22	1,468488E+22	1,468571E+22	8,803457E+22	2,937059E+22	1,174052E+23
2712	4,401706E+22	4,401592E+22	1,468496E+22	1,468482E+22	8,803298E+22	2,936978E+22	1,174028E+23
2713	4,401648E+22	4,401767E+22	1,468550E+22	1,468477E+22	8,803416E+22	2,937027E+22	1,174044E+23
2714	4,401779E+22	4,401680E+22	1,468470E+22	1,468565E+22	8,803460E+22	2,937035E+22	1,174049E+23
2715	4,401700E+22	4,401563E+22	1,468562E+22	1,468497E+22	8,803262E+22	2,937059E+22	1,174032E+23
2716	4,401593E+22	4,401760E+22	1,468601E+22	1,468605E+22	8,803353E+22	2,937206E+22	1,174056E+23
2717	4,401630E+22	4,401545E+22	1,468582E+22	1,468668E+22	8,803175E+22	2,937250E+22	1,174043E+23
2718	4,401463E+22	4,401499E+22	1,468730E+22	1,468641E+22	8,802962E+22	2,937371E+22	1,174033E+23
2719	4,401423E+22	4,401561E+22	1,468733E+22	1,468785E+22	8,802984E+22	2,937518E+22	1,174050E+23
2720	4,401456E+22	4,401275E+22	1,468766E+22	1,468768E+22	8,802731E+22	2,937534E+22	1,174027E+23
2721	4,401298E+22	4,401386E+22	1,468868E+22	1,468772E+22	8,802683E+22	2,937640E+22	1,174032E+23
2722	4,401357E+22	4,401370E+22	1,468786E+22	1,468898E+22	8,802727E+22	2,937685E+22	1,174041E+23
2723	4,401330E+22	4,401208E+22	1,468836E+22	1,468805E+22	8,802538E+22	2,937641E+22	1,174018E+23
2724	4,401253E+22	4,401429E+22	1,468851E+22	1,468817E+22	8,802682E+22	2,937668E+22	1,174035E+23
2725	4,401432E+22	4,401321E+22	1,468736E+22	1,468817E+22	8,802753E+22	2,937553E+22	1,174031E+23
2726	4,401397E+22	4,401321E+22	1,468784E+22	1,468679E+22	8,802718E+22	2,937463E+22	1,174018E+23
2727	4,401381E+22	4,401558E+22	1,468726E+22	1,468734E+22	8,802939E+22	2,937461E+22	1,174040E+23
2728	4,401503E+22	4,401417E+22	1,468650E+22	1,468674E+22	8,802920E+22	2,937324E+22	1,174024E+23
2729	4,401410E+22	4,401533E+22	1,468706E+22	1,468601E+22	8,802943E+22	2,937306E+22	1,174025E+23
2730	4,401511E+22	4,401597E+22	1,468605E+22	1,468694E+22	8,803108E+22	2,937299E+22	1,174041E+23
2731	4,401595E+22	4,401402E+22	1,468613E+22	1,468596E+22	8,802998E+22	2,937209E+22	1,174021E+23
2732	4,401495E+22	4,401592E+22	1,468673E+22	1,468603E+22	8,803087E+22	2,937276E+22	1,174036E+23
2733	4,401614E+22	4,401536E+22	1,468585E+22	1,468691E+22	8,803149E+22	2,937277E+22	1,174043E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude <sup>⊙</sup>	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2734	4,401525E+22	4,401423E+22	1,468686E+22	1,468638E+22	8,802948E+22	2,937324E+22	1,174027E+23
2735	4,401358E+22	4,401588E+22	1,468750E+22	1,468754E+22	8,802946E+22	2,937504E+22	1,174045E+23
2736	4,401436E+22	4,401352E+22	1,468737E+22	1,468800E+22	8,802788E+22	2,937538E+22	1,174033E+23
2737	4,401288E+22	4,401288E+22	1,468887E+22	1,468772E+22	8,802576E+22	2,937659E+22	1,174024E+23
2738	4,401250E+22	4,401337E+22	1,468869E+22	1,468929E+22	8,802587E+22	2,937798E+22	1,174038E+23
2739	4,401287E+22	4,401087E+22	1,468895E+22	1,468913E+22	8,802374E+22	2,937808E+22	1,174018E+23
2740	4,401091E+22	4,401222E+22	1,468993E+22	1,468919E+22	8,802313E+22	2,937912E+22	1,174023E+23
2741	4,401188E+22	4,401208E+22	1,468897E+22	1,469019E+22	8,802396E+22	2,937916E+22	1,174031E+23
2742	4,401207E+22	4,401051E+22	1,468945E+22	1,468909E+22	8,802258E+22	2,937854E+22	1,174011E+23
2743	4,401098E+22	4,401277E+22	1,468970E+22	1,468914E+22	8,802374E+22	2,937884E+22	1,174026E+23
2744	4,401286E+22	4,401191E+22	1,468856E+22	1,468908E+22	8,802477E+22	2,937764E+22	1,174024E+23
2745	4,401228E+22	4,401202E+22	1,468906E+22	1,468789E+22	8,802430E+22	2,937695E+22	1,174012E+23
2746	4,401196E+22	4,401403E+22	1,468832E+22	1,468865E+22	8,802599E+22	2,937697E+22	1,174030E+23
2747	4,401347E+22	4,401238E+22	1,468763E+22	1,468801E+22	8,802585E+22	2,937563E+22	1,174015E+23
2748	4,401260E+22	4,401343E+22	1,468819E+22	1,468720E+22	8,802603E+22	2,937539E+22	1,174014E+23
2749	4,401401E+22	4,401412E+22	1,468704E+22	1,468797E+22	8,802813E+22	2,937501E+22	1,174031E+23
2750	4,401485E+22	4,401255E+22	1,468717E+22	1,468706E+22	8,802740E+22	2,937423E+22	1,174016E+23
2751	4,401297E+22	4,401463E+22	1,468798E+22	1,468730E+22	8,802759E+22	2,937529E+22	1,174029E+23
2752	4,401400E+22	4,401410E+22	1,468726E+22	1,468820E+22	8,802810E+22	2,937547E+22	1,174036E+23
2753	4,401313E+22	4,401258E+22	1,468845E+22	1,468777E+22	8,802571E+22	2,937621E+22	1,174019E+23
2754	4,401160E+22	4,401360E+22	1,468899E+22	1,468899E+22	8,802519E+22	2,937798E+22	1,174032E+23
2755	4,401276E+22	4,401123E+22	1,468886E+22	1,468943E+22	8,802399E+22	2,937829E+22	1,174023E+23
2756	4,401105E+22	4,401076E+22	1,469026E+22	1,468921E+22	8,802181E+22	2,937946E+22	1,174013E+23
2757	4,401079E+22	4,401155E+22	1,468985E+22	1,469072E+22	8,802234E+22	2,938057E+22	1,174029E+23
2758	4,401129E+22	4,400939E+22	1,469007E+22	1,469052E+22	8,802069E+22	2,938059E+22	1,174013E+23
2759	4,400902E+22	4,401062E+22	1,469122E+22	1,469047E+22	8,801964E+22	2,938169E+22	1,174013E+23
2760	4,401040E+22	4,401060E+22	1,469031E+22	1,469118E+22	8,802100E+22	2,938148E+22	1,174025E+23
2761	4,401068E+22	4,400905E+22	1,469077E+22	1,469005E+22	8,801973E+22	2,938082E+22	1,174005E+23
2762	4,400927E+22	4,401111E+22	1,469087E+22	1,469026E+22	8,802038E+22	2,938112E+22	1,174015E+23
2763	4,401110E+22	4,401046E+22	1,468969E+22	1,469028E+22	8,802156E+22	2,937996E+22	1,174015E+23
2764	4,401020E+22	4,401043E+22	1,469014E+22	1,468917E+22	8,802064E+22	2,937931E+22	1,174000E+23
2765	4,401041E+22	4,401224E+22	1,468928E+22	1,468977E+22	8,802265E+22	2,937905E+22	1,174017E+23
2766	4,401244E+22	4,401072E+22	1,468855E+22	1,468903E+22	8,802317E+22	2,937759E+22	1,174008E+23
2767	4,401126E+22	4,401185E+22	1,468927E+22	1,468825E+22	8,802311E+22	2,937751E+22	1,174006E+23
2768	4,401266E+22	4,401288E+22	1,468824E+22	1,468897E+22	8,802554E+22	2,937721E+22	1,174028E+23
2769	4,401315E+22	4,401141E+22	1,468848E+22	1,468830E+22	8,802456E+22	2,937678E+22	1,174013E+23
2770	4,401089E+22	4,401298E+22	1,468933E+22	1,468875E+22	8,802387E+22	2,937808E+22	1,174020E+23
2771	4,401214E+22	4,401212E+22	1,468876E+22	1,468964E+22	8,802426E+22	2,937840E+22	1,174027E+23
2772	4,401123E+22	4,401035E+22	1,468994E+22	1,468919E+22	8,802158E+22	2,937913E+22	1,174007E+23
2773	4,401008E+22	4,401133E+22	1,469027E+22	1,469032E+22	8,802140E+22	2,938060E+22	1,174020E+23
2774	4,401124E+22	4,400939E+22	1,469007E+22	1,469083E+22	8,802063E+22	2,938090E+22	1,174015E+23
2775	4,400893E+22	4,400918E+22	1,469155E+22	1,469068E+22	8,801811E+22	2,938223E+22	1,174003E+23
2776	4,400880E+22	4,401011E+22	1,469124E+22	1,469202E+22	8,801892E+22	2,938326E+22	1,174022E+23
2777	4,400948E+22	4,400792E+22	1,469153E+22	1,469176E+22	8,801739E+22	2,938329E+22	1,174007E+23
2778	4,400732E+22	4,400875E+22	1,469255E+22	1,469164E+22	8,801607E+22	2,938420E+22	1,174003E+23
2779	4,400891E+22	4,400876E+22	1,469164E+22	1,469230E+22	8,801767E+22	2,938394E+22	1,174016E+23
2780	4,400882E+22	4,400741E+22	1,469199E+22	1,469126E+22	8,801624E+22	2,938325E+22	1,173995E+23
2781	4,400755E+22	4,400949E+22	1,469181E+22	1,469148E+22	8,801704E+22	2,938330E+22	1,174003E+23
2782	4,400954E+22	4,400899E+22	1,469058E+22	1,469150E+22	8,801854E+22	2,938208E+22	1,174006E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2783	4,400862E+22	4,400876E+22	1,469115E+22	1,469031E+22	8,801738E+22	2,938145E+22	1,173988E+23
2784	4,400933E+22	4,401066E+22	1,469037E+22	1,469064E+22	8,801999E+22	2,938101E+22	1,174010E+23
2785	4,401139E+22	4,400941E+22	1,468970E+22	1,468997E+22	8,802080E+22	2,937966E+22	1,174005E+23
2786	4,400974E+22	4,401040E+22	1,469041E+22	1,468938E+22	8,802014E+22	2,937978E+22	1,173999E+23
2787	4,401088E+22	4,401153E+22	1,468955E+22	1,469024E+22	8,802241E+22	2,937979E+22	1,174022E+23
2788	4,401093E+22	4,400985E+22	1,468987E+22	1,468971E+22	8,802078E+22	2,937958E+22	1,174004E+23
2789	4,400905E+22	4,401094E+22	1,469064E+22	1,469010E+22	8,801999E+22	2,938074E+22	1,174007E+23
2790	4,401061E+22	4,401014E+22	1,469004E+22	1,469096E+22	8,802076E+22	2,938100E+22	1,174018E+23
2791	4,400943E+22	4,400832E+22	1,469130E+22	1,469059E+22	8,801774E+22	2,938189E+22	1,173996E+23
2792	4,400837E+22	4,400964E+22	1,469168E+22	1,469166E+22	8,801801E+22	2,938333E+22	1,174013E+23
2793	4,400937E+22	4,400799E+22	1,469146E+22	1,469231E+22	8,801736E+22	2,938377E+22	1,174011E+23
2794	4,400686E+22	4,400735E+22	1,469293E+22	1,469221E+22	8,801421E+22	2,938513E+22	1,173993E+23
2795	4,400713E+22	4,400817E+22	1,469273E+22	1,469335E+22	8,801530E+22	2,938608E+22	1,174014E+23
2796	4,400774E+22	4,400598E+22	1,469294E+22	1,469297E+22	8,801371E+22	2,938590E+22	1,173996E+23
2797	4,400587E+22	4,400682E+22	1,469370E+22	1,469276E+22	8,801269E+22	2,938646E+22	1,173991E+23
2798	4,400733E+22	4,400729E+22	1,469266E+22	1,469344E+22	8,801462E+22	2,938610E+22	1,174007E+23
2799	4,400673E+22	4,400600E+22	1,469304E+22	1,469251E+22	8,801272E+22	2,938555E+22	1,173983E+23
2800	4,400579E+22	4,400807E+22	1,469292E+22	1,469254E+22	8,801386E+22	2,938546E+22	1,173993E+23
2801	4,400814E+22	4,400755E+22	1,469171E+22	1,469254E+22	8,801569E+22	2,938425E+22	1,173999E+23
2802	4,400738E+22	4,400702E+22	1,469221E+22	1,469133E+22	8,801439E+22	2,938354E+22	1,173979E+23
2803	4,400829E+22	4,400906E+22	1,469155E+22	1,469165E+22	8,801735E+22	2,938320E+22	1,174005E+23
2804	4,400977E+22	4,400812E+22	1,469088E+22	1,469112E+22	8,801789E+22	2,938200E+22	1,173999E+23
2805	4,400809E+22	4,400897E+22	1,469147E+22	1,469065E+22	8,801706E+22	2,938213E+22	1,173992E+23
2806	4,400910E+22	4,401005E+22	1,469071E+22	1,469156E+22	8,801915E+22	2,938227E+22	1,174014E+23
2807	4,400899E+22	4,400798E+22	1,469121E+22	1,469108E+22	8,801698E+22	2,938229E+22	1,173993E+23
2808	4,400751E+22	4,400894E+22	1,469204E+22	1,469129E+22	8,801645E+22	2,938333E+22	1,173998E+23
2809	4,400901E+22	4,400838E+22	1,469144E+22	1,469231E+22	8,801739E+22	2,938375E+22	1,174011E+23
2810	4,400747E+22	4,400644E+22	1,469262E+22	1,469208E+22	8,801391E+22	2,938470E+22	1,173986E+23
2811	4,400640E+22	4,400781E+22	1,469313E+22	1,469317E+22	8,801420E+22	2,938629E+22	1,174005E+23
2812	4,400717E+22	4,400622E+22	1,469295E+22	1,469377E+22	8,801339E+22	2,938672E+22	1,174001E+23
2813	4,400522E+22	4,400529E+22	1,469424E+22	1,469352E+22	8,801051E+22	2,938776E+22	1,173983E+23
2814	4,400567E+22	4,400636E+22	1,469399E+22	1,469452E+22	8,801203E+22	2,938850E+22	1,174005E+23
2815	4,400596E+22	4,400426E+22	1,469421E+22	1,469418E+22	8,801022E+22	2,938839E+22	1,173986E+23
2816	4,400412E+22	4,400535E+22	1,469491E+22	1,469388E+22	8,800947E+22	2,938879E+22	1,173983E+23
2817	4,400546E+22	4,400606E+22	1,469381E+22	1,469470E+22	8,801152E+22	2,938851E+22	1,174000E+23
2818	4,400488E+22	4,400426E+22	1,469414E+22	1,469378E+22	8,800914E+22	2,938792E+22	1,173971E+23
2819	4,400458E+22	4,400618E+22	1,469412E+22	1,469363E+22	8,801076E+22	2,938776E+22	1,173985E+23
2820	4,400691E+22	4,400590E+22	1,469286E+22	1,469352E+22	8,801281E+22	2,938638E+22	1,173992E+23
2821	4,400635E+22	4,400543E+22	1,469315E+22	1,469234E+22	8,801179E+22	2,938549E+22	1,173973E+23
2822	4,400691E+22	4,400795E+22	1,469251E+22	1,469271E+22	8,801486E+22	2,938521E+22	1,174001E+23
2823	4,400773E+22	4,400690E+22	1,469201E+22	1,469237E+22	8,801463E+22	2,938437E+22	1,173990E+23
2824	4,400620E+22	4,400752E+22	1,469277E+22	1,469181E+22	8,801372E+22	2,938458E+22	1,173983E+23
2825	4,400737E+22	4,400844E+22	1,469206E+22	1,469278E+22	8,801581E+22	2,938484E+22	1,174007E+23
2826	4,400724E+22	4,400584E+22	1,469256E+22	1,469242E+22	8,801307E+22	2,938498E+22	1,173981E+23
2827	4,400604E+22	4,400682E+22	1,469348E+22	1,469266E+22	8,801286E+22	2,938614E+22	1,173990E+23
2828	4,400708E+22	4,400658E+22	1,469284E+22	1,469378E+22	8,801366E+22	2,938662E+22	1,174003E+23
2829	4,400570E+22	4,400458E+22	1,469383E+22	1,469362E+22	8,801028E+22	2,938745E+22	1,173977E+23
2830	4,400470E+22	4,400608E+22	1,469440E+22	1,469457E+22	8,801078E+22	2,938897E+22	1,173997E+23
2831	4,400533E+22	4,400434E+22	1,469436E+22	1,469509E+22	8,800967E+22	2,938945E+22	1,173991E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2832	4,400367E+22	4,400354E+22	1,469565E+22	1,469461E+22	8,800721E+22	2,939026E+22	1,173975E+23
2833	4,400391E+22	4,400491E+22	1,469535E+22	1,469571E+22	8,800882E+22	2,939106E+22	1,173999E+23
2834	4,400378E+22	4,400261E+22	1,469548E+22	1,469554E+22	8,800639E+22	2,939102E+22	1,173974E+23
2835	4,400219E+22	4,400358E+22	1,469621E+22	1,469522E+22	8,800577E+22	2,939143E+22	1,173972E+23
2836	4,400351E+22	4,400433E+22	1,469506E+22	1,469593E+22	8,800784E+22	2,939099E+22	1,173988E+23
2837	4,400371E+22	4,400236E+22	1,469511E+22	1,469489E+22	8,800607E+22	2,939000E+22	1,173961E+23
2838	4,400366E+22	4,400461E+22	1,469505E+22	1,469459E+22	8,800828E+22	2,938964E+22	1,173979E+23
2839	4,400558E+22	4,400461E+22	1,469388E+22	1,469456E+22	8,801019E+22	2,938844E+22	1,173986E+23
2840	4,400492E+22	4,400437E+22	1,469419E+22	1,469334E+22	8,800929E+22	2,938753E+22	1,173968E+23
2841	4,400509E+22	4,400693E+22	1,469365E+22	1,469389E+22	8,801202E+22	2,938754E+22	1,173996E+23
2842	4,400576E+22	4,400519E+22	1,469325E+22	1,469365E+22	8,801095E+22	2,938690E+22	1,173978E+23
2843	4,400473E+22	4,400533E+22	1,469416E+22	1,469303E+22	8,801007E+22	2,938719E+22	1,173973E+23
2844	4,400573E+22	4,400642E+22	1,469345E+22	1,469401E+22	8,801215E+22	2,938746E+22	1,173996E+23
2845	4,400583E+22	4,400382E+22	1,469370E+22	1,469378E+22	8,800965E+22	2,938748E+22	1,173971E+23
2846	4,400437E+22	4,400521E+22	1,469463E+22	1,469406E+22	8,800958E+22	2,938869E+22	1,173983E+23
2847	4,400494E+22	4,400499E+22	1,469416E+22	1,469526E+22	8,800993E+22	2,938943E+22	1,173994E+23
2848	4,400383E+22	4,400293E+22	1,469526E+22	1,469489E+22	8,800676E+22	2,939016E+22	1,173969E+23
2849	4,400295E+22	4,400449E+22	1,469588E+22	1,469582E+22	8,800744E+22	2,939170E+22	1,173991E+23
2850	4,400343E+22	4,400239E+22	1,469585E+22	1,469641E+22	8,800582E+22	2,939226E+22	1,173981E+23
2851	4,400194E+22	4,400159E+22	1,469716E+22	1,469596E+22	8,800353E+22	2,939313E+22	1,173967E+23
2852	4,400171E+22	4,400327E+22	1,469672E+22	1,469711E+22	8,800498E+22	2,939383E+22	1,173988E+23
2853	4,400196E+22	4,400072E+22	1,469656E+22	1,469700E+22	8,800268E+22	2,939356E+22	1,173962E+23
2854	4,400078E+22	4,400177E+22	1,469722E+22	1,469646E+22	8,800256E+22	2,939368E+22	1,173962E+23
2855	4,400224E+22	4,400250E+22	1,469613E+22	1,469701E+22	8,800474E+22	2,939315E+22	1,173979E+23
2856	4,400273E+22	4,400095E+22	1,469612E+22	1,469572E+22	8,800368E+22	2,939185E+22	1,173955E+23
2857	4,400243E+22	4,400367E+22	1,469604E+22	1,469550E+22	8,800610E+22	2,939154E+22	1,173976E+23
2858	4,400366E+22	4,400340E+22	1,469497E+22	1,469565E+22	8,800706E+22	2,939061E+22	1,173977E+23
2859	4,400310E+22	4,400291E+22	1,469546E+22	1,469450E+22	8,800600E+22	2,938997E+22	1,173960E+23
2860	4,400306E+22	4,400527E+22	1,469499E+22	1,469503E+22	8,800833E+22	2,939001E+22	1,173983E+23
2861	4,400432E+22	4,400310E+22	1,469439E+22	1,469488E+22	8,800742E+22	2,938928E+22	1,173967E+23
2862	4,400352E+22	4,400341E+22	1,469526E+22	1,469424E+22	8,800693E+22	2,938950E+22	1,173964E+23
2863	4,400412E+22	4,400464E+22	1,469465E+22	1,469536E+22	8,800876E+22	2,939002E+22	1,173988E+23
2864	4,400413E+22	4,400244E+22	1,469490E+22	1,469510E+22	8,800657E+22	2,939000E+22	1,173966E+23
2865	4,400249E+22	4,400393E+22	1,469592E+22	1,469548E+22	8,800641E+22	2,939140E+22	1,173978E+23
2866	4,400289E+22	4,400312E+22	1,469567E+22	1,469670E+22	8,800601E+22	2,939237E+22	1,173984E+23
2867	4,400224E+22	4,400082E+22	1,469690E+22	1,469624E+22	8,800305E+22	2,939314E+22	1,173962E+23
2868	4,400099E+22	4,400258E+22	1,469747E+22	1,469711E+22	8,800357E+22	2,939459E+22	1,173982E+23
2869	4,400162E+22	4,400040E+22	1,469714E+22	1,469787E+22	8,800202E+22	2,939501E+22	1,173970E+23
2870	4,400002E+22	4,399981E+22	1,469833E+22	1,469740E+22	8,799983E+22	2,939573E+22	1,173956E+23
2871	4,399962E+22	4,400146E+22	1,469794E+22	1,469852E+22	8,800108E+22	2,939646E+22	1,173975E+23
2872	4,400043E+22	4,399905E+22	1,469767E+22	1,469810E+22	8,799948E+22	2,939577E+22	1,173952E+23
2873	4,399958E+22	4,400033E+22	1,469828E+22	1,469745E+22	8,799991E+22	2,939573E+22	1,173956E+23
2874	4,400089E+22	4,400096E+22	1,469727E+22	1,469799E+22	8,800185E+22	2,939526E+22	1,173971E+23
2875	4,400145E+22	4,399957E+22	1,469731E+22	1,469673E+22	8,800103E+22	2,939403E+22	1,173951E+23
2876	4,400050E+22	4,400257E+22	1,469723E+22	1,469656E+22	8,800307E+22	2,939379E+22	1,173969E+23
2877	4,400194E+22	4,400186E+22	1,469599E+22	1,469688E+22	8,800379E+22	2,939287E+22	1,173967E+23
2878	4,400161E+22	4,400112E+22	1,469652E+22	1,469567E+22	8,800274E+22	2,939219E+22	1,173949E+23
2879	4,400157E+22	4,400331E+22	1,469615E+22	1,469619E+22	8,800488E+22	2,939235E+22	1,173972E+23
2880	4,400303E+22	4,400144E+22	1,469550E+22	1,469597E+22	8,800448E+22	2,939147E+22	1,173959E+23



1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2881	4,400202E+22	4,400213E+22	1,469636E+22	1,469548E+22	8,800416E+22	2,939184E+22	1,173960E+23
2882	4,400208E+22	4,400310E+22	1,469595E+22	1,469676E+22	8,800518E+22	2,939271E+22	1,173979E+23
2883	4,400226E+22	4,400074E+22	1,469639E+22	1,469650E+22	8,800301E+22	2,939289E+22	1,173959E+23
2884	4,400045E+22	4,400217E+22	1,469751E+22	1,469678E+22	8,800262E+22	2,939428E+22	1,173969E+23
2885	4,400126E+22	4,400098E+22	1,469710E+22	1,469810E+22	8,800224E+22	2,939520E+22	1,173974E+23
2886	4,400067E+22	4,399884E+22	1,469828E+22	1,469762E+22	8,799951E+22	2,939590E+22	1,173954E+23
2887	4,399900E+22	4,400065E+22	1,469884E+22	1,469859E+22	8,799965E+22	2,939743E+22	1,173971E+23
2888	4,399961E+22	4,399879E+22	1,469836E+22	1,469928E+22	8,799841E+22	2,939764E+22	1,173960E+23
2889	4,399821E+22	4,399829E+22	1,469946E+22	1,469875E+22	8,799650E+22	2,939821E+22	1,173947E+23
2890	4,399790E+22	4,399944E+22	1,469921E+22	1,469973E+22	8,799734E+22	2,939894E+22	1,173963E+23
2891	4,399928E+22	4,399723E+22	1,469897E+22	1,469911E+22	8,799651E+22	2,939808E+22	1,173946E+23
2892	4,399814E+22	4,399897E+22	1,469951E+22	1,469837E+22	8,799710E+22	2,939788E+22	1,173950E+23
2893	4,399939E+22	4,399957E+22	1,469829E+22	1,469911E+22	8,799896E+22	2,939740E+22	1,173964E+23
2894	4,399972E+22	4,399834E+22	1,469830E+22	1,469787E+22	8,799807E+22	2,939617E+22	1,173942E+23
2895	4,399849E+22	4,400101E+22	1,469834E+22	1,469774E+22	8,799950E+22	2,939609E+22	1,173956E+23
2896	4,400031E+22	4,400028E+22	1,469707E+22	1,469792E+22	8,800059E+22	2,939498E+22	1,173956E+23
2897	4,400033E+22	4,399958E+22	1,469755E+22	1,469675E+22	8,799992E+22	2,939430E+22	1,173942E+23
2898	4,400010E+22	4,400149E+22	1,469737E+22	1,469739E+22	8,800158E+22	2,939475E+22	1,173963E+23
2899	4,400164E+22	4,399987E+22	1,469678E+22	1,469726E+22	8,800151E+22	2,939403E+22	1,173955E+23
2900	4,400010E+22	4,400080E+22	1,469767E+22	1,469682E+22	8,800090E+22	2,939449E+22	1,173954E+23
2901	4,400037E+22	4,400128E+22	1,469722E+22	1,469823E+22	8,800165E+22	2,939545E+22	1,173971E+23
2902	4,400075E+22	4,399876E+22	1,469775E+22	1,469785E+22	8,799951E+22	2,939560E+22	1,173951E+23
2903	4,399874E+22	4,400010E+22	1,469898E+22	1,469811E+22	8,799884E+22	2,939709E+22	1,173959E+23
2904	4,399952E+22	4,399925E+22	1,469845E+22	1,469936E+22	8,799878E+22	2,939781E+22	1,173966E+23
2905	4,399867E+22	4,399733E+22	1,469955E+22	1,469903E+22	8,799600E+22	2,939858E+22	1,173946E+23
2906	4,399662E+22	4,399879E+22	1,470024E+22	1,470007E+22	8,799541E+22	2,940031E+22	1,173957E+23
2907	4,399768E+22	4,399686E+22	1,469981E+22	1,470063E+22	8,799454E+22	2,940044E+22	1,173950E+23
2908	4,399641E+22	4,399652E+22	1,470084E+22	1,469991E+22	8,799293E+22	2,940075E+22	1,173937E+23
2909	4,399667E+22	4,399750E+22	1,470038E+22	1,470091E+22	8,799417E+22	2,940128E+22	1,173955E+23
2910	4,399807E+22	4,399570E+22	1,470006E+22	1,470020E+22	8,799377E+22	2,940026E+22	1,173940E+23
2911	4,399645E+22	4,399763E+22	1,470060E+22	1,469953E+22	8,799408E+22	2,940013E+22	1,173942E+23
2912	4,399757E+22	4,399846E+22	1,469928E+22	1,470020E+22	8,799603E+22	2,939948E+22	1,173955E+23
2913	4,399805E+22	4,399708E+22	1,469928E+22	1,469900E+22	8,799512E+22	2,939829E+22	1,173934E+23
2914	4,399689E+22	4,399906E+22	1,469953E+22	1,469884E+22	8,799595E+22	2,939838E+22	1,173943E+23
2915	4,399915E+22	4,399845E+22	1,469830E+22	1,469896E+22	8,799760E+22	2,939725E+22	1,173949E+23
2916	4,399893E+22	4,399813E+22	1,469872E+22	1,469782E+22	8,799706E+22	2,939654E+22	1,173936E+23
2917	4,399866E+22	4,399984E+22	1,469844E+22	1,469870E+22	8,799850E+22	2,939714E+22	1,173956E+23
2918	4,400000E+22	4,399844E+22	1,469792E+22	1,469858E+22	8,799843E+22	2,939650E+22	1,173949E+23
2919	4,399822E+22	4,399908E+22	1,469899E+22	1,469814E+22	8,799730E+22	2,939713E+22	1,173944E+23
2920	4,399863E+22	4,399957E+22	1,469857E+22	1,469941E+22	8,799821E+22	2,939798E+22	1,173962E+23
2921	4,399915E+22	4,399715E+22	1,469908E+22	1,469911E+22	8,799630E+22	2,939819E+22	1,173945E+23
2922	4,399673E+22	4,399806E+22	1,470049E+22	1,469951E+22	8,799479E+22	2,940000E+22	1,173948E+23
2923	4,399747E+22	4,399747E+22	1,469997E+22	1,470083E+22	8,799494E+22	2,940081E+22	1,173957E+23
2924	4,399636E+22	4,399568E+22	1,470098E+22	1,470052E+22	8,799204E+22	2,940150E+22	1,173935E+23
2925	4,399480E+22	4,399655E+22	1,470155E+22	1,470160E+22	8,799135E+22	2,940315E+22	1,173945E+23
2926	4,399632E+22	4,399478E+22	1,470107E+22	1,470192E+22	8,799111E+22	2,940299E+22	1,173941E+23
2927	4,399504E+22	4,399463E+22	1,470206E+22	1,470109E+22	8,798968E+22	2,940315E+22	1,173928E+23
2928	4,399525E+22	4,399616E+22	1,470146E+22	1,470194E+22	8,799141E+22	2,940340E+22	1,173948E+23
2929	4,399639E+22	4,399473E+22	1,470105E+22	1,470131E+22	8,799112E+22	2,940236E+22	1,173935E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2930	4,399436E+22	4,399617E+22	1,470179E+22	1,470069E+22	8,799052E+22	2,940247E+22	1,173930E+23
2931	4,399582E+22	4,399687E+22	1,470053E+22	1,470126E+22	8,799269E+22	2,940179E+22	1,173945E+23
2932	4,399644E+22	4,399547E+22	1,470049E+22	1,470001E+22	8,799191E+22	2,940050E+22	1,173924E+23
2933	4,399581E+22	4,399706E+22	1,470059E+22	1,470000E+22	8,799287E+22	2,940059E+22	1,173935E+23
2934	4,399809E+22	4,399678E+22	1,469933E+22	1,470012E+22	8,799487E+22	2,939945E+22	1,173943E+23
2935	4,399738E+22	4,399671E+22	1,469979E+22	1,469909E+22	8,799409E+22	2,939888E+22	1,173930E+23
2936	4,399699E+22	4,399862E+22	1,469948E+22	1,469990E+22	8,799561E+22	2,939938E+22	1,173950E+23
2937	4,399834E+22	4,399706E+22	1,469907E+22	1,469979E+22	8,799540E+22	2,939887E+22	1,173943E+23
2938	4,399643E+22	4,399709E+22	1,470047E+22	1,469937E+22	8,799352E+22	2,939984E+22	1,173934E+23
2939	4,399695E+22	4,399772E+22	1,470013E+22	1,470063E+22	8,799467E+22	2,940075E+22	1,173954E+23
2940	4,399706E+22	4,399552E+22	1,470061E+22	1,470048E+22	8,799257E+22	2,940108E+22	1,173937E+23
2941	4,399466E+22	4,399598E+22	1,470186E+22	1,470114E+22	8,799064E+22	2,940301E+22	1,173936E+23
2942	4,399542E+22	4,399545E+22	1,470132E+22	1,470241E+22	8,799086E+22	2,940373E+22	1,173946E+23
2943	4,399442E+22	4,399357E+22	1,470232E+22	1,470198E+22	8,798799E+22	2,940430E+22	1,173923E+23
2944	4,399334E+22	4,399468E+22	1,470276E+22	1,470280E+22	8,798802E+22	2,940556E+22	1,173936E+23
2945	4,399506E+22	4,399332E+22	1,470221E+22	1,470305E+22	8,798838E+22	2,940526E+22	1,173936E+23
2946	4,399343E+22	4,399305E+22	1,470335E+22	1,470225E+22	8,798648E+22	2,940561E+22	1,173921E+23
2947	4,399346E+22	4,399493E+22	1,470275E+22	1,470307E+22	8,798839E+22	2,940582E+22	1,173942E+23
2948	4,399435E+22	4,399354E+22	1,470228E+22	1,470246E+22	8,798789E+22	2,940473E+22	1,173926E+23
2949	4,399279E+22	4,399411E+22	1,470291E+22	1,470192E+22	8,798690E+22	2,940484E+22	1,173917E+23
2950	4,399462E+22	4,399493E+22	1,470163E+22	1,470234E+22	8,798956E+22	2,940396E+22	1,173935E+23
2951	4,399523E+22	4,399372E+22	1,470150E+22	1,470109E+22	8,798894E+22	2,940259E+22	1,173915E+23
2952	4,399452E+22	4,399570E+22	1,470150E+22	1,470105E+22	8,799021E+22	2,940255E+22	1,173928E+23
2953	4,399656E+22	4,399581E+22	1,470025E+22	1,470125E+22	8,799237E+22	2,940150E+22	1,173939E+23
2954	4,399546E+22	4,399521E+22	1,470101E+22	1,470029E+22	8,799067E+22	2,940130E+22	1,173920E+23
2955	4,399521E+22	4,399707E+22	1,470089E+22	1,470100E+22	8,799228E+22	2,940189E+22	1,173942E+23
2956	4,399653E+22	4,399549E+22	1,470054E+22	1,470095E+22	8,799203E+22	2,940149E+22	1,173935E+23
2957	4,399483E+22	4,399488E+22	1,470189E+22	1,470080E+22	8,798971E+22	2,940269E+22	1,173924E+23
2958	4,399519E+22	4,399575E+22	1,470153E+22	1,470212E+22	8,799094E+22	2,940365E+22	1,173946E+23
2959	4,399493E+22	4,399361E+22	1,470194E+22	1,470211E+22	8,798855E+22	2,940406E+22	1,173926E+23
2960	4,399273E+22	4,399409E+22	1,470308E+22	1,470266E+22	8,798682E+22	2,940574E+22	1,173926E+23
2961	4,399386E+22	4,399359E+22	1,470254E+22	1,470377E+22	8,798744E+22	2,940631E+22	1,173938E+23
2962	4,399292E+22	4,399149E+22	1,470373E+22	1,470321E+22	8,798441E+22	2,940694E+22	1,173914E+23
2963	4,399194E+22	4,399311E+22	1,470417E+22	1,470387E+22	8,798506E+22	2,940804E+22	1,173931E+23
2964	4,399320E+22	4,399218E+22	1,470359E+22	1,470419E+22	8,798538E+22	2,940777E+22	1,173931E+23
2965	4,399149E+22	4,399145E+22	1,470460E+22	1,470361E+22	8,798294E+22	2,940820E+22	1,173911E+23
2966	4,399153E+22	4,399325E+22	1,470396E+22	1,470430E+22	8,798478E+22	2,940827E+22	1,173930E+23
2967	4,399250E+22	4,399168E+22	1,470344E+22	1,470364E+22	8,798418E+22	2,940709E+22	1,173913E+23
2968	4,399152E+22	4,399233E+22	1,470385E+22	1,470294E+22	8,798385E+22	2,940679E+22	1,173906E+23
2969	4,399355E+22	4,399346E+22	1,470250E+22	1,470333E+22	8,798700E+22	2,940584E+22	1,173928E+23
2970	4,399382E+22	4,399227E+22	1,470256E+22	1,470218E+22	8,798609E+22	2,940473E+22	1,173908E+23
2971	4,399297E+22	4,399464E+22	1,470260E+22	1,470212E+22	8,798761E+22	2,940472E+22	1,173923E+23
2972	4,399473E+22	4,399472E+22	1,470148E+22	1,470237E+22	8,798945E+22	2,940385E+22	1,173933E+23
2973	4,399395E+22	4,399323E+22	1,470229E+22	1,470157E+22	8,798718E+22	2,940386E+22	1,173910E+23
2974	4,399379E+22	4,399506E+22	1,470225E+22	1,470219E+22	8,798885E+22	2,940444E+22	1,173933E+23
2975	4,399483E+22	4,399359E+22	1,470189E+22	1,470229E+22	8,798842E+22	2,940418E+22	1,173926E+23
2976	4,399303E+22	4,399311E+22	1,470308E+22	1,470221E+22	8,798615E+22	2,940530E+22	1,173914E+23
2977	4,399323E+22	4,399417E+22	1,470272E+22	1,470359E+22	8,798739E+22	2,940630E+22	1,173937E+23
2978	4,399283E+22	4,399162E+22	1,470336E+22	1,470358E+22	8,798445E+22	2,940694E+22	1,173914E+23

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude ☉	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
2979	4,399099E+22	4,399224E+22	1,470454E+22	1,470392E+22	8,798323E+22	2,940846E+22	1,173917E+23
2980	4,399223E+22	4,399199E+22	1,470404E+22	1,470497E+22	8,798422E+22	2,940901E+22	1,173932E+23
2981	4,399145E+22	4,398949E+22	1,470514E+22	1,470459E+22	8,798094E+22	2,940973E+22	1,173907E+23
2982	4,399022E+22	4,399152E+22	1,470554E+22	1,470519E+22	8,798173E+22	2,941073E+22	1,173925E+23
2983	4,399106E+22	4,399071E+22	1,470483E+22	1,470558E+22	8,798177E+22	2,941041E+22	1,173922E+23
2984	4,398955E+22	4,398972E+22	1,470566E+22	1,470488E+22	8,797927E+22	2,941054E+22	1,173898E+23
2985	4,399001E+22	4,399149E+22	1,470498E+22	1,470539E+22	8,798150E+22	2,941037E+22	1,173919E+23
2986	4,399114E+22	4,398973E+22	1,470455E+22	1,470467E+22	8,798087E+22	2,940923E+22	1,173901E+23
2987	4,399033E+22	4,399092E+22	1,470490E+22	1,470386E+22	8,798125E+22	2,940877E+22	1,173900E+23
2988	4,399205E+22	4,399248E+22	1,470359E+22	1,470435E+22	8,798453E+22	2,940793E+22	1,173925E+23
2989	4,399222E+22	4,399080E+22	1,470362E+22	1,470341E+22	8,798302E+22	2,940703E+22	1,173900E+23
2990	4,399137E+22	4,399312E+22	1,470378E+22	1,470323E+22	8,798449E+22	2,940701E+22	1,173915E+23
2991	4,399304E+22	4,399303E+22	1,470273E+22	1,470351E+22	8,798607E+22	2,940624E+22	1,173923E+23
2992	4,399254E+22	4,399143E+22	1,470344E+22	1,470274E+22	8,798397E+22	2,940618E+22	1,173901E+23
2993	4,399232E+22	4,399342E+22	1,470342E+22	1,470342E+22	8,798574E+22	2,940684E+22	1,173926E+23
2994	4,399290E+22	4,399184E+22	1,470323E+22	1,470373E+22	8,798474E+22	2,940696E+22	1,173917E+23
2995	4,399107E+22	4,399160E+22	1,470441E+22	1,470363E+22	8,798267E+22	2,940804E+22	1,173907E+23
2996	4,399125E+22	4,399250E+22	1,470418E+22	1,470500E+22	8,798376E+22	2,940918E+22	1,173929E+23
2997	4,399125E+22	4,398935E+22	1,470481E+22	1,470504E+22	8,798061E+22	2,940986E+22	1,173905E+23
2998	4,398962E+22	4,399021E+22	1,470599E+22	1,470520E+22	8,797983E+22	2,941118E+22	1,173910E+23
2999	4,399042E+22	4,399027E+22	1,470547E+22	1,470631E+22	8,798069E+22	2,941178E+22	1,173925E+23