

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	2,306615E+09	2,306613E+09	3,596300E+09	3,596244E+09	4,613228E+09	7,192544E+09	1,180577E+10
-2999	2,306515E+09	2,306598E+09	3,596293E+09	3,596289E+09	4,613112E+09	7,192582E+09	1,180569E+10
-2998	2,306661E+09	2,306658E+09	3,596266E+09	3,596326E+09	4,613319E+09	7,192592E+09	1,180591E+10
-2997	2,306645E+09	2,306686E+09	3,596308E+09	3,596165E+09	4,613331E+09	7,192473E+09	1,180580E+10
-2996	2,306649E+09	2,306645E+09	3,596279E+09	3,596301E+09	4,613294E+09	7,192580E+09	1,180587E+10
-2995	2,306793E+09	2,306740E+09	3,596259E+09	3,596266E+09	4,613533E+09	7,192525E+09	1,180606E+10
-2994	2,306693E+09	2,306757E+09	3,596251E+09	3,596184E+09	4,613450E+09	7,192435E+09	1,180589E+10
-2993	2,306758E+09	2,306736E+09	3,596194E+09	3,596327E+09	4,613494E+09	7,192522E+09	1,180602E+10
-2992	2,306821E+09	2,306805E+09	3,596223E+09	3,596195E+09	4,613626E+09	7,192419E+09	1,180604E+10
-2991	2,306693E+09	2,306743E+09	3,596255E+09	3,596194E+09	4,613436E+09	7,192449E+09	1,180588E+10
-2990	2,306789E+09	2,306741E+09	3,596235E+09	3,596285E+09	4,613531E+09	7,192520E+09	1,180605E+10
-2989	2,306742E+09	2,306757E+09	3,596283E+09	3,596162E+09	4,613500E+09	7,192445E+09	1,180594E+10
-2988	2,306627E+09	2,306665E+09	3,596270E+09	3,596308E+09	4,613292E+09	7,192578E+09	1,180587E+10
-2987	2,306713E+09	2,306693E+09	3,596275E+09	3,596321E+09	4,613405E+09	7,192596E+09	1,180600E+10
-2986	2,306588E+09	2,306655E+09	3,596319E+09	3,596204E+09	4,613243E+09	7,192522E+09	1,180577E+10
-2985	2,306597E+09	2,306566E+09	3,596271E+09	3,596347E+09	4,613162E+09	7,192618E+09	1,180578E+10
-2984	2,306691E+09	2,306623E+09	3,596280E+09	3,596266E+09	4,613314E+09	7,192546E+09	1,180586E+10
-2983	2,306551E+09	2,306593E+09	3,596293E+09	3,596234E+09	4,613144E+09	7,192527E+09	1,180567E+10
-2982	2,306634E+09	2,306618E+09	3,596228E+09	3,596339E+09	4,613252E+09	7,192567E+09	1,180582E+10
-2981	2,306669E+09	2,306697E+09	3,596269E+09	3,596193E+09	4,613365E+09	7,192462E+09	1,180583E+10
-2980	2,306582E+09	2,306643E+09	3,596267E+09	3,596252E+09	4,613226E+09	7,192519E+09	1,180574E+10
-2979	2,306743E+09	2,306702E+09	3,596264E+09	3,596276E+09	4,613445E+09	7,192540E+09	1,180599E+10
-2978	2,306711E+09	2,306751E+09	3,596295E+09	3,596141E+09	4,613462E+09	7,192436E+09	1,180590E+10
-2977	2,306717E+09	2,306712E+09	3,596211E+09	3,596287E+09	4,613429E+09	7,192498E+09	1,180593E+10
-2976	2,306860E+09	2,306823E+09	3,596195E+09	3,596251E+09	4,613682E+09	7,192446E+09	1,180613E+10
-2975	2,306746E+09	2,306820E+09	3,596221E+09	3,596162E+09	4,613566E+09	7,192383E+09	1,180595E+10
-2974	2,306812E+09	2,306805E+09	3,596162E+09	3,596261E+09	4,613617E+09	7,192422E+09	1,180604E+10
-2973	2,306888E+09	2,306864E+09	3,596221E+09	3,596138E+09	4,613753E+09	7,192359E+09	1,180611E+10
-2972	2,306750E+09	2,306776E+09	3,596235E+09	3,596180E+09	4,613526E+09	7,192415E+09	1,180594E+10
-2971	2,306829E+09	2,306788E+09	3,596223E+09	3,596272E+09	4,613617E+09	7,192495E+09	1,180611E+10
-2970	2,306763E+09	2,306815E+09	3,596264E+09	3,596163E+09	4,613578E+09	7,192427E+09	1,180601E+10
-2969	2,306662E+09	2,306694E+09	3,596216E+09	3,596287E+09	4,613356E+09	7,192503E+09	1,180586E+10
-2968	2,306773E+09	2,306722E+09	3,596234E+09	3,596286E+09	4,613495E+09	7,192521E+09	1,180602E+10
-2967	2,306652E+09	2,306674E+09	3,596295E+09	3,596173E+09	4,613326E+09	7,192468E+09	1,180579E+10
-2966	2,306653E+09	2,306626E+09	3,596216E+09	3,596294E+09	4,613280E+09	7,192510E+09	1,180579E+10
-2965	2,306751E+09	2,306709E+09	3,596241E+09	3,596226E+09	4,613460E+09	7,192467E+09	1,180593E+10
-2964	2,306601E+09	2,306662E+09	3,596253E+09	3,596216E+09	4,613263E+09	7,192469E+09	1,180573E+10
-2963	2,306684E+09	2,306686E+09	3,596228E+09	3,596291E+09	4,613370E+09	7,192519E+09	1,180589E+10
-2962	2,306718E+09	2,306762E+09	3,596279E+09	3,596154E+09	4,613480E+09	7,192434E+09	1,180591E+10
-2961	2,306653E+09	2,306684E+09	3,596236E+09	3,596223E+09	4,613337E+09	7,192459E+09	1,180580E+10
-2960	2,306822E+09	2,306759E+09	3,596217E+09	3,596265E+09	4,613581E+09	7,192482E+09	1,180606E+10
-2959	2,306772E+09	2,306811E+09	3,596243E+09	3,596146E+09	4,613583E+09	7,192389E+09	1,180597E+10
-2958	2,306773E+09	2,306801E+09	3,596132E+09	3,596248E+09	4,613573E+09	7,192380E+09	1,180595E+10
-2957	2,306931E+09	2,306903E+09	3,596153E+09	3,596190E+09	4,613833E+09	7,192343E+09	1,180618E+10
-2956	2,306820E+09	2,306866E+09	3,596195E+09	3,596113E+09	4,613686E+09	7,192307E+09	1,180599E+10
-2955	2,306884E+09	2,306853E+09	3,596171E+09	3,596198E+09	4,613737E+09	7,192368E+09	1,180611E+10
-2954	2,306931E+09	2,306926E+09	3,596224E+09	3,596113E+09	4,613857E+09	7,192337E+09	1,180619E+10
-2953	2,306788E+09	2,306825E+09	3,596196E+09	3,596179E+09	4,613613E+09	7,192375E+09	1,180599E+10
-2952	2,306865E+09	2,306837E+09	3,596184E+09	3,596270E+09	4,613702E+09	7,192454E+09	1,180616E+10

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							
-2951	2,306793E+09	2,306841E+09	3,596246E+09	3,596159E+09	4,613634E+09	7,192405E+09	1,180604E+10
-2950	2,306708E+09	2,306734E+09	3,596174E+09	3,596236E+09	4,613442E+09	7,192410E+09	1,180585E+10
-2949	2,306843E+09	2,306762E+09	3,596204E+09	3,596237E+09	4,613605E+09	7,192441E+09	1,180605E+10
-2948	2,306715E+09	2,306714E+09	3,596246E+09	3,596154E+09	4,613428E+09	7,192400E+09	1,180583E+10
-2947	2,306703E+09	2,306694E+09	3,596185E+09	3,596253E+09	4,613397E+09	7,192438E+09	1,180583E+10
-2946	2,306782E+09	2,306792E+09	3,596221E+09	3,596195E+09	4,613574E+09	7,192416E+09	1,180599E+10
-2945	2,306649E+09	2,306716E+09	3,596218E+09	3,596179E+09	4,613365E+09	7,192397E+09	1,180576E+10
-2944	2,306749E+09	2,306735E+09	3,596210E+09	3,596254E+09	4,613484E+09	7,192464E+09	1,180595E+10
-2943	2,306785E+09	2,306801E+09	3,596267E+09	3,596143E+09	4,613586E+09	7,192410E+09	1,180600E+10
-2942	2,306720E+09	2,306757E+09	3,596175E+09	3,596190E+09	4,613477E+09	7,192365E+09	1,180584E+10
-2941	2,306901E+09	2,306846E+09	3,596162E+09	3,596239E+09	4,613747E+09	7,192401E+09	1,180615E+10
-2940	2,306844E+09	2,306881E+09	3,596188E+09	3,596125E+09	4,613725E+09	7,192313E+09	1,180604E+10
-2939	2,306841E+09	2,306872E+09	3,596120E+09	3,596179E+09	4,613714E+09	7,192300E+09	1,180601E+10
-2938	2,306993E+09	2,306971E+09	3,596161E+09	3,596132E+09	4,613965E+09	7,192293E+09	1,180626E+10
-2937	2,306887E+09	2,306905E+09	3,596171E+09	3,596074E+09	4,613791E+09	7,192245E+09	1,180604E+10
-2936	2,306935E+09	2,306904E+09	3,596141E+09	3,596188E+09	4,613839E+09	7,192329E+09	1,180617E+10
-2935	2,306961E+09	2,306972E+09	3,596190E+09	3,596133E+09	4,613933E+09	7,192323E+09	1,180626E+10
-2934	2,306815E+09	2,306881E+09	3,596132E+09	3,596157E+09	4,613696E+09	7,192289E+09	1,180599E+10
-2933	2,306920E+09	2,306880E+09	3,596146E+09	3,596232E+09	4,613799E+09	7,192379E+09	1,180618E+10
-2932	2,306858E+09	2,306858E+09	3,596210E+09	3,596124E+09	4,613716E+09	7,192333E+09	1,180605E+10
-2931	2,306776E+09	2,306774E+09	3,596158E+09	3,596172E+09	4,613550E+09	7,192330E+09	1,180588E+10
-2930	2,306890E+09	2,306833E+09	3,596186E+09	3,596199E+09	4,613722E+09	7,192384E+09	1,180611E+10
-2929	2,306757E+09	2,306781E+09	3,596201E+09	3,596131E+09	4,613538E+09	7,192333E+09	1,180587E+10
-2928	2,306741E+09	2,306765E+09	3,596165E+09	3,596229E+09	4,613506E+09	7,192394E+09	1,180590E+10
-2927	2,306816E+09	2,306840E+09	3,596226E+09	3,596180E+09	4,613656E+09	7,192406E+09	1,180606E+10
-2926	2,306702E+09	2,306767E+09	3,596196E+09	3,596135E+09	4,613469E+09	7,192332E+09	1,180580E+10
-2925	2,306830E+09	2,306782E+09	3,596185E+09	3,596225E+09	4,613612E+09	7,192410E+09	1,180602E+10
-2924	2,306859E+09	2,306848E+09	3,596212E+09	3,596143E+09	4,613707E+09	7,192355E+09	1,180606E+10
-2923	2,306794E+09	2,306835E+09	3,596123E+09	3,596153E+09	4,613629E+09	7,192276E+09	1,180590E+10
-2922	2,306960E+09	2,306933E+09	3,596118E+09	3,596192E+09	4,613893E+09	7,192310E+09	1,180620E+10
-2921	2,306918E+09	2,306943E+09	3,596139E+09	3,596067E+09	4,613861E+09	7,192207E+09	1,180607E+10
-2920	2,306920E+09	2,306929E+09	3,596101E+09	3,596118E+09	4,613849E+09	7,192219E+09	1,180607E+10
-2919	2,307048E+09	2,307019E+09	3,596156E+09	3,596111E+09	4,614068E+09	7,192267E+09	1,180633E+10
-2918	2,306930E+09	2,306977E+09	3,596129E+09	3,596051E+09	4,613908E+09	7,192180E+09	1,180609E+10
-2917	2,306982E+09	2,306972E+09	3,596105E+09	3,596181E+09	4,613954E+09	7,192285E+09	1,180624E+10
-2916	2,307001E+09	2,307014E+09	3,596151E+09	3,596135E+09	4,614015E+09	7,192286E+09	1,180630E+10
-2915	2,306867E+09	2,306922E+09	3,596117E+09	3,596104E+09	4,613789E+09	7,192221E+09	1,180601E+10
-2914	2,306973E+09	2,306920E+09	3,596139E+09	3,596181E+09	4,613894E+09	7,192320E+09	1,180621E+10
-2913	2,306921E+09	2,306887E+09	3,596169E+09	3,596087E+09	4,613808E+09	7,192257E+09	1,180606E+10
-2912	2,306825E+09	2,306829E+09	3,596123E+09	3,596145E+09	4,613654E+09	7,192268E+09	1,180592E+10
-2911	2,306914E+09	2,306893E+09	3,596160E+09	3,596196E+09	4,613807E+09	7,192356E+09	1,180616E+10
-2910	2,306785E+09	2,306849E+09	3,596158E+09	3,596094E+09	4,613634E+09	7,192252E+09	1,180589E+10
-2909	2,306798E+09	2,306816E+09	3,596149E+09	3,596190E+09	4,613614E+09	7,192340E+09	1,180595E+10
-2908	2,306884E+09	2,306867E+09	3,596205E+09	3,596160E+09	4,613751E+09	7,192364E+09	1,180612E+10
-2907	2,306779E+09	2,306817E+09	3,596175E+09	3,596089E+09	4,613596E+09	7,192264E+09	1,180586E+10
-2906	2,306899E+09	2,306861E+09	3,596148E+09	3,596200E+09	4,613760E+09	7,192348E+09	1,180611E+10
-2905	2,306931E+09	2,306920E+09	3,596141E+09	3,596117E+09	4,613851E+09	7,192258E+09	1,180611E+10
-2904	2,306860E+09	2,306917E+09	3,596082E+09	3,596107E+09	4,613777E+09	7,192189E+09	1,180597E+10
-2903	2,307018E+09	2,307001E+09	3,596106E+09	3,596152E+09	4,614019E+09	7,192258E+09	1,180628E+10

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	Spring	Summer	Autumn	Winter			
Longitude \odot	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2902	2,306981E+09	2,307010E+09	3,596110E+09	3,596007E+09	4,613991E+09	7,192117E+09	1,180611E+10
-2901	2,306992E+09	2,306990E+09	3,596082E+09	3,596089E+09	4,613982E+09	7,192171E+09	1,180615E+10
-2900	2,307098E+09	2,307069E+09	3,596116E+09	3,596118E+09	4,614167E+09	7,192234E+09	1,180640E+10
-2899	2,306977E+09	2,307041E+09	3,596094E+09	3,596028E+09	4,614018E+09	7,192122E+09	1,180614E+10
-2898	2,307024E+09	2,307031E+09	3,596077E+09	3,596150E+09	4,614054E+09	7,192227E+09	1,180628E+10
-2897	2,307061E+09	2,307040E+09	3,596107E+09	3,596094E+09	4,614102E+09	7,192201E+09	1,180630E+10
-2896	2,306936E+09	2,306955E+09	3,596095E+09	3,596052E+09	4,613891E+09	7,192147E+09	1,180604E+10
-2895	2,307021E+09	2,306961E+09	3,596120E+09	3,596158E+09	4,613982E+09	7,192278E+09	1,180626E+10
-2894	2,306958E+09	2,306958E+09	3,596122E+09	3,596056E+09	4,613916E+09	7,192177E+09	1,180609E+10
-2893	2,306867E+09	2,306901E+09	3,596097E+09	3,596126E+09	4,613768E+09	7,192223E+09	1,180599E+10
-2892	2,306942E+09	2,306940E+09	3,596145E+09	3,596187E+09	4,613883E+09	7,192333E+09	1,180622E+10
-2891	2,306837E+09	2,306897E+09	3,596164E+09	3,596045E+09	4,613734E+09	7,192209E+09	1,180594E+10
-2890	2,306856E+09	2,306858E+09	3,596146E+09	3,596152E+09	4,613714E+09	7,192298E+09	1,180601E+10
-2889	2,306955E+09	2,306902E+09	3,596153E+09	3,596143E+09	4,613857E+09	7,192296E+09	1,180615E+10
-2888	2,306850E+09	2,306882E+09	3,596114E+09	3,596068E+09	4,613732E+09	7,192182E+09	1,180591E+10
-2887	2,306949E+09	2,306936E+09	3,596090E+09	3,596187E+09	4,613885E+09	7,192276E+09	1,180616E+10
-2886	2,306989E+09	2,307005E+09	3,596075E+09	3,596059E+09	4,613994E+09	7,192134E+09	1,180613E+10
-2885	2,306943E+09	2,306988E+09	3,596055E+09	3,596042E+09	4,613931E+09	7,192097E+09	1,180603E+10
-2884	2,307089E+09	2,307052E+09	3,596089E+09	3,596112E+09	4,614141E+09	7,192201E+09	1,180634E+10
-2883	2,307053E+09	2,307080E+09	3,596098E+09	3,595958E+09	4,614133E+09	7,192056E+09	1,180619E+10
-2882	2,307043E+09	2,307070E+09	3,596064E+09	3,596071E+09	4,614114E+09	7,192135E+09	1,180625E+10
-2881	2,307148E+09	2,307127E+09	3,596069E+09	3,596113E+09	4,614274E+09	7,192182E+09	1,180646E+10
-2880	2,307030E+09	2,307092E+09	3,596070E+09	3,596000E+09	4,614123E+09	7,192070E+09	1,180619E+10
-2879	2,307072E+09	2,307066E+09	3,596065E+09	3,596127E+09	4,614138E+09	7,192191E+09	1,180633E+10
-2878	2,307119E+09	2,307078E+09	3,596067E+09	3,596043E+09	4,614197E+09	7,192111E+09	1,180631E+10
-2877	2,307000E+09	2,307004E+09	3,596061E+09	3,596024E+09	4,614005E+09	7,192085E+09	1,180609E+10
-2876	2,307057E+09	2,307013E+09	3,596077E+09	3,596155E+09	4,614071E+09	7,192232E+09	1,180630E+10
-2875	2,306992E+09	2,307026E+09	3,596091E+09	3,596018E+09	4,614018E+09	7,192108E+09	1,180613E+10
-2874	2,306902E+09	2,306960E+09	3,596088E+09	3,596090E+09	4,613862E+09	7,192178E+09	1,180604E+10
-2873	2,306996E+09	2,306965E+09	3,596117E+09	3,596150E+09	4,613961E+09	7,192267E+09	1,180623E+10
-2872	2,306904E+09	2,306930E+09	3,596147E+09	3,596008E+09	4,613834E+09	7,192155E+09	1,180599E+10
-2871	2,306912E+09	2,306908E+09	3,596114E+09	3,596145E+09	4,613820E+09	7,192259E+09	1,180608E+10
-2870	2,307010E+09	2,306977E+09	3,596080E+09	3,596115E+09	4,613987E+09	7,192196E+09	1,180618E+10
-2869	2,306920E+09	2,306969E+09	3,596060E+09	3,596037E+09	4,613889E+09	7,192097E+09	1,180599E+10
-2868	2,307008E+09	2,307005E+09	3,596055E+09	3,596148E+09	4,614013E+09	7,192203E+09	1,180622E+10
-2867	2,307064E+09	2,307079E+09	3,596067E+09	3,595981E+09	4,614143E+09	7,192048E+09	1,180619E+10
-2866	2,307016E+09	2,307055E+09	3,596059E+09	3,595990E+09	4,614071E+09	7,192049E+09	1,180612E+10
-2865	2,307153E+09	2,307104E+09	3,596054E+09	3,596094E+09	4,614257E+09	7,192149E+09	1,180641E+10
-2864	2,307111E+09	2,307147E+09	3,596063E+09	3,595952E+09	4,614258E+09	7,192016E+09	1,180627E+10
-2863	2,307083E+09	2,307131E+09	3,596025E+09	3,596076E+09	4,614214E+09	7,192101E+09	1,180631E+10
-2862	2,307198E+09	2,307179E+09	3,596012E+09	3,596075E+09	4,614377E+09	7,192087E+09	1,180646E+10
-2861	2,307111E+09	2,307134E+09	3,596032E+09	3,595955E+09	4,614246E+09	7,191988E+09	1,180623E+10
-2860	2,307135E+09	2,307098E+09	3,596031E+09	3,596093E+09	4,614233E+09	7,192124E+09	1,180636E+10
-2859	2,307179E+09	2,307143E+09	3,596038E+09	3,595994E+09	4,614322E+09	7,192032E+09	1,180635E+10
-2858	2,307039E+09	2,307079E+09	3,596041E+09	3,595993E+09	4,614119E+09	7,192034E+09	1,180615E+10
-2857	2,307083E+09	2,307068E+09	3,596046E+09	3,596135E+09	4,614151E+09	7,192180E+09	1,180633E+10
-2856	2,307031E+09	2,307073E+09	3,596089E+09	3,595986E+09	4,614103E+09	7,192075E+09	1,180618E+10
-2855	2,306938E+09	2,306989E+09	3,596090E+09	3,596074E+09	4,613926E+09	7,192164E+09	1,180609E+10
-2854	2,307048E+09	2,306995E+09	3,596079E+09	3,596120E+09	4,614044E+09	7,192199E+09	1,180624E+10

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							
-2853	2,306976E+09	2,306977E+09	3,596092E+09	3,595996E+09	4,613954E+09	7,192088E+09	1,180604E+10
-2852	2,306965E+09	2,306969E+09	3,596045E+09	3,596138E+09	4,613934E+09	7,192183E+09	1,180612E+10
-2851	2,307075E+09	2,307061E+09	3,596024E+09	3,596058E+09	4,614136E+09	7,192082E+09	1,180622E+10
-2850	2,306991E+09	2,307050E+09	3,596038E+09	3,595969E+09	4,614041E+09	7,192007E+09	1,180605E+10
-2849	2,307085E+09	2,307061E+09	3,596030E+09	3,596085E+09	4,614146E+09	7,192115E+09	1,180626E+10
-2848	2,307145E+09	2,307140E+09	3,596062E+09	3,595934E+09	4,614285E+09	7,191996E+09	1,180628E+10
-2847	2,307072E+09	2,307125E+09	3,596045E+09	3,595990E+09	4,614197E+09	7,192035E+09	1,180623E+10
-2846	2,307200E+09	2,307180E+09	3,596001E+09	3,596084E+09	4,614380E+09	7,192085E+09	1,180647E+10
-2845	2,307175E+09	2,307219E+09	3,596018E+09	3,595948E+09	4,614394E+09	7,191966E+09	1,180636E+10
-2844	2,307140E+09	2,307181E+09	3,595989E+09	3,596058E+09	4,614320E+09	7,192047E+09	1,180637E+10
-2843	2,307271E+09	2,307228E+09	3,595983E+09	3,596008E+09	4,614500E+09	7,191991E+09	1,180649E+10
-2842	2,307182E+09	2,307187E+09	3,596014E+09	3,595903E+09	4,614369E+09	7,191917E+09	1,180629E+10
-2841	2,307187E+09	2,307145E+09	3,595982E+09	3,596062E+09	4,614331E+09	7,192044E+09	1,180638E+10
-2840	2,307216E+09	2,307204E+09	3,596008E+09	3,595970E+09	4,614420E+09	7,191977E+09	1,180640E+10
-2839	2,307058E+09	2,307134E+09	3,596026E+09	3,595987E+09	4,614192E+09	7,192013E+09	1,180620E+10
-2838	2,307111E+09	2,307103E+09	3,596017E+09	3,596096E+09	4,614214E+09	7,192113E+09	1,180633E+10
-2837	2,307094E+09	2,307100E+09	3,596068E+09	3,595960E+09	4,614194E+09	7,192028E+09	1,180622E+10
-2836	2,306995E+09	2,307014E+09	3,596056E+09	3,596059E+09	4,614009E+09	7,192116E+09	1,180612E+10
-2835	2,307113E+09	2,307057E+09	3,596029E+09	3,596081E+09	4,614170E+09	7,192110E+09	1,180628E+10
-2834	2,307040E+09	2,307061E+09	3,596050E+09	3,595962E+09	4,614100E+09	7,192012E+09	1,180611E+10
-2833	2,307022E+09	2,307040E+09	3,595997E+09	3,596095E+09	4,614062E+09	7,192092E+09	1,180615E+10
-2832	2,307144E+09	2,307132E+09	3,596017E+09	3,595999E+09	4,614275E+09	7,192016E+09	1,180629E+10
-2831	2,307051E+09	2,307111E+09	3,596044E+09	3,595933E+09	4,614163E+09	7,191976E+09	1,180614E+10
-2830	2,307144E+09	2,307119E+09	3,596003E+09	3,596050E+09	4,614263E+09	7,192053E+09	1,180632E+10
-2829	2,307217E+09	2,307211E+09	3,596016E+09	3,595937E+09	4,614428E+09	7,191954E+09	1,180638E+10
-2828	2,307120E+09	2,307189E+09	3,595987E+09	3,596001E+09	4,614309E+09	7,191987E+09	1,180630E+10
-2827	2,307265E+09	2,307252E+09	3,595946E+09	3,596043E+09	4,614517E+09	7,191990E+09	1,180651E+10
-2826	2,307254E+09	2,307277E+09	3,595984E+09	3,595888E+09	4,614532E+09	7,191872E+09	1,180640E+10
-2825	2,307218E+09	2,307218E+09	3,595945E+09	3,595996E+09	4,614436E+09	7,191941E+09	1,180638E+10
-2824	2,307347E+09	2,307279E+09	3,595962E+09	3,595954E+09	4,614626E+09	7,191916E+09	1,180654E+10
-2823	2,307222E+09	2,307253E+09	3,595995E+09	3,595887E+09	4,614474E+09	7,191882E+09	1,180636E+10
-2822	2,307210E+09	2,307210E+09	3,595946E+09	3,596037E+09	4,614420E+09	7,191983E+09	1,180640E+10
-2821	2,307255E+09	2,307259E+09	3,595986E+09	3,595959E+09	4,614514E+09	7,191946E+09	1,180646E+10
-2820	2,307090E+09	2,307162E+09	3,596019E+09	3,595975E+09	4,614252E+09	7,191994E+09	1,180625E+10
-2819	2,307167E+09	2,307133E+09	3,596002E+09	3,596050E+09	4,614300E+09	7,192052E+09	1,180635E+10
-2818	2,307161E+09	2,307138E+09	3,596046E+09	3,595931E+09	4,614298E+09	7,191976E+09	1,180627E+10
-2817	2,307052E+09	2,307062E+09	3,595990E+09	3,596042E+09	4,614114E+09	7,192031E+09	1,180615E+10
-2816	2,307173E+09	2,307125E+09	3,595978E+09	3,596050E+09	4,614298E+09	7,192028E+09	1,180633E+10
-2815	2,307087E+09	2,307136E+09	3,596019E+09	3,595933E+09	4,614223E+09	7,191952E+09	1,180618E+10
-2814	2,307079E+09	2,307102E+09	3,595966E+09	3,596029E+09	4,614181E+09	7,191995E+09	1,180618E+10
-2813	2,307223E+09	2,307192E+09	3,595998E+09	3,595959E+09	4,614415E+09	7,191957E+09	1,180637E+10
-2812	2,307116E+09	2,307169E+09	3,596024E+09	3,595921E+09	4,614285E+09	7,191945E+09	1,180623E+10
-2811	2,307206E+09	2,307198E+09	3,595960E+09	3,596020E+09	4,614404E+09	7,191980E+09	1,180638E+10
-2810	2,307281E+09	2,307295E+09	3,595980E+09	3,595918E+09	4,614576E+09	7,191898E+09	1,180647E+10
-2809	2,307186E+09	2,307251E+09	3,595935E+09	3,595967E+09	4,614437E+09	7,191902E+09	1,180634E+10
-2808	2,307343E+09	2,307303E+09	3,595927E+09	3,595986E+09	4,614646E+09	7,191912E+09	1,180656E+10
-2807	2,307322E+09	2,307328E+09	3,595972E+09	3,595849E+09	4,614650E+09	7,191820E+09	1,180647E+10
-2806	2,307275E+09	2,307267E+09	3,595904E+09	3,595949E+09	4,614542E+09	7,191854E+09	1,180640E+10
-2805	2,307401E+09	2,307345E+09	3,595915E+09	3,595944E+09	4,614746E+09	7,191859E+09	1,180661E+10

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							
-2804	2,307249E+09	2,307310E+09	3,595958E+09	3,595887E+09	4,614559E+09	7,191846E+09	1,180640E+10
-2803	2,307243E+09	2,307267E+09	3,595920E+09	3,595994E+09	4,614510E+09	7,191913E+09	1,180642E+10
-2802	2,307308E+09	2,307299E+09	3,595980E+09	3,595918E+09	4,614607E+09	7,191898E+09	1,180651E+10
-2801	2,307150E+09	2,307181E+09	3,595988E+09	3,595941E+09	4,614331E+09	7,191929E+09	1,180626E+10
-2800	2,307234E+09	2,307169E+09	3,595978E+09	3,596021E+09	4,614402E+09	7,191999E+09	1,180640E+10
-2799	2,307205E+09	2,307201E+09	3,596010E+09	3,595924E+09	4,614407E+09	7,191935E+09	1,180634E+10
-2798	2,307091E+09	2,307134E+09	3,595938E+09	3,596007E+09	4,614225E+09	7,191945E+09	1,180617E+10
-2797	2,307232E+09	2,307201E+09	3,595943E+09	3,596019E+09	4,614432E+09	7,191962E+09	1,180639E+10
-2796	2,307138E+09	2,307190E+09	3,596008E+09	3,595896E+09	4,614329E+09	7,191904E+09	1,180623E+10
-2795	2,307146E+09	2,307160E+09	3,595954E+09	3,595969E+09	4,614307E+09	7,191923E+09	1,180623E+10
-2794	2,307295E+09	2,307254E+09	3,595978E+09	3,595926E+09	4,614549E+09	7,191904E+09	1,180645E+10
-2793	2,307175E+09	2,307230E+09	3,595964E+09	3,595910E+09	4,614405E+09	7,191874E+09	1,180628E+10
-2792	2,307274E+09	2,307265E+09	3,595916E+09	3,595996E+09	4,614539E+09	7,191912E+09	1,180645E+10
-2791	2,307342E+09	2,307360E+09	3,595944E+09	3,595890E+09	4,614703E+09	7,191834E+09	1,180654E+10
-2790	2,307260E+09	2,307303E+09	3,595888E+09	3,595902E+09	4,614564E+09	7,191790E+09	1,180635E+10
-2789	2,307434E+09	2,307360E+09	3,595883E+09	3,595941E+09	4,614794E+09	7,191824E+09	1,180662E+10
-2788	2,307383E+09	2,307389E+09	3,595938E+09	3,595826E+09	4,614773E+09	7,191764E+09	1,180654E+10
-2787	2,307323E+09	2,307350E+09	3,595868E+09	3,595909E+09	4,614673E+09	7,191777E+09	1,180645E+10
-2786	2,307441E+09	2,307422E+09	3,595902E+09	3,595918E+09	4,614864E+09	7,191820E+09	1,180668E+10
-2785	2,307285E+09	2,307357E+09	3,595941E+09	3,595865E+09	4,614642E+09	7,191806E+09	1,180645E+10
-2784	2,307296E+09	2,307294E+09	3,595927E+09	3,595957E+09	4,614589E+09	7,191884E+09	1,180647E+10
-2783	2,307354E+09	2,307327E+09	3,595977E+09	3,595907E+09	4,614681E+09	7,191884E+09	1,180657E+10
-2782	2,307197E+09	2,307214E+09	3,595939E+09	3,595918E+09	4,614411E+09	7,191857E+09	1,180627E+10
-2781	2,307286E+09	2,307227E+09	3,595908E+09	3,596017E+09	4,614513E+09	7,191926E+09	1,180644E+10
-2780	2,307244E+09	2,307263E+09	3,595960E+09	3,595912E+09	4,614507E+09	7,191871E+09	1,180638E+10
-2779	2,307144E+09	2,307200E+09	3,595900E+09	3,595935E+09	4,614344E+09	7,191835E+09	1,180618E+10
-2778	2,307299E+09	2,307259E+09	3,595938E+09	3,595949E+09	4,614558E+09	7,191887E+09	1,180645E+10
-2777	2,307209E+09	2,307238E+09	3,595985E+09	3,595851E+09	4,614446E+09	7,191836E+09	1,180628E+10
-2776	2,307215E+09	2,307217E+09	3,595940E+09	3,595939E+09	4,614432E+09	7,191878E+09	1,180631E+10
-2775	2,307343E+09	2,307333E+09	3,595950E+09	3,595929E+09	4,614676E+09	7,191879E+09	1,180655E+10
-2774	2,307229E+09	2,307299E+09	3,595910E+09	3,595885E+09	4,614528E+09	7,191795E+09	1,180632E+10
-2773	2,307351E+09	2,307335E+09	3,595865E+09	3,595970E+09	4,614686E+09	7,191835E+09	1,180652E+10
-2772	2,307416E+09	2,307414E+09	3,595916E+09	3,595853E+09	4,614830E+09	7,191768E+09	1,180660E+10
-2771	2,307340E+09	2,307368E+09	3,595854E+09	3,595833E+09	4,614709E+09	7,191687E+09	1,180640E+10
-2770	2,307504E+09	2,307436E+09	3,595853E+09	3,595899E+09	4,614941E+09	7,191752E+09	1,180669E+10
-2769	2,307429E+09	2,307461E+09	3,595887E+09	3,595808E+09	4,614890E+09	7,191695E+09	1,180659E+10
-2768	2,307368E+09	2,307411E+09	3,595853E+09	3,595883E+09	4,614779E+09	7,191736E+09	1,180652E+10
-2767	2,307474E+09	2,307471E+09	3,595900E+09	3,595899E+09	4,614945E+09	7,191798E+09	1,180674E+10
-2766	2,307333E+09	2,307379E+09	3,595920E+09	3,595827E+09	4,614713E+09	7,191746E+09	1,180646E+10
-2765	2,307364E+09	2,307324E+09	3,595889E+09	3,595943E+09	4,614688E+09	7,191832E+09	1,180652E+10
-2764	2,307400E+09	2,307364E+09	3,595933E+09	3,595902E+09	4,614764E+09	7,191835E+09	1,180660E+10
-2763	2,307244E+09	2,307283E+09	3,595883E+09	3,595877E+09	4,614527E+09	7,191760E+09	1,180629E+10
-2762	2,307338E+09	2,307301E+09	3,595875E+09	3,595970E+09	4,614639E+09	7,191845E+09	1,180648E+10
-2761	2,307293E+09	2,307318E+09	3,595931E+09	3,595863E+09	4,614611E+09	7,191794E+09	1,180640E+10
-2760	2,307210E+09	2,307245E+09	3,595912E+09	3,595878E+09	4,614455E+09	7,191790E+09	1,180624E+10
-2759	2,307349E+09	2,307310E+09	3,595941E+09	3,595925E+09	4,614659E+09	7,191866E+09	1,180653E+10
-2758	2,307260E+09	2,307291E+09	3,595941E+09	3,595836E+09	4,614551E+09	7,191778E+09	1,180633E+10
-2757	2,307277E+09	2,307290E+09	3,595869E+09	3,595946E+09	4,614567E+09	7,191815E+09	1,180638E+10
-2756	2,307397E+09	2,307399E+09	3,595894E+09	3,595922E+09	4,614795E+09	7,191816E+09	1,180661E+10

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							
-2755	2,307307E+09	2,307372E+09	3,595857E+09	3,595818E+09	4,614679E+09	7,191674E+09	1,180635E+10
-2754	2,307446E+09	2,307404E+09	3,595834E+09	3,595898E+09	4,614850E+09	7,191732E+09	1,180658E+10
-2753	2,307500E+09	2,307478E+09	3,595874E+09	3,595802E+09	4,614977E+09	7,191676E+09	1,180665E+10
-2752	2,307414E+09	2,307442E+09	3,595839E+09	3,595790E+09	4,614857E+09	7,191628E+09	1,180648E+10
-2751	2,307538E+09	2,307524E+09	3,595845E+09	3,595886E+09	4,615062E+09	7,191731E+09	1,180679E+10
-2750	2,307465E+09	2,307523E+09	3,595865E+09	3,595787E+09	4,614987E+09	7,191653E+09	1,180664E+10
-2749	2,307416E+09	2,307456E+09	3,595831E+09	3,595872E+09	4,614872E+09	7,191703E+09	1,180658E+10
-2748	2,307520E+09	2,307492E+09	3,595890E+09	3,595889E+09	4,615012E+09	7,191779E+09	1,180679E+10
-2747	2,307394E+09	2,307408E+09	3,595878E+09	3,595785E+09	4,614802E+09	7,191663E+09	1,180646E+10
-2746	2,307422E+09	2,307373E+09	3,595836E+09	3,595916E+09	4,614795E+09	7,191752E+09	1,180655E+10
-2745	2,307444E+09	2,307420E+09	3,595862E+09	3,595881E+09	4,614864E+09	7,191743E+09	1,180661E+10
-2744	2,307296E+09	2,307340E+09	3,595855E+09	3,595825E+09	4,614636E+09	7,191681E+09	1,180632E+10
-2743	2,307376E+09	2,307362E+09	3,595874E+09	3,595919E+09	4,614739E+09	7,191793E+09	1,180653E+10
-2742	2,307348E+09	2,307359E+09	3,595914E+09	3,595809E+09	4,614707E+09	7,191724E+09	1,180643E+10
-2741	2,307276E+09	2,307297E+09	3,595882E+09	3,595864E+09	4,614573E+09	7,191747E+09	1,180632E+10
-2740	2,307393E+09	2,307369E+09	3,595909E+09	3,595933E+09	4,614762E+09	7,191841E+09	1,180660E+10
-2739	2,307314E+09	2,307370E+09	3,595886E+09	3,595811E+09	4,614685E+09	7,191698E+09	1,180638E+10
-2738	2,307348E+09	2,307372E+09	3,595827E+09	3,595910E+09	4,614720E+09	7,191737E+09	1,180646E+10
-2737	2,307473E+09	2,307460E+09	3,595850E+09	3,595873E+09	4,614933E+09	7,191724E+09	1,180666E+10
-2736	2,307404E+09	2,307429E+09	3,595847E+09	3,595750E+09	4,614833E+09	7,191597E+09	1,180643E+10
-2735	2,307515E+09	2,307476E+09	3,595822E+09	3,595855E+09	4,614992E+09	7,191677E+09	1,180667E+10
-2734	2,307556E+09	2,307548E+09	3,595829E+09	3,595774E+09	4,615103E+09	7,191603E+09	1,180671E+10
-2733	2,307469E+09	2,307521E+09	3,595789E+09	3,595791E+09	4,614990E+09	7,191580E+09	1,180657E+10
-2732	2,307572E+09	2,307575E+09	3,595819E+09	3,595877E+09	4,615147E+09	7,191696E+09	1,180684E+10
-2731	2,307520E+09	2,307566E+09	3,595834E+09	3,595739E+09	4,615087E+09	7,191573E+09	1,180666E+10
-2730	2,307493E+09	2,307492E+09	3,595805E+09	3,595826E+09	4,614985E+09	7,191631E+09	1,180662E+10
-2729	2,307583E+09	2,307522E+09	3,595838E+09	3,595863E+09	4,615105E+09	7,191701E+09	1,180681E+10
-2728	2,307458E+09	2,307461E+09	3,595842E+09	3,595753E+09	4,614919E+09	7,191594E+09	1,180651E+10
-2727	2,307453E+09	2,307449E+09	3,595807E+09	3,595889E+09	4,614902E+09	7,191696E+09	1,180660E+10
-2726	2,307480E+09	2,307479E+09	3,595830E+09	3,595839E+09	4,614959E+09	7,191669E+09	1,180663E+10
-2725	2,307348E+09	2,307395E+09	3,595839E+09	3,595794E+09	4,614744E+09	7,191633E+09	1,180638E+10
-2724	2,307415E+09	2,307398E+09	3,595879E+09	3,595896E+09	4,614814E+09	7,191775E+09	1,180659E+10
-2723	2,307402E+09	2,307408E+09	3,595886E+09	3,595779E+09	4,614810E+09	7,191666E+09	1,180648E+10
-2722	2,307334E+09	2,307362E+09	3,595837E+09	3,595853E+09	4,614696E+09	7,191690E+09	1,180639E+10
-2721	2,307446E+09	2,307430E+09	3,595841E+09	3,595925E+09	4,614876E+09	7,191766E+09	1,180664E+10
-2720	2,307394E+09	2,307431E+09	3,595850E+09	3,595763E+09	4,614825E+09	7,191613E+09	1,180644E+10
-2719	2,307421E+09	2,307442E+09	3,595808E+09	3,595850E+09	4,614864E+09	7,191658E+09	1,180652E+10
-2718	2,307561E+09	2,307518E+09	3,595813E+09	3,595811E+09	4,615078E+09	7,191624E+09	1,180670E+10
-2717	2,307488E+09	2,307504E+09	3,595804E+09	3,595718E+09	4,614992E+09	7,191521E+09	1,180651E+10
-2716	2,307562E+09	2,307555E+09	3,595796E+09	3,595843E+09	4,615117E+09	7,191639E+09	1,180676E+10
-2715	2,307605E+09	2,307631E+09	3,595787E+09	3,595743E+09	4,615235E+09	7,191530E+09	1,180677E+10
-2714	2,307524E+09	2,307590E+09	3,595767E+09	3,595762E+09	4,615114E+09	7,191528E+09	1,180664E+10
-2713	2,307627E+09	2,307614E+09	3,595793E+09	3,595850E+09	4,615241E+09	7,191642E+09	1,180688E+10
-2712	2,307599E+09	2,307593E+09	3,595823E+09	3,595697E+09	4,615192E+09	7,191519E+09	1,180671E+10
-2711	2,307545E+09	2,307542E+09	3,595777E+09	3,595801E+09	4,615087E+09	7,191578E+09	1,180666E+10
-2710	2,307628E+09	2,307573E+09	3,595770E+09	3,595841E+09	4,615201E+09	7,191611E+09	1,180681E+10
-2709	2,307504E+09	2,307528E+09	3,595779E+09	3,595737E+09	4,615031E+09	7,191517E+09	1,180655E+10
-2708	2,307481E+09	2,307501E+09	3,595789E+09	3,595856E+09	4,614982E+09	7,191645E+09	1,180663E+10
-2707	2,307528E+09	2,307526E+09	3,595812E+09	3,595776E+09	4,615055E+09	7,191588E+09	1,180664E+10

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							
-2706	2,307414E+09	2,307442E+09	3,595833E+09	3,595752E+09	4,614856E+09	7,191585E+09	1,180644E+10
-2705	2,307466E+09	2,307440E+09	3,595847E+09	3,595882E+09	4,614905E+09	7,191729E+09	1,180663E+10
-2704	2,307464E+09	2,307465E+09	3,595861E+09	3,595763E+09	4,614930E+09	7,191624E+09	1,180655E+10
-2703	2,307381E+09	2,307441E+09	3,595808E+09	3,595833E+09	4,614822E+09	7,191641E+09	1,180646E+10
-2702	2,307509E+09	2,307488E+09	3,595794E+09	3,595885E+09	4,614997E+09	7,191679E+09	1,180668E+10
-2701	2,307482E+09	2,307496E+09	3,595811E+09	3,595723E+09	4,614978E+09	7,191534E+09	1,180651E+10
-2700	2,307494E+09	2,307496E+09	3,595787E+09	3,595806E+09	4,614990E+09	7,191593E+09	1,180658E+10
-2699	2,307631E+09	2,307591E+09	3,595765E+09	3,595762E+09	4,615222E+09	7,191527E+09	1,180675E+10
-2698	2,307556E+09	2,307595E+09	3,595755E+09	3,595694E+09	4,615151E+09	7,191449E+09	1,180660E+10
-2697	2,307606E+09	2,307627E+09	3,595745E+09	3,595827E+09	4,615233E+09	7,191572E+09	1,180680E+10
-2696	2,307673E+09	2,307687E+09	3,595771E+09	3,595701E+09	4,615360E+09	7,191472E+09	1,180683E+10
-2695	2,307586E+09	2,307642E+09	3,595758E+09	3,595717E+09	4,615228E+09	7,191475E+09	1,180670E+10
-2694	2,307698E+09	2,307644E+09	3,595753E+09	3,595811E+09	4,615343E+09	7,191564E+09	1,180691E+10
-2693	2,307670E+09	2,307647E+09	3,595769E+09	3,595682E+09	4,615318E+09	7,191451E+09	1,180677E+10
-2692	2,307580E+09	2,307604E+09	3,595741E+09	3,595787E+09	4,615184E+09	7,191528E+09	1,180671E+10
-2691	2,307665E+09	2,307643E+09	3,595727E+09	3,595800E+09	4,615308E+09	7,191527E+09	1,180683E+10
-2690	2,307551E+09	2,307592E+09	3,595767E+09	3,595693E+09	4,615143E+09	7,191460E+09	1,180660E+10
-2689	2,307522E+09	2,307535E+09	3,595786E+09	3,595819E+09	4,615058E+09	7,191605E+09	1,180666E+10
-2688	2,307593E+09	2,307554E+09	3,595822E+09	3,595738E+09	4,615147E+09	7,191560E+09	1,180671E+10
-2687	2,307455E+09	2,307493E+09	3,595821E+09	3,595742E+09	4,614948E+09	7,191563E+09	1,180651E+10
-2686	2,307511E+09	2,307488E+09	3,595786E+09	3,595880E+09	4,614999E+09	7,191666E+09	1,180667E+10
-2685	2,307525E+09	2,307527E+09	3,595793E+09	3,595753E+09	4,615051E+09	7,191546E+09	1,180660E+10
-2684	2,307437E+09	2,307497E+09	3,595771E+09	3,595795E+09	4,614934E+09	7,191566E+09	1,180650E+10
-2683	2,307591E+09	2,307547E+09	3,595744E+09	3,595811E+09	4,615138E+09	7,191555E+09	1,180669E+10
-2682	2,307574E+09	2,307570E+09	3,595773E+09	3,595663E+09	4,615143E+09	7,191436E+09	1,180658E+10
-2681	2,307559E+09	2,307572E+09	3,595747E+09	3,595772E+09	4,615131E+09	7,191519E+09	1,180665E+10
-2680	2,307698E+09	2,307675E+09	3,595743E+09	3,595727E+09	4,615373E+09	7,191470E+09	1,180684E+10
-2679	2,307600E+09	2,307687E+09	3,595747E+09	3,595667E+09	4,615286E+09	7,191414E+09	1,180670E+10
-2678	2,307662E+09	2,307681E+09	3,595718E+09	3,595795E+09	4,615343E+09	7,191513E+09	1,180686E+10
-2677	2,307750E+09	2,307734E+09	3,595745E+09	3,595677E+09	4,615483E+09	7,191422E+09	1,180691E+10
-2676	2,307648E+09	2,307678E+09	3,595738E+09	3,595697E+09	4,615326E+09	7,191435E+09	1,180676E+10
-2675	2,307758E+09	2,307696E+09	3,595690E+09	3,595779E+09	4,615454E+09	7,191469E+09	1,180692E+10
-2674	2,307728E+09	2,307720E+09	3,595707E+09	3,595659E+09	4,615449E+09	7,191366E+09	1,180681E+10
-2673	2,307618E+09	2,307660E+09	3,595696E+09	3,595754E+09	4,615278E+09	7,191450E+09	1,180673E+10
-2672	2,307721E+09	2,307690E+09	3,595726E+09	3,595740E+09	4,615411E+09	7,191465E+09	1,180688E+10
-2671	2,307600E+09	2,307642E+09	3,595782E+09	3,595643E+09	4,615242E+09	7,191425E+09	1,180667E+10
-2670	2,307571E+09	2,307563E+09	3,595765E+09	3,595792E+09	4,615135E+09	7,191557E+09	1,180669E+10
-2669	2,307645E+09	2,307606E+09	3,595782E+09	3,595743E+09	4,615252E+09	7,191525E+09	1,180678E+10
-2668	2,307488E+09	2,307548E+09	3,595783E+09	3,595743E+09	4,615037E+09	7,191526E+09	1,180656E+10
-2667	2,307558E+09	2,307550E+09	3,595726E+09	3,595846E+09	4,615108E+09	7,191572E+09	1,180668E+10
-2666	2,307599E+09	2,307596E+09	3,595752E+09	3,595706E+09	4,615195E+09	7,191457E+09	1,180665E+10
-2665	2,307509E+09	2,307549E+09	3,595741E+09	3,595738E+09	4,615057E+09	7,191479E+09	1,180654E+10
-2664	2,307678E+09	2,307609E+09	3,595730E+09	3,595748E+09	4,615287E+09	7,191478E+09	1,180676E+10
-2663	2,307632E+09	2,307659E+09	3,595751E+09	3,595627E+09	4,615292E+09	7,191378E+09	1,180667E+10
-2662	2,307609E+09	2,307648E+09	3,595696E+09	3,595753E+09	4,615257E+09	7,191449E+09	1,180671E+10
-2661	2,307757E+09	2,307750E+09	3,595702E+09	3,595713E+09	4,615507E+09	7,191414E+09	1,180692E+10
-2660	2,307656E+09	2,307738E+09	3,595735E+09	3,595640E+09	4,615394E+09	7,191374E+09	1,180677E+10
-2659	2,307740E+09	2,307725E+09	3,595679E+09	3,595746E+09	4,615464E+09	7,191425E+09	1,180689E+10
-2658	2,307837E+09	2,307791E+09	3,595699E+09	3,595643E+09	4,615628E+09	7,191342E+09	1,180697E+10

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							
-2657	2,307709E+09	2,307739E+09	3,595686E+09	3,595673E+09	4,615448E+09	7,191359E+09	1,180681E+10
-2656	2,307819E+09	2,307768E+09	3,595656E+09	3,595738E+09	4,615587E+09	7,191394E+09	1,180698E+10
-2655	2,307763E+09	2,307801E+09	3,595699E+09	3,595617E+09	4,615564E+09	7,191317E+09	1,180688E+10
-2654	2,307659E+09	2,307705E+09	3,595686E+09	3,595714E+09	4,615364E+09	7,191400E+09	1,180676E+10
-2653	2,307773E+09	2,307724E+09	3,595720E+09	3,595712E+09	4,615497E+09	7,191432E+09	1,180693E+10
-2652	2,307635E+09	2,307670E+09	3,595779E+09	3,595638E+09	4,615305E+09	7,191417E+09	1,180672E+10
-2651	2,307610E+09	2,307606E+09	3,595706E+09	3,595782E+09	4,615216E+09	7,191489E+09	1,180670E+10
-2650	2,307693E+09	2,307667E+09	3,595712E+09	3,595736E+09	4,615361E+09	7,191449E+09	1,180681E+10
-2649	2,307537E+09	2,307600E+09	3,595726E+09	3,595712E+09	4,615136E+09	7,191438E+09	1,180657E+10
-2648	2,307640E+09	2,307601E+09	3,595696E+09	3,595772E+09	4,615240E+09	7,191468E+09	1,180671E+10
-2647	2,307675E+09	2,307666E+09	3,595740E+09	3,595633E+09	4,615341E+09	7,191374E+09	1,180671E+10
-2646	2,307584E+09	2,307610E+09	3,595707E+09	3,595688E+09	4,615194E+09	7,191395E+09	1,180659E+10
-2645	2,307742E+09	2,307693E+09	3,595697E+09	3,595725E+09	4,615436E+09	7,191422E+09	1,180686E+10
-2644	2,307674E+09	2,307742E+09	3,595737E+09	3,595620E+09	4,615416E+09	7,191356E+09	1,180677E+10
-2643	2,307660E+09	2,307719E+09	3,595659E+09	3,595725E+09	4,615379E+09	7,191384E+09	1,180676E+10
-2642	2,307833E+09	2,307816E+09	3,595672E+09	3,595685E+09	4,615649E+09	7,191357E+09	1,180701E+10
-2641	2,307735E+09	2,307778E+09	3,595704E+09	3,595609E+09	4,615513E+09	7,191312E+09	1,180683E+10
-2640	2,307829E+09	2,307776E+09	3,595642E+09	3,595704E+09	4,615605E+09	7,191346E+09	1,180695E+10
-2639	2,307899E+09	2,307875E+09	3,595655E+09	3,595612E+09	4,615773E+09	7,191267E+09	1,180704E+10
-2638	2,307758E+09	2,307806E+09	3,595622E+09	3,595641E+09	4,615564E+09	7,191264E+09	1,180683E+10
-2637	2,307867E+09	2,307834E+09	3,595624E+09	3,595701E+09	4,615701E+09	7,191325E+09	1,180703E+10
-2636	2,307802E+09	2,307843E+09	3,595702E+09	3,595578E+09	4,615645E+09	7,191281E+09	1,180693E+10
-2635	2,307706E+09	2,307735E+09	3,595664E+09	3,595673E+09	4,615441E+09	7,191337E+09	1,180678E+10
-2634	2,307827E+09	2,307770E+09	3,595687E+09	3,595700E+09	4,615597E+09	7,191387E+09	1,180698E+10
-2633	2,307673E+09	2,307712E+09	3,595736E+09	3,595637E+09	4,615385E+09	7,191373E+09	1,180676E+10
-2632	2,307663E+09	2,307662E+09	3,595666E+09	3,595754E+09	4,615325E+09	7,191420E+09	1,180674E+10
-2631	2,307741E+09	2,307737E+09	3,595690E+09	3,595690E+09	4,615478E+09	7,191379E+09	1,180686E+10
-2630	2,307602E+09	2,307647E+09	3,595693E+09	3,595656E+09	4,615249E+09	7,191349E+09	1,180660E+10
-2629	2,307717E+09	2,307656E+09	3,595678E+09	3,595721E+09	4,615372E+09	7,191398E+09	1,180677E+10
-2628	2,307730E+09	2,307728E+09	3,595728E+09	3,595608E+09	4,615458E+09	7,191337E+09	1,180679E+10
-2627	2,307634E+09	2,307685E+09	3,595655E+09	3,595669E+09	4,615319E+09	7,191323E+09	1,180664E+10
-2626	2,307796E+09	2,307780E+09	3,595643E+09	3,595714E+09	4,615576E+09	7,191357E+09	1,180693E+10
-2625	2,307731E+09	2,307803E+09	3,595701E+09	3,595599E+09	4,615534E+09	7,191300E+09	1,180683E+10
-2624	2,307751E+09	2,307773E+09	3,595634E+09	3,595670E+09	4,615524E+09	7,191304E+09	1,180683E+10
-2623	2,307917E+09	2,307881E+09	3,595649E+09	3,595631E+09	4,615798E+09	7,191281E+09	1,180708E+10
-2622	2,307819E+09	2,307838E+09	3,595646E+09	3,595574E+09	4,615658E+09	7,191220E+09	1,180688E+10
-2621	2,307900E+09	2,307855E+09	3,595587E+09	3,595673E+09	4,615754E+09	7,191260E+09	1,180701E+10
-2620	2,307936E+09	2,307952E+09	3,595630E+09	3,595588E+09	4,615888E+09	7,191218E+09	1,180711E+10
-2619	2,307798E+09	2,307869E+09	3,595594E+09	3,595597E+09	4,615667E+09	7,191191E+09	1,180686E+10
-2618	2,307917E+09	2,307886E+09	3,595612E+09	3,595662E+09	4,615802E+09	7,191275E+09	1,180708E+10
-2617	2,307850E+09	2,307867E+09	3,595697E+09	3,595559E+09	4,615717E+09	7,191256E+09	1,180697E+10
-2616	2,307764E+09	2,307767E+09	3,595639E+09	3,595650E+09	4,615531E+09	7,191289E+09	1,180682E+10
-2615	2,307864E+09	2,307830E+09	3,595647E+09	3,595687E+09	4,615694E+09	7,191334E+09	1,180703E+10
-2614	2,307721E+09	2,307757E+09	3,595668E+09	3,595618E+09	4,615478E+09	7,191287E+09	1,180676E+10
-2613	2,307724E+09	2,307714E+09	3,595623E+09	3,595709E+09	4,615438E+09	7,191332E+09	1,180677E+10
-2612	2,307801E+09	2,307785E+09	3,595679E+09	3,595640E+09	4,615586E+09	7,191319E+09	1,180690E+10
-2611	2,307671E+09	2,307701E+09	3,595659E+09	3,595599E+09	4,615371E+09	7,191258E+09	1,180663E+10
-2610	2,307782E+09	2,307736E+09	3,595640E+09	3,595692E+09	4,615518E+09	7,191332E+09	1,180685E+10
-2609	2,307780E+09	2,307803E+09	3,595695E+09	3,595601E+09	4,615583E+09	7,191295E+09	1,180688E+10

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							
-2608	2,307693E+09	2,307764E+09	3,595628E+09	3,595641E+09	4,615457E+09	7,191270E+09	1,180673E+10
-2607	2,307854E+09	2,307862E+09	3,595632E+09	3,595677E+09	4,615716E+09	7,191309E+09	1,180702E+10
-2606	2,307813E+09	2,307849E+09	3,595665E+09	3,595558E+09	4,615662E+09	7,191223E+09	1,180688E+10
-2605	2,307844E+09	2,307825E+09	3,595599E+09	3,595630E+09	4,615669E+09	7,191229E+09	1,180690E+10
-2604	2,307985E+09	2,307944E+09	3,595611E+09	3,595608E+09	4,615929E+09	7,191219E+09	1,180715E+10
-2603	2,307876E+09	2,307913E+09	3,595570E+09	3,595542E+09	4,615789E+09	7,191112E+09	1,180690E+10
-2602	2,307953E+09	2,307940E+09	3,595529E+09	3,595640E+09	4,615894E+09	7,191168E+09	1,180706E+10
-2601	2,307985E+09	2,308003E+09	3,595609E+09	3,595549E+09	4,615987E+09	7,191158E+09	1,180715E+10
-2600	2,307866E+09	2,307911E+09	3,595590E+09	3,595540E+09	4,615777E+09	7,191129E+09	1,180691E+10
-2599	2,307969E+09	2,307935E+09	3,595612E+09	3,595621E+09	4,615904E+09	7,191233E+09	1,180714E+10
-2598	2,307903E+09	2,307904E+09	3,595656E+09	3,595550E+09	4,615807E+09	7,191206E+09	1,180701E+10
-2597	2,307813E+09	2,307821E+09	3,595597E+09	3,595642E+09	4,615634E+09	7,191239E+09	1,180687E+10
-2596	2,307896E+09	2,307883E+09	3,595621E+09	3,595675E+09	4,615779E+09	7,191296E+09	1,180707E+10
-2595	2,307768E+09	2,307808E+09	3,595625E+09	3,595576E+09	4,615576E+09	7,191201E+09	1,180678E+10
-2594	2,307790E+09	2,307771E+09	3,595592E+09	3,595659E+09	4,615562E+09	7,191251E+09	1,180681E+10
-2593	2,307862E+09	2,307830E+09	3,595662E+09	3,595608E+09	4,615692E+09	7,191270E+09	1,180696E+10
-2592	2,307737E+09	2,307768E+09	3,595629E+09	3,595566E+09	4,615506E+09	7,191195E+09	1,180670E+10
-2591	2,307821E+09	2,307824E+09	3,595609E+09	3,595665E+09	4,615645E+09	7,191274E+09	1,180692E+10
-2590	2,307834E+09	2,307867E+09	3,595643E+09	3,595583E+09	4,615701E+09	7,191226E+09	1,180693E+10
-2589	2,307770E+09	2,307818E+09	3,595596E+09	3,595598E+09	4,615588E+09	7,191194E+09	1,180678E+10
-2588	2,307929E+09	2,307908E+09	3,595614E+09	3,595636E+09	4,615836E+09	7,191250E+09	1,180709E+10
-2587	2,307901E+09	2,307904E+09	3,595606E+09	3,595513E+09	4,615805E+09	7,191119E+09	1,180692E+10
-2586	2,307926E+09	2,307910E+09	3,595532E+09	3,595597E+09	4,615836E+09	7,191129E+09	1,180696E+10
-2585	2,308046E+09	2,308023E+09	3,595563E+09	3,595585E+09	4,616068E+09	7,191149E+09	1,180722E+10
-2584	2,307939E+09	2,307997E+09	3,595540E+09	3,595491E+09	4,615936E+09	7,191031E+09	1,180697E+10
-2583	2,308000E+09	2,308019E+09	3,595533E+09	3,595581E+09	4,616019E+09	7,191114E+09	1,180713E+10
-2582	2,308047E+09	2,308040E+09	3,595596E+09	3,595516E+09	4,616087E+09	7,191112E+09	1,180720E+10
-2581	2,307931E+09	2,307943E+09	3,595581E+09	3,595519E+09	4,615874E+09	7,191100E+09	1,180697E+10
-2580	2,308005E+09	2,307977E+09	3,595589E+09	3,595628E+09	4,615982E+09	7,191217E+09	1,180720E+10
-2579	2,307940E+09	2,307953E+09	3,595583E+09	3,595544E+09	4,615893E+09	7,191127E+09	1,180702E+10
-2578	2,307860E+09	2,307884E+09	3,595532E+09	3,595618E+09	4,615744E+09	7,191150E+09	1,180689E+10
-2577	2,307950E+09	2,307921E+09	3,595588E+09	3,595635E+09	4,615871E+09	7,191224E+09	1,180710E+10
-2576	2,307842E+09	2,307856E+09	3,595603E+09	3,595507E+09	4,615699E+09	7,191110E+09	1,180681E+10
-2575	2,307850E+09	2,307842E+09	3,595586E+09	3,595601E+09	4,615692E+09	7,191187E+09	1,180688E+10
-2574	2,307919E+09	2,307889E+09	3,595622E+09	3,595584E+09	4,615808E+09	7,191205E+09	1,180701E+10
-2573	2,307789E+09	2,307838E+09	3,595606E+09	3,595547E+09	4,615628E+09	7,191153E+09	1,180678E+10
-2572	2,307858E+09	2,307889E+09	3,595599E+09	3,595651E+09	4,615748E+09	7,191250E+09	1,180700E+10
-2571	2,307893E+09	2,307917E+09	3,595604E+09	3,595548E+09	4,615811E+09	7,191151E+09	1,180696E+10
-2570	2,307856E+09	2,307878E+09	3,595552E+09	3,595560E+09	4,615734E+09	7,191112E+09	1,180685E+10
-2569	2,308013E+09	2,307954E+09	3,595570E+09	3,595610E+09	4,615968E+09	7,191181E+09	1,180715E+10
-2568	2,307985E+09	2,307986E+09	3,595542E+09	3,595471E+09	4,615971E+09	7,191014E+09	1,180698E+10
-2567	2,307986E+09	2,308013E+09	3,595485E+09	3,595546E+09	4,615999E+09	7,191031E+09	1,180703E+10
-2566	2,308106E+09	2,308094E+09	3,595517E+09	3,595543E+09	4,616201E+09	7,191060E+09	1,180726E+10
-2565	2,308009E+09	2,308055E+09	3,595537E+09	3,595438E+09	4,616064E+09	7,190975E+09	1,180704E+10
-2564	2,308051E+09	2,308063E+09	3,595544E+09	3,595549E+09	4,616114E+09	7,191093E+09	1,180721E+10
-2563	2,308102E+09	2,308081E+09	3,595559E+09	3,595500E+09	4,616183E+09	7,191059E+09	1,180724E+10
-2562	2,307984E+09	2,308005E+09	3,595525E+09	3,595518E+09	4,615990E+09	7,191043E+09	1,180703E+10
-2561	2,308045E+09	2,308023E+09	3,595546E+09	3,595630E+09	4,616068E+09	7,191176E+09	1,180724E+10
-2560	2,307994E+09	2,308012E+09	3,595543E+09	3,595503E+09	4,616006E+09	7,191046E+09	1,180705E+10

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	2,307911E+09	2,307945E+09	3,595521E+09	3,595547E+09	4,615856E+09	7,191068E+09	1,180692E+10
-2558	2,308015E+09	2,307956E+09	3,595565E+09	3,595585E+09	4,615971E+09	7,191151E+09	1,180712E+10
-2557	2,307910E+09	2,307900E+09	3,595593E+09	3,595466E+09	4,615810E+09	7,191059E+09	1,180687E+10
-2556	2,307879E+09	2,307902E+09	3,595569E+09	3,595591E+09	4,615781E+09	7,191160E+09	1,180694E+10
-2555	2,307953E+09	2,307951E+09	3,595563E+09	3,595574E+09	4,615904E+09	7,191137E+09	1,180704E+10
-2554	2,307845E+09	2,307904E+09	3,595552E+09	3,595526E+09	4,615749E+09	7,191078E+09	1,180683E+10
-2553	2,307929E+09	2,307927E+09	3,595569E+09	3,595621E+09	4,615856E+09	7,191191E+09	1,180705E+10
-2552	2,307990E+09	2,307974E+09	3,595560E+09	3,595488E+09	4,615964E+09	7,191048E+09	1,180701E+10
-2551	2,307942E+09	2,307964E+09	3,595514E+09	3,595499E+09	4,615907E+09	7,191012E+09	1,180692E+10
-2550	2,308093E+09	2,308038E+09	3,595506E+09	3,595578E+09	4,616130E+09	7,191083E+09	1,180721E+10
-2549	2,308055E+09	2,308077E+09	3,595513E+09	3,595429E+09	4,616133E+09	7,190943E+09	1,180708E+10
-2548	2,308028E+09	2,308097E+09	3,595488E+09	3,595511E+09	4,616125E+09	7,190999E+09	1,180712E+10
-2547	2,308160E+09	2,308151E+09	3,595500E+09	3,595502E+09	4,616311E+09	7,191002E+09	1,180731E+10
-2546	2,308078E+09	2,308107E+09	3,595519E+09	3,595417E+09	4,616185E+09	7,190936E+09	1,180712E+10
-2545	2,308108E+09	2,308094E+09	3,595523E+09	3,595553E+09	4,616201E+09	7,191076E+09	1,180728E+10
-2544	2,308154E+09	2,308137E+09	3,595499E+09	3,595487E+09	4,616291E+09	7,190986E+09	1,180728E+10
-2543	2,308030E+09	2,308076E+09	3,595475E+09	3,595484E+09	4,616106E+09	7,190958E+09	1,180706E+10
-2542	2,308101E+09	2,308061E+09	3,595486E+09	3,595587E+09	4,616162E+09	7,191073E+09	1,180724E+10
-2541	2,308063E+09	2,308048E+09	3,595529E+09	3,595435E+09	4,616112E+09	7,190964E+09	1,180708E+10
-2540	2,307961E+09	2,307990E+09	3,595526E+09	3,595497E+09	4,615951E+09	7,191023E+09	1,180697E+10
-2539	2,308059E+09	2,308005E+09	3,595531E+09	3,595553E+09	4,616065E+09	7,191083E+09	1,180715E+10
-2538	2,307954E+09	2,307976E+09	3,595551E+09	3,595460E+09	4,615930E+09	7,191012E+09	1,180694E+10
-2537	2,307912E+09	2,307955E+09	3,595545E+09	3,595595E+09	4,615867E+09	7,191140E+09	1,180701E+10
-2536	2,308005E+09	2,308015E+09	3,595528E+09	3,595541E+09	4,616020E+09	7,191069E+09	1,180709E+10
-2535	2,307916E+09	2,307970E+09	3,595533E+09	3,595469E+09	4,615886E+09	7,191002E+09	1,180689E+10
-2534	2,308019E+09	2,307969E+09	3,595523E+09	3,595581E+09	4,615989E+09	7,191104E+09	1,180709E+10
-2533	2,308082E+09	2,308039E+09	3,595524E+09	3,595445E+09	4,616121E+09	7,190970E+09	1,180709E+10
-2532	2,307998E+09	2,308055E+09	3,595478E+09	3,595469E+09	4,616053E+09	7,190947E+09	1,180700E+10
-2531	2,308145E+09	2,308124E+09	3,595445E+09	3,595541E+09	4,616268E+09	7,190987E+09	1,180725E+10
-2530	2,308122E+09	2,308160E+09	3,595475E+09	3,595390E+09	4,616282E+09	7,190865E+09	1,180715E+10
-2529	2,308091E+09	2,308140E+09	3,595485E+09	3,595482E+09	4,616231E+09	7,190967E+09	1,180720E+10
-2528	2,308235E+09	2,308205E+09	3,595475E+09	3,595463E+09	4,616440E+09	7,190939E+09	1,180738E+10
-2527	2,308145E+09	2,308172E+09	3,595489E+09	3,595383E+09	4,616317E+09	7,190872E+09	1,180719E+10
-2526	2,308167E+09	2,308144E+09	3,595460E+09	3,595545E+09	4,616311E+09	7,191005E+09	1,180732E+10
-2525	2,308215E+09	2,308192E+09	3,595464E+09	3,595453E+09	4,616407E+09	7,190917E+09	1,180732E+10
-2524	2,308066E+09	2,308133E+09	3,595463E+09	3,595439E+09	4,616199E+09	7,190903E+09	1,180710E+10
-2523	2,308151E+09	2,308103E+09	3,595455E+09	3,595534E+09	4,616254E+09	7,190989E+09	1,180724E+10
-2522	2,308124E+09	2,308098E+09	3,595501E+09	3,595401E+09	4,616223E+09	7,190903E+09	1,180713E+10
-2521	2,308002E+09	2,308029E+09	3,595509E+09	3,595495E+09	4,616031E+09	7,191004E+09	1,180704E+10
-2520	2,308094E+09	2,308075E+09	3,595481E+09	3,595536E+09	4,616168E+09	7,191018E+09	1,180719E+10
-2519	2,307994E+09	2,308050E+09	3,595518E+09	3,595429E+09	4,616044E+09	7,190947E+09	1,180699E+10
-2518	2,307973E+09	2,307995E+09	3,595500E+09	3,595565E+09	4,615968E+09	7,191065E+09	1,180703E+10
-2517	2,308091E+09	2,308054E+09	3,595512E+09	3,595484E+09	4,616145E+09	7,190996E+09	1,180714E+10
-2516	2,307990E+09	2,308032E+09	3,595516E+09	3,595423E+09	4,616021E+09	7,190939E+09	1,180696E+10
-2515	2,308093E+09	2,308042E+09	3,595459E+09	3,595543E+09	4,616135E+09	7,191002E+09	1,180714E+10
-2514	2,308153E+09	2,308140E+09	3,595466E+09	3,595421E+09	4,616293E+09	7,190887E+09	1,180718E+10
-2513	2,308053E+09	2,308134E+09	3,595459E+09	3,595451E+09	4,616187E+09	7,190909E+09	1,180710E+10
-2512	2,308200E+09	2,308204E+09	3,595423E+09	3,595487E+09	4,616404E+09	7,190910E+09	1,180731E+10
-2511	2,308194E+09	2,308230E+09	3,595475E+09	3,595337E+09	4,616424E+09	7,190812E+09	1,180724E+10

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							
-2510	2,308171E+09	2,308172E+09	3,595451E+09	3,595461E+09	4,616343E+09	7,190912E+09	1,180725E+10
-2509	2,308307E+09	2,308251E+09	3,595441E+09	3,595443E+09	4,616557E+09	7,190884E+09	1,180744E+10
-2508	2,308189E+09	2,308241E+09	3,595443E+09	3,595373E+09	4,616430E+09	7,190816E+09	1,180725E+10
-2507	2,308213E+09	2,308200E+09	3,595384E+09	3,595513E+09	4,616413E+09	7,190897E+09	1,180731E+10
-2506	2,308276E+09	2,308251E+09	3,595414E+09	3,595408E+09	4,616527E+09	7,190822E+09	1,180735E+10
-2505	2,308124E+09	2,308166E+09	3,595454E+09	3,595398E+09	4,616289E+09	7,190852E+09	1,180714E+10
-2504	2,308202E+09	2,308160E+09	3,595429E+09	3,595481E+09	4,616362E+09	7,190910E+09	1,180727E+10
-2503	2,308172E+09	2,308173E+09	3,595483E+09	3,595367E+09	4,616344E+09	7,190851E+09	1,180719E+10
-2502	2,308042E+09	2,308081E+09	3,595470E+09	3,595494E+09	4,616123E+09	7,190963E+09	1,180709E+10
-2501	2,308139E+09	2,308126E+09	3,595471E+09	3,595512E+09	4,616266E+09	7,190983E+09	1,180725E+10
-2500	2,308036E+09	2,308104E+09	3,595516E+09	3,595398E+09	4,616140E+09	7,190914E+09	1,180705E+10
-2499	2,308041E+09	2,308033E+09	3,595459E+09	3,595524E+09	4,616074E+09	7,190983E+09	1,180706E+10
-2498	2,308178E+09	2,308111E+09	3,595463E+09	3,595454E+09	4,616290E+09	7,190917E+09	1,180721E+10
-2497	2,308057E+09	2,308093E+09	3,595473E+09	3,595410E+09	4,616150E+09	7,190883E+09	1,180703E+10
-2496	2,308152E+09	2,308140E+09	3,595391E+09	3,595502E+09	4,616292E+09	7,190893E+09	1,180719E+10
-2495	2,308218E+09	2,308236E+09	3,595425E+09	3,595364E+09	4,616454E+09	7,190789E+09	1,180724E+10
-2494	2,308127E+09	2,308188E+09	3,595425E+09	3,595407E+09	4,616315E+09	7,190833E+09	1,180715E+10
-2493	2,308286E+09	2,308253E+09	3,595421E+09	3,595431E+09	4,616539E+09	7,190852E+09	1,180739E+10
-2492	2,308260E+09	2,308292E+09	3,595464E+09	3,595309E+09	4,616552E+09	7,190773E+09	1,180733E+10
-2491	2,308234E+09	2,308235E+09	3,595386E+09	3,595448E+09	4,616469E+09	7,190833E+09	1,180730E+10
-2490	2,308369E+09	2,308328E+09	3,595374E+09	3,595433E+09	4,616697E+09	7,190808E+09	1,180750E+10
-2489	2,308238E+09	2,308298E+09	3,595411E+09	3,595356E+09	4,616535E+09	7,190766E+09	1,180730E+10
-2488	2,308265E+09	2,308265E+09	3,595347E+09	3,595449E+09	4,616530E+09	7,190796E+09	1,180733E+10
-2487	2,308340E+09	2,308310E+09	3,595407E+09	3,595343E+09	4,616650E+09	7,190751E+09	1,180740E+10
-2486	2,308183E+09	2,308199E+09	3,595434E+09	3,595374E+09	4,616381E+09	7,190808E+09	1,180719E+10
-2485	2,308246E+09	2,308207E+09	3,595419E+09	3,595457E+09	4,616454E+09	7,190875E+09	1,180733E+10
-2484	2,308194E+09	2,308237E+09	3,595465E+09	3,595363E+09	4,616431E+09	7,190829E+09	1,180726E+10
-2483	2,308079E+09	2,308123E+09	3,595417E+09	3,595475E+09	4,616202E+09	7,190892E+09	1,180709E+10
-2482	2,308203E+09	2,308169E+09	3,595430E+09	3,595483E+09	4,616372E+09	7,190913E+09	1,180728E+10
-2481	2,308111E+09	2,308134E+09	3,595494E+09	3,595371E+09	4,616245E+09	7,190865E+09	1,180711E+10
-2480	2,308115E+09	2,308100E+09	3,595400E+09	3,595468E+09	4,616215E+09	7,190868E+09	1,180708E+10
-2479	2,308253E+09	2,308206E+09	3,595414E+09	3,595408E+09	4,616459E+09	7,190822E+09	1,180728E+10
-2478	2,308124E+09	2,308172E+09	3,595420E+09	3,595382E+09	4,616296E+09	7,190802E+09	1,180710E+10
-2477	2,308211E+09	2,308219E+09	3,595382E+09	3,595445E+09	4,616431E+09	7,190827E+09	1,180726E+10
-2476	2,308273E+09	2,308314E+09	3,595432E+09	3,595320E+09	4,616587E+09	7,190752E+09	1,180734E+10
-2475	2,308199E+09	2,308236E+09	3,595395E+09	3,595373E+09	4,616434E+09	7,190768E+09	1,180720E+10
-2474	2,308365E+09	2,308312E+09	3,595377E+09	3,595420E+09	4,616676E+09	7,190797E+09	1,180747E+10
-2473	2,308322E+09	2,308348E+09	3,595416E+09	3,595317E+09	4,616670E+09	7,190732E+09	1,180740E+10
-2472	2,308288E+09	2,308318E+09	3,595305E+09	3,595414E+09	4,616605E+09	7,190718E+09	1,180732E+10
-2471	2,308436E+09	2,308404E+09	3,595326E+09	3,595376E+09	4,616841E+09	7,190702E+09	1,180754E+10
-2470	2,308310E+09	2,308338E+09	3,595376E+09	3,595302E+09	4,616648E+09	7,190677E+09	1,180732E+10
-2469	2,308336E+09	2,308308E+09	3,595351E+09	3,595379E+09	4,616644E+09	7,190730E+09	1,180737E+10
-2468	2,308386E+09	2,308370E+09	3,595410E+09	3,595310E+09	4,616756E+09	7,190720E+09	1,180748E+10
-2467	2,308220E+09	2,308252E+09	3,595397E+09	3,595367E+09	4,616472E+09	7,190764E+09	1,180724E+10
-2466	2,308283E+09	2,308268E+09	3,595383E+09	3,595460E+09	4,616552E+09	7,190844E+09	1,180740E+10
-2465	2,308227E+09	2,308273E+09	3,595451E+09	3,595365E+09	4,616499E+09	7,190816E+09	1,180732E+10
-2464	2,308132E+09	2,308173E+09	3,595375E+09	3,595429E+09	4,616305E+09	7,190805E+09	1,180711E+10
-2463	2,308285E+09	2,308216E+09	3,595394E+09	3,595429E+09	4,616501E+09	7,190823E+09	1,180732E+10
-2462	2,308189E+09	2,308177E+09	3,595436E+09	3,595343E+09	4,616367E+09	7,190779E+09	1,180715E+10

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	2,308184E+09	2,308177E+09	3,595359E+09	3,595420E+09	4,616361E+09	7,190778E+09	1,180714E+10
-2460	2,308297E+09	2,308302E+09	3,595382E+09	3,595369E+09	4,616600E+09	7,190751E+09	1,180735E+10
-2459	2,308181E+09	2,308243E+09	3,595377E+09	3,595338E+09	4,616424E+09	7,190716E+09	1,180714E+10
-2458	2,308284E+09	2,308283E+09	3,595359E+09	3,595403E+09	4,616566E+09	7,190762E+09	1,180733E+10
-2457	2,308345E+09	2,308359E+09	3,595423E+09	3,595303E+09	4,616704E+09	7,190726E+09	1,180743E+10
-2456	2,308272E+09	2,308309E+09	3,595339E+09	3,595340E+09	4,616581E+09	7,190679E+09	1,180726E+10
-2455	2,308442E+09	2,308396E+09	3,595322E+09	3,595392E+09	4,616838E+09	7,190715E+09	1,180755E+10
-2454	2,308393E+09	2,308415E+09	3,595356E+09	3,595298E+09	4,616808E+09	7,190655E+09	1,180746E+10
-2453	2,308356E+09	2,308385E+09	3,595287E+09	3,595347E+09	4,616741E+09	7,190634E+09	1,180738E+10
-2452	2,308492E+09	2,308472E+09	3,595330E+09	3,595318E+09	4,616963E+09	7,190648E+09	1,180761E+10
-2451	2,308372E+09	2,308378E+09	3,595355E+09	3,595261E+09	4,616751E+09	7,190616E+09	1,180737E+10
-2450	2,308386E+09	2,308360E+09	3,595329E+09	3,595367E+09	4,616745E+09	7,190696E+09	1,180744E+10
-2449	2,308415E+09	2,308418E+09	3,595386E+09	3,595332E+09	4,616833E+09	7,190717E+09	1,180755E+10
-2448	2,308248E+09	2,308310E+09	3,595334E+09	3,595349E+09	4,616558E+09	7,190682E+09	1,180724E+10
-2447	2,308336E+09	2,308316E+09	3,595344E+09	3,595423E+09	4,616651E+09	7,190766E+09	1,180742E+10
-2446	2,308298E+09	2,308293E+09	3,595408E+09	3,595328E+09	4,616591E+09	7,190736E+09	1,180733E+10
-2445	2,308210E+09	2,308214E+09	3,595352E+09	3,595359E+09	4,616424E+09	7,190711E+09	1,180714E+10
-2444	2,308345E+09	2,308293E+09	3,595366E+09	3,595385E+09	4,616638E+09	7,190751E+09	1,180739E+10
-2443	2,308247E+09	2,308255E+09	3,595378E+09	3,595312E+09	4,616502E+09	7,190690E+09	1,180719E+10
-2442	2,308235E+09	2,308265E+09	3,595327E+09	3,595390E+09	4,616500E+09	7,190716E+09	1,180722E+10
-2441	2,308344E+09	2,308367E+09	3,595381E+09	3,595347E+09	4,616711E+09	7,190728E+09	1,180744E+10
-2440	2,308242E+09	2,308309E+09	3,595353E+09	3,595288E+09	4,616551E+09	7,190641E+09	1,180719E+10
-2439	2,308370E+09	2,308340E+09	3,595338E+09	3,595367E+09	4,616710E+09	7,190705E+09	1,180741E+10
-2438	2,308427E+09	2,308407E+09	3,595369E+09	3,595298E+09	4,616835E+09	7,190667E+09	1,180750E+10
-2437	2,308349E+09	2,308385E+09	3,595285E+09	3,595305E+09	4,616735E+09	7,190590E+09	1,180732E+10
-2436	2,308504E+09	2,308485E+09	3,595275E+09	3,595352E+09	4,616988E+09	7,190627E+09	1,180762E+10
-2435	2,308464E+09	2,308478E+09	3,595303E+09	3,595245E+09	4,616942E+09	7,190548E+09	1,180749E+10
-2434	2,308433E+09	2,308445E+09	3,595267E+09	3,595290E+09	4,616878E+09	7,190558E+09	1,180744E+10
-2433	2,308548E+09	2,308515E+09	3,595328E+09	3,595292E+09	4,617063E+09	7,190621E+09	1,180768E+10
-2432	2,308416E+09	2,308447E+09	3,595316E+09	3,595234E+09	4,616863E+09	7,190551E+09	1,180741E+10
-2431	2,308430E+09	2,308426E+09	3,595293E+09	3,595354E+09	4,616856E+09	7,190647E+09	1,180750E+10
-2430	2,308451E+09	2,308458E+09	3,595345E+09	3,595332E+09	4,616909E+09	7,190677E+09	1,180759E+10
-2429	2,308299E+09	2,308354E+09	3,595319E+09	3,595299E+09	4,616653E+09	7,190618E+09	1,180727E+10
-2428	2,308391E+09	2,308359E+09	3,595333E+09	3,595372E+09	4,616749E+09	7,190705E+09	1,180745E+10
-2427	2,308368E+09	2,308327E+09	3,595364E+09	3,595288E+09	4,616695E+09	7,190652E+09	1,180735E+10
-2426	2,308273E+09	2,308277E+09	3,595308E+09	3,595328E+09	4,616551E+09	7,190636E+09	1,180719E+10
-2425	2,308384E+09	2,308364E+09	3,595332E+09	3,595376E+09	4,616748E+09	7,190707E+09	1,180746E+10
-2424	2,308288E+09	2,308340E+09	3,595325E+09	3,595269E+09	4,616629E+09	7,190594E+09	1,180722E+10
-2423	2,308301E+09	2,308332E+09	3,595306E+09	3,595339E+09	4,616633E+09	7,190645E+09	1,180728E+10
-2422	2,308420E+09	2,308406E+09	3,595358E+09	3,595317E+09	4,616827E+09	7,190675E+09	1,180750E+10
-2421	2,308331E+09	2,308366E+09	3,595335E+09	3,595236E+09	4,616696E+09	7,190571E+09	1,180727E+10
-2420	2,308443E+09	2,308423E+09	3,595304E+09	3,595342E+09	4,616867E+09	7,190645E+09	1,180751E+10
-2419	2,308502E+09	2,308486E+09	3,595299E+09	3,595279E+09	4,616988E+09	7,190578E+09	1,180757E+10
-2418	2,308418E+09	2,308472E+09	3,595241E+09	3,595268E+09	4,616889E+09	7,190508E+09	1,180740E+10
-2417	2,308562E+09	2,308553E+09	3,595261E+09	3,595319E+09	4,617115E+09	7,190580E+09	1,180769E+10
-2416	2,308528E+09	2,308542E+09	3,595269E+09	3,595182E+09	4,617070E+09	7,190450E+09	1,180752E+10
-2415	2,308502E+09	2,308501E+09	3,595249E+09	3,595251E+09	4,617003E+09	7,190499E+09	1,180750E+10
-2414	2,308597E+09	2,308560E+09	3,595290E+09	3,595292E+09	4,617156E+09	7,190582E+09	1,180774E+10
-2413	2,308458E+09	2,308506E+09	3,595283E+09	3,595209E+09	4,616964E+09	7,190492E+09	1,180746E+10

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							
-2412	2,308464E+09	2,308485E+09	3,595267E+09	3,595328E+09	4,616949E+09	7,190595E+09	1,180754E+10
-2411	2,308507E+09	2,308485E+09	3,595299E+09	3,595294E+09	4,616991E+09	7,190592E+09	1,180758E+10
-2410	2,308370E+09	2,308388E+09	3,595291E+09	3,595248E+09	4,616758E+09	7,190539E+09	1,180730E+10
-2409	2,308450E+09	2,308400E+09	3,595309E+09	3,595347E+09	4,616849E+09	7,190655E+09	1,180750E+10
-2408	2,308419E+09	2,308403E+09	3,595306E+09	3,595247E+09	4,616822E+09	7,190553E+09	1,180738E+10
-2407	2,308329E+09	2,308363E+09	3,595273E+09	3,595297E+09	4,616691E+09	7,190570E+09	1,180726E+10
-2406	2,308428E+09	2,308426E+09	3,595308E+09	3,595354E+09	4,616854E+09	7,190662E+09	1,180752E+10
-2405	2,308350E+09	2,308406E+09	3,595327E+09	3,595212E+09	4,616756E+09	7,190539E+09	1,180730E+10
-2404	2,308368E+09	2,308393E+09	3,595306E+09	3,595298E+09	4,616761E+09	7,190605E+09	1,180737E+10
-2403	2,308499E+09	2,308453E+09	3,595313E+09	3,595299E+09	4,616952E+09	7,190612E+09	1,180756E+10
-2402	2,308411E+09	2,308440E+09	3,595279E+09	3,595223E+09	4,616851E+09	7,190502E+09	1,180735E+10
-2401	2,308503E+09	2,308500E+09	3,595243E+09	3,595334E+09	4,617003E+09	7,190578E+09	1,180758E+10
-2400	2,308565E+09	2,308573E+09	3,595226E+09	3,595224E+09	4,617138E+09	7,190450E+09	1,180759E+10
-2399	2,308504E+09	2,308543E+09	3,595205E+09	3,595197E+09	4,617047E+09	7,190402E+09	1,180745E+10
-2398	2,308635E+09	2,308598E+09	3,595238E+09	3,595268E+09	4,617233E+09	7,190506E+09	1,180774E+10
-2397	2,308599E+09	2,308608E+09	3,595258E+09	3,595126E+09	4,617208E+09	7,190384E+09	1,180759E+10
-2396	2,308548E+09	2,308577E+09	3,595234E+09	3,595229E+09	4,617125E+09	7,190463E+09	1,180759E+10
-2395	2,308637E+09	2,308615E+09	3,595245E+09	3,595288E+09	4,617252E+09	7,190533E+09	1,180779E+10
-2394	2,308505E+09	2,308557E+09	3,595260E+09	3,595188E+09	4,617062E+09	7,190448E+09	1,180751E+10
-2393	2,308507E+09	2,308517E+09	3,595255E+09	3,595309E+09	4,617024E+09	7,190564E+09	1,180759E+10
-2392	2,308564E+09	2,308523E+09	3,595256E+09	3,595244E+09	4,617087E+09	7,190500E+09	1,180759E+10
-2391	2,308442E+09	2,308437E+09	3,595253E+09	3,595211E+09	4,616878E+09	7,190464E+09	1,180734E+10
-2390	2,308497E+09	2,308456E+09	3,595257E+09	3,595334E+09	4,616953E+09	7,190592E+09	1,180755E+10
-2389	2,308467E+09	2,308484E+09	3,595268E+09	3,595203E+09	4,616951E+09	7,190470E+09	1,180742E+10
-2388	2,308372E+09	2,308440E+09	3,595260E+09	3,595256E+09	4,616812E+09	7,190516E+09	1,180733E+10
-2387	2,308489E+09	2,308472E+09	3,595281E+09	3,595315E+09	4,616961E+09	7,190596E+09	1,180756E+10
-2386	2,308427E+09	2,308454E+09	3,595312E+09	3,595174E+09	4,616880E+09	7,190486E+09	1,180737E+10
-2385	2,308436E+09	2,308448E+09	3,595278E+09	3,595292E+09	4,616884E+09	7,190570E+09	1,180745E+10
-2384	2,308566E+09	2,308533E+09	3,595235E+09	3,595270E+09	4,617099E+09	7,190504E+09	1,180760E+10
-2383	2,308490E+09	2,308530E+09	3,595216E+09	3,595189E+09	4,617020E+09	7,190404E+09	1,180742E+10
-2382	2,308572E+09	2,308574E+09	3,595197E+09	3,595294E+09	4,617146E+09	7,190491E+09	1,180764E+10
-2381	2,308645E+09	2,308649E+09	3,595210E+09	3,595142E+09	4,617294E+09	7,190351E+09	1,180765E+10
-2380	2,308578E+09	2,308613E+09	3,595208E+09	3,595139E+09	4,617192E+09	7,190346E+09	1,180754E+10
-2379	2,308699E+09	2,308649E+09	3,595206E+09	3,595243E+09	4,617348E+09	7,190449E+09	1,180780E+10
-2378	2,308654E+09	2,308674E+09	3,595226E+09	3,595120E+09	4,617327E+09	7,190346E+09	1,180767E+10
-2377	2,308582E+09	2,308634E+09	3,595198E+09	3,595240E+09	4,617216E+09	7,190438E+09	1,180765E+10
-2376	2,308679E+09	2,308665E+09	3,595186E+09	3,595254E+09	4,617345E+09	7,190440E+09	1,180778E+10
-2375	2,308580E+09	2,308596E+09	3,595221E+09	3,595144E+09	4,617176E+09	7,190364E+09	1,180754E+10
-2374	2,308574E+09	2,308546E+09	3,595216E+09	3,595272E+09	4,617120E+09	7,190488E+09	1,180761E+10
-2373	2,308631E+09	2,308587E+09	3,595223E+09	3,595189E+09	4,617218E+09	7,190412E+09	1,180763E+10
-2372	2,308490E+09	2,308522E+09	3,595230E+09	3,595176E+09	4,617012E+09	7,190407E+09	1,180742E+10
-2371	2,308533E+09	2,308524E+09	3,595223E+09	3,595310E+09	4,617057E+09	7,190533E+09	1,180759E+10
-2370	2,308515E+09	2,308550E+09	3,595266E+09	3,595172E+09	4,617065E+09	7,190437E+09	1,180750E+10
-2369	2,308418E+09	2,308482E+09	3,595262E+09	3,595237E+09	4,616899E+09	7,190499E+09	1,180740E+10
-2368	2,308549E+09	2,308514E+09	3,595243E+09	3,595278E+09	4,617063E+09	7,190522E+09	1,180758E+10
-2367	2,308512E+09	2,308509E+09	3,595258E+09	3,595155E+09	4,617021E+09	7,190413E+09	1,180743E+10
-2366	2,308502E+09	2,308513E+09	3,595203E+09	3,595283E+09	4,617014E+09	7,190485E+09	1,180750E+10
-2365	2,308641E+09	2,308624E+09	3,595170E+09	3,595214E+09	4,617266E+09	7,190384E+09	1,180765E+10
-2364	2,308567E+09	2,308619E+09	3,595183E+09	3,595119E+09	4,617186E+09	7,190302E+09	1,180749E+10

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	2,308653E+09	2,308635E+09	3,595163E+09	3,595226E+09	4,617288E+09	7,190389E+09	1,180768E+10
-2362	2,308730E+09	2,308714E+09	3,595201E+09	3,595088E+09	4,617444E+09	7,190289E+09	1,180773E+10
-2361	2,308633E+09	2,308680E+09	3,595196E+09	3,595133E+09	4,617314E+09	7,190329E+09	1,180764E+10
-2360	2,308740E+09	2,308725E+09	3,595155E+09	3,595230E+09	4,617465E+09	7,190386E+09	1,180785E+10
-2359	2,308711E+09	2,308741E+09	3,595183E+09	3,595114E+09	4,617452E+09	7,190297E+09	1,180775E+10
-2358	2,308631E+09	2,308677E+09	3,595162E+09	3,595226E+09	4,617308E+09	7,190388E+09	1,180770E+10
-2357	2,308748E+09	2,308712E+09	3,595160E+09	3,595192E+09	4,617460E+09	7,190351E+09	1,180781E+10
-2356	2,308649E+09	2,308647E+09	3,595204E+09	3,595093E+09	4,617295E+09	7,190297E+09	1,180759E+10
-2355	2,308632E+09	2,308594E+09	3,595169E+09	3,595242E+09	4,617226E+09	7,190410E+09	1,180764E+10
-2354	2,308678E+09	2,308653E+09	3,595188E+09	3,595163E+09	4,617330E+09	7,190351E+09	1,180768E+10
-2353	2,308517E+09	2,308585E+09	3,595210E+09	3,595168E+09	4,617102E+09	7,190378E+09	1,180748E+10
-2352	2,308568E+09	2,308573E+09	3,595187E+09	3,595263E+09	4,617142E+09	7,190449E+09	1,180759E+10
-2351	2,308585E+09	2,308588E+09	3,595240E+09	3,595134E+09	4,617173E+09	7,190374E+09	1,180755E+10
-2350	2,308487E+09	2,308516E+09	3,595226E+09	3,595217E+09	4,617003E+09	7,190443E+09	1,180745E+10
-2349	2,308628E+09	2,308581E+09	3,595190E+09	3,595235E+09	4,617209E+09	7,190426E+09	1,180764E+10
-2348	2,308587E+09	2,308602E+09	3,595209E+09	3,595120E+09	4,617189E+09	7,190330E+09	1,180752E+10
-2347	2,308572E+09	2,308595E+09	3,595143E+09	3,595239E+09	4,617167E+09	7,190382E+09	1,180755E+10
-2346	2,308719E+09	2,308706E+09	3,595152E+09	3,595153E+09	4,617425E+09	7,190305E+09	1,180773E+10
-2345	2,308635E+09	2,308689E+09	3,595182E+09	3,595078E+09	4,617324E+09	7,190261E+09	1,180758E+10
-2344	2,308716E+09	2,308699E+09	3,595134E+09	3,595179E+09	4,617415E+09	7,190313E+09	1,180773E+10
-2343	2,308804E+09	2,308785E+09	3,595160E+09	3,595082E+09	4,617589E+09	7,190243E+09	1,180783E+10
-2342	2,308683E+09	2,308744E+09	3,595143E+09	3,595143E+09	4,617426E+09	7,190285E+09	1,180771E+10
-2341	2,308797E+09	2,308795E+09	3,595107E+09	3,595194E+09	4,617592E+09	7,190301E+09	1,180789E+10
-2340	2,308780E+09	2,308800E+09	3,595157E+09	3,595064E+09	4,617580E+09	7,190221E+09	1,180780E+10
-2339	2,308703E+09	2,308710E+09	3,595121E+09	3,595170E+09	4,617413E+09	7,190291E+09	1,180770E+10
-2338	2,308824E+09	2,308757E+09	3,595139E+09	3,595143E+09	4,617581E+09	7,190282E+09	1,180786E+10
-2337	2,308694E+09	2,308706E+09	3,595179E+09	3,595075E+09	4,617400E+09	7,190253E+09	1,180765E+10
-2336	2,308658E+09	2,308662E+09	3,595123E+09	3,595208E+09	4,617321E+09	7,190331E+09	1,180765E+10
-2335	2,308722E+09	2,308718E+09	3,595161E+09	3,595144E+09	4,617440E+09	7,190304E+09	1,180774E+10
-2334	2,308554E+09	2,308624E+09	3,595198E+09	3,595150E+09	4,617177E+09	7,190348E+09	1,180753E+10
-2333	2,308629E+09	2,308616E+09	3,595173E+09	3,595212E+09	4,617245E+09	7,190385E+09	1,180763E+10
-2332	2,308659E+09	2,308635E+09	3,595219E+09	3,595101E+09	4,617294E+09	7,190320E+09	1,180761E+10
-2331	2,308556E+09	2,308571E+09	3,595157E+09	3,595197E+09	4,617127E+09	7,190354E+09	1,180748E+10
-2330	2,308701E+09	2,308660E+09	3,595131E+09	3,595206E+09	4,617361E+09	7,190337E+09	1,180770E+10
-2329	2,308646E+09	2,308687E+09	3,595166E+09	3,595089E+09	4,617333E+09	7,190255E+09	1,180759E+10
-2328	2,308639E+09	2,308669E+09	3,595099E+09	3,595167E+09	4,617308E+09	7,190266E+09	1,180757E+10
-2327	2,308809E+09	2,308775E+09	3,595126E+09	3,595099E+09	4,617584E+09	7,190225E+09	1,180781E+10
-2326	2,308707E+09	2,308751E+09	3,595162E+09	3,595056E+09	4,617458E+09	7,190218E+09	1,180768E+10
-2325	2,308783E+09	2,308783E+09	3,595099E+09	3,595146E+09	4,617566E+09	7,190244E+09	1,180781E+10
-2324	2,308864E+09	2,308872E+09	3,595131E+09	3,595066E+09	4,617737E+09	7,190197E+09	1,180793E+10
-2323	2,308744E+09	2,308805E+09	3,595096E+09	3,595121E+09	4,617549E+09	7,190218E+09	1,180777E+10
-2322	2,308870E+09	2,308841E+09	3,595087E+09	3,595146E+09	4,617711E+09	7,190234E+09	1,180794E+10
-2321	2,308844E+09	2,308841E+09	3,595142E+09	3,595030E+09	4,617685E+09	7,190172E+09	1,180786E+10
-2320	2,308761E+09	2,308751E+09	3,595074E+09	3,595118E+09	4,617513E+09	7,190193E+09	1,180771E+10
-2319	2,308881E+09	2,308817E+09	3,595085E+09	3,595124E+09	4,617697E+09	7,190209E+09	1,180791E+10
-2318	2,308725E+09	2,308767E+09	3,595135E+09	3,595070E+09	4,617492E+09	7,190206E+09	1,180770E+10
-2317	2,308695E+09	2,308727E+09	3,595091E+09	3,595160E+09	4,617422E+09	7,190252E+09	1,180767E+10
-2316	2,308775E+09	2,308769E+09	3,595154E+09	3,595097E+09	4,617545E+09	7,190250E+09	1,180780E+10
-2315	2,308620E+09	2,308653E+09	3,595167E+09	3,595112E+09	4,617273E+09	7,190279E+09	1,180755E+10

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	2,308704E+09	2,308658E+09	3,595149E+09	3,595179E+09	4,617362E+09	7,190328E+09	1,180769E+10
-2313	2,308716E+09	2,308706E+09	3,595180E+09	3,595095E+09	4,617422E+09	7,190274E+09	1,180770E+10
-2312	2,308609E+09	2,308653E+09	3,595093E+09	3,595157E+09	4,617261E+09	7,190250E+09	1,180751E+10
-2311	2,308773E+09	2,308746E+09	3,595085E+09	3,595169E+09	4,617519E+09	7,190254E+09	1,180777E+10
-2310	2,308712E+09	2,308756E+09	3,595146E+09	3,595047E+09	4,617467E+09	7,190193E+09	1,180766E+10
-2309	2,308716E+09	2,308741E+09	3,595087E+09	3,595098E+09	4,617458E+09	7,190185E+09	1,180764E+10
-2308	2,308888E+09	2,308849E+09	3,595116E+09	3,595062E+09	4,617737E+09	7,190178E+09	1,180792E+10
-2307	2,308772E+09	2,308816E+09	3,595110E+09	3,595046E+09	4,617588E+09	7,190156E+09	1,180774E+10
-2306	2,308849E+09	2,308853E+09	3,595059E+09	3,595130E+09	4,617702E+09	7,190189E+09	1,180789E+10
-2305	2,308921E+09	2,308934E+09	3,595093E+09	3,595046E+09	4,617855E+09	7,190139E+09	1,180799E+10
-2304	2,308810E+09	2,308850E+09	3,595044E+09	3,595058E+09	4,617660E+09	7,190101E+09	1,180776E+10
-2303	2,308957E+09	2,308889E+09	3,595040E+09	3,595100E+09	4,617846E+09	7,190140E+09	1,180799E+10
-2302	2,308905E+09	2,308892E+09	3,595103E+09	3,595003E+09	4,617797E+09	7,190106E+09	1,180790E+10
-2301	2,308810E+09	2,308832E+09	3,595035E+09	3,595073E+09	4,617642E+09	7,190108E+09	1,180775E+10
-2300	2,308920E+09	2,308897E+09	3,595069E+09	3,595092E+09	4,617817E+09	7,190161E+09	1,180798E+10
-2299	2,308761E+09	2,308820E+09	3,595115E+09	3,595044E+09	4,617581E+09	7,190160E+09	1,180774E+10
-2298	2,308747E+09	2,308763E+09	3,595099E+09	3,595123E+09	4,617510E+09	7,190222E+09	1,180773E+10
-2297	2,308824E+09	2,308802E+09	3,595151E+09	3,595082E+09	4,617626E+09	7,190233E+09	1,180786E+10
-2296	2,308675E+09	2,308691E+09	3,595116E+09	3,595084E+09	4,617367E+09	7,190200E+09	1,180757E+10
-2295	2,308772E+09	2,308723E+09	3,595075E+09	3,595171E+09	4,617495E+09	7,190246E+09	1,180774E+10
-2294	2,308769E+09	2,308778E+09	3,595119E+09	3,595080E+09	4,617547E+09	7,190199E+09	1,180775E+10
-2293	2,308677E+09	2,308737E+09	3,595049E+09	3,595083E+09	4,617413E+09	7,190132E+09	1,180755E+10
-2292	2,308852E+09	2,308821E+09	3,595075E+09	3,595094E+09	4,617674E+09	7,190169E+09	1,180784E+10
-2291	2,308796E+09	2,308815E+09	3,595122E+09	3,594997E+09	4,617611E+09	7,190118E+09	1,180773E+10
-2290	2,308797E+09	2,308805E+09	3,595072E+09	3,595061E+09	4,617603E+09	7,190133E+09	1,180774E+10
-2289	2,308941E+09	2,308931E+09	3,595087E+09	3,595062E+09	4,617872E+09	7,190149E+09	1,180802E+10
-2288	2,308828E+09	2,308890E+09	3,595053E+09	3,595021E+09	4,617718E+09	7,190074E+09	1,180779E+10
-2287	2,308923E+09	2,308920E+09	3,595006E+09	3,595106E+09	4,617843E+09	7,190113E+09	1,180796E+10
-2286	2,308991E+09	2,308985E+09	3,595061E+09	3,595014E+09	4,617976E+09	7,190075E+09	1,180805E+10
-2285	2,308889E+09	2,308910E+09	3,595007E+09	3,594989E+09	4,617799E+09	7,189995E+09	1,180779E+10
-2284	2,309026E+09	2,308958E+09	3,595010E+09	3,595054E+09	4,617985E+09	7,190064E+09	1,180805E+10
-2283	2,308953E+09	2,308960E+09	3,595049E+09	3,594982E+09	4,617912E+09	7,190031E+09	1,180794E+10
-2282	2,308852E+09	2,308894E+09	3,595018E+09	3,595043E+09	4,617747E+09	7,190061E+09	1,180781E+10
-2281	2,308948E+09	2,308950E+09	3,595067E+09	3,595071E+09	4,617898E+09	7,190138E+09	1,180804E+10
-2280	2,308807E+09	2,308847E+09	3,595094E+09	3,594999E+09	4,617654E+09	7,190093E+09	1,180775E+10
-2279	2,308817E+09	2,308795E+09	3,595064E+09	3,595105E+09	4,617611E+09	7,190169E+09	1,180778E+10
-2278	2,308879E+09	2,308844E+09	3,595108E+09	3,595078E+09	4,617723E+09	7,190186E+09	1,180791E+10
-2277	2,308733E+09	2,308771E+09	3,595058E+09	3,595044E+09	4,617504E+09	7,190101E+09	1,180761E+10
-2276	2,308836E+09	2,308812E+09	3,595038E+09	3,595127E+09	4,617648E+09	7,190165E+09	1,180781E+10
-2275	2,308832E+09	2,308847E+09	3,595082E+09	3,595029E+09	4,617679E+09	7,190111E+09	1,180779E+10
-2274	2,308755E+09	2,308796E+09	3,595055E+09	3,595020E+09	4,617551E+09	7,190075E+09	1,180763E+10
-2273	2,308915E+09	2,308882E+09	3,595074E+09	3,595059E+09	4,617797E+09	7,190133E+09	1,180793E+10
-2272	2,308855E+09	2,308876E+09	3,595076E+09	3,594970E+09	4,617731E+09	7,190046E+09	1,180778E+10
-2271	2,308865E+09	2,308885E+09	3,595003E+09	3,595067E+09	4,617750E+09	7,190070E+09	1,180782E+10
-2270	2,308996E+09	2,309001E+09	3,595028E+09	3,595059E+09	4,617997E+09	7,190086E+09	1,180808E+10
-2269	2,308905E+09	2,308965E+09	3,594997E+09	3,594958E+09	4,617869E+09	7,189955E+09	1,180782E+10
-2268	2,309016E+09	2,308985E+09	3,594973E+09	3,595035E+09	4,618001E+09	7,190009E+09	1,180801E+10
-2267	2,309074E+09	2,309040E+09	3,595016E+09	3,594960E+09	4,618114E+09	7,189976E+09	1,180809E+10
-2266	2,308963E+09	2,308977E+09	3,594989E+09	3,594941E+09	4,617940E+09	7,189930E+09	1,180787E+10

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	2,309059E+09	2,309040E+09	3,594996E+09	3,595036E+09	4,618099E+09	7,190031E+09	1,180813E+10
-2264	2,308983E+09	2,309023E+09	3,595023E+09	3,594955E+09	4,618006E+09	7,189978E+09	1,180798E+10
-2263	2,308899E+09	2,308943E+09	3,594998E+09	3,595030E+09	4,617841E+09	7,190028E+09	1,180787E+10
-2262	2,308991E+09	2,308975E+09	3,595061E+09	3,595061E+09	4,617965E+09	7,190121E+09	1,180809E+10
-2261	2,308871E+09	2,308882E+09	3,595062E+09	3,594960E+09	4,617753E+09	7,190022E+09	1,180778E+10
-2260	2,308882E+09	2,308848E+09	3,595016E+09	3,595079E+09	4,617730E+09	7,190096E+09	1,180783E+10
-2259	2,308936E+09	2,308906E+09	3,595034E+09	3,595061E+09	4,617843E+09	7,190094E+09	1,180794E+10
-2258	2,308800E+09	2,308838E+09	3,595017E+09	3,594990E+09	4,617638E+09	7,190008E+09	1,180765E+10
-2257	2,308887E+09	2,308884E+09	3,595021E+09	3,595070E+09	4,617771E+09	7,190091E+09	1,180786E+10
-2256	2,308901E+09	2,308903E+09	3,595053E+09	3,594962E+09	4,617804E+09	7,190016E+09	1,180782E+10
-2255	2,308833E+09	2,308859E+09	3,595021E+09	3,594994E+09	4,617692E+09	7,190014E+09	1,180771E+10
-2254	2,308968E+09	2,308953E+09	3,595041E+09	3,595060E+09	4,617921E+09	7,190101E+09	1,180802E+10
-2253	2,308918E+09	2,308966E+09	3,595022E+09	3,594943E+09	4,617884E+09	7,189965E+09	1,180785E+10
-2252	2,308939E+09	2,308972E+09	3,594962E+09	3,595033E+09	4,617911E+09	7,189995E+09	1,180791E+10
-2251	2,309075E+09	2,309065E+09	3,594981E+09	3,595015E+09	4,618139E+09	7,189996E+09	1,180814E+10
-2250	2,309001E+09	2,309019E+09	3,594984E+09	3,594890E+09	4,618021E+09	7,189874E+09	1,180789E+10
-2249	2,309085E+09	2,309052E+09	3,594958E+09	3,594990E+09	4,618137E+09	7,189948E+09	1,180809E+10
-2248	2,309131E+09	2,309105E+09	3,594967E+09	3,594925E+09	4,618236E+09	7,189891E+09	1,180813E+10
-2247	2,309014E+09	2,309054E+09	3,594938E+09	3,594939E+09	4,618068E+09	7,189877E+09	1,180794E+10
-2246	2,309087E+09	2,309097E+09	3,594973E+09	3,595029E+09	4,618184E+09	7,190002E+09	1,180819E+10
-2245	2,309031E+09	2,309071E+09	3,594999E+09	3,594909E+09	4,618103E+09	7,189908E+09	1,180801E+10
-2244	2,308970E+09	2,308979E+09	3,594982E+09	3,594989E+09	4,617949E+09	7,189971E+09	1,180792E+10
-2243	2,309056E+09	2,309002E+09	3,595011E+09	3,595035E+09	4,618058E+09	7,190047E+09	1,180810E+10
-2242	2,308940E+09	2,308933E+09	3,595023E+09	3,594928E+09	4,617873E+09	7,189951E+09	1,180782E+10
-2241	2,308924E+09	2,308927E+09	3,594976E+09	3,595052E+09	4,617851E+09	7,190027E+09	1,180788E+10
-2240	2,308981E+09	2,308974E+09	3,594986E+09	3,595012E+09	4,617955E+09	7,189998E+09	1,180795E+10
-2239	2,308863E+09	2,308908E+09	3,594990E+09	3,594952E+09	4,617771E+09	7,189942E+09	1,180771E+10
-2238	2,308939E+09	2,308935E+09	3,595018E+09	3,595036E+09	4,617873E+09	7,190054E+09	1,180793E+10
-2237	2,308968E+09	2,308966E+09	3,595025E+09	3,594920E+09	4,617934E+09	7,189945E+09	1,180788E+10
-2236	2,308905E+09	2,308934E+09	3,594979E+09	3,594975E+09	4,617839E+09	7,189954E+09	1,180779E+10
-2235	2,309030E+09	2,309023E+09	3,594972E+09	3,595050E+09	4,618053E+09	7,190022E+09	1,180808E+10
-2234	2,309003E+09	2,309034E+09	3,594983E+09	3,594897E+09	4,618037E+09	7,189881E+09	1,180792E+10
-2233	2,309016E+09	2,309044E+09	3,594935E+09	3,594974E+09	4,618059E+09	7,189909E+09	1,180797E+10
-2232	2,309164E+09	2,309120E+09	3,594937E+09	3,594947E+09	4,618284E+09	7,189884E+09	1,180817E+10
-2231	2,309091E+09	2,309093E+09	3,594936E+09	3,594855E+09	4,618184E+09	7,189791E+09	1,180798E+10
-2230	2,309135E+09	2,309131E+09	3,594929E+09	3,594976E+09	4,618265E+09	7,189905E+09	1,180817E+10
-2229	2,309180E+09	2,309193E+09	3,594930E+09	3,594894E+09	4,618373E+09	7,189824E+09	1,180820E+10
-2228	2,309065E+09	2,309124E+09	3,594923E+09	3,594911E+09	4,618189E+09	7,189835E+09	1,180802E+10
-2227	2,309135E+09	2,309135E+09	3,594952E+09	3,595005E+09	4,618270E+09	7,189957E+09	1,180823E+10
-2226	2,309106E+09	2,309093E+09	3,594992E+09	3,594867E+09	4,618199E+09	7,189858E+09	1,180806E+10
-2225	2,309020E+09	2,309021E+09	3,594953E+09	3,594964E+09	4,618041E+09	7,189917E+09	1,180796E+10
-2224	2,309105E+09	2,309051E+09	3,594939E+09	3,595012E+09	4,618156E+09	7,189951E+09	1,180811E+10
-2223	2,308994E+09	2,309004E+09	3,594950E+09	3,594912E+09	4,617998E+09	7,189862E+09	1,180786E+10
-2222	2,308961E+09	2,308990E+09	3,594946E+09	3,595016E+09	4,617951E+09	7,189962E+09	1,180791E+10
-2221	2,309041E+09	2,309036E+09	3,594960E+09	3,594939E+09	4,618077E+09	7,189899E+09	1,180798E+10
-2220	2,308940E+09	2,308966E+09	3,594981E+09	3,594898E+09	4,617906E+09	7,189879E+09	1,180778E+10
-2219	2,309001E+09	2,308989E+09	3,594985E+09	3,595012E+09	4,617990E+09	7,189997E+09	1,180799E+10
-2218	2,309040E+09	2,309035E+09	3,594998E+09	3,594896E+09	4,618075E+09	7,189895E+09	1,180797E+10
-2217	2,308959E+09	2,309023E+09	3,594946E+09	3,594957E+09	4,617982E+09	7,189903E+09	1,180788E+10

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	2,309100E+09	2,309090E+09	3,594920E+09	3,595010E+09	4,618190E+09	7,189930E+09	1,180812E+10
-2215	2,309095E+09	2,309106E+09	3,594940E+09	3,594860E+09	4,618200E+09	7,189799E+09	1,180800E+10
-2214	2,309094E+09	2,309104E+09	3,594913E+09	3,594934E+09	4,618198E+09	7,189847E+09	1,180804E+10
-2213	2,309239E+09	2,309196E+09	3,594891E+09	3,594897E+09	4,618435E+09	7,189788E+09	1,180822E+10
-2212	2,309161E+09	2,309183E+09	3,594892E+09	3,594830E+09	4,618345E+09	7,189723E+09	1,180807E+10
-2211	2,309179E+09	2,309201E+09	3,594877E+09	3,594957E+09	4,618380E+09	7,189834E+09	1,180821E+10
-2210	2,309240E+09	2,309247E+09	3,594914E+09	3,594852E+09	4,618488E+09	7,189766E+09	1,180825E+10
-2209	2,309119E+09	2,309172E+09	3,594916E+09	3,594868E+09	4,618290E+09	7,189783E+09	1,180807E+10
-2208	2,309198E+09	2,309157E+09	3,594913E+09	3,594963E+09	4,618356E+09	7,189876E+09	1,180823E+10
-2207	2,309175E+09	2,309142E+09	3,594937E+09	3,594854E+09	4,618316E+09	7,189792E+09	1,180811E+10
-2206	2,309059E+09	2,309081E+09	3,594910E+09	3,594952E+09	4,618141E+09	7,189861E+09	1,180800E+10
-2205	2,309149E+09	2,309126E+09	3,594887E+09	3,594969E+09	4,618275E+09	7,189855E+09	1,180813E+10
-2204	2,309051E+09	2,309077E+09	3,594929E+09	3,594862E+09	4,618129E+09	7,189792E+09	1,180792E+10
-2203	2,309013E+09	2,309037E+09	3,594934E+09	3,594968E+09	4,618051E+09	7,189902E+09	1,180795E+10
-2202	2,309117E+09	2,309077E+09	3,594968E+09	3,594889E+09	4,618194E+09	7,189856E+09	1,180805E+10
-2201	2,308994E+09	2,309028E+09	3,594968E+09	3,594877E+09	4,618022E+09	7,189845E+09	1,180787E+10
-2200	2,309055E+09	2,309050E+09	3,594923E+09	3,595003E+09	4,618105E+09	7,189927E+09	1,180803E+10
-2199	2,309110E+09	2,309113E+09	3,594928E+09	3,594892E+09	4,618222E+09	7,189820E+09	1,180804E+10
-2198	2,309023E+09	2,309092E+09	3,594905E+09	3,594925E+09	4,618115E+09	7,189830E+09	1,180795E+10
-2197	2,309191E+09	2,309160E+09	3,594870E+09	3,594939E+09	4,618352E+09	7,189809E+09	1,180816E+10
-2196	2,309197E+09	2,309181E+09	3,594900E+09	3,594796E+09	4,618378E+09	7,189696E+09	1,180807E+10
-2195	2,309168E+09	2,309181E+09	3,594868E+09	3,594894E+09	4,618349E+09	7,189762E+09	1,180811E+10
-2194	2,309312E+09	2,309280E+09	3,594865E+09	3,594854E+09	4,618591E+09	7,189720E+09	1,180831E+10
-2193	2,309202E+09	2,309273E+09	3,594881E+09	3,594801E+09	4,618475E+09	7,189681E+09	1,180816E+10
-2192	2,309225E+09	2,309256E+09	3,594852E+09	3,594924E+09	4,618481E+09	7,189777E+09	1,180826E+10
-2191	2,309307E+09	2,309291E+09	3,594890E+09	3,594831E+09	4,618597E+09	7,189721E+09	1,180832E+10
-2190	2,309174E+09	2,309201E+09	3,594899E+09	3,594851E+09	4,618375E+09	7,189750E+09	1,180812E+10
-2189	2,309257E+09	2,309202E+09	3,594853E+09	3,594933E+09	4,618459E+09	7,189786E+09	1,180824E+10
-2188	2,309233E+09	2,309210E+09	3,594874E+09	3,594831E+09	4,618443E+09	7,189705E+09	1,180815E+10
-2187	2,309101E+09	2,309142E+09	3,594856E+09	3,594917E+09	4,618243E+09	7,189773E+09	1,180802E+10
-2186	2,309210E+09	2,309179E+09	3,594876E+09	3,594901E+09	4,618389E+09	7,189777E+09	1,180817E+10
-2185	2,309105E+09	2,309136E+09	3,594937E+09	3,594804E+09	4,618242E+09	7,189740E+09	1,180798E+10
-2184	2,309072E+09	2,309077E+09	3,594911E+09	3,594928E+09	4,618149E+09	7,189840E+09	1,180799E+10
-2183	2,309178E+09	2,309142E+09	3,594928E+09	3,594888E+09	4,618320E+09	7,189817E+09	1,180814E+10
-2182	2,309038E+09	2,309100E+09	3,594933E+09	3,594883E+09	4,618138E+09	7,189816E+09	1,180795E+10
-2181	2,309113E+09	2,309124E+09	3,594865E+09	3,594973E+09	4,618238E+09	7,189838E+09	1,180808E+10
-2180	2,309194E+09	2,309192E+09	3,594887E+09	3,594848E+09	4,618385E+09	7,189735E+09	1,180812E+10
-2179	2,309108E+09	2,309150E+09	3,594865E+09	3,594865E+09	4,618258E+09	7,189730E+09	1,180799E+10
-2178	2,309289E+09	2,309223E+09	3,594847E+09	3,594869E+09	4,618511E+09	7,189716E+09	1,180823E+10
-2177	2,309265E+09	2,309273E+09	3,594871E+09	3,594753E+09	4,618538E+09	7,189624E+09	1,180816E+10
-2176	2,309221E+09	2,309259E+09	3,594812E+09	3,594866E+09	4,618480E+09	7,189678E+09	1,180816E+10
-2175	2,309368E+09	2,309359E+09	3,594823E+09	3,594840E+09	4,618727E+09	7,189663E+09	1,180839E+10
-2174	2,309253E+09	2,309325E+09	3,594869E+09	3,594776E+09	4,618578E+09	7,189645E+09	1,180822E+10
-2173	2,309295E+09	2,309294E+09	3,594818E+09	3,594876E+09	4,618589E+09	7,189694E+09	1,180828E+10
-2172	2,309389E+09	2,309339E+09	3,594848E+09	3,594799E+09	4,618728E+09	7,189646E+09	1,180837E+10
-2171	2,309233E+09	2,309254E+09	3,594842E+09	3,594827E+09	4,618486E+09	7,189670E+09	1,180816E+10
-2170	2,309319E+09	2,309270E+09	3,594813E+09	3,594892E+09	4,618589E+09	7,189705E+09	1,180829E+10
-2169	2,309272E+09	2,309292E+09	3,594857E+09	3,594786E+09	4,618564E+09	7,189643E+09	1,180821E+10
-2168	2,309145E+09	2,309195E+09	3,594839E+09	3,594870E+09	4,618340E+09	7,189709E+09	1,180805E+10

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	2,309268E+09	2,309228E+09	3,594871E+09	3,594869E+09	4,618496E+09	7,189740E+09	1,180824E+10
-2166	2,309149E+09	2,309178E+09	3,594938E+09	3,594795E+09	4,618326E+09	7,189733E+09	1,180806E+10
-2165	2,309121E+09	2,309133E+09	3,594861E+09	3,594918E+09	4,618254E+09	7,189779E+09	1,180803E+10
-2164	2,309237E+09	2,309213E+09	3,594861E+09	3,594881E+09	4,618450E+09	7,189742E+09	1,180819E+10
-2163	2,309097E+09	2,309162E+09	3,594870E+09	3,594853E+09	4,618259E+09	7,189723E+09	1,180798E+10
-2162	2,309208E+09	2,309183E+09	3,594827E+09	3,594898E+09	4,618391E+09	7,189724E+09	1,180811E+10
-2161	2,309280E+09	2,309265E+09	3,594864E+09	3,594770E+09	4,618545E+09	7,189634E+09	1,180818E+10
-2160	2,309193E+09	2,309218E+09	3,594823E+09	3,594806E+09	4,618412E+09	7,189629E+09	1,180804E+10
-2159	2,309362E+09	2,309314E+09	3,594806E+09	3,594840E+09	4,618675E+09	7,189646E+09	1,180832E+10
-2158	2,309311E+09	2,309363E+09	3,594852E+09	3,594742E+09	4,618674E+09	7,189594E+09	1,180827E+10
-2157	2,309272E+09	2,309335E+09	3,594778E+09	3,594836E+09	4,618608E+09	7,189614E+09	1,180822E+10
-2156	2,309437E+09	2,309424E+09	3,594799E+09	3,594811E+09	4,618861E+09	7,189610E+09	1,180847E+10
-2155	2,309325E+09	2,309361E+09	3,594842E+09	3,594747E+09	4,618686E+09	7,189589E+09	1,180828E+10
-2154	2,309380E+09	2,309334E+09	3,594786E+09	3,594833E+09	4,618714E+09	7,189619E+09	1,180833E+10
-2153	2,309446E+09	2,309411E+09	3,594803E+09	3,594769E+09	4,618857E+09	7,189572E+09	1,180843E+10
-2152	2,309281E+09	2,309319E+09	3,594775E+09	3,594796E+09	4,618599E+09	7,189571E+09	1,180817E+10
-2151	2,309367E+09	2,309340E+09	3,594774E+09	3,594857E+09	4,618707E+09	7,189631E+09	1,180834E+10
-2150	2,309314E+09	2,309344E+09	3,594859E+09	3,594748E+09	4,618658E+09	7,189607E+09	1,180827E+10
-2149	2,309198E+09	2,309233E+09	3,594820E+09	3,594821E+09	4,618430E+09	7,189642E+09	1,180807E+10
-2148	2,309328E+09	2,309281E+09	3,594842E+09	3,594850E+09	4,618608E+09	7,189693E+09	1,180830E+10
-2147	2,309198E+09	2,309227E+09	3,594892E+09	3,594787E+09	4,618426E+09	7,189679E+09	1,180810E+10
-2146	2,309183E+09	2,309194E+09	3,594817E+09	3,594886E+09	4,618378E+09	7,189702E+09	1,180808E+10
-2145	2,309296E+09	2,309293E+09	3,594831E+09	3,594835E+09	4,618589E+09	7,189666E+09	1,180825E+10
-2144	2,309174E+09	2,309219E+09	3,594826E+09	3,594792E+09	4,618393E+09	7,189619E+09	1,180801E+10
-2143	2,309298E+09	2,309249E+09	3,594797E+09	3,594844E+09	4,618547E+09	7,189640E+09	1,180819E+10
-2142	2,309351E+09	2,309336E+09	3,594845E+09	3,594738E+09	4,618687E+09	7,189582E+09	1,180827E+10
-2141	2,309255E+09	2,309302E+09	3,594768E+09	3,594776E+09	4,618557E+09	7,189544E+09	1,180810E+10
-2140	2,309422E+09	2,309410E+09	3,594751E+09	3,594823E+09	4,618832E+09	7,189575E+09	1,180841E+10
-2139	2,309369E+09	2,309431E+09	3,594814E+09	3,594718E+09	4,618800E+09	7,189532E+09	1,180833E+10
-2138	2,309360E+09	2,309389E+09	3,594756E+09	3,594781E+09	4,618748E+09	7,189537E+09	1,180829E+10
-2137	2,309516E+09	2,309484E+09	3,594779E+09	3,594758E+09	4,619001E+09	7,189537E+09	1,180854E+10
-2136	2,309403E+09	2,309414E+09	3,594787E+09	3,594713E+09	4,618817E+09	7,189500E+09	1,180832E+10
-2135	2,309447E+09	2,309409E+09	3,594732E+09	3,594812E+09	4,618856E+09	7,189543E+09	1,180840E+10
-2134	2,309482E+09	2,309486E+09	3,594778E+09	3,594751E+09	4,618967E+09	7,189529E+09	1,180850E+10
-2133	2,309321E+09	2,309384E+09	3,594747E+09	3,594753E+09	4,618705E+09	7,189500E+09	1,180821E+10
-2132	2,309417E+09	2,309395E+09	3,594760E+09	3,594813E+09	4,618812E+09	7,189573E+09	1,180839E+10
-2131	2,309364E+09	2,309372E+09	3,594851E+09	3,594720E+09	4,618736E+09	7,189571E+09	1,180831E+10
-2130	2,309262E+09	2,309268E+09	3,594798E+09	3,594791E+09	4,618530E+09	7,189590E+09	1,180812E+10
-2129	2,309369E+09	2,309344E+09	3,594802E+09	3,594833E+09	4,618714E+09	7,189635E+09	1,180835E+10
-2128	2,309251E+09	2,309284E+09	3,594821E+09	3,594768E+09	4,618534E+09	7,189590E+09	1,180812E+10
-2127	2,309253E+09	2,309257E+09	3,594765E+09	3,594845E+09	4,618511E+09	7,189609E+09	1,180812E+10
-2126	2,309366E+09	2,309351E+09	3,594809E+09	3,594784E+09	4,618717E+09	7,189594E+09	1,180831E+10
-2125	2,309258E+09	2,309283E+09	3,594783E+09	3,594727E+09	4,618541E+09	7,189510E+09	1,180805E+10
-2124	2,309377E+09	2,309338E+09	3,594751E+09	3,594802E+09	4,618715E+09	7,189554E+09	1,180827E+10
-2123	2,309411E+09	2,309424E+09	3,594803E+09	3,594720E+09	4,618835E+09	7,189523E+09	1,180836E+10
-2122	2,309324E+09	2,309389E+09	3,594740E+09	3,594741E+09	4,618713E+09	7,189481E+09	1,180819E+10
-2121	2,309478E+09	2,309498E+09	3,594742E+09	3,594783E+09	4,618977E+09	7,189525E+09	1,180850E+10
-2120	2,309448E+09	2,309483E+09	3,594784E+09	3,594680E+09	4,618931E+09	7,189464E+09	1,180839E+10
-2119	2,309448E+09	2,309440E+09	3,594727E+09	3,594749E+09	4,618888E+09	7,189476E+09	1,180836E+10

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	2,309583E+09	2,309541E+09	3,594747E+09	3,594744E+09	4,619124E+09	7,189491E+09	1,180862E+10
-2117	2,309461E+09	2,309480E+09	3,594711E+09	3,594684E+09	4,618941E+09	7,189394E+09	1,180834E+10
-2116	2,309500E+09	2,309489E+09	3,594668E+09	3,594779E+09	4,618989E+09	7,189447E+09	1,180844E+10
-2115	2,309531E+09	2,309536E+09	3,594746E+09	3,594708E+09	4,619068E+09	7,189454E+09	1,180852E+10
-2114	2,309388E+09	2,309423E+09	3,594739E+09	3,594687E+09	4,618811E+09	7,189426E+09	1,180824E+10
-2113	2,309469E+09	2,309447E+09	3,594760E+09	3,594764E+09	4,618916E+09	7,189524E+09	1,180844E+10
-2112	2,309418E+09	2,309413E+09	3,594810E+09	3,594704E+09	4,618831E+09	7,189513E+09	1,180834E+10
-2111	2,309315E+09	2,309329E+09	3,594754E+09	3,594785E+09	4,618644E+09	7,189539E+09	1,180818E+10
-2110	2,309409E+09	2,309407E+09	3,594771E+09	3,594824E+09	4,618816E+09	7,189595E+09	1,180841E+10
-2109	2,309308E+09	2,309344E+09	3,594771E+09	3,594725E+09	4,618653E+09	7,189496E+09	1,180815E+10
-2108	2,309332E+09	2,309327E+09	3,594725E+09	3,594792E+09	4,618659E+09	7,189516E+09	1,180818E+10
-2107	2,309443E+09	2,309406E+09	3,594782E+09	3,594741E+09	4,618849E+09	7,189522E+09	1,180837E+10
-2106	2,309340E+09	2,309360E+09	3,594749E+09	3,594681E+09	4,618699E+09	7,189430E+09	1,180813E+10
-2105	2,309429E+09	2,309440E+09	3,594718E+09	3,594766E+09	4,618869E+09	7,189484E+09	1,180835E+10
-2104	2,309471E+09	2,309502E+09	3,594753E+09	3,594697E+09	4,618973E+09	7,189450E+09	1,180842E+10
-2103	2,309403E+09	2,309456E+09	3,594715E+09	3,594705E+09	4,618858E+09	7,189420E+09	1,180828E+10
-2102	2,309552E+09	2,309548E+09	3,594731E+09	3,594749E+09	4,619100E+09	7,189480E+09	1,180858E+10
-2101	2,309535E+09	2,309534E+09	3,594731E+09	3,594640E+09	4,619069E+09	7,189371E+09	1,180844E+10
-2100	2,309531E+09	2,309516E+09	3,594656E+09	3,594718E+09	4,619047E+09	7,189374E+09	1,180842E+10
-2099	2,309641E+09	2,309612E+09	3,594690E+09	3,594721E+09	4,619253E+09	7,189411E+09	1,180866E+10
-2098	2,309523E+09	2,309559E+09	3,594675E+09	3,594631E+09	4,619082E+09	7,189306E+09	1,180839E+10
-2097	2,309543E+09	2,309565E+09	3,594667E+09	3,594715E+09	4,619108E+09	7,189383E+09	1,180849E+10
-2096	2,309588E+09	2,309576E+09	3,594734E+09	3,594667E+09	4,619164E+09	7,189401E+09	1,180856E+10
-2095	2,309451E+09	2,309457E+09	3,594733E+09	3,594664E+09	4,618908E+09	7,189397E+09	1,180831E+10
-2094	2,309504E+09	2,309489E+09	3,594741E+09	3,594769E+09	4,618993E+09	7,189510E+09	1,180850E+10
-2093	2,309458E+09	2,309466E+09	3,594738E+09	3,594699E+09	4,618923E+09	7,189437E+09	1,180836E+10
-2092	2,309368E+09	2,309398E+09	3,594682E+09	3,594762E+09	4,618766E+09	7,189444E+09	1,180821E+10
-2091	2,309473E+09	2,309453E+09	3,594728E+09	3,594782E+09	4,618927E+09	7,189510E+09	1,180844E+10
-2090	2,309398E+09	2,309401E+09	3,594740E+09	3,594647E+09	4,618799E+09	7,189387E+09	1,180819E+10
-2089	2,309406E+09	2,309408E+09	3,594710E+09	3,594721E+09	4,618814E+09	7,189431E+09	1,180824E+10
-2088	2,309514E+09	2,309482E+09	3,594738E+09	3,594707E+09	4,618996E+09	7,189446E+09	1,180844E+10
-2087	2,309404E+09	2,309447E+09	3,594725E+09	3,594660E+09	4,618850E+09	7,189385E+09	1,180824E+10
-2086	2,309475E+09	2,309520E+09	3,594712E+09	3,594755E+09	4,618995E+09	7,189467E+09	1,180846E+10
-2085	2,309537E+09	2,309562E+09	3,594714E+09	3,594662E+09	4,619099E+09	7,189376E+09	1,180847E+10
-2084	2,309491E+09	2,309518E+09	3,594669E+09	3,594670E+09	4,619009E+09	7,189339E+09	1,180835E+10
-2083	2,309641E+09	2,309592E+09	3,594685E+09	3,594722E+09	4,619233E+09	7,189406E+09	1,180864E+10
-2082	2,309622E+09	2,309606E+09	3,594664E+09	3,594596E+09	4,619228E+09	7,189260E+09	1,180849E+10
-2081	2,309589E+09	2,309616E+09	3,594604E+09	3,594667E+09	4,619205E+09	7,189271E+09	1,180848E+10
-2080	2,309700E+09	2,309682E+09	3,594636E+09	3,594676E+09	4,619382E+09	7,189312E+09	1,180869E+10
-2079	2,309588E+09	2,309617E+09	3,594668E+09	3,594577E+09	4,619205E+09	7,189245E+09	1,180845E+10
-2078	2,309589E+09	2,309609E+09	3,594680E+09	3,594680E+09	4,619198E+09	7,189360E+09	1,180856E+10
-2077	2,309638E+09	2,309615E+09	3,594701E+09	3,594645E+09	4,619252E+09	7,189346E+09	1,180860E+10
-2076	2,309503E+09	2,309519E+09	3,594680E+09	3,594662E+09	4,619021E+09	7,189343E+09	1,180836E+10
-2075	2,309545E+09	2,309536E+09	3,594696E+09	3,594770E+09	4,619081E+09	7,189465E+09	1,180855E+10
-2074	2,309517E+09	2,309527E+09	3,594696E+09	3,594658E+09	4,619044E+09	7,189354E+09	1,180840E+10
-2073	2,309427E+09	2,309470E+09	3,594666E+09	3,594691E+09	4,618897E+09	7,189357E+09	1,180825E+10
-2072	2,309549E+09	2,309501E+09	3,594700E+09	3,594728E+09	4,619050E+09	7,189427E+09	1,180848E+10
-2071	2,309480E+09	2,309460E+09	3,594728E+09	3,594604E+09	4,618940E+09	7,189332E+09	1,180827E+10
-2070	2,309450E+09	2,309480E+09	3,594693E+09	3,594705E+09	4,618930E+09	7,189398E+09	1,180833E+10

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	2,309559E+09	2,309559E+09	3,594679E+09	3,594692E+09	4,619118E+09	7,189371E+09	1,180849E+10
-2068	2,309469E+09	2,309525E+09	3,594667E+09	3,594636E+09	4,618994E+09	7,189303E+09	1,180830E+10
-2067	2,309549E+09	2,309565E+09	3,594678E+09	3,594722E+09	4,619114E+09	7,189399E+09	1,180851E+10
-2066	2,309638E+09	2,309621E+09	3,594670E+09	3,594602E+09	4,619259E+09	7,189272E+09	1,180853E+10
-2065	2,309581E+09	2,309602E+09	3,594627E+09	3,594607E+09	4,619182E+09	7,189234E+09	1,180842E+10
-2064	2,309722E+09	2,309672E+09	3,594614E+09	3,594688E+09	4,619394E+09	7,189303E+09	1,180870E+10
-2063	2,309694E+09	2,309696E+09	3,594627E+09	3,594556E+09	4,619390E+09	7,189183E+09	1,180857E+10
-2062	2,309630E+09	2,309697E+09	3,594602E+09	3,594631E+09	4,619327E+09	7,189233E+09	1,180856E+10
-2061	2,309747E+09	2,309739E+09	3,594618E+09	3,594632E+09	4,619487E+09	7,189250E+09	1,180874E+10
-2060	2,309651E+09	2,309667E+09	3,594651E+09	3,594550E+09	4,619318E+09	7,189201E+09	1,180852E+10
-2059	2,309640E+09	2,309636E+09	3,594663E+09	3,594679E+09	4,619276E+09	7,189341E+09	1,180862E+10
-2058	2,309691E+09	2,309667E+09	3,594646E+09	3,594630E+09	4,619357E+09	7,189276E+09	1,180863E+10
-2057	2,309547E+09	2,309591E+09	3,594631E+09	3,594630E+09	4,619137E+09	7,189261E+09	1,180840E+10
-2056	2,309606E+09	2,309582E+09	3,594636E+09	3,594733E+09	4,619188E+09	7,189368E+09	1,180856E+10
-2055	2,309594E+09	2,309571E+09	3,594678E+09	3,594594E+09	4,619165E+09	7,189272E+09	1,180844E+10
-2054	2,309490E+09	2,309524E+09	3,594666E+09	3,594639E+09	4,619014E+09	7,189305E+09	1,180832E+10
-2053	2,309609E+09	2,309560E+09	3,594656E+09	3,594683E+09	4,619169E+09	7,189339E+09	1,180851E+10
-2052	2,309538E+09	2,309548E+09	3,594676E+09	3,594588E+09	4,619086E+09	7,189264E+09	1,180835E+10
-2051	2,309497E+09	2,309550E+09	3,594661E+09	3,594700E+09	4,619047E+09	7,189362E+09	1,180841E+10
-2050	2,309621E+09	2,309635E+09	3,594642E+09	3,594653E+09	4,619256E+09	7,189295E+09	1,180855E+10
-2049	2,309545E+09	2,309603E+09	3,594648E+09	3,594579E+09	4,619148E+09	7,189226E+09	1,180837E+10
-2048	2,309645E+09	2,309614E+09	3,594630E+09	3,594681E+09	4,619259E+09	7,189311E+09	1,180857E+10
-2047	2,309736E+09	2,309686E+09	3,594633E+09	3,594560E+09	4,619422E+09	7,189193E+09	1,180862E+10
-2046	2,309643E+09	2,309691E+09	3,594586E+09	3,594579E+09	4,619334E+09	7,189165E+09	1,180850E+10
-2045	2,309776E+09	2,309757E+09	3,594547E+09	3,594648E+09	4,619533E+09	7,189195E+09	1,180873E+10
-2044	2,309758E+09	2,309780E+09	3,594583E+09	3,594515E+09	4,619539E+09	7,189098E+09	1,180864E+10
-2043	2,309690E+09	2,309739E+09	3,594598E+09	3,594594E+09	4,619429E+09	7,189192E+09	1,180862E+10
-2042	2,309816E+09	2,309788E+09	3,594600E+09	3,594586E+09	4,619604E+09	7,189186E+09	1,180879E+10
-2041	2,309711E+09	2,309731E+09	3,594631E+09	3,594517E+09	4,619442E+09	7,189148E+09	1,180859E+10
-2040	2,309694E+09	2,309684E+09	3,594607E+09	3,594676E+09	4,619378E+09	7,189283E+09	1,180866E+10
-2039	2,309749E+09	2,309722E+09	3,594617E+09	3,594608E+09	4,619471E+09	7,189225E+09	1,180870E+10
-2038	2,309586E+09	2,309648E+09	3,594616E+09	3,594592E+09	4,619234E+09	7,189209E+09	1,180844E+10
-2037	2,309660E+09	2,309627E+09	3,594597E+09	3,594679E+09	4,619287E+09	7,189276E+09	1,180856E+10
-2036	2,309667E+09	2,309628E+09	3,594639E+09	3,594552E+09	4,619295E+09	7,189191E+09	1,180849E+10
-2035	2,309543E+09	2,309571E+09	3,594641E+09	3,594623E+09	4,619114E+09	7,189264E+09	1,180838E+10
-2034	2,309656E+09	2,309641E+09	3,594603E+09	3,594656E+09	4,619297E+09	7,189259E+09	1,180856E+10
-2033	2,309587E+09	2,309638E+09	3,594638E+09	3,594550E+09	4,619225E+09	7,189188E+09	1,180841E+10
-2032	2,309565E+09	2,309604E+09	3,594614E+09	3,594668E+09	4,619169E+09	7,189282E+09	1,180845E+10
-2031	2,309714E+09	2,309685E+09	3,594623E+09	3,594597E+09	4,619399E+09	7,189220E+09	1,180862E+10
-2030	2,309627E+09	2,309668E+09	3,594628E+09	3,594532E+09	4,619295E+09	7,189159E+09	1,180845E+10
-2029	2,309727E+09	2,309688E+09	3,594561E+09	3,594641E+09	4,619415E+09	7,189202E+09	1,180862E+10
-2028	2,309814E+09	2,309787E+09	3,594564E+09	3,594532E+09	4,619602E+09	7,189096E+09	1,180870E+10
-2027	2,309702E+09	2,309772E+09	3,594558E+09	3,594554E+09	4,619474E+09	7,189112E+09	1,180859E+10
-2026	2,309835E+09	2,309841E+09	3,594524E+09	3,594590E+09	4,619676E+09	7,189113E+09	1,180879E+10
-2025	2,309825E+09	2,309854E+09	3,594587E+09	3,594458E+09	4,619680E+09	7,189045E+09	1,180872E+10
-2024	2,309764E+09	2,309773E+09	3,594576E+09	3,594575E+09	4,619537E+09	7,189151E+09	1,180869E+10
-2023	2,309882E+09	2,309829E+09	3,594577E+09	3,594571E+09	4,619712E+09	7,189148E+09	1,180886E+10
-2022	2,309751E+09	2,309794E+09	3,594591E+09	3,594515E+09	4,619544E+09	7,189107E+09	1,180865E+10
-2021	2,309738E+09	2,309735E+09	3,594527E+09	3,594648E+09	4,619473E+09	7,189175E+09	1,180865E+10

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	2,309809E+09	2,309779E+09	3,594556E+09	3,594565E+09	4,619589E+09	7,189121E+09	1,180871E+10
-2019	2,309650E+09	2,309685E+09	3,594597E+09	3,594545E+09	4,619334E+09	7,189142E+09	1,180848E+10
-2018	2,309723E+09	2,309687E+09	3,594563E+09	3,594613E+09	4,619410E+09	7,189177E+09	1,180859E+10
-2017	2,309724E+09	2,309713E+09	3,594616E+09	3,594507E+09	4,619437E+09	7,189123E+09	1,180856E+10
-2016	2,309594E+09	2,309636E+09	3,594598E+09	3,594612E+09	4,619230E+09	7,189211E+09	1,180844E+10
-2015	2,309710E+09	2,309707E+09	3,594592E+09	3,594628E+09	4,619417E+09	7,189220E+09	1,180864E+10
-2014	2,309637E+09	2,309706E+09	3,594636E+09	3,594519E+09	4,619343E+09	7,189155E+09	1,180850E+10
-2013	2,309640E+09	2,309652E+09	3,594571E+09	3,594624E+09	4,619292E+09	7,189195E+09	1,180849E+10
-2012	2,309810E+09	2,309748E+09	3,594570E+09	3,594565E+09	4,619558E+09	7,189135E+09	1,180869E+10
-2011	2,309708E+09	2,309733E+09	3,594579E+09	3,594513E+09	4,619440E+09	7,189092E+09	1,180853E+10
-2010	2,309796E+09	2,309790E+09	3,594487E+09	3,594596E+09	4,619586E+09	7,189083E+09	1,180867E+10
-2009	2,309884E+09	2,309893E+09	3,594523E+09	3,594474E+09	4,619777E+09	7,188997E+09	1,180877E+10
-2008	2,309776E+09	2,309834E+09	3,594528E+09	3,594510E+09	4,619610E+09	7,189038E+09	1,180865E+10
-2007	2,309917E+09	2,309892E+09	3,594530E+09	3,594535E+09	4,619809E+09	7,189065E+09	1,180887E+10
-2006	2,309887E+09	2,309910E+09	3,594582E+09	3,594430E+09	4,619797E+09	7,189012E+09	1,180881E+10
-2005	2,309819E+09	2,309826E+09	3,594514E+09	3,594562E+09	4,619645E+09	7,189076E+09	1,180872E+10
-2004	2,309940E+09	2,309899E+09	3,594507E+09	3,594566E+09	4,619839E+09	7,189073E+09	1,180891E+10
-2003	2,309796E+09	2,309843E+09	3,594553E+09	3,594500E+09	4,619638E+09	7,189053E+09	1,180869E+10
-2002	2,309790E+09	2,309799E+09	3,594484E+09	3,594586E+09	4,619590E+09	7,189070E+09	1,180866E+10
-2001	2,309876E+09	2,309841E+09	3,594542E+09	3,594495E+09	4,619717E+09	7,189037E+09	1,180875E+10
-2000	2,309717E+09	2,309723E+09	3,594572E+09	3,594511E+09	4,619440E+09	7,189083E+09	1,180852E+10
-1999	2,309778E+09	2,309744E+09	3,594550E+09	3,594581E+09	4,619521E+09	7,189131E+09	1,180865E+10
-1998	2,309754E+09	2,309789E+09	3,594595E+09	3,594495E+09	4,619543E+09	7,189089E+09	1,180863E+10
-1997	2,309639E+09	2,309692E+09	3,594543E+09	3,594590E+09	4,619331E+09	7,189132E+09	1,180846E+10
-1996	2,309782E+09	2,309762E+09	3,594546E+09	3,594596E+09	4,619544E+09	7,189142E+09	1,180869E+10
-1995	2,309721E+09	2,309745E+09	3,594610E+09	3,594488E+09	4,619466E+09	7,189098E+09	1,180856E+10
-1994	2,309730E+09	2,309727E+09	3,594509E+09	3,594567E+09	4,619457E+09	7,189076E+09	1,180853E+10
-1993	2,309896E+09	2,309852E+09	3,594517E+09	3,594516E+09	4,619748E+09	7,189033E+09	1,180878E+10
-1992	2,309786E+09	2,309824E+09	3,594523E+09	3,594485E+09	4,619610E+09	7,189008E+09	1,180862E+10
-1991	2,309865E+09	2,309877E+09	3,594475E+09	3,594538E+09	4,619742E+09	7,189013E+09	1,180875E+10
-1990	2,309941E+09	2,309977E+09	3,594529E+09	3,594429E+09	4,619917E+09	7,188958E+09	1,180888E+10
-1989	2,309847E+09	2,309882E+09	3,594499E+09	3,594472E+09	4,619728E+09	7,188971E+09	1,180870E+10
-1988	2,309989E+09	2,309945E+09	3,594488E+09	3,594521E+09	4,619934E+09	7,189010E+09	1,180894E+10
-1987	2,309944E+09	2,309959E+09	3,594538E+09	3,594439E+09	4,619903E+09	7,188977E+09	1,180888E+10
-1986	2,309868E+09	2,309900E+09	3,594433E+09	3,594533E+09	4,619768E+09	7,188966E+09	1,180873E+10
-1985	2,310000E+09	2,309972E+09	3,594456E+09	3,594513E+09	4,619972E+09	7,188969E+09	1,180894E+10
-1984	2,309867E+09	2,309881E+09	3,594512E+09	3,594446E+09	4,619748E+09	7,188959E+09	1,180871E+10
-1983	2,309864E+09	2,309841E+09	3,594484E+09	3,594511E+09	4,619705E+09	7,188995E+09	1,180870E+10
-1982	2,309926E+09	2,309905E+09	3,594541E+09	3,594454E+09	4,619831E+09	7,188995E+09	1,180883E+10
-1981	2,309759E+09	2,309782E+09	3,594530E+09	3,594494E+09	4,619541E+09	7,189023E+09	1,180856E+10
-1980	2,309818E+09	2,309816E+09	3,594511E+09	3,594578E+09	4,619635E+09	7,189089E+09	1,180872E+10
-1979	2,309796E+09	2,309838E+09	3,594580E+09	3,594493E+09	4,619634E+09	7,189072E+09	1,180871E+10
-1978	2,309699E+09	2,309754E+09	3,594502E+09	3,594544E+09	4,619453E+09	7,189046E+09	1,180850E+10
-1977	2,309873E+09	2,309824E+09	3,594514E+09	3,594544E+09	4,619697E+09	7,189058E+09	1,180875E+10
-1976	2,309814E+09	2,309797E+09	3,594552E+09	3,594461E+09	4,619611E+09	7,189013E+09	1,180862E+10
-1975	2,309813E+09	2,309812E+09	3,594464E+09	3,594520E+09	4,619625E+09	7,188984E+09	1,180861E+10
-1974	2,309954E+09	2,309955E+09	3,594474E+09	3,594473E+09	4,619909E+09	7,188947E+09	1,180886E+10
-1973	2,309849E+09	2,309902E+09	3,594470E+09	3,594434E+09	4,619751E+09	7,188904E+09	1,180865E+10
-1972	2,309941E+09	2,309948E+09	3,594446E+09	3,594490E+09	4,619889E+09	7,188936E+09	1,180882E+10

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							
-1971	2,310013E+09	2,310021E+09	3,594520E+09	3,594405E+09	4,620035E+09	7,188925E+09	1,180896E+10
-1970	2,309918E+09	2,309951E+09	3,594447E+09	3,594438E+09	4,619869E+09	7,188885E+09	1,180875E+10
-1969	2,310061E+09	2,310024E+09	3,594437E+09	3,594495E+09	4,620085E+09	7,188932E+09	1,180902E+10
-1968	2,310010E+09	2,310018E+09	3,594478E+09	3,594425E+09	4,620028E+09	7,188903E+09	1,180893E+10
-1967	2,309934E+09	2,309962E+09	3,594412E+09	3,594473E+09	4,619895E+09	7,188884E+09	1,180878E+10
-1966	2,310053E+09	2,310035E+09	3,594453E+09	3,594455E+09	4,620088E+09	7,188907E+09	1,180899E+10
-1965	2,309929E+09	2,309921E+09	3,594486E+09	3,594399E+09	4,619850E+09	7,188885E+09	1,180874E+10
-1964	2,309918E+09	2,309895E+09	3,594456E+09	3,594489E+09	4,619813E+09	7,188945E+09	1,180876E+10
-1963	2,309960E+09	2,309958E+09	3,594516E+09	3,594466E+09	4,619918E+09	7,188982E+09	1,180890E+10
-1962	2,309794E+09	2,309854E+09	3,594470E+09	3,594475E+09	4,619648E+09	7,188945E+09	1,180859E+10
-1961	2,309874E+09	2,309879E+09	3,594475E+09	3,594542E+09	4,619753E+09	7,189017E+09	1,180877E+10
-1960	2,309875E+09	2,309873E+09	3,594541E+09	3,594460E+09	4,619748E+09	7,189001E+09	1,180875E+10
-1959	2,309792E+09	2,309802E+09	3,594475E+09	3,594475E+09	4,619594E+09	7,188950E+09	1,180854E+10
-1958	2,309947E+09	2,309906E+09	3,594478E+09	3,594497E+09	4,619853E+09	7,188976E+09	1,180883E+10
-1957	2,309886E+09	2,309883E+09	3,594481E+09	3,594421E+09	4,619769E+09	7,188902E+09	1,180867E+10
-1956	2,309877E+09	2,309909E+09	3,594418E+09	3,594482E+09	4,619785E+09	7,188899E+09	1,180868E+10
-1955	2,310009E+09	2,310031E+09	3,594467E+09	3,594445E+09	4,620040E+09	7,188912E+09	1,180895E+10
-1954	2,309916E+09	2,309977E+09	3,594444E+09	3,594379E+09	4,619892E+09	7,188823E+09	1,180872E+10
-1953	2,310025E+09	2,310012E+09	3,594431E+09	3,594449E+09	4,620036E+09	7,188880E+09	1,180892E+10
-1952	2,310094E+09	2,310068E+09	3,594472E+09	3,594400E+09	4,620162E+09	7,188872E+09	1,180903E+10
-1951	2,309991E+09	2,310020E+09	3,594397E+09	3,594407E+09	4,620011E+09	7,188805E+09	1,180882E+10
-1950	2,310115E+09	2,310105E+09	3,594388E+09	3,594462E+09	4,620221E+09	7,188851E+09	1,180907E+10
-1949	2,310074E+09	2,310073E+09	3,594418E+09	3,594373E+09	4,620148E+09	7,188791E+09	1,180894E+10
-1948	2,310005E+09	2,310018E+09	3,594384E+09	3,594414E+09	4,620023E+09	7,188798E+09	1,180882E+10
-1947	2,310110E+09	2,310077E+09	3,594449E+09	3,594423E+09	4,620187E+09	7,188872E+09	1,180906E+10
-1946	2,309974E+09	2,309992E+09	3,594448E+09	3,594367E+09	4,619966E+09	7,188815E+09	1,180878E+10
-1945	2,309963E+09	2,309972E+09	3,594428E+09	3,594474E+09	4,619935E+09	7,188902E+09	1,180884E+10
-1944	2,309999E+09	2,310006E+09	3,594480E+09	3,594466E+09	4,620006E+09	7,188946E+09	1,180895E+10
-1943	2,309851E+09	2,309905E+09	3,594458E+09	3,594430E+09	4,619756E+09	7,188888E+09	1,180864E+10
-1942	2,309938E+09	2,309928E+09	3,594460E+09	3,594492E+09	4,619866E+09	7,188952E+09	1,180882E+10
-1941	2,309955E+09	2,309910E+09	3,594488E+09	3,594415E+09	4,619865E+09	7,188903E+09	1,180877E+10
-1940	2,309870E+09	2,309874E+09	3,594420E+09	3,594439E+09	4,619744E+09	7,188859E+09	1,180860E+10
-1939	2,310003E+09	2,309984E+09	3,594431E+09	3,594480E+09	4,619988E+09	7,188911E+09	1,180890E+10
-1938	2,309942E+09	2,309982E+09	3,594418E+09	3,594371E+09	4,619924E+09	7,188789E+09	1,180871E+10
-1937	2,309952E+09	2,309991E+09	3,594392E+09	3,594423E+09	4,619943E+09	7,188814E+09	1,180876E+10
-1936	2,310091E+09	2,310081E+09	3,594444E+09	3,594407E+09	4,620172E+09	7,188851E+09	1,180902E+10
-1935	2,310009E+09	2,310037E+09	3,594430E+09	3,594326E+09	4,620046E+09	7,188755E+09	1,180880E+10
-1934	2,310097E+09	2,310092E+09	3,594398E+09	3,594423E+09	4,620189E+09	7,188821E+09	1,180901E+10
-1933	2,310165E+09	2,310143E+09	3,594400E+09	3,594383E+09	4,620308E+09	7,188783E+09	1,180909E+10
-1932	2,310058E+09	2,310103E+09	3,594347E+09	3,594375E+09	4,620161E+09	7,188721E+09	1,180888E+10
-1931	2,310170E+09	2,310168E+09	3,594371E+09	3,594431E+09	4,620338E+09	7,188802E+09	1,180914E+10
-1930	2,310136E+09	2,310139E+09	3,594385E+09	3,594312E+09	4,620275E+09	7,188697E+09	1,180897E+10
-1929	2,310072E+09	2,310074E+09	3,594372E+09	3,594370E+09	4,620146E+09	7,188742E+09	1,180889E+10
-1928	2,310160E+09	2,310122E+09	3,594418E+09	3,594420E+09	4,620282E+09	7,188838E+09	1,180912E+10
-1927	2,310019E+09	2,310051E+09	3,594418E+09	3,594339E+09	4,620070E+09	7,188757E+09	1,180883E+10
-1926	2,309995E+09	2,310033E+09	3,594401E+09	3,594449E+09	4,620029E+09	7,188850E+09	1,180888E+10
-1925	2,310057E+09	2,310039E+09	3,594430E+09	3,594427E+09	4,620096E+09	7,188857E+09	1,180895E+10
-1924	2,309926E+09	2,309945E+09	3,594422E+09	3,594378E+09	4,619871E+09	7,188801E+09	1,180867E+10
-1923	2,310008E+09	2,309974E+09	3,594430E+09	3,594464E+09	4,619982E+09	7,188894E+09	1,180888E+10

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	2,310021E+09	2,309995E+09	3,594419E+09	3,594369E+09	4,620015E+09	7,188789E+09	1,180880E+10
-1921	2,309939E+09	2,309973E+09	3,594376E+09	3,594398E+09	4,619911E+09	7,188774E+09	1,180869E+10
-1920	2,310061E+09	2,310062E+09	3,594399E+09	3,594451E+09	4,620123E+09	7,188850E+09	1,180897E+10
-1919	2,310013E+09	2,310061E+09	3,594416E+09	3,594308E+09	4,620074E+09	7,188723E+09	1,180880E+10
-1918	2,310023E+09	2,310063E+09	3,594394E+09	3,594377E+09	4,620086E+09	7,188771E+09	1,180886E+10
-1917	2,310173E+09	2,310132E+09	3,594400E+09	3,594383E+09	4,620304E+09	7,188783E+09	1,180909E+10
-1916	2,310090E+09	2,310112E+09	3,594375E+09	3,594314E+09	4,620202E+09	7,188688E+09	1,180889E+10
-1915	2,310158E+09	2,310168E+09	3,594340E+09	3,594422E+09	4,620326E+09	7,188762E+09	1,180909E+10
-1914	2,310226E+09	2,310229E+09	3,594326E+09	3,594335E+09	4,620454E+09	7,188661E+09	1,180912E+10
-1913	2,310141E+09	2,310175E+09	3,594313E+09	3,594309E+09	4,620316E+09	7,188622E+09	1,180894E+10
-1912	2,310244E+09	2,310209E+09	3,594346E+09	3,594379E+09	4,620452E+09	7,188725E+09	1,180918E+10
-1911	2,310208E+09	2,310198E+09	3,594374E+09	3,594252E+09	4,620406E+09	7,188627E+09	1,180903E+10
-1910	2,310118E+09	2,310146E+09	3,594355E+09	3,594343E+09	4,620263E+09	7,188698E+09	1,180896E+10
-1909	2,310195E+09	2,310176E+09	3,594370E+09	3,594409E+09	4,620371E+09	7,188779E+09	1,180915E+10
-1908	2,310064E+09	2,310107E+09	3,594392E+09	3,594320E+09	4,620171E+09	7,188713E+09	1,180888E+10
-1907	2,310040E+09	2,310068E+09	3,594387E+09	3,594431E+09	4,620108E+09	7,188818E+09	1,180893E+10
-1906	2,310119E+09	2,310084E+09	3,594384E+09	3,594379E+09	4,620203E+09	7,188763E+09	1,180897E+10
-1905	2,310009E+09	2,310001E+09	3,594379E+09	3,594336E+09	4,620010E+09	7,188715E+09	1,180873E+10
-1904	2,310072E+09	2,310037E+09	3,594370E+09	3,594444E+09	4,620109E+09	7,188814E+09	1,180892E+10
-1903	2,310085E+09	2,310088E+09	3,594372E+09	3,594318E+09	4,620173E+09	7,188690E+09	1,180886E+10
-1902	2,309994E+09	2,310065E+09	3,594355E+09	3,594346E+09	4,620059E+09	7,188701E+09	1,180876E+10
-1901	2,310129E+09	2,310122E+09	3,594368E+09	3,594400E+09	4,620251E+09	7,188768E+09	1,180902E+10
-1900	2,310099E+09	2,310122E+09	3,594400E+09	3,594263E+09	4,620221E+09	7,188664E+09	1,180888E+10
-1899	2,310096E+09	2,310124E+09	3,594370E+09	3,594369E+09	4,620220E+09	7,188740E+09	1,180896E+10
-1898	2,310244E+09	2,310218E+09	3,594329E+09	3,594359E+09	4,620462E+09	7,188688E+09	1,180915E+10
-1897	2,310170E+09	2,310203E+09	3,594315E+09	3,594285E+09	4,620373E+09	7,188600E+09	1,180897E+10
-1896	2,310229E+09	2,310238E+09	3,594293E+09	3,594390E+09	4,620467E+09	7,188683E+09	1,180915E+10
-1895	2,310307E+09	2,310299E+09	3,594305E+09	3,594254E+09	4,620606E+09	7,188559E+09	1,180917E+10
-1894	2,310210E+09	2,310239E+09	3,594311E+09	3,594246E+09	4,620450E+09	7,188557E+09	1,180901E+10
-1893	2,310304E+09	2,310255E+09	3,594313E+09	3,594346E+09	4,620559E+09	7,188659E+09	1,180922E+10
-1892	2,310257E+09	2,310260E+09	3,594341E+09	3,594241E+09	4,620518E+09	7,188583E+09	1,180910E+10
-1891	2,310146E+09	2,310201E+09	3,594323E+09	3,594355E+09	4,620347E+09	7,188677E+09	1,180902E+10
-1890	2,310232E+09	2,310228E+09	3,594312E+09	3,594378E+09	4,620460E+09	7,188690E+09	1,180915E+10
-1889	2,310136E+09	2,310149E+09	3,594355E+09	3,594276E+09	4,620285E+09	7,188631E+09	1,180892E+10
-1888	2,310114E+09	2,310099E+09	3,594345E+09	3,594394E+09	4,620212E+09	7,188739E+09	1,180895E+10
-1887	2,310197E+09	2,310148E+09	3,594344E+09	3,594317E+09	4,620346E+09	7,188662E+09	1,180901E+10
-1886	2,310069E+09	2,310095E+09	3,594346E+09	3,594293E+09	4,620164E+09	7,188639E+09	1,180880E+10
-1885	2,310122E+09	2,310118E+09	3,594323E+09	3,594407E+09	4,620240E+09	7,188731E+09	1,180897E+10
-1884	2,310143E+09	2,310171E+09	3,594361E+09	3,594279E+09	4,620314E+09	7,188639E+09	1,180895E+10
-1883	2,310050E+09	2,310124E+09	3,594359E+09	3,594325E+09	4,620175E+09	7,188684E+09	1,180886E+10
-1882	2,310196E+09	2,310180E+09	3,594335E+09	3,594362E+09	4,620376E+09	7,188698E+09	1,180907E+10
-1881	2,310192E+09	2,310187E+09	3,594357E+09	3,594246E+09	4,620380E+09	7,188603E+09	1,180898E+10
-1880	2,310173E+09	2,310189E+09	3,594296E+09	3,594363E+09	4,620362E+09	7,188659E+09	1,180902E+10
-1879	2,310325E+09	2,310307E+09	3,594260E+09	3,594307E+09	4,620632E+09	7,188567E+09	1,180920E+10
-1878	2,310251E+09	2,310291E+09	3,594272E+09	3,594215E+09	4,620542E+09	7,188488E+09	1,180903E+10
-1877	2,310309E+09	2,310296E+09	3,594248E+09	3,594316E+09	4,620605E+09	7,188564E+09	1,180917E+10
-1876	2,310390E+09	2,310363E+09	3,594290E+09	3,594197E+09	4,620754E+09	7,188487E+09	1,180924E+10
-1875	2,310264E+09	2,310302E+09	3,594299E+09	3,594235E+09	4,620566E+09	7,188533E+09	1,180910E+10
-1874	2,310339E+09	2,310330E+09	3,594265E+09	3,594330E+09	4,620669E+09	7,188594E+09	1,180926E+10

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	2,310308E+09	2,310328E+09	3,594304E+09	3,594234E+09	4,620637E+09	7,188538E+09	1,180917E+10
-1872	2,310191E+09	2,310242E+09	3,594289E+09	3,594343E+09	4,620432E+09	7,188632E+09	1,180906E+10
-1871	2,310300E+09	2,310273E+09	3,594287E+09	3,594320E+09	4,620574E+09	7,188607E+09	1,180918E+10
-1870	2,310208E+09	2,310199E+09	3,594335E+09	3,594222E+09	4,620407E+09	7,188557E+09	1,180896E+10
-1869	2,310179E+09	2,310149E+09	3,594290E+09	3,594357E+09	4,620329E+09	7,188647E+09	1,180898E+10
-1868	2,310257E+09	2,310226E+09	3,594302E+09	3,594286E+09	4,620483E+09	7,188588E+09	1,180907E+10
-1867	2,310107E+09	2,310173E+09	3,594322E+09	3,594280E+09	4,620280E+09	7,188602E+09	1,180888E+10
-1866	2,310167E+09	2,310189E+09	3,594288E+09	3,594358E+09	4,620356E+09	7,188645E+09	1,180900E+10
-1865	2,310223E+09	2,310226E+09	3,594339E+09	3,594236E+09	4,620449E+09	7,188575E+09	1,180902E+10
-1864	2,310131E+09	2,310167E+09	3,594326E+09	3,594303E+09	4,620298E+09	7,188629E+09	1,180893E+10
-1863	2,310286E+09	2,310251E+09	3,594282E+09	3,594317E+09	4,620538E+09	7,188598E+09	1,180914E+10
-1862	2,310272E+09	2,310282E+09	3,594302E+09	3,594210E+09	4,620554E+09	7,188511E+09	1,180907E+10
-1861	2,310249E+09	2,310274E+09	3,594227E+09	3,594321E+09	4,620523E+09	7,188547E+09	1,180907E+10
-1860	2,310405E+09	2,310391E+09	3,594231E+09	3,594247E+09	4,620796E+09	7,188478E+09	1,180927E+10
-1859	2,310319E+09	2,310362E+09	3,594267E+09	3,594174E+09	4,620681E+09	7,188441E+09	1,180912E+10
-1858	2,310372E+09	2,310360E+09	3,594218E+09	3,594264E+09	4,620732E+09	7,188481E+09	1,180921E+10
-1857	2,310460E+09	2,310431E+09	3,594254E+09	3,594183E+09	4,620891E+09	7,188437E+09	1,180933E+10
-1856	2,310310E+09	2,310361E+09	3,594250E+09	3,594244E+09	4,620670E+09	7,188494E+09	1,180916E+10
-1855	2,310389E+09	2,310396E+09	3,594219E+09	3,594294E+09	4,620784E+09	7,188513E+09	1,180930E+10
-1854	2,310368E+09	2,310383E+09	3,594278E+09	3,594187E+09	4,620752E+09	7,188465E+09	1,180922E+10
-1853	2,310262E+09	2,310271E+09	3,594245E+09	3,594287E+09	4,620533E+09	7,188532E+09	1,180907E+10
-1852	2,310379E+09	2,310317E+09	3,594261E+09	3,594270E+09	4,620696E+09	7,188531E+09	1,180923E+10
-1851	2,310263E+09	2,310263E+09	3,594307E+09	3,594205E+09	4,620526E+09	7,188511E+09	1,180904E+10
-1850	2,310217E+09	2,310229E+09	3,594239E+09	3,594320E+09	4,620446E+09	7,188559E+09	1,180901E+10
-1849	2,310313E+09	2,310307E+09	3,594272E+09	3,594262E+09	4,620620E+09	7,188534E+09	1,180915E+10
-1848	2,310159E+09	2,310225E+09	3,594304E+09	3,594256E+09	4,620384E+09	7,188560E+09	1,180894E+10
-1847	2,310236E+09	2,310244E+09	3,594272E+09	3,594300E+09	4,620481E+09	7,188572E+09	1,180905E+10
-1846	2,310306E+09	2,310285E+09	3,594317E+09	3,594196E+09	4,620592E+09	7,188513E+09	1,180910E+10
-1845	2,310210E+09	2,310227E+09	3,594253E+09	3,594280E+09	4,620438E+09	7,188533E+09	1,180897E+10
-1844	2,310368E+09	2,310337E+09	3,594217E+09	3,594289E+09	4,620706E+09	7,188507E+09	1,180921E+10
-1843	2,310339E+09	2,310372E+09	3,594250E+09	3,594181E+09	4,620711E+09	7,188431E+09	1,180914E+10
-1842	2,310320E+09	2,310355E+09	3,594174E+09	3,594246E+09	4,620675E+09	7,188420E+09	1,180910E+10
-1841	2,310499E+09	2,310463E+09	3,594202E+09	3,594186E+09	4,620962E+09	7,188389E+09	1,180935E+10
-1840	2,310393E+09	2,310421E+09	3,594245E+09	3,594143E+09	4,620815E+09	7,188388E+09	1,180920E+10
-1839	2,310436E+09	2,310442E+09	3,594187E+09	3,594224E+09	4,620878E+09	7,188411E+09	1,180929E+10
-1838	2,310514E+09	2,310515E+09	3,594228E+09	3,594163E+09	4,621029E+09	7,188391E+09	1,180942E+10
-1837	2,310361E+09	2,310417E+09	3,594207E+09	3,594225E+09	4,620778E+09	7,188432E+09	1,180921E+10
-1836	2,310454E+09	2,310441E+09	3,594204E+09	3,594255E+09	4,620894E+09	7,188459E+09	1,180935E+10
-1835	2,310427E+09	2,310422E+09	3,594268E+09	3,594162E+09	4,620848E+09	7,188430E+09	1,180928E+10
-1834	2,310321E+09	2,310316E+09	3,594201E+09	3,594241E+09	4,620636E+09	7,188442E+09	1,180908E+10
-1833	2,310443E+09	2,310379E+09	3,594205E+09	3,594249E+09	4,620821E+09	7,188455E+09	1,180928E+10
-1832	2,310304E+09	2,310329E+09	3,594256E+09	3,594196E+09	4,620633E+09	7,188453E+09	1,180909E+10
-1831	2,310265E+09	2,310304E+09	3,594199E+09	3,594264E+09	4,620569E+09	7,188463E+09	1,180903E+10
-1830	2,310372E+09	2,310369E+09	3,594259E+09	3,594204E+09	4,620741E+09	7,188463E+09	1,180920E+10
-1829	2,310233E+09	2,310266E+09	3,594270E+09	3,594211E+09	4,620499E+09	7,188481E+09	1,180898E+10
-1828	2,310321E+09	2,310296E+09	3,594245E+09	3,594263E+09	4,620617E+09	7,188509E+09	1,180913E+10
-1827	2,310372E+09	2,310363E+09	3,594274E+09	3,594190E+09	4,620735E+09	7,188465E+09	1,180920E+10
-1826	2,310273E+09	2,310318E+09	3,594180E+09	3,594240E+09	4,620592E+09	7,188420E+09	1,180901E+10
-1825	2,310450E+09	2,310430E+09	3,594162E+09	3,594251E+09	4,620880E+09	7,188413E+09	1,180929E+10

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							
-1824	2,310415E+09	2,310446E+09	3,594221E+09	3,594137E+09	4,620861E+09	7,188358E+09	1,180922E+10
-1823	2,310404E+09	2,310431E+09	3,594156E+09	3,594168E+09	4,620835E+09	7,188324E+09	1,180916E+10
-1822	2,310579E+09	2,310538E+09	3,594193E+09	3,594139E+09	4,621117E+09	7,188332E+09	1,180945E+10
-1821	2,310459E+09	2,310487E+09	3,594197E+09	3,594128E+09	4,620946E+09	7,188325E+09	1,180927E+10
-1820	2,310495E+09	2,310511E+09	3,594153E+09	3,594211E+09	4,621007E+09	7,188364E+09	1,180937E+10
-1819	2,310562E+09	2,310576E+09	3,594198E+09	3,594156E+09	4,621139E+09	7,188354E+09	1,180949E+10
-1818	2,310420E+09	2,310459E+09	3,594157E+09	3,594171E+09	4,620879E+09	7,188328E+09	1,180921E+10
-1817	2,310539E+09	2,310482E+09	3,594158E+09	3,594215E+09	4,621021E+09	7,188373E+09	1,180939E+10
-1816	2,310493E+09	2,310465E+09	3,594222E+09	3,594133E+09	4,620958E+09	7,188355E+09	1,180931E+10
-1815	2,310376E+09	2,310394E+09	3,594152E+09	3,594187E+09	4,620770E+09	7,188340E+09	1,180911E+10
-1814	2,310489E+09	2,310466E+09	3,594181E+09	3,594208E+09	4,620955E+09	7,188389E+09	1,180934E+10
-1813	2,310347E+09	2,310392E+09	3,594228E+09	3,594161E+09	4,620739E+09	7,188390E+09	1,180913E+10
-1812	2,310322E+09	2,310355E+09	3,594205E+09	3,594222E+09	4,620676E+09	7,188427E+09	1,180910E+10
-1811	2,310427E+09	2,310414E+09	3,594257E+09	3,594187E+09	4,620841E+09	7,188443E+09	1,180928E+10
-1810	2,310297E+09	2,310315E+09	3,594220E+09	3,594180E+09	4,620612E+09	7,188400E+09	1,180901E+10
-1809	2,310401E+09	2,310368E+09	3,594171E+09	3,594255E+09	4,620770E+09	7,188426E+09	1,180920E+10
-1808	2,310438E+09	2,310441E+09	3,594206E+09	3,594175E+09	4,620880E+09	7,188380E+09	1,180926E+10
-1807	2,310352E+09	2,310412E+09	3,594127E+09	3,594163E+09	4,620764E+09	7,188290E+09	1,180905E+10
-1806	2,310539E+09	2,310513E+09	3,594143E+09	3,594167E+09	4,621052E+09	7,188310E+09	1,180936E+10
-1805	2,310504E+09	2,310512E+09	3,594192E+09	3,594077E+09	4,621016E+09	7,188269E+09	1,180928E+10
-1804	2,310489E+09	2,310502E+09	3,594146E+09	3,594129E+09	4,620991E+09	7,188275E+09	1,180927E+10
-1803	2,310629E+09	2,310623E+09	3,594172E+09	3,594142E+09	4,621251E+09	7,188313E+09	1,180956E+10
-1802	2,310509E+09	2,310563E+09	3,594149E+09	3,594111E+09	4,621072E+09	7,188260E+09	1,180933E+10
-1801	2,310563E+09	2,310572E+09	3,594105E+09	3,594195E+09	4,621135E+09	7,188300E+09	1,180943E+10
-1800	2,310625E+09	2,310617E+09	3,594165E+09	3,594130E+09	4,621242E+09	7,188296E+09	1,180954E+10
-1799	2,310497E+09	2,310510E+09	3,594117E+09	3,594101E+09	4,621007E+09	7,188218E+09	1,180923E+10
-1798	2,310607E+09	2,310543E+09	3,594122E+09	3,594163E+09	4,621150E+09	7,188285E+09	1,180944E+10
-1797	2,310544E+09	2,310532E+09	3,594162E+09	3,594106E+09	4,621076E+09	7,188268E+09	1,180934E+10
-1796	2,310422E+09	2,310462E+09	3,594129E+09	3,594153E+09	4,620884E+09	7,188281E+09	1,180917E+10
-1795	2,310518E+09	2,310529E+09	3,594175E+09	3,594181E+09	4,621047E+09	7,188357E+09	1,180940E+10
-1794	2,310397E+09	2,310432E+09	3,594205E+09	3,594110E+09	4,620829E+09	7,188315E+09	1,180914E+10
-1793	2,310398E+09	2,310394E+09	3,594171E+09	3,594197E+09	4,620792E+09	7,188368E+09	1,180916E+10
-1792	2,310494E+09	2,310463E+09	3,594212E+09	3,594180E+09	4,620957E+09	7,188392E+09	1,180935E+10
-1791	2,310369E+09	2,310402E+09	3,594154E+09	3,594135E+09	4,620771E+09	7,188289E+09	1,180906E+10
-1790	2,310478E+09	2,310466E+09	3,594124E+09	3,594206E+09	4,620944E+09	7,188330E+09	1,180927E+10
-1789	2,310516E+09	2,310523E+09	3,594159E+09	3,594120E+09	4,621039E+09	7,188279E+09	1,180932E+10
-1788	2,310440E+09	2,310486E+09	3,594128E+09	3,594096E+09	4,620926E+09	7,188224E+09	1,180915E+10
-1787	2,310608E+09	2,310587E+09	3,594145E+09	3,594131E+09	4,621196E+09	7,188277E+09	1,180947E+10
-1786	2,310570E+09	2,310579E+09	3,594150E+09	3,594047E+09	4,621149E+09	7,188198E+09	1,180935E+10
-1785	2,310558E+09	2,310583E+09	3,594084E+09	3,594136E+09	4,621141E+09	7,188220E+09	1,180936E+10
-1784	2,310683E+09	2,310690E+09	3,594112E+09	3,594141E+09	4,621373E+09	7,188253E+09	1,180963E+10
-1783	2,310579E+09	2,310631E+09	3,594091E+09	3,594051E+09	4,621210E+09	7,188142E+09	1,180935E+10
-1782	2,310649E+09	2,310630E+09	3,594072E+09	3,594126E+09	4,621278E+09	7,188197E+09	1,180948E+10
-1781	2,310706E+09	2,310662E+09	3,594116E+09	3,594075E+09	4,621367E+09	7,188191E+09	1,180956E+10
-1780	2,310569E+09	2,310572E+09	3,594096E+09	3,594052E+09	4,621142E+09	7,188147E+09	1,180929E+10
-1779	2,310640E+09	2,310624E+09	3,594103E+09	3,594142E+09	4,621264E+09	7,188245E+09	1,180951E+10
-1778	2,310575E+09	2,310600E+09	3,594130E+09	3,594073E+09	4,621175E+09	7,188204E+09	1,180938E+10
-1777	2,310470E+09	2,310519E+09	3,594109E+09	3,594136E+09	4,620989E+09	7,188245E+09	1,180923E+10
-1776	2,310563E+09	2,310561E+09	3,594168E+09	3,594166E+09	4,621124E+09	7,188335E+09	1,180946E+10

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							
-1775	2,310466E+09	2,310475E+09	3,594175E+09	3,594066E+09	4,620941E+09	7,188241E+09	1,180918E+10
-1774	2,310474E+09	2,310453E+09	3,594126E+09	3,594167E+09	4,620927E+09	7,188293E+09	1,180922E+10
-1773	2,310562E+09	2,310533E+09	3,594133E+09	3,594162E+09	4,621095E+09	7,188295E+09	1,180939E+10
-1772	2,310448E+09	2,310484E+09	3,594110E+09	3,594085E+09	4,620932E+09	7,188195E+09	1,180913E+10
-1771	2,310541E+09	2,310551E+09	3,594100E+09	3,594151E+09	4,621092E+09	7,188251E+09	1,180934E+10
-1770	2,310595E+09	2,310593E+09	3,594126E+09	3,594049E+09	4,621188E+09	7,188175E+09	1,180936E+10
-1769	2,310531E+09	2,310555E+09	3,594091E+09	3,594060E+09	4,621086E+09	7,188151E+09	1,180924E+10
-1768	2,310668E+09	2,310660E+09	3,594111E+09	3,594124E+09	4,621329E+09	7,188234E+09	1,180956E+10
-1767	2,310636E+09	2,310673E+09	3,594096E+09	3,594015E+09	4,621309E+09	7,188112E+09	1,180942E+10
-1766	2,310629E+09	2,310667E+09	3,594044E+09	3,594101E+09	4,621296E+09	7,188145E+09	1,180944E+10
-1765	2,310756E+09	2,310750E+09	3,594065E+09	3,594103E+09	4,621506E+09	7,188168E+09	1,180967E+10
-1764	2,310671E+09	2,310680E+09	3,594076E+09	3,593988E+09	4,621350E+09	7,188064E+09	1,180941E+10
-1763	2,310715E+09	2,310687E+09	3,594054E+09	3,594083E+09	4,621402E+09	7,188136E+09	1,180954E+10
-1762	2,310762E+09	2,310721E+09	3,594064E+09	3,594036E+09	4,621483E+09	7,188100E+09	1,180958E+10
-1761	2,310621E+09	2,310646E+09	3,594041E+09	3,594043E+09	4,621267E+09	7,188085E+09	1,180935E+10
-1760	2,310668E+09	2,310684E+09	3,594075E+09	3,594132E+09	4,621352E+09	7,188207E+09	1,180956E+10
-1759	2,310625E+09	2,310655E+09	3,594104E+09	3,594019E+09	4,621280E+09	7,188123E+09	1,180940E+10
-1758	2,310541E+09	2,310561E+09	3,594094E+09	3,594089E+09	4,621102E+09	7,188183E+09	1,180929E+10
-1757	2,310635E+09	2,310596E+09	3,594123E+09	3,594140E+09	4,621231E+09	7,188263E+09	1,180949E+10
-1756	2,310544E+09	2,310535E+09	3,594139E+09	3,594036E+09	4,621079E+09	7,188175E+09	1,180925E+10
-1755	2,310528E+09	2,310544E+09	3,594083E+09	3,594147E+09	4,621072E+09	7,188230E+09	1,180930E+10
-1754	2,310621E+09	2,310612E+09	3,594077E+09	3,594112E+09	4,621233E+09	7,188189E+09	1,180942E+10
-1753	2,310526E+09	2,310565E+09	3,594073E+09	3,594043E+09	4,621091E+09	7,188116E+09	1,180921E+10
-1752	2,310607E+09	2,310614E+09	3,594087E+09	3,594108E+09	4,621221E+09	7,188194E+09	1,180942E+10
-1751	2,310673E+09	2,310665E+09	3,594093E+09	3,593993E+09	4,621338E+09	7,188086E+09	1,180942E+10
-1750	2,310610E+09	2,310637E+09	3,594052E+09	3,594034E+09	4,621247E+09	7,188087E+09	1,180933E+10
-1749	2,310733E+09	2,310736E+09	3,594043E+09	3,594112E+09	4,621469E+09	7,188155E+09	1,180962E+10
-1748	2,310718E+09	2,310744E+09	3,594059E+09	3,593976E+09	4,621462E+09	7,188035E+09	1,180950E+10
-1747	2,310701E+09	2,310736E+09	3,594015E+09	3,594051E+09	4,621437E+09	7,188066E+09	1,180950E+10
-1746	2,310839E+09	2,310798E+09	3,594018E+09	3,594036E+09	4,621638E+09	7,188054E+09	1,180969E+10
-1745	2,310759E+09	2,310744E+09	3,594025E+09	3,593953E+09	4,621503E+09	7,187978E+09	1,180948E+10
-1744	2,310764E+09	2,310758E+09	3,594018E+09	3,594064E+09	4,621522E+09	7,188081E+09	1,180960E+10
-1743	2,310808E+09	2,310808E+09	3,594022E+09	3,593998E+09	4,621616E+09	7,188020E+09	1,180964E+10
-1742	2,310669E+09	2,310719E+09	3,594028E+09	3,594011E+09	4,621389E+09	7,188039E+09	1,180943E+10
-1741	2,310712E+09	2,310728E+09	3,594059E+09	3,594106E+09	4,621439E+09	7,188165E+09	1,180960E+10
-1740	2,310696E+09	2,310686E+09	3,594107E+09	3,593982E+09	4,621383E+09	7,188089E+09	1,180947E+10
-1739	2,310595E+09	2,310605E+09	3,594072E+09	3,594069E+09	4,621200E+09	7,188142E+09	1,180934E+10
-1738	2,310693E+09	2,310649E+09	3,594051E+09	3,594119E+09	4,621342E+09	7,188170E+09	1,180951E+10
-1737	2,310612E+09	2,310612E+09	3,594055E+09	3,594020E+09	4,621224E+09	7,188075E+09	1,180930E+10
-1736	2,310579E+09	2,310616E+09	3,594036E+09	3,594107E+09	4,621194E+09	7,188143E+09	1,180934E+10
-1735	2,310696E+09	2,310688E+09	3,594038E+09	3,594029E+09	4,621384E+09	7,188067E+09	1,180945E+10
-1734	2,310615E+09	2,310635E+09	3,594056E+09	3,593973E+09	4,621250E+09	7,188030E+09	1,180928E+10
-1733	2,310682E+09	2,310679E+09	3,594052E+09	3,594072E+09	4,621361E+09	7,188124E+09	1,180948E+10
-1732	2,310754E+09	2,310744E+09	3,594067E+09	3,593965E+09	4,621498E+09	7,188031E+09	1,180953E+10
-1731	2,310668E+09	2,310731E+09	3,594020E+09	3,594018E+09	4,621400E+09	7,188038E+09	1,180944E+10
-1730	2,310803E+09	2,310807E+09	3,593990E+09	3,594076E+09	4,621609E+09	7,188066E+09	1,180967E+10
-1729	2,310808E+09	2,310814E+09	3,594012E+09	3,593942E+09	4,621622E+09	7,187954E+09	1,180958E+10
-1728	2,310777E+09	2,310793E+09	3,593988E+09	3,594013E+09	4,621570E+09	7,188000E+09	1,180957E+10
-1727	2,310917E+09	2,310868E+09	3,593969E+09	3,593980E+09	4,621785E+09	7,187949E+09	1,180973E+10

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							
-1726	2,310827E+09	2,310829E+09	3,593981E+09	3,593921E+09	4,621656E+09	7,187903E+09	1,180956E+10
-1725	2,310806E+09	2,310832E+09	3,593968E+09	3,594044E+09	4,621638E+09	7,188012E+09	1,180965E+10
-1724	2,310863E+09	2,310867E+09	3,594013E+09	3,593957E+09	4,621729E+09	7,187970E+09	1,180970E+10
-1723	2,310719E+09	2,310770E+09	3,594029E+09	3,593974E+09	4,621488E+09	7,188003E+09	1,180949E+10
-1722	2,310773E+09	2,310749E+09	3,594024E+09	3,594063E+09	4,621522E+09	7,188087E+09	1,180961E+10
-1721	2,310768E+09	2,310731E+09	3,594053E+09	3,593970E+09	4,621499E+09	7,188023E+09	1,180952E+10
-1720	2,310644E+09	2,310667E+09	3,594020E+09	3,594057E+09	4,621311E+09	7,188076E+09	1,180939E+10
-1719	2,310748E+09	2,310729E+09	3,593986E+09	3,594071E+09	4,621477E+09	7,188057E+09	1,180953E+10
-1718	2,310681E+09	2,310696E+09	3,594024E+09	3,593965E+09	4,621377E+09	7,187989E+09	1,180937E+10
-1717	2,310644E+09	2,310678E+09	3,594014E+09	3,594050E+09	4,621322E+09	7,188063E+09	1,180938E+10
-1716	2,310781E+09	2,310745E+09	3,594042E+09	3,593968E+09	4,621526E+09	7,188011E+09	1,180954E+10
-1715	2,310680E+09	2,310708E+09	3,594045E+09	3,593946E+09	4,621389E+09	7,187991E+09	1,180938E+10
-1714	2,310742E+09	2,310749E+09	3,593991E+09	3,594057E+09	4,621491E+09	7,188049E+09	1,180954E+10
-1713	2,310827E+09	2,310830E+09	3,593996E+09	3,593963E+09	4,621657E+09	7,187959E+09	1,180962E+10
-1712	2,310736E+09	2,310803E+09	3,593972E+09	3,593990E+09	4,621539E+09	7,187963E+09	1,180950E+10
-1711	2,310894E+09	2,310876E+09	3,593936E+09	3,594004E+09	4,621770E+09	7,187940E+09	1,180971E+10
-1710	2,310912E+09	2,310887E+09	3,593972E+09	3,593877E+09	4,621799E+09	7,187849E+09	1,180965E+10
-1709	2,310853E+09	2,310866E+09	3,593941E+09	3,593970E+09	4,621719E+09	7,187912E+09	1,180963E+10
-1708	2,310988E+09	2,310952E+09	3,593947E+09	3,593939E+09	4,621940E+09	7,187887E+09	1,180983E+10
-1707	2,310865E+09	2,310917E+09	3,593972E+09	3,593894E+09	4,621781E+09	7,187866E+09	1,180965E+10
-1706	2,310846E+09	2,310885E+09	3,593947E+09	3,594011E+09	4,621731E+09	7,187958E+09	1,180969E+10
-1705	2,310924E+09	2,310908E+09	3,593988E+09	3,593937E+09	4,621832E+09	7,187926E+09	1,180976E+10
-1704	2,310770E+09	2,310795E+09	3,594011E+09	3,593957E+09	4,621565E+09	7,187967E+09	1,180953E+10
-1703	2,310835E+09	2,310792E+09	3,593964E+09	3,594031E+09	4,621627E+09	7,187995E+09	1,180962E+10
-1702	2,310833E+09	2,310799E+09	3,593987E+09	3,593944E+09	4,621632E+09	7,187931E+09	1,180956E+10
-1701	2,310695E+09	2,310737E+09	3,593955E+09	3,594021E+09	4,621432E+09	7,187976E+09	1,180941E+10
-1700	2,310821E+09	2,310795E+09	3,593965E+09	3,593999E+09	4,621616E+09	7,187964E+09	1,180958E+10
-1699	2,310746E+09	2,310769E+09	3,594021E+09	3,593898E+09	4,621515E+09	7,187919E+09	1,180943E+10
-1698	2,310714E+09	2,310732E+09	3,593986E+09	3,593998E+09	4,621446E+09	7,187984E+09	1,180943E+10
-1697	2,310854E+09	2,310821E+09	3,594000E+09	3,593958E+09	4,621675E+09	7,187957E+09	1,180963E+10
-1696	2,310734E+09	2,310791E+09	3,594007E+09	3,593948E+09	4,621525E+09	7,187955E+09	1,180948E+10
-1695	2,310809E+09	2,310835E+09	3,593932E+09	3,594026E+09	4,621643E+09	7,187958E+09	1,180960E+10
-1694	2,310914E+09	2,310915E+09	3,593955E+09	3,593921E+09	4,621829E+09	7,187877E+09	1,180971E+10
-1693	2,310824E+09	2,310869E+09	3,593934E+09	3,593937E+09	4,621693E+09	7,187871E+09	1,180956E+10
-1692	2,310995E+09	2,310938E+09	3,593915E+09	3,593937E+09	4,621934E+09	7,187853E+09	1,180979E+10
-1691	2,310984E+09	2,310975E+09	3,593946E+09	3,593835E+09	4,621959E+09	7,187781E+09	1,180974E+10
-1690	2,310908E+09	2,310939E+09	3,593884E+09	3,593938E+09	4,621847E+09	7,187822E+09	1,180967E+10
-1689	2,311039E+09	2,311028E+09	3,593901E+09	3,593924E+09	4,622067E+09	7,187825E+09	1,180989E+10
-1688	2,310908E+09	2,310968E+09	3,593958E+09	3,593870E+09	4,621876E+09	7,187829E+09	1,180970E+10
-1687	2,310907E+09	2,310919E+09	3,593914E+09	3,593960E+09	4,621826E+09	7,187875E+09	1,180970E+10
-1686	2,311000E+09	2,310951E+09	3,593952E+09	3,593905E+09	4,621950E+09	7,187856E+09	1,180981E+10
-1685	2,310830E+09	2,310843E+09	3,593952E+09	3,593934E+09	4,621673E+09	7,187886E+09	1,180956E+10
-1684	2,310901E+09	2,310860E+09	3,593920E+09	3,593991E+09	4,621761E+09	7,187910E+09	1,180967E+10
-1683	2,310880E+09	2,310886E+09	3,593961E+09	3,593900E+09	4,621767E+09	7,187860E+09	1,180963E+10
-1682	2,310747E+09	2,310800E+09	3,593929E+09	3,593964E+09	4,621547E+09	7,187893E+09	1,180944E+10
-1681	2,310887E+09	2,310858E+09	3,593951E+09	3,593959E+09	4,621745E+09	7,187910E+09	1,180966E+10
-1680	2,310803E+09	2,310822E+09	3,594017E+09	3,593878E+09	4,621625E+09	7,187895E+09	1,180952E+10
-1679	2,310774E+09	2,310798E+09	3,593938E+09	3,593977E+09	4,621572E+09	7,187915E+09	1,180949E+10
-1678	2,310923E+09	2,310907E+09	3,593937E+09	3,593949E+09	4,621830E+09	7,187886E+09	1,180972E+10

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							
-1677	2,310801E+09	2,310866E+09	3,593944E+09	3,593924E+09	4,621667E+09	7,187868E+09	1,180953E+10
-1676	2,310910E+09	2,310902E+09	3,593897E+09	3,593959E+09	4,621812E+09	7,187856E+09	1,180967E+10
-1675	2,311008E+09	2,310989E+09	3,593929E+09	3,593846E+09	4,621997E+09	7,187775E+09	1,180977E+10
-1674	2,310916E+09	2,310934E+09	3,593886E+09	3,593872E+09	4,621850E+09	7,187758E+09	1,180961E+10
-1673	2,311075E+09	2,311027E+09	3,593864E+09	3,593903E+09	4,622102E+09	7,187767E+09	1,180987E+10
-1672	2,311030E+09	2,311062E+09	3,593918E+09	3,593819E+09	4,622093E+09	7,187737E+09	1,180983E+10
-1671	2,310955E+09	2,311018E+09	3,593849E+09	3,593905E+09	4,621973E+09	7,187753E+09	1,180973E+10
-1670	2,311099E+09	2,311093E+09	3,593881E+09	3,593894E+09	4,622192E+09	7,187774E+09	1,180997E+10
-1669	2,310971E+09	2,311003E+09	3,593936E+09	3,593843E+09	4,621974E+09	7,187779E+09	1,180975E+10
-1668	2,310987E+09	2,310952E+09	3,593889E+09	3,593920E+09	4,621940E+09	7,187809E+09	1,180975E+10
-1667	2,311055E+09	2,311015E+09	3,593909E+09	3,593877E+09	4,622070E+09	7,187786E+09	1,180986E+10
-1666	2,310881E+09	2,310908E+09	3,593880E+09	3,593902E+09	4,621789E+09	7,187782E+09	1,180957E+10
-1665	2,310955E+09	2,310935E+09	3,593867E+09	3,593954E+09	4,621890E+09	7,187821E+09	1,180971E+10
-1664	2,310929E+09	2,310948E+09	3,593951E+09	3,593854E+09	4,621877E+09	7,187805E+09	1,180968E+10
-1663	2,310811E+09	2,310852E+09	3,593908E+09	3,593904E+09	4,621663E+09	7,187811E+09	1,180947E+10
-1662	2,310956E+09	2,310922E+09	3,593928E+09	3,593928E+09	4,621879E+09	7,187856E+09	1,180973E+10
-1661	2,310863E+09	2,310889E+09	3,593977E+09	3,593869E+09	4,621751E+09	7,187846E+09	1,180960E+10
-1660	2,310847E+09	2,310871E+09	3,593898E+09	3,593948E+09	4,621719E+09	7,187846E+09	1,180956E+10
-1659	2,310990E+09	2,310995E+09	3,593906E+09	3,593910E+09	4,621986E+09	7,187817E+09	1,180980E+10
-1658	2,310887E+09	2,310930E+09	3,593893E+09	3,593863E+09	4,621817E+09	7,187756E+09	1,180957E+10
-1657	2,311006E+09	2,310972E+09	3,593856E+09	3,593904E+09	4,621978E+09	7,187760E+09	1,180974E+10
-1656	2,311087E+09	2,311062E+09	3,593902E+09	3,593808E+09	4,622148E+09	7,187710E+09	1,180986E+10
-1655	2,310984E+09	2,311018E+09	3,593826E+09	3,593833E+09	4,622001E+09	7,187660E+09	1,180966E+10
-1654	2,311135E+09	2,311124E+09	3,593811E+09	3,593881E+09	4,622259E+09	7,187692E+09	1,180995E+10
-1653	2,311084E+09	2,311133E+09	3,593879E+09	3,593795E+09	4,622217E+09	7,187674E+09	1,180989E+10
-1652	2,311033E+09	2,311067E+09	3,593833E+09	3,593850E+09	4,622101E+09	7,187683E+09	1,180978E+10
-1651	2,311170E+09	2,311146E+09	3,593866E+09	3,593844E+09	4,622315E+09	7,187710E+09	1,181002E+10
-1650	2,311044E+09	2,311044E+09	3,593883E+09	3,593807E+09	4,622088E+09	7,187690E+09	1,180978E+10
-1649	2,311052E+09	2,311020E+09	3,593830E+09	3,593901E+09	4,622072E+09	7,187732E+09	1,180980E+10
-1648	2,311095E+09	2,311087E+09	3,593874E+09	3,593859E+09	4,622182E+09	7,187733E+09	1,180992E+10
-1647	2,310925E+09	2,310978E+09	3,593844E+09	3,593854E+09	4,621903E+09	7,187698E+09	1,180960E+10
-1646	2,311013E+09	2,311003E+09	3,593852E+09	3,593905E+09	4,622015E+09	7,187758E+09	1,180977E+10
-1645	2,310988E+09	2,310991E+09	3,593943E+09	3,593821E+09	4,621979E+09	7,187764E+09	1,180974E+10
-1644	2,310888E+09	2,310898E+09	3,593894E+09	3,593870E+09	4,621786E+09	7,187764E+09	1,180955E+10
-1643	2,311010E+09	2,310994E+09	3,593889E+09	3,593907E+09	4,622005E+09	7,187797E+09	1,180980E+10
-1642	2,310924E+09	2,310955E+09	3,593903E+09	3,593849E+09	4,621879E+09	7,187751E+09	1,180963E+10
-1641	2,310928E+09	2,310946E+09	3,593836E+09	3,593910E+09	4,621874E+09	7,187746E+09	1,180962E+10
-1640	2,311069E+09	2,311060E+09	3,593873E+09	3,593858E+09	4,622129E+09	7,187731E+09	1,180986E+10
-1639	2,310981E+09	2,311001E+09	3,593841E+09	3,593792E+09	4,621982E+09	7,187632E+09	1,180961E+10
-1638	2,311097E+09	2,311064E+09	3,593803E+09	3,593854E+09	4,622161E+09	7,187657E+09	1,180982E+10
-1637	2,311155E+09	2,311154E+09	3,593856E+09	3,593783E+09	4,622309E+09	7,187638E+09	1,180995E+10
-1636	2,311056E+09	2,311109E+09	3,593800E+09	3,593794E+09	4,622165E+09	7,187594E+09	1,180976E+10
-1635	2,311186E+09	2,311213E+09	3,593805E+09	3,593840E+09	4,622399E+09	7,187644E+09	1,181004E+10
-1634	2,311154E+09	2,311184E+09	3,593853E+09	3,593758E+09	4,622337E+09	7,187611E+09	1,180995E+10
-1633	2,311114E+09	2,311111E+09	3,593807E+09	3,593821E+09	4,622225E+09	7,187627E+09	1,180985E+10
-1632	2,311230E+09	2,311191E+09	3,593836E+09	3,593831E+09	4,622421E+09	7,187668E+09	1,181009E+10
-1631	2,311100E+09	2,311106E+09	3,593809E+09	3,593780E+09	4,622206E+09	7,187589E+09	1,180980E+10
-1630	2,311104E+09	2,311101E+09	3,593765E+09	3,593873E+09	4,622205E+09	7,187638E+09	1,180984E+10
-1629	2,311146E+09	2,311147E+09	3,593840E+09	3,593819E+09	4,622293E+09	7,187659E+09	1,180995E+10

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							
-1628	2,310998E+09	2,311024E+09	3,593836E+09	3,593784E+09	4,622022E+09	7,187620E+09	1,180964E+10
-1627	2,311070E+09	2,311060E+09	3,593853E+09	3,593849E+09	4,622130E+09	7,187702E+09	1,180983E+10
-1626	2,311051E+09	2,311039E+09	3,593899E+09	3,593793E+09	4,622090E+09	7,187692E+09	1,180978E+10
-1625	2,310948E+09	2,310966E+09	3,593843E+09	3,593860E+09	4,621914E+09	7,187703E+09	1,180962E+10
-1624	2,311059E+09	2,311068E+09	3,593853E+09	3,593899E+09	4,622126E+09	7,187752E+09	1,180988E+10
-1623	2,310991E+09	2,311026E+09	3,593846E+09	3,593804E+09	4,622017E+09	7,187650E+09	1,180967E+10
-1622	2,311016E+09	2,311026E+09	3,593789E+09	3,593856E+09	4,622042E+09	7,187645E+09	1,180969E+10
-1621	2,311159E+09	2,311124E+09	3,593836E+09	3,593809E+09	4,622283E+09	7,187646E+09	1,180993E+10
-1620	2,311076E+09	2,311080E+09	3,593804E+09	3,593735E+09	4,622156E+09	7,187540E+09	1,180970E+10
-1619	2,311158E+09	2,311171E+09	3,593767E+09	3,593811E+09	4,622329E+09	7,187578E+09	1,180991E+10
-1618	2,311218E+09	2,311238E+09	3,593801E+09	3,593752E+09	4,622456E+09	7,187553E+09	1,181001E+10
-1617	2,311130E+09	2,311179E+09	3,593773E+09	3,593760E+09	4,622310E+09	7,187533E+09	1,180984E+10
-1616	2,311253E+09	2,311262E+09	3,593797E+09	3,593806E+09	4,622515E+09	7,187603E+09	1,181012E+10
-1615	2,311233E+09	2,311228E+09	3,593807E+09	3,593718E+09	4,622462E+09	7,187525E+09	1,180999E+10
-1614	2,311193E+09	2,311180E+09	3,593743E+09	3,593797E+09	4,622373E+09	7,187540E+09	1,180991E+10
-1613	2,311288E+09	2,311256E+09	3,593778E+09	3,593815E+09	4,622544E+09	7,187593E+09	1,181014E+10
-1612	2,311165E+09	2,311181E+09	3,593772E+09	3,593732E+09	4,622346E+09	7,187504E+09	1,180985E+10
-1611	2,311151E+09	2,311177E+09	3,593756E+09	3,593807E+09	4,622328E+09	7,187563E+09	1,180989E+10
-1610	2,311204E+09	2,311191E+09	3,593821E+09	3,593769E+09	4,622395E+09	7,187590E+09	1,180999E+10
-1609	2,311065E+09	2,311067E+09	3,593827E+09	3,593754E+09	4,622132E+09	7,187581E+09	1,180971E+10
-1608	2,311110E+09	2,311108E+09	3,593834E+09	3,593847E+09	4,622218E+09	7,187681E+09	1,180990E+10
-1607	2,311097E+09	2,311102E+09	3,593829E+09	3,593785E+09	4,622199E+09	7,187614E+09	1,180981E+10
-1606	2,311010E+09	2,311046E+09	3,593766E+09	3,593839E+09	4,622056E+09	7,187606E+09	1,180966E+10
-1605	2,311133E+09	2,311126E+09	3,593802E+09	3,593857E+09	4,622259E+09	7,187660E+09	1,180992E+10
-1604	2,311095E+09	2,311091E+09	3,593809E+09	3,593722E+09	4,622186E+09	7,187531E+09	1,180972E+10
-1603	2,311104E+09	2,311112E+09	3,593766E+09	3,593776E+09	4,622216E+09	7,187542E+09	1,180976E+10
-1602	2,311241E+09	2,311208E+09	3,593786E+09	3,593764E+09	4,622449E+09	7,187551E+09	1,181000E+10
-1601	2,311149E+09	2,311177E+09	3,593773E+09	3,593707E+09	4,622326E+09	7,187481E+09	1,180981E+10
-1600	2,311205E+09	2,311259E+09	3,593759E+09	3,593796E+09	4,622464E+09	7,187555E+09	1,181002E+10
-1599	2,311280E+09	2,311307E+09	3,593769E+09	3,593720E+09	4,622587E+09	7,187489E+09	1,181008E+10
-1598	2,311213E+09	2,311243E+09	3,593737E+09	3,593732E+09	4,622456E+09	7,187470E+09	1,180993E+10
-1597	2,311337E+09	2,311302E+09	3,593761E+09	3,593788E+09	4,622639E+09	7,187549E+09	1,181019E+10
-1596	2,311320E+09	2,311287E+09	3,593747E+09	3,593679E+09	4,622607E+09	7,187426E+09	1,181003E+10
-1595	2,311248E+09	2,311270E+09	3,593687E+09	3,593751E+09	4,622518E+09	7,187437E+09	1,180996E+10
-1594	2,311344E+09	2,311324E+09	3,593713E+09	3,593770E+09	4,622668E+09	7,187483E+09	1,181015E+10
-1593	2,311227E+09	2,311239E+09	3,593753E+09	3,593675E+09	4,622466E+09	7,187428E+09	1,180989E+10
-1592	2,311196E+09	2,311224E+09	3,593766E+09	3,593764E+09	4,622421E+09	7,187529E+09	1,180995E+10
-1591	2,311256E+09	2,311233E+09	3,593789E+09	3,593735E+09	4,622489E+09	7,187525E+09	1,181001E+10
-1590	2,311121E+09	2,311133E+09	3,593776E+09	3,593748E+09	4,622254E+09	7,187524E+09	1,180978E+10
-1589	2,311159E+09	2,311164E+09	3,593786E+09	3,593847E+09	4,622322E+09	7,187633E+09	1,180996E+10
-1588	2,311166E+09	2,311170E+09	3,593784E+09	3,593744E+09	4,622335E+09	7,187528E+09	1,180986E+10
-1587	2,311079E+09	2,311128E+09	3,593742E+09	3,593769E+09	4,622208E+09	7,187511E+09	1,180972E+10
-1586	2,311222E+09	2,311183E+09	3,593761E+09	3,593795E+09	4,622405E+09	7,187557E+09	1,180996E+10
-1585	2,311191E+09	2,311160E+09	3,593786E+09	3,593670E+09	4,622350E+09	7,187457E+09	1,180981E+10
-1584	2,311164E+09	2,311195E+09	3,593745E+09	3,593750E+09	4,622360E+09	7,187495E+09	1,180986E+10
-1583	2,311296E+09	2,311297E+09	3,593727E+09	3,593742E+09	4,622593E+09	7,187469E+09	1,181006E+10
-1582	2,311219E+09	2,311270E+09	3,593720E+09	3,593689E+09	4,622489E+09	7,187408E+09	1,180990E+10
-1581	2,311279E+09	2,311313E+09	3,593729E+09	3,593768E+09	4,622592E+09	7,187497E+09	1,181009E+10
-1580	2,311381E+09	2,311364E+09	3,593732E+09	3,593665E+09	4,622744E+09	7,187396E+09	1,181014E+10

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							
-1579	2,311302E+09	2,311317E+09	3,593694E+09	3,593671E+09	4,622620E+09	7,187365E+09	1,180998E+10
-1578	2,311416E+09	2,311370E+09	3,593685E+09	3,593753E+09	4,622786E+09	7,187438E+09	1,181022E+10
-1577	2,311390E+09	2,311371E+09	3,593702E+09	3,593641E+09	4,622761E+09	7,187343E+09	1,181010E+10
-1576	2,311286E+09	2,311347E+09	3,593678E+09	3,593712E+09	4,622633E+09	7,187390E+09	1,181002E+10
-1575	2,311387E+09	2,311382E+09	3,593694E+09	3,593720E+09	4,622769E+09	7,187414E+09	1,181018E+10
-1574	2,311287E+09	2,311293E+09	3,593737E+09	3,593643E+09	4,622580E+09	7,187380E+09	1,180996E+10
-1573	2,311247E+09	2,311253E+09	3,593753E+09	3,593756E+09	4,622500E+09	7,187509E+09	1,181001E+10
-1572	2,311313E+09	2,311287E+09	3,593742E+09	3,593718E+09	4,622600E+09	7,187459E+09	1,181006E+10
-1571	2,311169E+09	2,311210E+09	3,593725E+09	3,593716E+09	4,622379E+09	7,187441E+09	1,180982E+10
-1570	2,311224E+09	2,311218E+09	3,593720E+09	3,593811E+09	4,622442E+09	7,187531E+09	1,180997E+10
-1569	2,311253E+09	2,311225E+09	3,593755E+09	3,593681E+09	4,622477E+09	7,187436E+09	1,180991E+10
-1568	2,311153E+09	2,311192E+09	3,593734E+09	3,593710E+09	4,622345E+09	7,187444E+09	1,180979E+10
-1567	2,311296E+09	2,311256E+09	3,593714E+09	3,593744E+09	4,622552E+09	7,187459E+09	1,181001E+10
-1566	2,311262E+09	2,311261E+09	3,593732E+09	3,593649E+09	4,622523E+09	7,187381E+09	1,180990E+10
-1565	2,311222E+09	2,311280E+09	3,593714E+09	3,593744E+09	4,622502E+09	7,187458E+09	1,180996E+10
-1564	2,311366E+09	2,311381E+09	3,593691E+09	3,593701E+09	4,622747E+09	7,187392E+09	1,181014E+10
-1563	2,311295E+09	2,311353E+09	3,593702E+09	3,593632E+09	4,622648E+09	7,187333E+09	1,180998E+10
-1562	2,311375E+09	2,311361E+09	3,593682E+09	3,593727E+09	4,622736E+09	7,187409E+09	1,181014E+10
-1561	2,311477E+09	2,311420E+09	3,593693E+09	3,593624E+09	4,622897E+09	7,187317E+09	1,181021E+10
-1560	2,311363E+09	2,311398E+09	3,593650E+09	3,593645E+09	4,622761E+09	7,187295E+09	1,181006E+10
-1559	2,311468E+09	2,311450E+09	3,593611E+09	3,593713E+09	4,622918E+09	7,187324E+09	1,181024E+10
-1558	2,311449E+09	2,311454E+09	3,593651E+09	3,593601E+09	4,622904E+09	7,187251E+09	1,181015E+10
-1557	2,311343E+09	2,311390E+09	3,593671E+09	3,593671E+09	4,622733E+09	7,187342E+09	1,181007E+10
-1556	2,311454E+09	2,311428E+09	3,593679E+09	3,593665E+09	4,622881E+09	7,187344E+09	1,181023E+10
-1555	2,311346E+09	2,311355E+09	3,593721E+09	3,593604E+09	4,622701E+09	7,187324E+09	1,181002E+10
-1554	2,311303E+09	2,311302E+09	3,593696E+09	3,593749E+09	4,622605E+09	7,187445E+09	1,181005E+10
-1553	2,311373E+09	2,311347E+09	3,593707E+09	3,593698E+09	4,622720E+09	7,187405E+09	1,181012E+10
-1552	2,311216E+09	2,311277E+09	3,593706E+09	3,593683E+09	4,622493E+09	7,187389E+09	1,180988E+10
-1551	2,311288E+09	2,311276E+09	3,593677E+09	3,593758E+09	4,622563E+09	7,187435E+09	1,181000E+10
-1550	2,311338E+09	2,311297E+09	3,593715E+09	3,593639E+09	4,622635E+09	7,187354E+09	1,180999E+10
-1549	2,311224E+09	2,311250E+09	3,593706E+09	3,593685E+09	4,622474E+09	7,187391E+09	1,180987E+10
-1548	2,311360E+09	2,311346E+09	3,593662E+09	3,593708E+09	4,622706E+09	7,187369E+09	1,181008E+10
-1547	2,311323E+09	2,311365E+09	3,593688E+09	3,593605E+09	4,622688E+09	7,187293E+09	1,180998E+10
-1546	2,311295E+09	2,311345E+09	3,593661E+09	3,593707E+09	4,622639E+09	7,187368E+09	1,181001E+10
-1545	2,311461E+09	2,311440E+09	3,593672E+09	3,593645E+09	4,622900E+09	7,187317E+09	1,181022E+10
-1544	2,311379E+09	2,311416E+09	3,593682E+09	3,593585E+09	4,622795E+09	7,187267E+09	1,181006E+10
-1543	2,311457E+09	2,311429E+09	3,593614E+09	3,593687E+09	4,622887E+09	7,187300E+09	1,181019E+10
-1542	2,311556E+09	2,311517E+09	3,593619E+09	3,593599E+09	4,623072E+09	7,187218E+09	1,181029E+10
-1541	2,311421E+09	2,311476E+09	3,593616E+09	3,593619E+09	4,622897E+09	7,187235E+09	1,181013E+10
-1540	2,311526E+09	2,311531E+09	3,593585E+09	3,593653E+09	4,623057E+09	7,187238E+09	1,181029E+10
-1539	2,311510E+09	2,311527E+09	3,593652E+09	3,593537E+09	4,623038E+09	7,187190E+09	1,181023E+10
-1538	2,311410E+09	2,311423E+09	3,593652E+09	3,593645E+09	4,622833E+09	7,187297E+09	1,181013E+10
-1537	2,311517E+09	2,311467E+09	3,593663E+09	3,593647E+09	4,622984E+09	7,187310E+09	1,181029E+10
-1536	2,311382E+09	2,311417E+09	3,593688E+09	3,593604E+09	4,622798E+09	7,187292E+09	1,181009E+10
-1535	2,311346E+09	2,311360E+09	3,593621E+09	3,593730E+09	4,622706E+09	7,187351E+09	1,181006E+10
-1534	2,311437E+09	2,311411E+09	3,593644E+09	3,593663E+09	4,622849E+09	7,187307E+09	1,181016E+10
-1533	2,311290E+09	2,311322E+09	3,593681E+09	3,593635E+09	4,622612E+09	7,187317E+09	1,180993E+10
-1532	2,311369E+09	2,311340E+09	3,593634E+09	3,593682E+09	4,622710E+09	7,187317E+09	1,181003E+10
-1531	2,311410E+09	2,311389E+09	3,593681E+09	3,593579E+09	4,622799E+09	7,187260E+09	1,181006E+10

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	2,311290E+09	2,311329E+09	3,593655E+09	3,593662E+09	4,622619E+09	7,187318E+09	1,180994E+10
-1529	2,311423E+09	2,311425E+09	3,593644E+09	3,593673E+09	4,622848E+09	7,187317E+09	1,181016E+10
-1528	2,311379E+09	2,311445E+09	3,593685E+09	3,593573E+09	4,622823E+09	7,187258E+09	1,181008E+10
-1527	2,311373E+09	2,311401E+09	3,593618E+09	3,593664E+09	4,622774E+09	7,187282E+09	1,181006E+10
-1526	2,311559E+09	2,311506E+09	3,593618E+09	3,593615E+09	4,623065E+09	7,187233E+09	1,181030E+10
-1525	2,311467E+09	2,311478E+09	3,593632E+09	3,593566E+09	4,622944E+09	7,187198E+09	1,181014E+10
-1524	2,311532E+09	2,311525E+09	3,593535E+09	3,593640E+09	4,623057E+09	7,187175E+09	1,181023E+10
-1523	2,311624E+09	2,311622E+09	3,593570E+09	3,593540E+09	4,623246E+09	7,187110E+09	1,181036E+10
-1522	2,311493E+09	2,311538E+09	3,593579E+09	3,593570E+09	4,623031E+09	7,187149E+09	1,181018E+10
-1521	2,311600E+09	2,311582E+09	3,593591E+09	3,593594E+09	4,623181E+09	7,187184E+09	1,181037E+10
-1520	2,311567E+09	2,311582E+09	3,593656E+09	3,593508E+09	4,623149E+09	7,187164E+09	1,181031E+10
-1519	2,311460E+09	2,311473E+09	3,593601E+09	3,593634E+09	4,622933E+09	7,187235E+09	1,181017E+10
-1518	2,311571E+09	2,311538E+09	3,593600E+09	3,593652E+09	4,623109E+09	7,187252E+09	1,181036E+10
-1517	2,311430E+09	2,311465E+09	3,593649E+09	3,593594E+09	4,622896E+09	7,187243E+09	1,181014E+10
-1516	2,311405E+09	2,311424E+09	3,593573E+09	3,593670E+09	4,622829E+09	7,187243E+09	1,181007E+10
-1515	2,311513E+09	2,311480E+09	3,593620E+09	3,593588E+09	4,622993E+09	7,187208E+09	1,181020E+10
-1514	2,311369E+09	2,311367E+09	3,593646E+09	3,593589E+09	4,622736E+09	7,187235E+09	1,180997E+10
-1513	2,311437E+09	2,311407E+09	3,593616E+09	3,593639E+09	4,622845E+09	7,187255E+09	1,181010E+10
-1512	2,311453E+09	2,311478E+09	3,593654E+09	3,593559E+09	4,622931E+09	7,187214E+09	1,181014E+10
-1511	2,311342E+09	2,311400E+09	3,593598E+09	3,593637E+09	4,622742E+09	7,187234E+09	1,180998E+10
-1510	2,311500E+09	2,311496E+09	3,593595E+09	3,593642E+09	4,622995E+09	7,187237E+09	1,181023E+10
-1509	2,311468E+09	2,311491E+09	3,593659E+09	3,593540E+09	4,622959E+09	7,187199E+09	1,181016E+10
-1508	2,311471E+09	2,311476E+09	3,593556E+09	3,593606E+09	4,622947E+09	7,187161E+09	1,181011E+10
-1507	2,311652E+09	2,311607E+09	3,593560E+09	3,593561E+09	4,623258E+09	7,187120E+09	1,181038E+10
-1506	2,311549E+09	2,311568E+09	3,593567E+09	3,593534E+09	4,623117E+09	7,187100E+09	1,181022E+10
-1505	2,311603E+09	2,311615E+09	3,593517E+09	3,593582E+09	4,623218E+09	7,187100E+09	1,181032E+10
-1504	2,311676E+09	2,311708E+09	3,593578E+09	3,593495E+09	4,623384E+09	7,187072E+09	1,181046E+10
-1503	2,311556E+09	2,311589E+09	3,593560E+09	3,593534E+09	4,623145E+09	7,187094E+09	1,181024E+10
-1502	2,311665E+09	2,311631E+09	3,593560E+09	3,593582E+09	4,623296E+09	7,187142E+09	1,181044E+10
-1501	2,311620E+09	2,311623E+09	3,593622E+09	3,593519E+09	4,623243E+09	7,187141E+09	1,181038E+10
-1500	2,311510E+09	2,311538E+09	3,593520E+09	3,593607E+09	4,623049E+09	7,187127E+09	1,181018E+10
-1499	2,311629E+09	2,311607E+09	3,593541E+09	3,593600E+09	4,623236E+09	7,187141E+09	1,181038E+10
-1498	2,311505E+09	2,311507E+09	3,593598E+09	3,593540E+09	4,623012E+09	7,187138E+09	1,181015E+10
-1497	2,311486E+09	2,311470E+09	3,593562E+09	3,593589E+09	4,622956E+09	7,187151E+09	1,181011E+10
-1496	2,311574E+09	2,311550E+09	3,593612E+09	3,593537E+09	4,623123E+09	7,187150E+09	1,181027E+10
-1495	2,311424E+09	2,311438E+09	3,593597E+09	3,593561E+09	4,622862E+09	7,187158E+09	1,181002E+10
-1494	2,311488E+09	2,311496E+09	3,593570E+09	3,593629E+09	4,622983E+09	7,187199E+09	1,181018E+10
-1493	2,311504E+09	2,311544E+09	3,593636E+09	3,593553E+09	4,623049E+09	7,187189E+09	1,181024E+10
-1492	2,311412E+09	2,311474E+09	3,593555E+09	3,593588E+09	4,622886E+09	7,187143E+09	1,181003E+10
-1491	2,311596E+09	2,311568E+09	3,593563E+09	3,593587E+09	4,623163E+09	7,187149E+09	1,181031E+10
-1490	2,311572E+09	2,311548E+09	3,593600E+09	3,593508E+09	4,623120E+09	7,187108E+09	1,181023E+10
-1489	2,311563E+09	2,311561E+09	3,593508E+09	3,593558E+09	4,623125E+09	7,187066E+09	1,181019E+10
-1488	2,311715E+09	2,311716E+09	3,593515E+09	3,593523E+09	4,623431E+09	7,187038E+09	1,181047E+10
-1487	2,311612E+09	2,311652E+09	3,593512E+09	3,593486E+09	4,623264E+09	7,186997E+09	1,181026E+10
-1486	2,311676E+09	2,311691E+09	3,593491E+09	3,593537E+09	4,623367E+09	7,187028E+09	1,181039E+10
-1485	2,311747E+09	2,311748E+09	3,593573E+09	3,593465E+09	4,623496E+09	7,187038E+09	1,181053E+10
-1484	2,311623E+09	2,311648E+09	3,593515E+09	3,593497E+09	4,623270E+09	7,187012E+09	1,181028E+10
-1483	2,311730E+09	2,311703E+09	3,593511E+09	3,593555E+09	4,623433E+09	7,187066E+09	1,181050E+10
-1482	2,311679E+09	2,311675E+09	3,593559E+09	3,593508E+09	4,623354E+09	7,187067E+09	1,181042E+10

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	2,311571E+09	2,311598E+09	3,593494E+09	3,593554E+09	4,623170E+09	7,187048E+09	1,181022E+10
-1480	2,311682E+09	2,311671E+09	3,593531E+09	3,593545E+09	4,623353E+09	7,187075E+09	1,181043E+10
-1479	2,311570E+09	2,311552E+09	3,593565E+09	3,593488E+09	4,623122E+09	7,187053E+09	1,181017E+10
-1478	2,311550E+09	2,311532E+09	3,593529E+09	3,593560E+09	4,623082E+09	7,187089E+09	1,181017E+10
-1477	2,311619E+09	2,311611E+09	3,593585E+09	3,593537E+09	4,623230E+09	7,187122E+09	1,181035E+10
-1476	2,311469E+09	2,311523E+09	3,593535E+09	3,593536E+09	4,622992E+09	7,187071E+09	1,181006E+10
-1475	2,311550E+09	2,311573E+09	3,593531E+09	3,593587E+09	4,623123E+09	7,187118E+09	1,181024E+10
-1474	2,311590E+09	2,311591E+09	3,593594E+09	3,593516E+09	4,623181E+09	7,187110E+09	1,181029E+10
-1473	2,311515E+09	2,311532E+09	3,593529E+09	3,593520E+09	4,623047E+09	7,187049E+09	1,181010E+10
-1472	2,311681E+09	2,311653E+09	3,593527E+09	3,593541E+09	4,623334E+09	7,187069E+09	1,181040E+10
-1471	2,311654E+09	2,311640E+09	3,593527E+09	3,593471E+09	4,623294E+09	7,186998E+09	1,181029E+10
-1470	2,311637E+09	2,311664E+09	3,593453E+09	3,593521E+09	4,623301E+09	7,186974E+09	1,181028E+10
-1469	2,311776E+09	2,311795E+09	3,593503E+09	3,593492E+09	4,623570E+09	7,186995E+09	1,181057E+10
-1468	2,311681E+09	2,311729E+09	3,593483E+09	3,593425E+09	4,623411E+09	7,186908E+09	1,181032E+10
-1467	2,311754E+09	2,311752E+09	3,593477E+09	3,593487E+09	4,623506E+09	7,186964E+09	1,181047E+10
-1466	2,311823E+09	2,311790E+09	3,593530E+09	3,593458E+09	4,623613E+09	7,186987E+09	1,181060E+10
-1465	2,311691E+09	2,311708E+09	3,593469E+09	3,593470E+09	4,623399E+09	7,186939E+09	1,181034E+10
-1464	2,311777E+09	2,311778E+09	3,593463E+09	3,593531E+09	4,623555E+09	7,186993E+09	1,181055E+10
-1463	2,311739E+09	2,311728E+09	3,593493E+09	3,593462E+09	4,623467E+09	7,186955E+09	1,181042E+10
-1462	2,311642E+09	2,311655E+09	3,593457E+09	3,593496E+09	4,623297E+09	7,186953E+09	1,181025E+10
-1461	2,311745E+09	2,311715E+09	3,593521E+09	3,593505E+09	4,623460E+09	7,187026E+09	1,181049E+10
-1460	2,311626E+09	2,311626E+09	3,593521E+09	3,593442E+09	4,623252E+09	7,186963E+09	1,181022E+10
-1459	2,311602E+09	2,311618E+09	3,593498E+09	3,593531E+09	4,623220E+09	7,187029E+09	1,181025E+10
-1458	2,311668E+09	2,311674E+09	3,593547E+09	3,593530E+09	4,623342E+09	7,187077E+09	1,181042E+10
-1457	2,311532E+09	2,311588E+09	3,593526E+09	3,593492E+09	4,623120E+09	7,187018E+09	1,181014E+10
-1456	2,311619E+09	2,311638E+09	3,593522E+09	3,593544E+09	4,623258E+09	7,187066E+09	1,181032E+10
-1455	2,311678E+09	2,311639E+09	3,593544E+09	3,593475E+09	4,623317E+09	7,187019E+09	1,181034E+10
-1454	2,311607E+09	2,311610E+09	3,593472E+09	3,593487E+09	4,623217E+09	7,186959E+09	1,181018E+10
-1453	2,311753E+09	2,311735E+09	3,593471E+09	3,593521E+09	4,623488E+09	7,186992E+09	1,181048E+10
-1452	2,311719E+09	2,311744E+09	3,593451E+09	3,593417E+09	4,623463E+09	7,186868E+09	1,181033E+10
-1451	2,311715E+09	2,311757E+09	3,593420E+09	3,593455E+09	4,623471E+09	7,186875E+09	1,181035E+10
-1450	2,311857E+09	2,311847E+09	3,593478E+09	3,593446E+09	4,623704E+09	7,186924E+09	1,181063E+10
-1449	2,311771E+09	2,311788E+09	3,593475E+09	3,593369E+09	4,623558E+09	7,186844E+09	1,181040E+10
-1448	2,311820E+09	2,311826E+09	3,593451E+09	3,593463E+09	4,623646E+09	7,186913E+09	1,181056E+10
-1447	2,311884E+09	2,311857E+09	3,593460E+09	3,593445E+09	4,623741E+09	7,186905E+09	1,181065E+10
-1446	2,311752E+09	2,311785E+09	3,593414E+09	3,593446E+09	4,623536E+09	7,186860E+09	1,181040E+10
-1445	2,311829E+09	2,311833E+09	3,593440E+09	3,593502E+09	4,623661E+09	7,186942E+09	1,181060E+10
-1444	2,311799E+09	2,311792E+09	3,593455E+09	3,593399E+09	4,623591E+09	7,186854E+09	1,181044E+10
-1443	2,311712E+09	2,311713E+09	3,593442E+09	3,593440E+09	4,623425E+09	7,186883E+09	1,181031E+10
-1442	2,311800E+09	2,311763E+09	3,593490E+09	3,593490E+09	4,623563E+09	7,186980E+09	1,181054E+10
-1441	2,311678E+09	2,311696E+09	3,593495E+09	3,593412E+09	4,623375E+09	7,186907E+09	1,181028E+10
-1440	2,311639E+09	2,311694E+09	3,593473E+09	3,593509E+09	4,623333E+09	7,186982E+09	1,181031E+10
-1439	2,311730E+09	2,311722E+09	3,593500E+09	3,593496E+09	4,623452E+09	7,186996E+09	1,181045E+10
-1438	2,311619E+09	2,311637E+09	3,593486E+09	3,593443E+09	4,623256E+09	7,186929E+09	1,181018E+10
-1437	2,311704E+09	2,311687E+09	3,593487E+09	3,593513E+09	4,623391E+09	7,187000E+09	1,181039E+10
-1436	2,311761E+09	2,311728E+09	3,593465E+09	3,593423E+09	4,623489E+09	7,186888E+09	1,181038E+10
-1435	2,311688E+09	2,311716E+09	3,593414E+09	3,593436E+09	4,623404E+09	7,186850E+09	1,181025E+10
-1434	2,311822E+09	2,311824E+09	3,593427E+09	3,593485E+09	4,623646E+09	7,186912E+09	1,181056E+10
-1433	2,311797E+09	2,311832E+09	3,593444E+09	3,593348E+09	4,623630E+09	7,186792E+09	1,181042E+10

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							
-1432	2,311786E+09	2,311836E+09	3,593424E+09	3,593406E+09	4,623622E+09	7,186830E+09	1,181045E+10
-1431	2,311935E+09	2,311900E+09	3,593440E+09	3,593419E+09	4,623835E+09	7,186859E+09	1,181069E+10
-1430	2,311847E+09	2,311856E+09	3,593426E+09	3,593359E+09	4,623704E+09	7,186785E+09	1,181049E+10
-1429	2,311876E+09	2,311893E+09	3,593397E+09	3,593467E+09	4,623769E+09	7,186864E+09	1,181063E+10
-1428	2,311940E+09	2,311935E+09	3,593382E+09	3,593401E+09	4,623875E+09	7,186783E+09	1,181066E+10
-1427	2,311827E+09	2,311853E+09	3,593375E+09	3,593379E+09	4,623680E+09	7,186755E+09	1,181043E+10
-1426	2,311902E+09	2,311873E+09	3,593412E+09	3,593447E+09	4,623775E+09	7,186859E+09	1,181063E+10
-1425	2,311873E+09	2,311850E+09	3,593447E+09	3,593334E+09	4,623722E+09	7,186781E+09	1,181050E+10
-1424	2,311761E+09	2,311790E+09	3,593432E+09	3,593412E+09	4,623550E+09	7,186844E+09	1,181039E+10
-1423	2,311838E+09	2,311824E+09	3,593444E+09	3,593478E+09	4,623662E+09	7,186921E+09	1,181058E+10
-1422	2,311727E+09	2,311763E+09	3,593468E+09	3,593397E+09	4,623490E+09	7,186865E+09	1,181035E+10
-1421	2,311691E+09	2,311736E+09	3,593456E+09	3,593491E+09	4,623428E+09	7,186948E+09	1,181038E+10
-1420	2,311799E+09	2,311774E+09	3,593448E+09	3,593444E+09	4,623573E+09	7,186893E+09	1,181047E+10
-1419	2,311713E+09	2,311702E+09	3,593438E+09	3,593394E+09	4,623415E+09	7,186832E+09	1,181025E+10
-1418	2,311784E+09	2,311755E+09	3,593419E+09	3,593486E+09	4,623539E+09	7,186905E+09	1,181044E+10
-1417	2,311839E+09	2,311830E+09	3,593410E+09	3,593368E+09	4,623668E+09	7,186778E+09	1,181045E+10
-1416	2,311752E+09	2,311821E+09	3,593384E+09	3,593380E+09	4,623573E+09	7,186764E+09	1,181034E+10
-1415	2,311894E+09	2,311896E+09	3,593391E+09	3,593427E+09	4,623789E+09	7,186818E+09	1,181061E+10
-1414	2,311886E+09	2,311902E+09	3,593428E+09	3,593300E+09	4,623788E+09	7,186727E+09	1,181052E+10
-1413	2,311861E+09	2,311894E+09	3,593405E+09	3,593393E+09	4,623754E+09	7,186798E+09	1,181055E+10
-1412	2,312004E+09	2,311981E+09	3,593371E+09	3,593394E+09	4,623985E+09	7,186765E+09	1,181075E+10
-1411	2,311925E+09	2,311943E+09	3,593366E+09	3,593332E+09	4,623868E+09	7,186698E+09	1,181057E+10
-1410	2,311942E+09	2,311957E+09	3,593347E+09	3,593440E+09	4,623899E+09	7,186787E+09	1,181069E+10
-1409	2,312017E+09	2,312003E+09	3,593363E+09	3,593329E+09	4,624021E+09	7,186691E+09	1,181071E+10
-1408	2,311893E+09	2,311917E+09	3,593375E+09	3,593318E+09	4,623810E+09	7,186693E+09	1,181050E+10
-1407	2,311963E+09	2,311919E+09	3,593382E+09	3,593411E+09	4,623882E+09	7,186793E+09	1,181067E+10
-1406	2,311928E+09	2,311912E+09	3,593411E+09	3,593318E+09	4,623840E+09	7,186730E+09	1,181057E+10
-1405	2,311792E+09	2,311847E+09	3,593397E+09	3,593421E+09	4,623639E+09	7,186818E+09	1,181046E+10
-1404	2,311877E+09	2,311886E+09	3,593381E+09	3,593446E+09	4,623764E+09	7,186827E+09	1,181059E+10
-1403	2,311801E+09	2,311813E+09	3,593427E+09	3,593348E+09	4,623614E+09	7,186775E+09	1,181039E+10
-1402	2,311774E+09	2,311774E+09	3,593411E+09	3,593452E+09	4,623547E+09	7,186863E+09	1,181041E+10
-1401	2,311892E+09	2,311843E+09	3,593404E+09	3,593379E+09	4,623735E+09	7,186783E+09	1,181052E+10
-1400	2,311786E+09	2,311804E+09	3,593397E+09	3,593345E+09	4,623591E+09	7,186742E+09	1,181033E+10
-1399	2,311849E+09	2,311849E+09	3,593361E+09	3,593443E+09	4,623697E+09	7,186803E+09	1,181050E+10
-1398	2,311908E+09	2,311926E+09	3,593388E+09	3,593321E+09	4,623834E+09	7,186710E+09	1,181054E+10
-1397	2,311816E+09	2,311892E+09	3,593386E+09	3,593353E+09	4,623708E+09	7,186739E+09	1,181045E+10
-1396	2,311965E+09	2,311962E+09	3,593360E+09	3,593381E+09	4,623927E+09	7,186741E+09	1,181067E+10
-1395	2,311979E+09	2,311969E+09	3,593391E+09	3,593277E+09	4,623948E+09	7,186668E+09	1,181062E+10
-1394	2,311939E+09	2,311957E+09	3,593339E+09	3,593391E+09	4,623896E+09	7,186731E+09	1,181063E+10
-1393	2,312081E+09	2,312067E+09	3,593308E+09	3,593352E+09	4,624148E+09	7,186660E+09	1,181081E+10
-1392	2,311999E+09	2,312030E+09	3,593326E+09	3,593276E+09	4,624029E+09	7,186601E+09	1,181063E+10
-1391	2,312019E+09	2,312009E+09	3,593299E+09	3,593370E+09	4,624027E+09	7,186669E+09	1,181070E+10
-1390	2,312098E+09	2,312061E+09	3,593343E+09	3,593270E+09	4,624159E+09	7,186613E+09	1,181077E+10
-1389	2,311949E+09	2,311972E+09	3,593360E+09	3,593299E+09	4,623921E+09	7,186659E+09	1,181058E+10
-1388	2,311996E+09	2,311991E+09	3,593329E+09	3,593385E+09	4,623987E+09	7,186715E+09	1,181070E+10
-1387	2,311975E+09	2,311986E+09	3,593374E+09	3,593306E+09	4,623961E+09	7,186679E+09	1,181064E+10
-1386	2,311837E+09	2,311891E+09	3,593363E+09	3,593409E+09	4,623729E+09	7,186772E+09	1,181050E+10
-1385	2,311947E+09	2,311936E+09	3,593358E+09	3,593389E+09	4,623884E+09	7,186746E+09	1,181063E+10
-1384	2,311880E+09	2,311870E+09	3,593405E+09	3,593294E+09	4,623750E+09	7,186700E+09	1,181045E+10

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	2,311851E+09	2,311829E+09	3,593350E+09	3,593409E+09	4,623680E+09	7,186759E+09	1,181044E+10
-1382	2,311967E+09	2,311930E+09	3,593350E+09	3,593344E+09	4,623897E+09	7,186694E+09	1,181059E+10
-1381	2,311840E+09	2,311893E+09	3,593359E+09	3,593323E+09	4,623734E+09	7,186682E+09	1,181042E+10
-1380	2,311904E+09	2,311935E+09	3,593314E+09	3,593383E+09	4,623839E+09	7,186698E+09	1,181054E+10
-1379	2,311997E+09	2,311998E+09	3,593365E+09	3,593268E+09	4,623994E+09	7,186633E+09	1,181063E+10
-1378	2,311904E+09	2,311943E+09	3,593359E+09	3,593327E+09	4,623847E+09	7,186685E+09	1,181053E+10
-1377	2,312059E+09	2,312039E+09	3,593318E+09	3,593339E+09	4,624098E+09	7,186657E+09	1,181076E+10
-1376	2,312060E+09	2,312065E+09	3,593341E+09	3,593248E+09	4,624125E+09	7,186589E+09	1,181071E+10
-1375	2,312015E+09	2,312040E+09	3,593267E+09	3,593358E+09	4,624055E+09	7,186625E+09	1,181068E+10
-1374	2,312163E+09	2,312146E+09	3,593270E+09	3,593297E+09	4,624309E+09	7,186567E+09	1,181088E+10
-1373	2,312064E+09	2,312094E+09	3,593312E+09	3,593232E+09	4,624158E+09	7,186544E+09	1,181070E+10
-1372	2,312079E+09	2,312071E+09	3,593264E+09	3,593311E+09	4,624150E+09	7,186575E+09	1,181072E+10
-1371	2,312165E+09	2,312125E+09	3,593309E+09	3,593245E+09	4,624290E+09	7,186554E+09	1,181084E+10
-1370	2,311992E+09	2,312029E+09	3,593316E+09	3,593305E+09	4,624021E+09	7,186621E+09	1,181064E+10
-1369	2,312042E+09	2,312059E+09	3,593286E+09	3,593352E+09	4,624101E+09	7,186638E+09	1,181074E+10
-1368	2,312030E+09	2,312045E+09	3,593350E+09	3,593261E+09	4,624075E+09	7,186611E+09	1,181069E+10
-1367	2,311910E+09	2,311925E+09	3,593317E+09	3,593355E+09	4,623835E+09	7,186672E+09	1,181051E+10
-1366	2,312034E+09	2,311982E+09	3,593326E+09	3,593336E+09	4,624016E+09	7,186663E+09	1,181068E+10
-1365	2,311947E+09	2,311938E+09	3,593370E+09	3,593272E+09	4,623885E+09	7,186642E+09	1,181053E+10
-1364	2,311904E+09	2,311920E+09	3,593286E+09	3,593364E+09	4,623824E+09	7,186650E+09	1,181047E+10
-1363	2,312034E+09	2,312026E+09	3,593311E+09	3,593310E+09	4,624060E+09	7,186621E+09	1,181068E+10
-1362	2,311903E+09	2,311964E+09	3,593341E+09	3,593295E+09	4,623868E+09	7,186636E+09	1,181050E+10
-1361	2,311981E+09	2,312007E+09	3,593304E+09	3,593324E+09	4,623988E+09	7,186628E+09	1,181062E+10
-1360	2,312085E+09	2,312070E+09	3,593352E+09	3,593230E+09	4,624155E+09	7,186582E+09	1,181074E+10
-1359	2,311991E+09	2,312004E+09	3,593290E+09	3,593304E+09	4,623995E+09	7,186594E+09	1,181059E+10
-1358	2,312144E+09	2,312123E+09	3,593252E+09	3,593316E+09	4,624267E+09	7,186568E+09	1,181083E+10
-1357	2,312129E+09	2,312152E+09	3,593282E+09	3,593224E+09	4,624281E+09	7,186506E+09	1,181079E+10
-1356	2,312082E+09	2,312119E+09	3,593202E+09	3,593284E+09	4,624201E+09	7,186486E+09	1,181069E+10
-1355	2,312252E+09	2,312216E+09	3,593235E+09	3,593232E+09	4,624468E+09	7,186468E+09	1,181094E+10
-1354	2,312138E+09	2,312147E+09	3,593288E+09	3,593194E+09	4,624285E+09	7,186482E+09	1,181077E+10
-1353	2,312141E+09	2,312146E+09	3,593237E+09	3,593264E+09	4,624287E+09	7,186501E+09	1,181079E+10
-1352	2,312214E+09	2,312207E+09	3,593286E+09	3,593222E+09	4,624421E+09	7,186508E+09	1,181093E+10
-1351	2,312038E+09	2,312083E+09	3,593273E+09	3,593286E+09	4,624122E+09	7,186559E+09	1,181068E+10
-1350	2,312103E+09	2,312105E+09	3,593271E+09	3,593317E+09	4,624208E+09	7,186589E+09	1,181080E+10
-1349	2,312090E+09	2,312083E+09	3,593337E+09	3,593236E+09	4,624173E+09	7,186573E+09	1,181075E+10
-1348	2,311974E+09	2,311973E+09	3,593266E+09	3,593304E+09	4,623947E+09	7,186571E+09	1,181052E+10
-1347	2,312111E+09	2,312051E+09	3,593267E+09	3,593310E+09	4,624163E+09	7,186577E+09	1,181074E+10
-1346	2,312003E+09	2,312015E+09	3,593313E+09	3,593260E+09	4,624018E+09	7,186572E+09	1,181059E+10
-1345	2,311966E+09	2,312013E+09	3,593245E+09	3,593306E+09	4,623979E+09	7,186551E+09	1,181053E+10
-1344	2,312103E+09	2,312106E+09	3,593297E+09	3,593247E+09	4,624209E+09	7,186544E+09	1,181075E+10
-1343	2,311987E+09	2,312019E+09	3,593307E+09	3,593245E+09	4,624006E+09	7,186552E+09	1,181056E+10
-1342	2,312076E+09	2,312067E+09	3,593276E+09	3,593282E+09	4,624143E+09	7,186558E+09	1,181070E+10
-1341	2,312157E+09	2,312148E+09	3,593307E+09	3,593221E+09	4,624305E+09	7,186528E+09	1,181083E+10
-1340	2,312059E+09	2,312100E+09	3,593211E+09	3,593266E+09	4,624159E+09	7,186476E+09	1,181063E+10
-1339	2,312229E+09	2,312215E+09	3,593190E+09	3,593279E+09	4,624444E+09	7,186469E+09	1,181091E+10
-1338	2,312206E+09	2,312225E+09	3,593248E+09	3,593181E+09	4,624431E+09	7,186429E+09	1,181086E+10
-1337	2,312167E+09	2,312194E+09	3,593183E+09	3,593203E+09	4,624360E+09	7,186386E+09	1,181075E+10
-1336	2,312328E+09	2,312287E+09	3,593229E+09	3,593178E+09	4,624616E+09	7,186407E+09	1,181102E+10
-1335	2,312200E+09	2,312208E+09	3,593244E+09	3,593175E+09	4,624408E+09	7,186419E+09	1,181083E+10

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	2,312193E+09	2,312213E+09	3,593205E+09	3,593250E+09	4,624406E+09	7,186455E+09	1,181086E+10
-1333	2,312251E+09	2,312266E+09	3,593257E+09	3,593218E+09	4,624518E+09	7,186475E+09	1,181099E+10
-1332	2,312090E+09	2,312127E+09	3,593223E+09	3,593235E+09	4,624217E+09	7,186458E+09	1,181068E+10
-1331	2,312185E+09	2,312145E+09	3,593228E+09	3,593277E+09	4,624330E+09	7,186505E+09	1,181084E+10
-1330	2,312163E+09	2,312128E+09	3,593293E+09	3,593210E+09	4,624291E+09	7,186503E+09	1,181079E+10
-1329	2,312040E+09	2,312057E+09	3,593216E+09	3,593250E+09	4,624097E+09	7,186466E+09	1,181056E+10
-1328	2,312169E+09	2,312150E+09	3,593237E+09	3,593265E+09	4,624319E+09	7,186502E+09	1,181082E+10
-1327	2,312060E+09	2,312090E+09	3,593274E+09	3,593217E+09	4,624150E+09	7,186491E+09	1,181064E+10
-1326	2,312032E+09	2,312077E+09	3,593244E+09	3,593257E+09	4,624109E+09	7,186501E+09	1,181061E+10
-1325	2,312167E+09	2,312164E+09	3,593292E+09	3,593223E+09	4,624331E+09	7,186515E+09	1,181085E+10
-1324	2,312059E+09	2,312076E+09	3,593255E+09	3,593208E+09	4,624135E+09	7,186463E+09	1,181060E+10
-1323	2,312164E+09	2,312144E+09	3,593203E+09	3,593272E+09	4,624308E+09	7,186476E+09	1,181078E+10
-1322	2,312232E+09	2,312230E+09	3,593233E+09	3,593208E+09	4,624462E+09	7,186441E+09	1,181090E+10
-1321	2,312144E+09	2,312196E+09	3,593150E+09	3,593191E+09	4,624340E+09	7,186340E+09	1,181068E+10
-1320	2,312320E+09	2,312301E+09	3,593163E+09	3,593194E+09	4,624622E+09	7,186357E+09	1,181098E+10
-1319	2,312297E+09	2,312288E+09	3,593213E+09	3,593114E+09	4,624586E+09	7,186327E+09	1,181091E+10
-1318	2,312251E+09	2,312262E+09	3,593173E+09	3,593157E+09	4,624513E+09	7,186329E+09	1,181084E+10
-1317	2,312375E+09	2,312367E+09	3,593208E+09	3,593175E+09	4,624742E+09	7,186383E+09	1,181113E+10
-1316	2,312241E+09	2,312282E+09	3,593196E+09	3,593157E+09	4,624523E+09	7,186353E+09	1,181088E+10
-1315	2,312252E+09	2,312274E+09	3,593164E+09	3,593240E+09	4,624526E+09	7,186405E+09	1,181093E+10
-1314	2,312308E+09	2,312306E+09	3,593231E+09	3,593202E+09	4,624614E+09	7,186433E+09	1,181105E+10
-1313	2,312167E+09	2,312179E+09	3,593190E+09	3,593173E+09	4,624346E+09	7,186363E+09	1,181071E+10
-1312	2,312260E+09	2,312204E+09	3,593192E+09	3,593225E+09	4,624464E+09	7,186417E+09	1,181088E+10
-1311	2,312225E+09	2,312195E+09	3,593228E+09	3,593179E+09	4,624420E+09	7,186407E+09	1,181083E+10
-1310	2,312098E+09	2,312135E+09	3,593181E+09	3,593207E+09	4,624233E+09	7,186389E+09	1,181062E+10
-1309	2,312205E+09	2,312224E+09	3,593221E+09	3,593230E+09	4,624429E+09	7,186451E+09	1,181088E+10
-1308	2,312117E+09	2,312147E+09	3,593245E+09	3,593158E+09	4,624264E+09	7,186403E+09	1,181067E+10
-1307	2,312117E+09	2,312128E+09	3,593210E+09	3,593225E+09	4,624245E+09	7,186435E+09	1,181068E+10
-1306	2,312242E+09	2,312220E+09	3,593249E+09	3,593213E+09	4,624463E+09	7,186462E+09	1,181092E+10
-1305	2,312142E+09	2,312169E+09	3,593188E+09	3,593164E+09	4,624311E+09	7,186352E+09	1,181066E+10
-1304	2,312248E+09	2,312246E+09	3,593151E+09	3,593224E+09	4,624494E+09	7,186375E+09	1,181087E+10
-1303	2,312317E+09	2,312316E+09	3,593179E+09	3,593154E+09	4,624632E+09	7,186333E+09	1,181097E+10
-1302	2,312236E+09	2,312274E+09	3,593142E+09	3,593118E+09	4,624510E+09	7,186260E+09	1,181077E+10
-1301	2,312390E+09	2,312376E+09	3,593162E+09	3,593151E+09	4,624766E+09	7,186313E+09	1,181108E+10
-1300	2,312363E+09	2,312358E+09	3,593174E+09	3,593077E+09	4,624720E+09	7,186251E+09	1,181097E+10
-1299	2,312315E+09	2,312340E+09	3,593119E+09	3,593162E+09	4,624655E+09	7,186282E+09	1,181094E+10
-1298	2,312421E+09	2,312434E+09	3,593158E+09	3,593184E+09	4,624856E+09	7,186343E+09	1,181120E+10
-1297	2,312303E+09	2,312347E+09	3,593146E+09	3,593107E+09	4,624650E+09	7,186253E+09	1,181090E+10
-1296	2,312331E+09	2,312325E+09	3,593135E+09	3,593178E+09	4,624656E+09	7,186313E+09	1,181097E+10
-1295	2,312391E+09	2,312341E+09	3,593177E+09	3,593146E+09	4,624732E+09	7,186323E+09	1,181106E+10
-1294	2,312244E+09	2,312235E+09	3,593160E+09	3,593118E+09	4,624478E+09	7,186277E+09	1,181076E+10
-1293	2,312301E+09	2,312288E+09	3,593161E+09	3,593199E+09	4,624589E+09	7,186360E+09	1,181095E+10
-1292	2,312262E+09	2,312273E+09	3,593183E+09	3,593137E+09	4,624535E+09	7,186320E+09	1,181086E+10
-1291	2,312154E+09	2,312204E+09	3,593157E+09	3,593184E+09	4,624358E+09	7,186341E+09	1,181070E+10
-1290	2,312258E+09	2,312271E+09	3,593212E+09	3,593210E+09	4,624529E+09	7,186422E+09	1,181095E+10
-1289	2,312195E+09	2,312204E+09	3,593217E+09	3,593108E+09	4,624398E+09	7,186325E+09	1,181072E+10
-1288	2,312203E+09	2,312196E+09	3,593168E+09	3,593191E+09	4,624399E+09	7,186359E+09	1,181076E+10
-1287	2,312324E+09	2,312296E+09	3,593165E+09	3,593192E+09	4,624620E+09	7,186358E+09	1,181098E+10
-1286	2,312231E+09	2,312260E+09	3,593134E+09	3,593114E+09	4,624491E+09	7,186249E+09	1,181074E+10

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	2,312321E+09	2,312339E+09	3,593115E+09	3,593169E+09	4,624660E+09	7,186284E+09	1,181094E+10
-1284	2,312399E+09	2,312393E+09	3,593138E+09	3,593077E+09	4,624792E+09	7,186214E+09	1,181101E+10
-1283	2,312332E+09	2,312350E+09	3,593109E+09	3,593078E+09	4,624682E+09	7,186187E+09	1,181087E+10
-1282	2,312452E+09	2,312450E+09	3,593135E+09	3,593141E+09	4,624903E+09	7,186276E+09	1,181118E+10
-1281	2,312428E+09	2,312452E+09	3,593129E+09	3,593049E+09	4,624880E+09	7,186178E+09	1,181106E+10
-1280	2,312380E+09	2,312419E+09	3,593085E+09	3,593132E+09	4,624799E+09	7,186216E+09	1,181102E+10
-1279	2,312486E+09	2,312486E+09	3,593113E+09	3,593151E+09	4,624972E+09	7,186264E+09	1,181124E+10
-1278	2,312388E+09	2,312390E+09	3,593130E+09	3,593048E+09	4,624778E+09	7,186178E+09	1,181096E+10
-1277	2,312393E+09	2,312374E+09	3,593112E+09	3,593136E+09	4,624767E+09	7,186249E+09	1,181102E+10
-1276	2,312447E+09	2,312398E+09	3,593120E+09	3,593104E+09	4,624845E+09	7,186224E+09	1,181107E+10
-1275	2,312300E+09	2,312310E+09	3,593100E+09	3,593104E+09	4,624610E+09	7,186204E+09	1,181081E+10
-1274	2,312333E+09	2,312356E+09	3,593127E+09	3,593183E+09	4,624689E+09	7,186310E+09	1,181100E+10
-1273	2,312318E+09	2,312341E+09	3,593154E+09	3,593077E+09	4,624659E+09	7,186230E+09	1,181089E+10
-1272	2,312229E+09	2,312256E+09	3,593144E+09	3,593129E+09	4,624486E+09	7,186273E+09	1,181076E+10
-1271	2,312338E+09	2,312314E+09	3,593168E+09	3,593177E+09	4,624652E+09	7,186345E+09	1,181100E+10
-1270	2,312283E+09	2,312270E+09	3,593179E+09	3,593072E+09	4,624553E+09	7,186252E+09	1,181080E+10
-1269	2,312267E+09	2,312293E+09	3,593118E+09	3,593170E+09	4,624559E+09	7,186288E+09	1,181085E+10
-1268	2,312393E+09	2,312387E+09	3,593101E+09	3,593143E+09	4,624780E+09	7,186244E+09	1,181102E+10
-1267	2,312317E+09	2,312352E+09	3,593093E+09	3,593071E+09	4,624669E+09	7,186164E+09	1,181083E+10
-1266	2,312396E+09	2,312413E+09	3,593101E+09	3,593126E+09	4,624810E+09	7,186227E+09	1,181104E+10
-1265	2,312486E+09	2,312471E+09	3,593107E+09	3,593015E+09	4,624957E+09	7,186122E+09	1,181108E+10
-1264	2,312414E+09	2,312432E+09	3,593077E+09	3,593048E+09	4,624846E+09	7,186124E+09	1,181097E+10
-1263	2,312517E+09	2,312524E+09	3,593068E+09	3,593127E+09	4,625041E+09	7,186195E+09	1,181124E+10
-1262	2,312501E+09	2,312519E+09	3,593092E+09	3,593011E+09	4,625020E+09	7,186102E+09	1,181112E+10
-1261	2,312443E+09	2,312482E+09	3,593055E+09	3,593088E+09	4,624925E+09	7,186143E+09	1,181107E+10
-1260	2,312562E+09	2,312526E+09	3,593062E+09	3,593086E+09	4,625088E+09	7,186148E+09	1,181124E+10
-1259	2,312474E+09	2,312445E+09	3,593077E+09	3,593013E+09	4,624919E+09	7,186090E+09	1,181101E+10
-1258	2,312445E+09	2,312440E+09	3,593069E+09	3,593116E+09	4,624886E+09	7,186185E+09	1,181107E+10
-1257	2,312497E+09	2,312487E+09	3,593072E+09	3,593059E+09	4,624984E+09	7,186131E+09	1,181111E+10
-1256	2,312353E+09	2,312391E+09	3,593083E+09	3,593065E+09	4,624744E+09	7,186148E+09	1,181089E+10
-1255	2,312381E+09	2,312409E+09	3,593107E+09	3,593149E+09	4,624790E+09	7,186256E+09	1,181105E+10
-1254	2,312393E+09	2,312384E+09	3,593158E+09	3,593032E+09	4,624777E+09	7,186190E+09	1,181097E+10
-1253	2,312292E+09	2,312310E+09	3,593125E+09	3,593107E+09	4,624602E+09	7,186231E+09	1,181083E+10
-1252	2,312404E+09	2,312374E+09	3,593098E+09	3,593154E+09	4,624778E+09	7,186252E+09	1,181103E+10
-1251	2,312363E+09	2,312359E+09	3,593096E+09	3,593063E+09	4,624722E+09	7,186159E+09	1,181088E+10
-1250	2,312331E+09	2,312377E+09	3,593064E+09	3,593136E+09	4,624707E+09	7,186200E+09	1,181091E+10
-1249	2,312480E+09	2,312475E+09	3,593057E+09	3,593059E+09	4,624955E+09	7,186116E+09	1,181107E+10
-1248	2,312419E+09	2,312428E+09	3,593071E+09	3,592992E+09	4,624848E+09	7,186062E+09	1,181091E+10
-1247	2,312479E+09	2,312482E+09	3,593062E+09	3,593079E+09	4,624960E+09	7,186141E+09	1,181110E+10
-1246	2,312571E+09	2,312553E+09	3,593081E+09	3,592980E+09	4,625124E+09	7,186061E+09	1,181118E+10
-1245	2,312469E+09	2,312525E+09	3,593044E+09	3,593033E+09	4,624994E+09	7,186077E+09	1,181107E+10
-1244	2,312577E+09	2,312593E+09	3,593017E+09	3,593094E+09	4,625170E+09	7,186112E+09	1,181128E+10
-1243	2,312583E+09	2,312584E+09	3,593046E+09	3,592984E+09	4,625167E+09	7,186030E+09	1,181120E+10
-1242	2,312513E+09	2,312531E+09	3,593027E+09	3,593055E+09	4,625044E+09	7,186081E+09	1,181113E+10
-1241	2,312638E+09	2,312588E+09	3,593012E+09	3,593030E+09	4,625226E+09	7,186042E+09	1,181127E+10
-1240	2,312542E+09	2,312523E+09	3,593031E+09	3,592975E+09	4,625064E+09	7,186006E+09	1,181107E+10
-1239	2,312489E+09	2,312514E+09	3,593015E+09	3,593090E+09	4,625003E+09	7,186105E+09	1,181111E+10
-1238	2,312552E+09	2,312552E+09	3,593058E+09	3,593011E+09	4,625104E+09	7,186069E+09	1,181117E+10
-1237	2,312400E+09	2,312449E+09	3,593083E+09	3,593024E+09	4,624848E+09	7,186107E+09	1,181096E+10

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	2,312444E+09	2,312442E+09	3,593077E+09	3,593103E+09	4,624885E+09	7,186181E+09	1,181107E+10
-1235	2,312470E+09	2,312437E+09	3,593110E+09	3,593022E+09	4,624906E+09	7,186132E+09	1,181104E+10
-1234	2,312352E+09	2,312380E+09	3,593073E+09	3,593100E+09	4,624732E+09	7,186173E+09	1,181091E+10
-1233	2,312476E+09	2,312462E+09	3,593026E+09	3,593106E+09	4,624938E+09	7,186132E+09	1,181107E+10
-1232	2,312446E+09	2,312452E+09	3,593054E+09	3,593004E+09	4,624898E+09	7,186059E+09	1,181096E+10
-1231	2,312412E+09	2,312451E+09	3,593028E+09	3,593071E+09	4,624862E+09	7,186098E+09	1,181096E+10
-1230	2,312575E+09	2,312542E+09	3,593052E+09	3,592986E+09	4,625118E+09	7,186038E+09	1,181116E+10
-1229	2,312492E+09	2,312511E+09	3,593057E+09	3,592957E+09	4,625003E+09	7,186015E+09	1,181102E+10
-1228	2,312542E+09	2,312558E+09	3,593002E+09	3,593058E+09	4,625100E+09	7,186060E+09	1,181116E+10
-1227	2,312642E+09	2,312644E+09	3,593011E+09	3,592982E+09	4,625286E+09	7,185993E+09	1,181128E+10
-1226	2,312533E+09	2,312597E+09	3,592996E+09	3,593014E+09	4,625130E+09	7,186009E+09	1,181114E+10
-1225	2,312664E+09	2,312657E+09	3,592964E+09	3,593026E+09	4,625320E+09	7,185990E+09	1,181131E+10
-1224	2,312683E+09	2,312648E+09	3,593006E+09	3,592919E+09	4,625331E+09	7,185925E+09	1,181126E+10
-1223	2,312588E+09	2,312594E+09	3,592975E+09	3,593007E+09	4,625183E+09	7,185982E+09	1,181116E+10
-1222	2,312707E+09	2,312666E+09	3,592986E+09	3,592983E+09	4,625373E+09	7,185969E+09	1,181134E+10
-1221	2,312579E+09	2,312612E+09	3,593019E+09	3,592946E+09	4,625191E+09	7,185965E+09	1,181116E+10
-1220	2,312524E+09	2,312572E+09	3,592996E+09	3,593055E+09	4,625097E+09	7,186050E+09	1,181115E+10
-1219	2,312610E+09	2,312603E+09	3,593042E+09	3,592996E+09	4,625213E+09	7,186038E+09	1,181125E+10
-1218	2,312454E+09	2,312480E+09	3,593070E+09	3,593012E+09	4,624934E+09	7,186082E+09	1,181102E+10
-1217	2,312513E+09	2,312488E+09	3,593023E+09	3,593072E+09	4,625002E+09	7,186095E+09	1,181110E+10
-1216	2,312548E+09	2,312508E+09	3,593040E+09	3,592995E+09	4,625055E+09	7,186034E+09	1,181109E+10
-1215	2,312415E+09	2,312457E+09	3,592994E+09	3,593062E+09	4,624873E+09	7,186056E+09	1,181093E+10
-1214	2,312561E+09	2,312541E+09	3,592991E+09	3,593031E+09	4,625102E+09	7,186022E+09	1,181112E+10
-1213	2,312522E+09	2,312535E+09	3,593039E+09	3,592930E+09	4,625057E+09	7,185970E+09	1,181103E+10
-1212	2,312491E+09	2,312515E+09	3,592996E+09	3,593007E+09	4,625007E+09	7,186002E+09	1,181101E+10
-1211	2,312657E+09	2,312627E+09	3,593008E+09	3,592968E+09	4,625284E+09	7,185976E+09	1,181126E+10
-1210	2,312551E+09	2,312600E+09	3,593020E+09	3,592956E+09	4,625151E+09	7,185977E+09	1,181113E+10
-1209	2,312611E+09	2,312648E+09	3,592945E+09	3,593027E+09	4,625259E+09	7,185972E+09	1,181123E+10
-1208	2,312727E+09	2,312727E+09	3,592972E+09	3,592941E+09	4,625453E+09	7,185913E+09	1,181137E+10
-1207	2,312618E+09	2,312659E+09	3,592954E+09	3,592963E+09	4,625277E+09	7,185917E+09	1,181119E+10
-1206	2,312763E+09	2,312712E+09	3,592942E+09	3,592959E+09	4,625475E+09	7,185900E+09	1,181138E+10
-1205	2,312751E+09	2,312726E+09	3,592979E+09	3,592877E+09	4,625477E+09	7,185856E+09	1,181133E+10
-1204	2,312641E+09	2,312667E+09	3,592920E+09	3,592974E+09	4,625308E+09	7,185894E+09	1,181120E+10
-1203	2,312754E+09	2,312745E+09	3,592942E+09	3,592970E+09	4,625499E+09	7,185912E+09	1,181141E+10
-1202	2,312619E+09	2,312668E+09	3,593009E+09	3,592926E+09	4,625287E+09	7,185935E+09	1,181122E+10
-1201	2,312585E+09	2,312609E+09	3,592966E+09	3,593001E+09	4,625194E+09	7,185967E+09	1,181116E+10
-1200	2,312687E+09	2,312644E+09	3,593008E+09	3,592958E+09	4,625331E+09	7,185966E+09	1,181130E+10
-1199	2,312522E+09	2,312531E+09	3,593007E+09	3,592986E+09	4,625053E+09	7,185993E+09	1,181105E+10
-1198	2,312588E+09	2,312559E+09	3,592970E+09	3,593030E+09	4,625147E+09	7,186000E+09	1,181115E+10
-1197	2,312605E+09	2,312604E+09	3,593003E+09	3,592950E+09	4,625209E+09	7,185953E+09	1,181116E+10
-1196	2,312480E+09	2,312533E+09	3,592956E+09	3,592998E+09	4,625013E+09	7,185954E+09	1,181097E+10
-1195	2,312638E+09	2,312619E+09	3,592969E+09	3,592984E+09	4,625257E+09	7,185953E+09	1,181121E+10
-1194	2,312591E+09	2,312603E+09	3,593032E+09	3,592901E+09	4,625194E+09	7,185933E+09	1,181113E+10
-1193	2,312562E+09	2,312591E+09	3,592950E+09	3,592975E+09	4,625154E+09	7,185924E+09	1,181108E+10
-1192	2,312732E+09	2,312721E+09	3,592950E+09	3,592955E+09	4,625452E+09	7,185904E+09	1,181136E+10
-1191	2,312622E+09	2,312680E+09	3,592955E+09	3,592933E+09	4,625303E+09	7,185888E+09	1,181119E+10
-1190	2,312709E+09	2,312716E+09	3,592911E+09	3,592963E+09	4,625425E+09	7,185874E+09	1,181130E+10
-1189	2,312818E+09	2,312800E+09	3,592948E+09	3,592872E+09	4,625617E+09	7,185819E+09	1,181144E+10
-1188	2,312707E+09	2,312719E+09	3,592907E+09	3,592899E+09	4,625426E+09	7,185807E+09	1,181123E+10

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	2,312842E+09	2,312796E+09	3,592892E+09	3,592931E+09	4,625639E+09	7,185823E+09	1,181146E+10
-1186	2,312797E+09	2,312809E+09	3,592948E+09	3,592863E+09	4,625606E+09	7,185811E+09	1,181142E+10
-1185	2,312685E+09	2,312743E+09	3,592886E+09	3,592939E+09	4,625428E+09	7,185825E+09	1,181125E+10
-1184	2,312810E+09	2,312808E+09	3,592923E+09	3,592935E+09	4,625618E+09	7,185858E+09	1,181148E+10
-1183	2,312676E+09	2,312702E+09	3,592987E+09	3,592895E+09	4,625378E+09	7,185882E+09	1,181126E+10
-1182	2,312664E+09	2,312641E+09	3,592945E+09	3,592960E+09	4,625305E+09	7,185905E+09	1,181121E+10
-1181	2,312745E+09	2,312706E+09	3,592965E+09	3,592932E+09	4,625451E+09	7,185897E+09	1,181135E+10
-1180	2,312578E+09	2,312599E+09	3,592929E+09	3,592954E+09	4,625178E+09	7,185883E+09	1,181106E+10
-1179	2,312653E+09	2,312643E+09	3,592905E+09	3,592995E+09	4,625297E+09	7,185900E+09	1,181120E+10
-1178	2,312665E+09	2,312677E+09	3,592981E+09	3,592900E+09	4,625341E+09	7,185880E+09	1,181122E+10
-1177	2,312557E+09	2,312598E+09	3,592928E+09	3,592925E+09	4,625155E+09	7,185853E+09	1,181101E+10
-1176	2,312720E+09	2,312693E+09	3,592943E+09	3,592936E+09	4,625413E+09	7,185879E+09	1,181129E+10
-1175	2,312661E+09	2,312680E+09	3,592988E+09	3,592882E+09	4,625341E+09	7,185870E+09	1,181121E+10
-1174	2,312644E+09	2,312675E+09	3,592912E+09	3,592943E+09	4,625319E+09	7,185855E+09	1,181117E+10
-1173	2,312801E+09	2,312816E+09	3,592920E+09	3,592920E+09	4,625617E+09	7,185840E+09	1,181146E+10
-1172	2,312709E+09	2,312751E+09	3,592908E+09	3,592881E+09	4,625460E+09	7,185789E+09	1,181125E+10
-1171	2,312807E+09	2,312787E+09	3,592869E+09	3,592918E+09	4,625594E+09	7,185787E+09	1,181138E+10
-1170	2,312899E+09	2,312867E+09	3,592920E+09	3,592838E+09	4,625767E+09	7,185758E+09	1,181153E+10
-1169	2,312779E+09	2,312796E+09	3,592845E+09	3,592855E+09	4,625576E+09	7,185700E+09	1,181128E+10
-1168	2,312899E+09	2,312889E+09	3,592835E+09	3,592902E+09	4,625788E+09	7,185737E+09	1,181153E+10
-1167	2,312847E+09	2,312881E+09	3,592905E+09	3,592835E+09	4,625728E+09	7,185740E+09	1,181147E+10
-1166	2,312755E+09	2,312790E+09	3,592872E+09	3,592882E+09	4,625545E+09	7,185754E+09	1,181130E+10
-1165	2,312871E+09	2,312858E+09	3,592913E+09	3,592886E+09	4,625729E+09	7,185799E+09	1,181153E+10
-1164	2,312746E+09	2,312739E+09	3,592937E+09	3,592858E+09	4,625485E+09	7,185795E+09	1,181128E+10
-1163	2,312730E+09	2,312708E+09	3,592885E+09	3,592944E+09	4,625437E+09	7,185829E+09	1,181127E+10
-1162	2,312792E+09	2,312781E+09	3,592924E+09	3,592916E+09	4,625573E+09	7,185839E+09	1,181141E+10
-1161	2,312633E+09	2,312676E+09	3,592884E+09	3,592900E+09	4,625310E+09	7,185784E+09	1,181109E+10
-1160	2,312721E+09	2,312723E+09	3,592883E+09	3,592937E+09	4,625443E+09	7,185820E+09	1,181126E+10
-1159	2,312737E+09	2,312735E+09	3,592964E+09	3,592854E+09	4,625471E+09	7,185818E+09	1,181129E+10
-1158	2,312644E+09	2,312656E+09	3,592916E+09	3,592881E+09	4,625300E+09	7,185796E+09	1,181110E+10
-1157	2,312782E+09	2,312780E+09	3,592911E+09	3,592914E+09	4,625562E+09	7,185825E+09	1,181139E+10
-1156	2,312728E+09	2,312759E+09	3,592920E+09	3,592864E+09	4,625488E+09	7,185784E+09	1,181127E+10
-1155	2,312730E+09	2,312759E+09	3,592852E+09	3,592918E+09	4,625489E+09	7,185770E+09	1,181126E+10
-1154	2,312885E+09	2,312882E+09	3,592884E+09	3,592874E+09	4,625768E+09	7,185757E+09	1,181153E+10
-1153	2,312808E+09	2,312819E+09	3,592851E+09	3,592808E+09	4,625627E+09	7,185659E+09	1,181129E+10
-1152	2,312904E+09	2,312874E+09	3,592809E+09	3,592862E+09	4,625777E+09	7,185671E+09	1,181145E+10
-1151	2,312968E+09	2,312955E+09	3,592864E+09	3,592805E+09	4,625924E+09	7,185669E+09	1,181159E+10
-1150	2,312848E+09	2,312886E+09	3,592817E+09	3,592812E+09	4,625734E+09	7,185628E+09	1,181136E+10
-1149	2,312943E+09	2,312975E+09	3,592830E+09	3,592858E+09	4,625919E+09	7,185688E+09	1,181161E+10
-1148	2,312906E+09	2,312930E+09	3,592884E+09	3,592797E+09	4,625836E+09	7,185681E+09	1,181152E+10
-1147	2,312829E+09	2,312830E+09	3,592850E+09	3,592857E+09	4,625659E+09	7,185707E+09	1,181137E+10
-1146	2,312928E+09	2,312896E+09	3,592886E+09	3,592876E+09	4,625824E+09	7,185762E+09	1,181159E+10
-1145	2,312804E+09	2,312798E+09	3,592863E+09	3,592831E+09	4,625602E+09	7,185694E+09	1,181130E+10
-1144	2,312789E+09	2,312789E+09	3,592811E+09	3,592913E+09	4,625578E+09	7,185723E+09	1,181130E+10
-1143	2,312851E+09	2,312849E+09	3,592877E+09	3,592870E+09	4,625699E+09	7,185747E+09	1,181145E+10
-1142	2,312718E+09	2,312736E+09	3,592870E+09	3,592822E+09	4,625453E+09	7,185692E+09	1,181115E+10
-1141	2,312788E+09	2,312793E+09	3,592882E+09	3,592872E+09	4,625581E+09	7,185754E+09	1,181133E+10
-1140	2,312811E+09	2,312799E+09	3,592924E+09	3,592821E+09	4,625610E+09	7,185745E+09	1,181135E+10
-1139	2,312716E+09	2,312738E+09	3,592867E+09	3,592872E+09	4,625454E+09	7,185739E+09	1,181119E+10

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	2,312840E+09	2,312864E+09	3,592874E+09	3,592909E+09	4,625704E+09	7,185783E+09	1,181149E+10
-1137	2,312806E+09	2,312838E+09	3,592859E+09	3,592818E+09	4,625644E+09	7,185677E+09	1,181132E+10
-1136	2,312823E+09	2,312842E+09	3,592798E+09	3,592862E+09	4,625665E+09	7,185661E+09	1,181133E+10
-1135	2,312981E+09	2,312950E+09	3,592840E+09	3,592822E+09	4,625931E+09	7,185662E+09	1,181159E+10
-1134	2,312909E+09	2,312895E+09	3,592811E+09	3,592745E+09	4,625804E+09	7,185556E+09	1,181136E+10
-1133	2,312966E+09	2,312979E+09	3,592772E+09	3,592815E+09	4,625945E+09	7,185587E+09	1,181153E+10
-1132	2,313029E+09	2,313040E+09	3,592808E+09	3,592772E+09	4,626069E+09	7,185580E+09	1,181165E+10
-1131	2,312915E+09	2,312956E+09	3,592791E+09	3,592780E+09	4,625871E+09	7,185571E+09	1,181144E+10
-1130	2,313000E+09	2,313021E+09	3,592827E+09	3,592827E+09	4,626021E+09	7,185654E+09	1,181168E+10
-1129	2,312977E+09	2,312967E+09	3,592844E+09	3,592754E+09	4,625944E+09	7,185598E+09	1,181154E+10
-1128	2,312902E+09	2,312891E+09	3,592788E+09	3,592834E+09	4,625793E+09	7,185622E+09	1,181141E+10
-1127	2,312987E+09	2,312958E+09	3,592823E+09	3,592860E+09	4,625945E+09	7,185683E+09	1,181163E+10
-1126	2,312872E+09	2,312873E+09	3,592821E+09	3,592783E+09	4,625745E+09	7,185603E+09	1,181135E+10
-1125	2,312840E+09	2,312876E+09	3,592799E+09	3,592848E+09	4,625716E+09	7,185647E+09	1,181136E+10
-1124	2,312915E+09	2,312906E+09	3,592856E+09	3,592816E+09	4,625821E+09	7,185672E+09	1,181149E+10
-1123	2,312794E+09	2,312792E+09	3,592862E+09	3,592790E+09	4,625586E+09	7,185652E+09	1,181124E+10
-1122	2,312840E+09	2,312849E+09	3,592863E+09	3,592863E+09	4,625690E+09	7,185726E+09	1,181142E+10
-1121	2,312866E+09	2,312871E+09	3,592853E+09	3,592807E+09	4,625737E+09	7,185660E+09	1,181140E+10
-1120	2,312787E+09	2,312828E+09	3,592786E+09	3,592851E+09	4,625616E+09	7,185636E+09	1,181125E+10
-1119	2,312921E+09	2,312930E+09	3,592814E+09	3,592866E+09	4,625851E+09	7,185680E+09	1,181153E+10
-1118	2,312918E+09	2,312908E+09	3,592817E+09	3,592735E+09	4,625826E+09	7,185553E+09	1,181138E+10
-1117	2,312920E+09	2,312931E+09	3,592768E+09	3,592779E+09	4,625851E+09	7,185547E+09	1,181140E+10
-1116	2,313070E+09	2,313035E+09	3,592784E+09	3,592770E+09	4,626104E+09	7,185554E+09	1,181166E+10
-1115	2,312986E+09	2,312995E+09	3,592774E+09	3,592714E+09	4,625982E+09	7,185488E+09	1,181147E+10
-1114	2,313012E+09	2,313067E+09	3,592762E+09	3,592795E+09	4,626079E+09	7,185557E+09	1,181164E+10
-1113	2,313085E+09	2,313109E+09	3,592779E+09	3,592737E+09	4,626194E+09	7,185516E+09	1,181171E+10
-1112	2,312990E+09	2,313016E+09	3,592759E+09	3,592751E+09	4,626006E+09	7,185511E+09	1,181152E+10
-1111	2,313075E+09	2,313055E+09	3,592795E+09	3,592810E+09	4,626129E+09	7,185604E+09	1,181173E+10
-1110	2,313060E+09	2,313019E+09	3,592792E+09	3,592720E+09	4,626079E+09	7,185512E+09	1,181159E+10
-1109	2,312955E+09	2,312977E+09	3,592734E+09	3,592794E+09	4,625932E+09	7,185528E+09	1,181146E+10
-1108	2,313045E+09	2,313030E+09	3,592756E+09	3,592821E+09	4,626075E+09	7,185577E+09	1,181165E+10
-1107	2,312940E+09	2,312938E+09	3,592794E+09	3,592727E+09	4,625878E+09	7,185521E+09	1,181140E+10
-1106	2,312893E+09	2,312929E+09	3,592803E+09	3,592799E+09	4,625823E+09	7,185602E+09	1,181142E+10
-1105	2,312977E+09	2,312957E+09	3,592821E+09	3,592768E+09	4,625934E+09	7,185589E+09	1,181152E+10
-1104	2,312858E+09	2,312866E+09	3,592808E+09	3,592774E+09	4,625724E+09	7,185582E+09	1,181131E+10
-1103	2,312896E+09	2,312918E+09	3,592813E+09	3,592859E+09	4,625815E+09	7,185672E+09	1,181149E+10
-1102	2,312944E+09	2,312948E+09	3,592806E+09	3,592765E+09	4,625892E+09	7,185571E+09	1,181146E+10
-1101	2,312864E+09	2,312919E+09	3,592757E+09	3,592783E+09	4,625784E+09	7,185540E+09	1,181132E+10
-1100	2,313020E+09	2,312995E+09	3,592766E+09	3,592804E+09	4,626015E+09	7,185570E+09	1,181159E+10
-1099	2,313022E+09	2,312982E+09	3,592787E+09	3,592681E+09	4,626004E+09	7,185468E+09	1,181147E+10
-1098	2,312989E+09	2,313018E+09	3,592742E+09	3,592747E+09	4,626007E+09	7,185489E+09	1,181150E+10
-1097	2,313129E+09	2,313128E+09	3,592721E+09	3,592738E+09	4,626256E+09	7,185459E+09	1,181172E+10
-1096	2,313053E+09	2,313092E+09	3,592720E+09	3,592692E+09	4,626145E+09	7,185412E+09	1,181156E+10
-1095	2,313080E+09	2,313124E+09	3,592736E+09	3,592767E+09	4,626203E+09	7,185503E+09	1,181171E+10
-1094	2,313176E+09	2,313161E+09	3,592752E+09	3,592683E+09	4,626336E+09	7,185435E+09	1,181177E+10
-1093	2,313071E+09	2,313084E+09	3,592727E+09	3,592700E+09	4,626154E+09	7,185426E+09	1,181158E+10
-1092	2,313149E+09	2,313113E+09	3,592724E+09	3,592782E+09	4,626262E+09	7,185506E+09	1,181177E+10
-1091	2,313129E+09	2,313097E+09	3,592744E+09	3,592691E+09	4,626225E+09	7,185435E+09	1,181166E+10
-1090	2,312996E+09	2,313051E+09	3,592715E+09	3,592755E+09	4,626047E+09	7,185470E+09	1,181152E+10

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	2,313090E+09	2,313090E+09	3,592727E+09	3,592763E+09	4,626180E+09	7,185490E+09	1,181167E+10
-1088	2,313004E+09	2,313000E+09	3,592772E+09	3,592687E+09	4,626004E+09	7,185459E+09	1,181146E+10
-1087	2,312951E+09	2,312965E+09	3,592786E+09	3,592781E+09	4,625916E+09	7,185567E+09	1,181148E+10
-1086	2,313042E+09	2,313017E+09	3,592777E+09	3,592744E+09	4,626060E+09	7,185521E+09	1,181158E+10
-1085	2,312915E+09	2,312953E+09	3,592756E+09	3,592742E+09	4,625868E+09	7,185498E+09	1,181137E+10
-1084	2,312970E+09	2,312983E+09	3,592743E+09	3,592824E+09	4,625953E+09	7,185566E+09	1,181152E+10
-1083	2,313041E+09	2,313014E+09	3,592770E+09	3,592704E+09	4,626055E+09	7,185474E+09	1,181153E+10
-1082	2,312950E+09	2,312989E+09	3,592738E+09	3,592719E+09	4,625940E+09	7,185458E+09	1,181140E+10
-1081	2,313106E+09	2,313074E+09	3,592710E+09	3,592744E+09	4,626180E+09	7,185454E+09	1,181163E+10
-1080	2,313105E+09	2,313091E+09	3,592724E+09	3,592650E+09	4,626196E+09	7,185374E+09	1,181157E+10
-1079	2,313052E+09	2,313110E+09	3,592706E+09	3,592733E+09	4,626163E+09	7,185439E+09	1,181160E+10
-1078	2,313201E+09	2,313219E+09	3,592693E+09	3,592696E+09	4,626420E+09	7,185389E+09	1,181181E+10
-1077	2,313124E+09	2,313178E+09	3,592712E+09	3,592641E+09	4,626302E+09	7,185353E+09	1,181165E+10
-1076	2,313168E+09	2,313171E+09	3,592701E+09	3,592734E+09	4,626339E+09	7,185435E+09	1,181177E+10
-1075	2,313268E+09	2,313208E+09	3,592717E+09	3,592651E+09	4,626476E+09	7,185368E+09	1,181184E+10
-1074	2,313128E+09	2,313151E+09	3,592683E+09	3,592678E+09	4,626279E+09	7,185361E+09	1,181164E+10
-1073	2,313200E+09	2,313186E+09	3,592642E+09	3,592743E+09	4,626386E+09	7,185385E+09	1,181177E+10
-1072	2,313186E+09	2,313177E+09	3,592682E+09	3,592648E+09	4,626362E+09	7,185331E+09	1,181169E+10
-1071	2,313053E+09	2,313098E+09	3,592703E+09	3,592708E+09	4,626151E+09	7,185411E+09	1,181156E+10
-1070	2,313159E+09	2,313138E+09	3,592713E+09	3,592698E+09	4,626298E+09	7,185411E+09	1,181171E+10
-1069	2,313065E+09	2,313067E+09	3,592758E+09	3,592640E+09	4,626133E+09	7,185398E+09	1,181153E+10
-1068	2,313011E+09	2,313022E+09	3,592731E+09	3,592770E+09	4,626033E+09	7,185501E+09	1,181153E+10
-1067	2,313107E+09	2,313087E+09	3,592739E+09	3,592725E+09	4,626194E+09	7,185464E+09	1,181166E+10
-1066	2,312970E+09	2,313029E+09	3,592733E+09	3,592711E+09	4,625999E+09	7,185443E+09	1,181144E+10
-1065	2,313045E+09	2,313049E+09	3,592691E+09	3,592767E+09	4,626094E+09	7,185458E+09	1,181155E+10
-1064	2,313136E+09	2,313094E+09	3,592721E+09	3,592657E+09	4,626231E+09	7,185378E+09	1,181161E+10
-1063	2,313036E+09	2,313058E+09	3,592706E+09	3,592686E+09	4,626093E+09	7,185392E+09	1,181149E+10
-1062	2,313182E+09	2,313172E+09	3,592658E+09	3,592700E+09	4,626354E+09	7,185358E+09	1,181171E+10
-1061	2,313172E+09	2,313206E+09	3,592683E+09	3,592607E+09	4,626378E+09	7,185290E+09	1,181167E+10
-1060	2,313128E+09	2,313183E+09	3,592657E+09	3,592698E+09	4,626310E+09	7,185355E+09	1,181166E+10
-1059	2,313292E+09	2,313279E+09	3,592677E+09	3,592646E+09	4,626571E+09	7,185323E+09	1,181189E+10
-1058	2,313206E+09	2,313234E+09	3,592693E+09	3,592596E+09	4,626440E+09	7,185289E+09	1,181173E+10
-1057	2,313244E+09	2,313226E+09	3,592631E+09	3,592693E+09	4,626471E+09	7,185324E+09	1,181179E+10
-1056	2,313342E+09	2,313295E+09	3,592639E+09	3,592629E+09	4,626637E+09	7,185268E+09	1,181190E+10
-1055	2,313184E+09	2,313222E+09	3,592640E+09	3,592651E+09	4,626405E+09	7,185291E+09	1,181170E+10
-1054	2,313258E+09	2,313264E+09	3,592611E+09	3,592681E+09	4,626521E+09	7,185292E+09	1,181181E+10
-1053	2,313246E+09	2,313253E+09	3,592680E+09	3,592581E+09	4,626498E+09	7,185261E+09	1,181176E+10
-1052	2,313120E+09	2,313135E+09	3,592684E+09	3,592674E+09	4,626255E+09	7,185359E+09	1,181161E+10
-1051	2,313224E+09	2,313183E+09	3,592700E+09	3,592676E+09	4,626407E+09	7,185376E+09	1,181178E+10
-1050	2,313106E+09	2,313133E+09	3,592727E+09	3,592637E+09	4,626239E+09	7,185364E+09	1,181160E+10
-1049	2,313059E+09	2,313088E+09	3,592654E+09	3,592750E+09	4,626147E+09	7,185404E+09	1,181155E+10
-1048	2,313181E+09	2,313161E+09	3,592670E+09	3,592692E+09	4,626342E+09	7,185362E+09	1,181170E+10
-1047	2,313054E+09	2,313085E+09	3,592701E+09	3,592659E+09	4,626139E+09	7,185360E+09	1,181150E+10
-1046	2,313142E+09	2,313125E+09	3,592647E+09	3,592689E+09	4,626267E+09	7,185336E+09	1,181160E+10
-1045	2,313222E+09	2,313197E+09	3,592685E+09	3,592592E+09	4,626419E+09	7,185277E+09	1,181170E+10
-1044	2,313114E+09	2,313149E+09	3,592655E+09	3,592658E+09	4,626263E+09	7,185313E+09	1,181158E+10
-1043	2,313254E+09	2,313261E+09	3,592637E+09	3,592661E+09	4,626515E+09	7,185298E+09	1,181181E+10
-1042	2,313230E+09	2,313291E+09	3,592680E+09	3,592573E+09	4,626521E+09	7,185253E+09	1,181177E+10
-1041	2,313204E+09	2,313242E+09	3,592615E+09	3,592655E+09	4,626446E+09	7,185270E+09	1,181172E+10

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	2,313385E+09	2,313341E+09	3,592624E+09	3,592618E+09	4,626726E+09	7,185242E+09	1,181197E+10
-1039	2,313289E+09	2,313288E+09	3,592645E+09	3,592579E+09	4,626578E+09	7,185225E+09	1,181180E+10
-1038	2,313318E+09	2,313311E+09	3,592552E+09	3,592650E+09	4,626630E+09	7,185201E+09	1,181183E+10
-1037	2,313405E+09	2,313395E+09	3,592586E+09	3,592571E+09	4,626799E+09	7,185157E+09	1,181196E+10
-1036	2,313252E+09	2,313283E+09	3,592599E+09	3,592600E+09	4,626535E+09	7,185199E+09	1,181173E+10
-1035	2,313327E+09	2,313313E+09	3,592615E+09	3,592615E+09	4,626641E+09	7,185230E+09	1,181187E+10
-1034	2,313299E+09	2,313307E+09	3,592685E+09	3,592545E+09	4,626606E+09	7,185229E+09	1,181184E+10
-1033	2,313170E+09	2,313185E+09	3,592634E+09	3,592656E+09	4,626355E+09	7,185290E+09	1,181165E+10
-1032	2,313277E+09	2,313258E+09	3,592637E+09	3,592679E+09	4,626535E+09	7,185316E+09	1,181185E+10
-1031	2,313159E+09	2,313192E+09	3,592688E+09	3,592630E+09	4,626351E+09	7,185318E+09	1,181167E+10
-1030	2,313127E+09	2,313160E+09	3,592607E+09	3,592694E+09	4,626287E+09	7,185301E+09	1,181159E+10
-1029	2,313267E+09	2,313241E+09	3,592646E+09	3,592620E+09	4,626508E+09	7,185265E+09	1,181177E+10
-1028	2,313149E+09	2,313139E+09	3,592659E+09	3,592608E+09	4,626289E+09	7,185266E+09	1,181155E+10
-1027	2,313226E+09	2,313200E+09	3,592621E+09	3,592637E+09	4,626426E+09	7,185259E+09	1,181169E+10
-1026	2,313280E+09	2,313297E+09	3,592649E+09	3,592563E+09	4,626577E+09	7,185212E+09	1,181179E+10
-1025	2,313172E+09	2,313231E+09	3,592590E+09	3,592624E+09	4,626403E+09	7,185215E+09	1,181162E+10
-1024	2,313332E+09	2,313343E+09	3,592587E+09	3,592629E+09	4,626675E+09	7,185216E+09	1,181189E+10
-1023	2,313320E+09	2,313341E+09	3,592655E+09	3,592539E+09	4,626661E+09	7,185193E+09	1,181185E+10
-1022	2,313303E+09	2,313312E+09	3,592556E+09	3,592599E+09	4,626615E+09	7,185155E+09	1,181177E+10
-1021	2,313477E+09	2,313435E+09	3,592564E+09	3,592566E+09	4,626912E+09	7,185130E+09	1,181204E+10
-1020	2,313370E+09	2,313372E+09	3,592574E+09	3,592547E+09	4,626742E+09	7,185121E+09	1,181186E+10
-1019	2,313388E+09	2,313397E+09	3,592527E+09	3,592593E+09	4,626785E+09	7,185120E+09	1,181191E+10
-1018	2,313453E+09	2,313477E+09	3,592588E+09	3,592521E+09	4,626930E+09	7,185110E+09	1,181204E+10
-1017	2,313308E+09	2,313334E+09	3,592580E+09	3,592557E+09	4,626642E+09	7,185137E+09	1,181178E+10
-1016	2,313388E+09	2,313365E+09	3,592589E+09	3,592600E+09	4,626753E+09	7,185189E+09	1,181194E+10
-1015	2,313349E+09	2,313348E+09	3,592659E+09	3,592554E+09	4,626697E+09	7,185213E+09	1,181191E+10
-1014	2,313223E+09	2,313254E+09	3,592563E+09	3,592637E+09	4,626477E+09	7,185200E+09	1,181168E+10
-1013	2,313338E+09	2,313332E+09	3,592581E+09	3,592635E+09	4,626671E+09	7,185215E+09	1,181189E+10
-1012	2,313242E+09	2,313241E+09	3,592635E+09	3,592580E+09	4,626483E+09	7,185215E+09	1,181170E+10
-1011	2,313222E+09	2,313212E+09	3,592585E+09	3,592610E+09	4,626434E+09	7,185195E+09	1,181163E+10
-1010	2,313340E+09	2,313316E+09	3,592626E+09	3,592560E+09	4,626656E+09	7,185185E+09	1,181184E+10
-1009	2,313217E+09	2,313222E+09	3,592599E+09	3,592568E+09	4,626439E+09	7,185167E+09	1,181161E+10
-1008	2,313287E+09	2,313301E+09	3,592566E+09	3,592619E+09	4,626588E+09	7,185185E+09	1,181177E+10
-1007	2,313339E+09	2,313376E+09	3,592629E+09	3,592551E+09	4,626715E+09	7,185179E+09	1,181189E+10
-1006	2,313249E+09	2,313312E+09	3,592550E+09	3,592576E+09	4,626562E+09	7,185126E+09	1,181169E+10
-1005	2,313427E+09	2,313420E+09	3,592559E+09	3,592574E+09	4,626847E+09	7,185132E+09	1,181198E+10
-1004	2,313426E+09	2,313397E+09	3,592598E+09	3,592508E+09	4,626823E+09	7,185106E+09	1,181193E+10
-1003	2,313396E+09	2,313390E+09	3,592507E+09	3,592552E+09	4,626787E+09	7,185059E+09	1,181185E+10
-1002	2,313538E+09	2,313538E+09	3,592514E+09	3,592529E+09	4,627076E+09	7,185044E+09	1,181212E+10
-1001	2,313431E+09	2,313453E+09	3,592511E+09	3,592496E+09	4,626884E+09	7,185008E+09	1,181189E+10
-1000	2,313454E+09	2,313472E+09	3,592497E+09	3,592543E+09	4,626926E+09	7,185041E+09	1,181197E+10
-999	2,313520E+09	2,313519E+09	3,592589E+09	3,592489E+09	4,627039E+09	7,185078E+09	1,181212E+10
-998	2,313372E+09	2,313389E+09	3,592545E+09	3,592520E+09	4,626761E+09	7,185065E+09	1,181183E+10
-997	2,313448E+09	2,313436E+09	3,592550E+09	3,592577E+09	4,626884E+09	7,185127E+09	1,181201E+10
-996	2,313410E+09	2,313399E+09	3,592597E+09	3,592545E+09	4,626810E+09	7,185143E+09	1,181195E+10
-995	2,313287E+09	2,313314E+09	3,592532E+09	3,592587E+09	4,626601E+09	7,185119E+09	1,181172E+10
-994	2,313400E+09	2,313401E+09	3,592560E+09	3,592579E+09	4,626800E+09	7,185139E+09	1,181194E+10
-993	2,313316E+09	2,313293E+09	3,592588E+09	3,592521E+09	4,626609E+09	7,185108E+09	1,181172E+10
-992	2,313298E+09	2,313286E+09	3,592542E+09	3,592573E+09	4,626584E+09	7,185115E+09	1,181170E+10

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							
-991	2,313400E+09	2,313389E+09	3,592592E+09	3,592547E+09	4,626790E+09	7,185139E+09	1,181193E+10
-990	2,313274E+09	2,313321E+09	3,592536E+09	3,592535E+09	4,626595E+09	7,185071E+09	1,181167E+10
-989	2,313356E+09	2,313395E+09	3,592526E+09	3,592572E+09	4,626751E+09	7,185099E+09	1,181185E+10
-988	2,313429E+09	2,313434E+09	3,592587E+09	3,592510E+09	4,626863E+09	7,185097E+09	1,181196E+10
-987	2,313357E+09	2,313375E+09	3,592526E+09	3,592508E+09	4,626732E+09	7,185034E+09	1,181177E+10
-986	2,313518E+09	2,313502E+09	3,592521E+09	3,592527E+09	4,627020E+09	7,185048E+09	1,181207E+10
-985	2,313508E+09	2,313485E+09	3,592520E+09	3,592470E+09	4,626994E+09	7,184990E+09	1,181198E+10
-984	2,313470E+09	2,313495E+09	3,592446E+09	3,592519E+09	4,626965E+09	7,184965E+09	1,181193E+10
-983	2,313597E+09	2,313616E+09	3,592501E+09	3,592500E+09	4,627213E+09	7,185001E+09	1,181221E+10
-982	2,313496E+09	2,313532E+09	3,592490E+09	3,592441E+09	4,627028E+09	7,184930E+09	1,181196E+10
-981	2,313525E+09	2,313532E+09	3,592491E+09	3,592494E+09	4,627058E+09	7,184984E+09	1,181204E+10
-980	2,313590E+09	2,313555E+09	3,592555E+09	3,592481E+09	4,627146E+09	7,185035E+09	1,181218E+10
-979	2,313438E+09	2,313442E+09	3,592503E+09	3,592494E+09	4,626880E+09	7,184997E+09	1,181188E+10
-978	2,313490E+09	2,313505E+09	3,592500E+09	3,592555E+09	4,626996E+09	7,185055E+09	1,181205E+10
-977	2,313467E+09	2,313454E+09	3,592527E+09	3,592503E+09	4,626921E+09	7,185029E+09	1,181195E+10
-976	2,313361E+09	2,313374E+09	3,592484E+09	3,592530E+09	4,626735E+09	7,185014E+09	1,181175E+10
-975	2,313472E+09	2,313450E+09	3,592541E+09	3,592534E+09	4,626921E+09	7,185075E+09	1,181200E+10
-974	2,313387E+09	2,313374E+09	3,592536E+09	3,592465E+09	4,626761E+09	7,185002E+09	1,181176E+10
-973	2,313362E+09	2,313384E+09	3,592505E+09	3,592531E+09	4,626746E+09	7,185036E+09	1,181178E+10
-972	2,313461E+09	2,313468E+09	3,592550E+09	3,592531E+09	4,626929E+09	7,185081E+09	1,181201E+10
-971	2,313347E+09	2,313397E+09	3,592525E+09	3,592486E+09	4,626744E+09	7,185011E+09	1,181175E+10
-970	2,313429E+09	2,313470E+09	3,592518E+09	3,592529E+09	4,626899E+09	7,185046E+09	1,181195E+10
-969	2,313522E+09	2,313489E+09	3,592536E+09	3,592468E+09	4,627011E+09	7,185004E+09	1,181202E+10
-968	2,313454E+09	2,313454E+09	3,592465E+09	3,592478E+09	4,626909E+09	7,184943E+09	1,181185E+10
-967	2,313597E+09	2,313586E+09	3,592465E+09	3,592511E+09	4,627182E+09	7,184976E+09	1,181216E+10
-966	2,313579E+09	2,313591E+09	3,592442E+09	3,592420E+09	4,627169E+09	7,184862E+09	1,181203E+10
-965	2,313549E+09	2,313590E+09	3,592413E+09	3,592453E+09	4,627139E+09	7,184866E+09	1,181200E+10
-964	2,313678E+09	2,313667E+09	3,592475E+09	3,592448E+09	4,627346E+09	7,184923E+09	1,181227E+10
-963	2,313581E+09	2,313584E+09	3,592483E+09	3,592380E+09	4,627164E+09	7,184863E+09	1,181203E+10
-962	2,313584E+09	2,313600E+09	3,592468E+09	3,592467E+09	4,627185E+09	7,184935E+09	1,181212E+10
-961	2,313642E+09	2,313616E+09	3,592484E+09	3,592468E+09	4,627258E+09	7,184952E+09	1,181221E+10
-960	2,313492E+09	2,313517E+09	3,592445E+09	3,592477E+09	4,627010E+09	7,184922E+09	1,181193E+10
-959	2,313543E+09	2,313558E+09	3,592473E+09	3,592531E+09	4,627101E+09	7,185003E+09	1,181210E+10
-958	2,313532E+09	2,313519E+09	3,592485E+09	3,592439E+09	4,627051E+09	7,184924E+09	1,181197E+10
-957	2,313439E+09	2,313441E+09	3,592465E+09	3,592467E+09	4,626880E+09	7,184932E+09	1,181181E+10
-956	2,313539E+09	2,313504E+09	3,592506E+09	3,592506E+09	4,627044E+09	7,185012E+09	1,181206E+10
-955	2,313451E+09	2,313455E+09	3,592506E+09	3,592427E+09	4,626906E+09	7,184933E+09	1,181184E+10
-954	2,313408E+09	2,313473E+09	3,592477E+09	3,592502E+09	4,626881E+09	7,184979E+09	1,181186E+10
-953	2,313525E+09	2,313531E+09	3,592500E+09	3,592493E+09	4,627056E+09	7,184993E+09	1,181205E+10
-952	2,313439E+09	2,313462E+09	3,592486E+09	3,592441E+09	4,626901E+09	7,184928E+09	1,181183E+10
-951	2,313522E+09	2,313524E+09	3,592487E+09	3,592501E+09	4,627046E+09	7,184988E+09	1,181203E+10
-950	2,313615E+09	2,313581E+09	3,592460E+09	3,592422E+09	4,627196E+09	7,184883E+09	1,181208E+10
-949	2,313544E+09	2,313563E+09	3,592402E+09	3,592427E+09	4,627107E+09	7,184829E+09	1,181194E+10
-948	2,313672E+09	2,313675E+09	3,592413E+09	3,592473E+09	4,627347E+09	7,184886E+09	1,181223E+10
-947	2,313661E+09	2,313679E+09	3,592428E+09	3,592347E+09	4,627340E+09	7,184775E+09	1,181211E+10
-946	2,313614E+09	2,313667E+09	3,592415E+09	3,592398E+09	4,627281E+09	7,184813E+09	1,181209E+10
-945	2,313747E+09	2,313718E+09	3,592441E+09	3,592417E+09	4,627465E+09	7,184858E+09	1,181232E+10
-944	2,313649E+09	2,313645E+09	3,592438E+09	3,592372E+09	4,627295E+09	7,184810E+09	1,181210E+10
-943	2,313633E+09	2,313657E+09	3,592420E+09	3,592476E+09	4,627290E+09	7,184896E+09	1,181219E+10

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	2,313693E+09	2,313688E+09	3,592405E+09	3,592432E+09	4,627382E+09	7,184837E+09	1,181222E+10
-941	2,313564E+09	2,313583E+09	3,592402E+09	3,592411E+09	4,627148E+09	7,184813E+09	1,181196E+10
-940	2,313621E+09	2,313599E+09	3,592438E+09	3,592473E+09	4,627220E+09	7,184910E+09	1,181213E+10
-939	2,313615E+09	2,313577E+09	3,592468E+09	3,592364E+09	4,627192E+09	7,184832E+09	1,181202E+10
-938	2,313495E+09	2,313523E+09	3,592449E+09	3,592427E+09	4,627018E+09	7,184875E+09	1,181189E+10
-937	2,313586E+09	2,313579E+09	3,592456E+09	3,592484E+09	4,627165E+09	7,184940E+09	1,181210E+10
-936	2,313506E+09	2,313538E+09	3,592477E+09	3,592410E+09	4,627044E+09	7,184887E+09	1,181193E+10
-935	2,313468E+09	2,313532E+09	3,592466E+09	3,592490E+09	4,627000E+09	7,184955E+09	1,181196E+10
-934	2,313604E+09	2,313595E+09	3,592451E+09	3,592446E+09	4,627199E+09	7,184898E+09	1,181210E+10
-933	2,313544E+09	2,313535E+09	3,592440E+09	3,592393E+09	4,627079E+09	7,184833E+09	1,181191E+10
-932	2,313618E+09	2,313594E+09	3,592412E+09	3,592471E+09	4,627212E+09	7,184884E+09	1,181210E+10
-931	2,313702E+09	2,313683E+09	3,592396E+09	3,592363E+09	4,627386E+09	7,184759E+09	1,181214E+10
-930	2,313614E+09	2,313674E+09	3,592363E+09	3,592367E+09	4,627288E+09	7,184730E+09	1,181202E+10
-929	2,313744E+09	2,313750E+09	3,592371E+09	3,592408E+09	4,627494E+09	7,184779E+09	1,181227E+10
-928	2,313746E+09	2,313751E+09	3,592412E+09	3,592296E+09	4,627497E+09	7,184708E+09	1,181220E+10
-927	2,313686E+09	2,313720E+09	3,592402E+09	3,592383E+09	4,627405E+09	7,184785E+09	1,181219E+10
-926	2,313807E+09	2,313792E+09	3,592379E+09	3,592394E+09	4,627599E+09	7,184773E+09	1,181237E+10
-925	2,313718E+09	2,313726E+09	3,592384E+09	3,592348E+09	4,627444E+09	7,184732E+09	1,181218E+10
-924	2,313694E+09	2,313713E+09	3,592369E+09	3,592452E+09	4,627407E+09	7,184821E+09	1,181223E+10
-923	2,313767E+09	2,313750E+09	3,592384E+09	3,592362E+09	4,627517E+09	7,184746E+09	1,181226E+10
-922	2,313632E+09	2,313647E+09	3,592397E+09	3,592346E+09	4,627279E+09	7,184743E+09	1,181202E+10
-921	2,313684E+09	2,313648E+09	3,592403E+09	3,592428E+09	4,627332E+09	7,184830E+09	1,181216E+10
-920	2,313676E+09	2,313651E+09	3,592433E+09	3,592345E+09	4,627327E+09	7,184778E+09	1,181211E+10
-919	2,313534E+09	2,313591E+09	3,592418E+09	3,592434E+09	4,627125E+09	7,184852E+09	1,181198E+10
-918	2,313631E+09	2,313655E+09	3,592398E+09	3,592455E+09	4,627286E+09	7,184853E+09	1,181214E+10
-917	2,313588E+09	2,313600E+09	3,592438E+09	3,592359E+09	4,627188E+09	7,184797E+09	1,181198E+10
-916	2,313561E+09	2,313574E+09	3,592418E+09	3,592447E+09	4,627135E+09	7,184865E+09	1,181200E+10
-915	2,313711E+09	2,313667E+09	3,592401E+09	3,592377E+09	4,627378E+09	7,184779E+09	1,181216E+10
-914	2,313628E+09	2,313639E+09	3,592388E+09	3,592338E+09	4,627268E+09	7,184726E+09	1,181199E+10
-913	2,313692E+09	2,313695E+09	3,592341E+09	3,592423E+09	4,627387E+09	7,184765E+09	1,181215E+10
-912	2,313779E+09	2,313788E+09	3,592363E+09	3,592313E+09	4,627567E+09	7,184676E+09	1,181224E+10
-911	2,313681E+09	2,313750E+09	3,592364E+09	3,592335E+09	4,627431E+09	7,184699E+09	1,181213E+10
-910	2,313813E+09	2,313821E+09	3,592343E+09	3,592359E+09	4,627634E+09	7,184702E+09	1,181234E+10
-909	2,313834E+09	2,313816E+09	3,592382E+09	3,592268E+09	4,627650E+09	7,184651E+09	1,181230E+10
-908	2,313759E+09	2,313775E+09	3,592342E+09	3,592383E+09	4,627534E+09	7,184725E+09	1,181226E+10
-907	2,313881E+09	2,313867E+09	3,592317E+09	3,592355E+09	4,627748E+09	7,184672E+09	1,181242E+10
-906	2,313784E+09	2,313806E+09	3,592340E+09	3,592296E+09	4,627590E+09	7,184636E+09	1,181223E+10
-905	2,313767E+09	2,313764E+09	3,592316E+09	3,592387E+09	4,627530E+09	7,184703E+09	1,181223E+10
-904	2,313847E+09	2,313809E+09	3,592361E+09	3,592304E+09	4,627656E+09	7,184665E+09	1,181232E+10
-903	2,313692E+09	2,313705E+09	3,592384E+09	3,592326E+09	4,627397E+09	7,184710E+09	1,181211E+10
-902	2,313724E+09	2,313726E+09	3,592350E+09	3,592397E+09	4,627451E+09	7,184747E+09	1,181220E+10
-901	2,313730E+09	2,313735E+09	3,592395E+09	3,592327E+09	4,627465E+09	7,184722E+09	1,181219E+10
-900	2,313590E+09	2,313645E+09	3,592381E+09	3,592418E+09	4,627235E+09	7,184799E+09	1,181203E+10
-899	2,313707E+09	2,313713E+09	3,592373E+09	3,592394E+09	4,627420E+09	7,184767E+09	1,181219E+10
-898	2,313674E+09	2,313668E+09	3,592414E+09	3,592304E+09	4,627341E+09	7,184718E+09	1,181206E+10
-897	2,313650E+09	2,313635E+09	3,592351E+09	3,592402E+09	4,627284E+09	7,184752E+09	1,181204E+10
-896	2,313798E+09	2,313760E+09	3,592340E+09	3,592341E+09	4,627559E+09	7,184681E+09	1,181224E+10
-895	2,313695E+09	2,313737E+09	3,592341E+09	3,592313E+09	4,627432E+09	7,184654E+09	1,181209E+10
-894	2,313754E+09	2,313793E+09	3,592287E+09	3,592358E+09	4,627547E+09	7,184645E+09	1,181219E+10

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							
-893	2,313871E+09	2,313869E+09	3,592339E+09	3,592252E+09	4,627740E+09	7,184591E+09	1,181233E+10
-892	2,313770E+09	2,313802E+09	3,592339E+09	3,592302E+09	4,627572E+09	7,184641E+09	1,181221E+10
-891	2,313903E+09	2,313893E+09	3,592308E+09	3,592314E+09	4,627796E+09	7,184622E+09	1,181242E+10
-890	2,313908E+09	2,313907E+09	3,592338E+09	3,592242E+09	4,627814E+09	7,184580E+09	1,181239E+10
-889	2,313825E+09	2,313850E+09	3,592271E+09	3,592356E+09	4,627675E+09	7,184627E+09	1,181230E+10
-888	2,313955E+09	2,313943E+09	3,592280E+09	3,592313E+09	4,627898E+09	7,184593E+09	1,181249E+10
-887	2,313846E+09	2,313864E+09	3,592328E+09	3,592260E+09	4,627710E+09	7,184587E+09	1,181230E+10
-886	2,313827E+09	2,313824E+09	3,592281E+09	3,592329E+09	4,627651E+09	7,184610E+09	1,181226E+10
-885	2,313919E+09	2,313871E+09	3,592325E+09	3,592270E+09	4,627789E+09	7,184595E+09	1,181238E+10
-884	2,313740E+09	2,313762E+09	3,592338E+09	3,592323E+09	4,627501E+09	7,184661E+09	1,181216E+10
-883	2,313774E+09	2,313801E+09	3,592305E+09	3,592359E+09	4,627574E+09	7,184664E+09	1,181224E+10
-882	2,313786E+09	2,313802E+09	3,592368E+09	3,592279E+09	4,627588E+09	7,184647E+09	1,181224E+10
-881	2,313666E+09	2,313688E+09	3,592332E+09	3,592363E+09	4,627354E+09	7,184695E+09	1,181205E+10
-880	2,313804E+09	2,313766E+09	3,592336E+09	3,592341E+09	4,627570E+09	7,184677E+09	1,181225E+10
-879	2,313754E+09	2,313739E+09	3,592372E+09	3,592279E+09	4,627493E+09	7,184651E+09	1,181214E+10
-878	2,313717E+09	2,313736E+09	3,592275E+09	3,592352E+09	4,627453E+09	7,184628E+09	1,181208E+10
-877	2,313878E+09	2,313867E+09	3,592290E+09	3,592297E+09	4,627745E+09	7,184587E+09	1,181233E+10
-876	2,313769E+09	2,313819E+09	3,592315E+09	3,592277E+09	4,627588E+09	7,184592E+09	1,181218E+10
-875	2,313839E+09	2,313874E+09	3,592275E+09	3,592290E+09	4,627713E+09	7,184565E+09	1,181228E+10
-874	2,313958E+09	2,313948E+09	3,592330E+09	3,592208E+09	4,627906E+09	7,184538E+09	1,181244E+10
-873	2,313856E+09	2,313865E+09	3,592280E+09	3,592282E+09	4,627722E+09	7,184563E+09	1,181228E+10
-872	2,313984E+09	2,313974E+09	3,592250E+09	3,592301E+09	4,627958E+09	7,184550E+09	1,181251E+10
-871	2,313972E+09	2,313989E+09	3,592284E+09	3,592233E+09	4,627961E+09	7,184517E+09	1,181248E+10
-870	2,313889E+09	2,313923E+09	3,592203E+09	3,592290E+09	4,627813E+09	7,184493E+09	1,181231E+10
-869	2,314041E+09	2,314006E+09	3,592241E+09	3,592248E+09	4,628047E+09	7,184489E+09	1,181254E+10
-868	2,313922E+09	2,313912E+09	3,592297E+09	3,592215E+09	4,627833E+09	7,184511E+09	1,181234E+10
-867	2,313889E+09	2,313894E+09	3,592250E+09	3,592271E+09	4,627784E+09	7,184522E+09	1,181231E+10
-866	2,313965E+09	2,313957E+09	3,592302E+09	3,592240E+09	4,627921E+09	7,184542E+09	1,181246E+10
-865	2,313786E+09	2,313822E+09	3,592294E+09	3,592302E+09	4,627607E+09	7,184596E+09	1,181220E+10
-864	2,313834E+09	2,313855E+09	3,592291E+09	3,592328E+09	4,627688E+09	7,184618E+09	1,181231E+10
-863	2,313849E+09	2,313848E+09	3,592355E+09	3,592257E+09	4,627697E+09	7,184613E+09	1,181231E+10
-862	2,313738E+09	2,313743E+09	3,592277E+09	3,592312E+09	4,627481E+09	7,184588E+09	1,181207E+10
-861	2,313894E+09	2,313842E+09	3,592272E+09	3,592310E+09	4,627736E+09	7,184582E+09	1,181232E+10
-860	2,313826E+09	2,313824E+09	3,592304E+09	3,592258E+09	4,627650E+09	7,184562E+09	1,181221E+10
-859	2,313791E+09	2,313840E+09	3,592225E+09	3,592286E+09	4,627631E+09	7,184511E+09	1,181214E+10
-858	2,313954E+09	2,313963E+09	3,592271E+09	3,592227E+09	4,627918E+09	7,184499E+09	1,181242E+10
-857	2,313856E+09	2,313885E+09	3,592283E+09	3,592222E+09	4,627741E+09	7,184506E+09	1,181225E+10
-856	2,313936E+09	2,313943E+09	3,592256E+09	3,592251E+09	4,627878E+09	7,184507E+09	1,181239E+10
-855	2,314032E+09	2,314025E+09	3,592293E+09	3,592204E+09	4,628057E+09	7,184497E+09	1,181255E+10
-854	2,313923E+09	2,313958E+09	3,592202E+09	3,592252E+09	4,627881E+09	7,184454E+09	1,181233E+10
-853	2,314067E+09	2,314059E+09	3,592184E+09	3,592266E+09	4,628127E+09	7,184450E+09	1,181258E+10
-852	2,314045E+09	2,314052E+09	3,592243E+09	3,592191E+09	4,628097E+09	7,184434E+09	1,181253E+10
-851	2,313971E+09	2,313993E+09	3,592179E+09	3,592208E+09	4,627964E+09	7,184386E+09	1,181235E+10
-850	2,314113E+09	2,314072E+09	3,592231E+09	3,592187E+09	4,628185E+09	7,184418E+09	1,181260E+10
-849	2,313982E+09	2,313969E+09	3,592254E+09	3,592189E+09	4,627951E+09	7,184443E+09	1,181239E+10
-848	2,313940E+09	2,313962E+09	3,592219E+09	3,592256E+09	4,627903E+09	7,184474E+09	1,181238E+10
-847	2,313999E+09	2,314019E+09	3,592274E+09	3,592236E+09	4,628018E+09	7,184511E+09	1,181253E+10
-846	2,313837E+09	2,313873E+09	3,592243E+09	3,592254E+09	4,627710E+09	7,184497E+09	1,181221E+10
-845	2,313920E+09	2,313899E+09	3,592245E+09	3,592285E+09	4,627819E+09	7,184530E+09	1,181235E+10

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	2,313933E+09	2,313896E+09	3,592306E+09	3,592228E+09	4,627828E+09	7,184534E+09	1,181236E+10
-843	2,313820E+09	2,313833E+09	3,592218E+09	3,592250E+09	4,627653E+09	7,184468E+09	1,181212E+10
-842	2,313963E+09	2,313952E+09	3,592231E+09	3,592258E+09	4,627916E+09	7,184489E+09	1,181240E+10
-841	2,313896E+09	2,313916E+09	3,592260E+09	3,592212E+09	4,627813E+09	7,184472E+09	1,181229E+10
-840	2,313867E+09	2,313922E+09	3,592225E+09	3,592235E+09	4,627789E+09	7,184459E+09	1,181225E+10
-839	2,314025E+09	2,314035E+09	3,592274E+09	3,592203E+09	4,628059E+09	7,184477E+09	1,181254E+10
-838	2,313935E+09	2,313948E+09	3,592236E+09	3,592184E+09	4,627883E+09	7,184420E+09	1,181230E+10
-837	2,314026E+09	2,314018E+09	3,592188E+09	3,592241E+09	4,628044E+09	7,184429E+09	1,181247E+10
-836	2,314109E+09	2,314104E+09	3,592215E+09	3,592195E+09	4,628212E+09	7,184411E+09	1,181262E+10
-835	2,314006E+09	2,314049E+09	3,592133E+09	3,592181E+09	4,628055E+09	7,184314E+09	1,181237E+10
-834	2,314153E+09	2,314142E+09	3,592152E+09	3,592183E+09	4,628295E+09	7,184335E+09	1,181263E+10
-833	2,314134E+09	2,314109E+09	3,592203E+09	3,592121E+09	4,628243E+09	7,184324E+09	1,181257E+10
-832	2,314051E+09	2,314056E+09	3,592168E+09	3,592166E+09	4,628107E+09	7,184324E+09	1,181243E+10
-831	2,314155E+09	2,314147E+09	3,592213E+09	3,592179E+09	4,628303E+09	7,184392E+09	1,181269E+10
-830	2,314016E+09	2,314043E+09	3,592206E+09	3,592168E+09	4,628059E+09	7,184374E+09	1,181243E+10
-829	2,313994E+09	2,314025E+09	3,592181E+09	3,592245E+09	4,628019E+09	7,184426E+09	1,181245E+10
-828	2,314055E+09	2,314060E+09	3,592247E+09	3,592220E+09	4,628115E+09	7,184467E+09	1,181258E+10
-827	2,313916E+09	2,313927E+09	3,592208E+09	3,592191E+09	4,627843E+09	7,184399E+09	1,181224E+10
-826	2,314003E+09	2,313963E+09	3,592209E+09	3,592232E+09	4,627967E+09	7,184441E+09	1,181241E+10
-825	2,314007E+09	2,313969E+09	3,592238E+09	3,592195E+09	4,627975E+09	7,184433E+09	1,181241E+10
-824	2,313892E+09	2,313926E+09	3,592179E+09	3,592209E+09	4,627817E+09	7,184388E+09	1,181220E+10
-823	2,314014E+09	2,314039E+09	3,592208E+09	3,592220E+09	4,628054E+09	7,184428E+09	1,181248E+10
-822	2,313963E+09	2,313989E+09	3,592226E+09	3,592146E+09	4,627952E+09	7,184372E+09	1,181232E+10
-821	2,313963E+09	2,313983E+09	3,592189E+09	3,592193E+09	4,627946E+09	7,184382E+09	1,181233E+10
-820	2,314107E+09	2,314093E+09	3,592228E+09	3,592187E+09	4,628201E+09	7,184415E+09	1,181262E+10
-819	2,314024E+09	2,314043E+09	3,592168E+09	3,592140E+09	4,628068E+09	7,184307E+09	1,181238E+10
-818	2,314112E+09	2,314119E+09	3,592131E+09	3,592196E+09	4,628230E+09	7,184326E+09	1,181256E+10
-817	2,314193E+09	2,314187E+09	3,592156E+09	3,592145E+09	4,628380E+09	7,184301E+09	1,181268E+10
-816	2,314098E+09	2,314126E+09	3,592120E+09	3,592110E+09	4,628224E+09	7,184230E+09	1,181245E+10
-815	2,314221E+09	2,314212E+09	3,592147E+09	3,592138E+09	4,628434E+09	7,184285E+09	1,181272E+10
-814	2,314196E+09	2,314176E+09	3,592164E+09	3,592078E+09	4,628372E+09	7,184242E+09	1,181261E+10
-813	2,314112E+09	2,314128E+09	3,592119E+09	3,592154E+09	4,628240E+09	7,184273E+09	1,181251E+10
-812	2,314195E+09	2,314212E+09	3,592166E+09	3,592187E+09	4,628407E+09	7,184353E+09	1,181276E+10
-811	2,314074E+09	2,314109E+09	3,592161E+09	3,592120E+09	4,628183E+09	7,184280E+09	1,181246E+10
-810	2,314067E+09	2,314077E+09	3,592157E+09	3,592186E+09	4,628144E+09	7,184343E+09	1,181249E+10
-809	2,314140E+09	2,314097E+09	3,592199E+09	3,592170E+09	4,628237E+09	7,184369E+09	1,181261E+10
-808	2,314001E+09	2,313986E+09	3,592177E+09	3,592138E+09	4,627987E+09	7,184316E+09	1,181230E+10
-807	2,314057E+09	2,314052E+09	3,592173E+09	3,592206E+09	4,628109E+09	7,184379E+09	1,181249E+10
-806	2,314059E+09	2,314058E+09	3,592180E+09	3,592146E+09	4,628116E+09	7,184326E+09	1,181244E+10
-805	2,313958E+09	2,314007E+09	3,592146E+09	3,592175E+09	4,627965E+09	7,184322E+09	1,181229E+10
-804	2,314076E+09	2,314102E+09	3,592195E+09	3,592191E+09	4,628178E+09	7,184386E+09	1,181256E+10
-803	2,314048E+09	2,314057E+09	3,592197E+09	3,592089E+09	4,628105E+09	7,184286E+09	1,181239E+10
-802	2,314055E+09	2,314057E+09	3,592151E+09	3,592156E+09	4,628112E+09	7,184308E+09	1,181242E+10
-801	2,314195E+09	2,314172E+09	3,592146E+09	3,592167E+09	4,628366E+09	7,184313E+09	1,181268E+10
-800	2,314116E+09	2,314137E+09	3,592111E+09	3,592095E+09	4,628252E+09	7,184206E+09	1,181246E+10
-799	2,314186E+09	2,314212E+09	3,592089E+09	3,592146E+09	4,628398E+09	7,184235E+09	1,181263E+10
-798	2,314275E+09	2,314262E+09	3,592108E+09	3,592065E+09	4,628536E+09	7,184172E+09	1,181271E+10
-797	2,314192E+09	2,314198E+09	3,592084E+09	3,592063E+09	4,628389E+09	7,184147E+09	1,181254E+10
-796	2,314283E+09	2,314281E+09	3,592119E+09	3,592119E+09	4,628563E+09	7,184237E+09	1,181280E+10

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	2,314255E+09	2,314267E+09	3,592121E+09	3,592044E+09	4,628521E+09	7,184165E+09	1,181269E+10
-794	2,314169E+09	2,314208E+09	3,592093E+09	3,592126E+09	4,628377E+09	7,184219E+09	1,181260E+10
-793	2,314252E+09	2,314262E+09	3,592128E+09	3,592161E+09	4,628514E+09	7,184290E+09	1,181280E+10
-792	2,314154E+09	2,314153E+09	3,592152E+09	3,592072E+09	4,628307E+09	7,184224E+09	1,181253E+10
-791	2,314132E+09	2,314122E+09	3,592133E+09	3,592150E+09	4,628254E+09	7,184283E+09	1,181254E+10
-790	2,314204E+09	2,314152E+09	3,592136E+09	3,592125E+09	4,628356E+09	7,184261E+09	1,181262E+10
-789	2,314071E+09	2,314067E+09	3,592106E+09	3,592117E+09	4,628138E+09	7,184223E+09	1,181236E+10
-788	2,314102E+09	2,314130E+09	3,592124E+09	3,592181E+09	4,628232E+09	7,184305E+09	1,181254E+10
-787	2,314124E+09	2,314143E+09	3,592142E+09	3,592077E+09	4,628268E+09	7,184219E+09	1,181249E+10
-786	2,314042E+09	2,314074E+09	3,592131E+09	3,592111E+09	4,628116E+09	7,184242E+09	1,181236E+10
-785	2,314164E+09	2,314156E+09	3,592152E+09	3,592152E+09	4,628319E+09	7,184304E+09	1,181262E+10
-784	2,314145E+09	2,314132E+09	3,592161E+09	3,592052E+09	4,628277E+09	7,184213E+09	1,181249E+10
-783	2,314125E+09	2,314157E+09	3,592098E+09	3,592137E+09	4,628283E+09	7,184236E+09	1,181252E+10
-782	2,314269E+09	2,314267E+09	3,592075E+09	3,592119E+09	4,628536E+09	7,184194E+09	1,181273E+10
-781	2,314208E+09	2,314230E+09	3,592062E+09	3,592049E+09	4,628437E+09	7,184111E+09	1,181255E+10
-780	2,314263E+09	2,314286E+09	3,592068E+09	3,592099E+09	4,628550E+09	7,184167E+09	1,181272E+10
-779	2,314362E+09	2,314342E+09	3,592078E+09	3,591998E+09	4,628704E+09	7,184076E+09	1,181278E+10
-778	2,314270E+09	2,314277E+09	3,592062E+09	3,592028E+09	4,628546E+09	7,184090E+09	1,181264E+10
-777	2,314341E+09	2,314353E+09	3,592064E+09	3,592110E+09	4,628694E+09	7,184174E+09	1,181287E+10
-776	2,314320E+09	2,314332E+09	3,592092E+09	3,592015E+09	4,628652E+09	7,184106E+09	1,181276E+10
-775	2,314223E+09	2,314265E+09	3,592068E+09	3,592094E+09	4,628489E+09	7,184162E+09	1,181265E+10
-774	2,314323E+09	2,314296E+09	3,592075E+09	3,592098E+09	4,628619E+09	7,184174E+09	1,181279E+10
-773	2,314239E+09	2,314201E+09	3,592094E+09	3,592034E+09	4,628440E+09	7,184128E+09	1,181257E+10
-772	2,314191E+09	2,314188E+09	3,592081E+09	3,592126E+09	4,628378E+09	7,184207E+09	1,181259E+10
-771	2,314262E+09	2,314246E+09	3,592076E+09	3,592073E+09	4,628508E+09	7,184149E+09	1,181266E+10
-770	2,314131E+09	2,314159E+09	3,592083E+09	3,592069E+09	4,628290E+09	7,184152E+09	1,181244E+10
-769	2,314159E+09	2,314197E+09	3,592100E+09	3,592138E+09	4,628356E+09	7,184238E+09	1,181259E+10
-768	2,314205E+09	2,314201E+09	3,592147E+09	3,592025E+09	4,628406E+09	7,184172E+09	1,181258E+10
-767	2,314113E+09	2,314137E+09	3,592115E+09	3,592086E+09	4,628250E+09	7,184201E+09	1,181245E+10
-766	2,314239E+09	2,314221E+09	3,592083E+09	3,592124E+09	4,628460E+09	7,184207E+09	1,181267E+10
-765	2,314233E+09	2,314225E+09	3,592075E+09	3,592043E+09	4,628458E+09	7,184117E+09	1,181258E+10
-764	2,314199E+09	2,314247E+09	3,592033E+09	3,592106E+09	4,628447E+09	7,184139E+09	1,181259E+10
-763	2,314361E+09	2,314361E+09	3,592022E+09	3,592033E+09	4,628722E+09	7,184056E+09	1,181278E+10
-762	2,314313E+09	2,314312E+09	3,592040E+09	3,591967E+09	4,628626E+09	7,184007E+09	1,181263E+10
-761	2,314350E+09	2,314355E+09	3,592032E+09	3,592048E+09	4,628705E+09	7,184080E+09	1,181279E+10
-760	2,314447E+09	2,314424E+09	3,592059E+09	3,591962E+09	4,628871E+09	7,184022E+09	1,181289E+10
-759	2,314322E+09	2,314364E+09	3,592031E+09	3,592017E+09	4,628686E+09	7,184048E+09	1,181273E+10
-758	2,314391E+09	2,314417E+09	3,592014E+09	3,592080E+09	4,628808E+09	7,184093E+09	1,181290E+10
-757	2,314394E+09	2,314391E+09	3,592046E+09	3,591993E+09	4,628785E+09	7,184039E+09	1,181282E+10
-756	2,314287E+09	2,314307E+09	3,592034E+09	3,592063E+09	4,628594E+09	7,184097E+09	1,181269E+10
-755	2,314400E+09	2,314354E+09	3,592022E+09	3,592042E+09	4,628754E+09	7,184064E+09	1,181282E+10
-754	2,314313E+09	2,314276E+09	3,592045E+09	3,591991E+09	4,628588E+09	7,184036E+09	1,181262E+10
-753	2,314242E+09	2,314266E+09	3,592020E+09	3,592095E+09	4,628508E+09	7,184115E+09	1,181262E+10
-752	2,314324E+09	2,314323E+09	3,592057E+09	3,592019E+09	4,628647E+09	7,184076E+09	1,181272E+10
-751	2,314184E+09	2,314228E+09	3,592079E+09	3,592022E+09	4,628412E+09	7,184101E+09	1,181251E+10
-750	2,314226E+09	2,314242E+09	3,592070E+09	3,592085E+09	4,628468E+09	7,184154E+09	1,181262E+10
-749	2,314292E+09	2,314262E+09	3,592098E+09	3,592008E+09	4,628554E+09	7,184106E+09	1,181266E+10
-748	2,314182E+09	2,314214E+09	3,592060E+09	3,592079E+09	4,628396E+09	7,184138E+09	1,181253E+10
-747	2,314321E+09	2,314320E+09	3,592008E+09	3,592079E+09	4,628641E+09	7,184087E+09	1,181273E+10

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	2,314325E+09	2,314327E+09	3,592031E+09	3,591986E+09	4,628651E+09	7,184017E+09	1,181267E+10
-745	2,314289E+09	2,314331E+09	3,591995E+09	3,592045E+09	4,628620E+09	7,184041E+09	1,181266E+10
-744	2,314464E+09	2,314433E+09	3,592016E+09	3,591959E+09	4,628897E+09	7,183975E+09	1,181287E+10
-743	2,314389E+09	2,314394E+09	3,592028E+09	3,591929E+09	4,628784E+09	7,183957E+09	1,181274E+10
-742	2,314414E+09	2,314429E+09	3,591974E+09	3,592019E+09	4,628843E+09	7,183994E+09	1,181284E+10
-741	2,314511E+09	2,314509E+09	3,591990E+09	3,591963E+09	4,629020E+09	7,183953E+09	1,181297E+10
-740	2,314376E+09	2,314433E+09	3,591984E+09	3,592004E+09	4,628809E+09	7,183987E+09	1,181280E+10
-739	2,314468E+09	2,314473E+09	3,591961E+09	3,592016E+09	4,628941E+09	7,183977E+09	1,181292E+10
-738	2,314486E+09	2,314445E+09	3,592009E+09	3,591929E+09	4,628931E+09	7,183938E+09	1,181287E+10
-737	2,314363E+09	2,314363E+09	3,591979E+09	3,592015E+09	4,628726E+09	7,183994E+09	1,181272E+10
-736	2,314471E+09	2,314430E+09	3,591990E+09	3,591991E+09	4,628900E+09	7,183981E+09	1,181288E+10
-735	2,314354E+09	2,314369E+09	3,592024E+09	3,591958E+09	4,628723E+09	7,183982E+09	1,181270E+10
-734	2,314282E+09	2,314332E+09	3,591993E+09	3,592049E+09	4,628614E+09	7,184042E+09	1,181266E+10
-733	2,314386E+09	2,314385E+09	3,592039E+09	3,591996E+09	4,628771E+09	7,184034E+09	1,181281E+10
-732	2,314245E+09	2,314272E+09	3,592067E+09	3,592006E+09	4,628517E+09	7,184073E+09	1,181259E+10
-731	2,314303E+09	2,314298E+09	3,592020E+09	3,592051E+09	4,628602E+09	7,184071E+09	1,181267E+10
-730	2,314380E+09	2,314343E+09	3,592035E+09	3,591984E+09	4,628723E+09	7,184019E+09	1,181274E+10
-729	2,314260E+09	2,314300E+09	3,591976E+09	3,592046E+09	4,628560E+09	7,184023E+09	1,181258E+10
-728	2,314419E+09	2,314409E+09	3,591966E+09	3,592008E+09	4,628828E+09	7,183974E+09	1,181280E+10
-727	2,314413E+09	2,314417E+09	3,592004E+09	3,591909E+09	4,628829E+09	7,183913E+09	1,181274E+10
-726	2,314376E+09	2,314400E+09	3,591955E+09	3,591969E+09	4,628776E+09	7,183924E+09	1,181270E+10
-725	2,314551E+09	2,314522E+09	3,591969E+09	3,591932E+09	4,629073E+09	7,183901E+09	1,181297E+10
-724	2,314449E+09	2,314483E+09	3,591989E+09	3,591924E+09	4,628932E+09	7,183913E+09	1,181284E+10
-723	2,314476E+09	2,314521E+09	3,591921E+09	3,591989E+09	4,628997E+09	7,183910E+09	1,181291E+10
-722	2,314588E+09	2,314588E+09	3,591956E+09	3,591926E+09	4,629175E+09	7,183882E+09	1,181306E+10
-721	2,314453E+09	2,314487E+09	3,591944E+09	3,591960E+09	4,628940E+09	7,183904E+09	1,181284E+10
-720	2,314562E+09	2,314520E+09	3,591941E+09	3,591953E+09	4,629082E+09	7,183894E+09	1,181298E+10
-719	2,314552E+09	2,314512E+09	3,591981E+09	3,591887E+09	4,629064E+09	7,183868E+09	1,181293E+10
-718	2,314415E+09	2,314431E+09	3,591920E+09	3,591977E+09	4,628846E+09	7,183897E+09	1,181274E+10
-717	2,314520E+09	2,314512E+09	3,591939E+09	3,591973E+09	4,629032E+09	7,183911E+09	1,181294E+10
-716	2,314394E+09	2,314433E+09	3,592009E+09	3,591934E+09	4,628827E+09	7,183943E+09	1,181277E+10
-715	2,314345E+09	2,314383E+09	3,591968E+09	3,591993E+09	4,628727E+09	7,183961E+09	1,181269E+10
-714	2,314465E+09	2,314435E+09	3,592014E+09	3,591956E+09	4,628901E+09	7,183970E+09	1,181287E+10
-713	2,314323E+09	2,314330E+09	3,592010E+09	3,591985E+09	4,628653E+09	7,183995E+09	1,181265E+10
-712	2,314392E+09	2,314374E+09	3,591965E+09	3,592011E+09	4,628765E+09	7,183976E+09	1,181274E+10
-711	2,314449E+09	2,314445E+09	3,591988E+09	3,591942E+09	4,628893E+09	7,183930E+09	1,181282E+10
-710	2,314336E+09	2,314386E+09	3,591924E+09	3,591976E+09	4,628722E+09	7,183900E+09	1,181262E+10
-709	2,314506E+09	2,314495E+09	3,591930E+09	3,591954E+09	4,629001E+09	7,183884E+09	1,181288E+10
-708	2,314489E+09	2,314493E+09	3,591990E+09	3,591872E+09	4,628983E+09	7,183862E+09	1,181284E+10
-707	2,314454E+09	2,314481E+09	3,591910E+09	3,591928E+09	4,628934E+09	7,183838E+09	1,181277E+10
-706	2,314626E+09	2,314616E+09	3,591918E+09	3,591913E+09	4,629242E+09	7,183831E+09	1,181307E+10
-705	2,314518E+09	2,314565E+09	3,591925E+09	3,591906E+09	4,629083E+09	7,183831E+09	1,181291E+10
-704	2,314567E+09	2,314584E+09	3,591889E+09	3,591931E+09	4,629151E+09	7,183819E+09	1,181297E+10
-703	2,314670E+09	2,314653E+09	3,591932E+09	3,591863E+09	4,629323E+09	7,183795E+09	1,181312E+10
-702	2,314537E+09	2,314537E+09	3,591893E+09	3,591892E+09	4,629074E+09	7,183785E+09	1,181286E+10
-701	2,314638E+09	2,314595E+09	3,591885E+09	3,591923E+09	4,629234E+09	7,183808E+09	1,181304E+10
-700	2,314599E+09	2,314595E+09	3,591944E+09	3,591872E+09	4,629194E+09	7,183816E+09	1,181301E+10
-699	2,314459E+09	2,314512E+09	3,591885E+09	3,591938E+09	4,628971E+09	7,183823E+09	1,181279E+10
-698	2,314575E+09	2,314584E+09	3,591927E+09	3,591937E+09	4,629159E+09	7,183864E+09	1,181302E+10

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	2,314455E+09	2,314476E+09	3,591990E+09	3,591903E+09	4,628931E+09	7,183894E+09	1,181283E+10
-696	2,314429E+09	2,314421E+09	3,591954E+09	3,591952E+09	4,628850E+09	7,183905E+09	1,181276E+10
-695	2,314534E+09	2,314500E+09	3,591971E+09	3,591929E+09	4,629034E+09	7,183900E+09	1,181293E+10
-694	2,314389E+09	2,314403E+09	3,591924E+09	3,591949E+09	4,628792E+09	7,183873E+09	1,181266E+10
-693	2,314468E+09	2,314469E+09	3,591888E+09	3,591977E+09	4,628937E+09	7,183865E+09	1,181280E+10
-692	2,314520E+09	2,314527E+09	3,591952E+09	3,591888E+09	4,629047E+09	7,183840E+09	1,181289E+10
-691	2,314425E+09	2,314463E+09	3,591890E+09	3,591893E+09	4,628888E+09	7,183783E+09	1,181267E+10
-690	2,314598E+09	2,314578E+09	3,591903E+09	3,591894E+09	4,629177E+09	7,183797E+09	1,181297E+10
-689	2,314568E+09	2,314577E+09	3,591946E+09	3,591845E+09	4,629145E+09	7,183791E+09	1,181294E+10
-688	2,314538E+09	2,314569E+09	3,591875E+09	3,591896E+09	4,629108E+09	7,183771E+09	1,181288E+10
-687	2,314691E+09	2,314712E+09	3,591889E+09	3,591882E+09	4,629402E+09	7,183771E+09	1,181317E+10
-686	2,314597E+09	2,314632E+09	3,591879E+09	3,591857E+09	4,629229E+09	7,183737E+09	1,181297E+10
-685	2,314659E+09	2,314649E+09	3,591846E+09	3,591892E+09	4,629308E+09	7,183738E+09	1,181305E+10
-684	2,314746E+09	2,314711E+09	3,591903E+09	3,591833E+09	4,629457E+09	7,183736E+09	1,181319E+10
-683	2,314608E+09	2,314609E+09	3,591836E+09	3,591849E+09	4,629217E+09	7,183685E+09	1,181290E+10
-682	2,314695E+09	2,314684E+09	3,591832E+09	3,591894E+09	4,629379E+09	7,183726E+09	1,181310E+10
-681	2,314648E+09	2,314670E+09	3,591901E+09	3,591846E+09	4,629318E+09	7,183747E+09	1,181306E+10
-680	2,314530E+09	2,314561E+09	3,591871E+09	3,591879E+09	4,629091E+09	7,183751E+09	1,181284E+10
-679	2,314633E+09	2,314635E+09	3,591918E+09	3,591885E+09	4,629268E+09	7,183803E+09	1,181307E+10
-678	2,314526E+09	2,314517E+09	3,591941E+09	3,591860E+09	4,629043E+09	7,183801E+09	1,181284E+10
-677	2,314501E+09	2,314488E+09	3,591888E+09	3,591935E+09	4,628989E+09	7,183822E+09	1,181281E+10
-676	2,314590E+09	2,314581E+09	3,591920E+09	3,591913E+09	4,629171E+09	7,183834E+09	1,181300E+10
-675	2,314457E+09	2,314490E+09	3,591868E+09	3,591891E+09	4,628948E+09	7,183758E+09	1,181271E+10
-674	2,314549E+09	2,314559E+09	3,591857E+09	3,591913E+09	4,629107E+09	7,183770E+09	1,181288E+10
-673	2,314605E+09	2,314600E+09	3,591926E+09	3,591834E+09	4,629205E+09	7,183760E+09	1,181297E+10
-672	2,314524E+09	2,314530E+09	3,591877E+09	3,591837E+09	4,629054E+09	7,183714E+09	1,181277E+10
-671	2,314667E+09	2,314672E+09	3,591874E+09	3,591864E+09	4,629339E+09	7,183738E+09	1,181308E+10
-670	2,314639E+09	2,314663E+09	3,591878E+09	3,591822E+09	4,629302E+09	7,183700E+09	1,181300E+10
-669	2,314621E+09	2,314658E+09	3,591814E+09	3,591876E+09	4,629278E+09	7,183690E+09	1,181297E+10
-668	2,314771E+09	2,314780E+09	3,591854E+09	3,591845E+09	4,629552E+09	7,183699E+09	1,181325E+10
-667	2,314692E+09	2,314696E+09	3,591827E+09	3,591789E+09	4,629388E+09	7,183616E+09	1,181300E+10
-666	2,314755E+09	2,314728E+09	3,591792E+09	3,591841E+09	4,629483E+09	7,183633E+09	1,181312E+10
-665	2,314817E+09	2,314791E+09	3,591844E+09	3,591800E+09	4,629608E+09	7,183645E+09	1,181325E+10
-664	2,314676E+09	2,314694E+09	3,591806E+09	3,591803E+09	4,629370E+09	7,183609E+09	1,181298E+10
-663	2,314736E+09	2,314770E+09	3,591823E+09	3,591846E+09	4,629506E+09	7,183669E+09	1,181318E+10
-662	2,314700E+09	2,314719E+09	3,591879E+09	3,591800E+09	4,629419E+09	7,183679E+09	1,181310E+10
-661	2,314598E+09	2,314606E+09	3,591851E+09	3,591855E+09	4,629204E+09	7,183707E+09	1,181291E+10
-660	2,314691E+09	2,314672E+09	3,591894E+09	3,591875E+09	4,629363E+09	7,183768E+09	1,181313E+10
-659	2,314590E+09	2,314576E+09	3,591870E+09	3,591833E+09	4,629167E+09	7,183703E+09	1,181287E+10
-658	2,314570E+09	2,314576E+09	3,591809E+09	3,591904E+09	4,629146E+09	7,183713E+09	1,181286E+10
-657	2,314660E+09	2,314659E+09	3,591861E+09	3,591867E+09	4,629319E+09	7,183728E+09	1,181305E+10
-656	2,314553E+09	2,314562E+09	3,591846E+09	3,591806E+09	4,629116E+09	7,183651E+09	1,181277E+10
-655	2,314628E+09	2,314640E+09	3,591848E+09	3,591834E+09	4,629267E+09	7,183683E+09	1,181295E+10
-654	2,314688E+09	2,314674E+09	3,591884E+09	3,591787E+09	4,629362E+09	7,183671E+09	1,181303E+10
-653	2,314604E+09	2,314623E+09	3,591828E+09	3,591825E+09	4,629227E+09	7,183653E+09	1,181288E+10
-652	2,314726E+09	2,314764E+09	3,591838E+09	3,591862E+09	4,629490E+09	7,183700E+09	1,181319E+10
-651	2,314717E+09	2,314749E+09	3,591825E+09	3,591784E+09	4,629466E+09	7,183609E+09	1,181307E+10
-650	2,314714E+09	2,314740E+09	3,591766E+09	3,591829E+09	4,629454E+09	7,183595E+09	1,181305E+10
-649	2,314868E+09	2,314843E+09	3,591811E+09	3,591799E+09	4,629711E+09	7,183610E+09	1,181332E+10

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	2,314797E+09	2,314763E+09	3,591785E+09	3,591724E+09	4,629560E+09	7,183509E+09	1,181307E+10
-647	2,314816E+09	2,314822E+09	3,591750E+09	3,591789E+09	4,629638E+09	7,183539E+09	1,181318E+10
-646	2,314873E+09	2,314874E+09	3,591783E+09	3,591762E+09	4,629747E+09	7,183545E+09	1,181329E+10
-645	2,314735E+09	2,314764E+09	3,591775E+09	3,591770E+09	4,629500E+09	7,183545E+09	1,181305E+10
-644	2,314784E+09	2,314816E+09	3,591822E+09	3,591814E+09	4,629600E+09	7,183636E+09	1,181324E+10
-643	2,314767E+09	2,314755E+09	3,591843E+09	3,591755E+09	4,629522E+09	7,183598E+09	1,181312E+10
-642	2,314672E+09	2,314662E+09	3,591795E+09	3,591830E+09	4,629335E+09	7,183624E+09	1,181296E+10
-641	2,314757E+09	2,314736E+09	3,591826E+09	3,591860E+09	4,629493E+09	7,183686E+09	1,181318E+10
-640	2,314668E+09	2,314656E+09	3,591818E+09	3,591783E+09	4,629325E+09	7,183601E+09	1,181293E+10
-639	2,314631E+09	2,314672E+09	3,591785E+09	3,591837E+09	4,629303E+09	7,183622E+09	1,181292E+10
-638	2,314736E+09	2,314731E+09	3,591829E+09	3,591802E+09	4,629467E+09	7,183631E+09	1,181310E+10
-637	2,314639E+09	2,314635E+09	3,591831E+09	3,591764E+09	4,629274E+09	7,183596E+09	1,181287E+10
-636	2,314691E+09	2,314711E+09	3,591835E+09	3,591819E+09	4,629402E+09	7,183654E+09	1,181306E+10
-635	2,314753E+09	2,314758E+09	3,591821E+09	3,591770E+09	4,629511E+09	7,183591E+09	1,181310E+10
-634	2,314682E+09	2,314723E+09	3,591755E+09	3,591811E+09	4,629405E+09	7,183566E+09	1,181297E+10
-633	2,314813E+09	2,314835E+09	3,591777E+09	3,591826E+09	4,629648E+09	7,183603E+09	1,181325E+10
-632	2,314831E+09	2,314817E+09	3,591782E+09	3,591705E+09	4,629648E+09	7,183486E+09	1,181313E+10
-631	2,314813E+09	2,314824E+09	3,591729E+09	3,591744E+09	4,629637E+09	7,183473E+09	1,181311E+10
-630	2,314956E+09	2,314919E+09	3,591747E+09	3,591740E+09	4,629875E+09	7,183487E+09	1,181336E+10
-629	2,314871E+09	2,314859E+09	3,591741E+09	3,591692E+09	4,629731E+09	7,183432E+09	1,181316E+10
-628	2,314857E+09	2,314909E+09	3,591736E+09	3,591768E+09	4,629765E+09	7,183503E+09	1,181327E+10
-627	2,314921E+09	2,314942E+09	3,591758E+09	3,591724E+09	4,629863E+09	7,183482E+09	1,181334E+10
-626	2,314802E+09	2,314822E+09	3,591750E+09	3,591743E+09	4,629624E+09	7,183494E+09	1,181312E+10
-625	2,314852E+09	2,314846E+09	3,591794E+09	3,591797E+09	4,629698E+09	7,183591E+09	1,181329E+10
-624	2,314849E+09	2,314801E+09	3,591798E+09	3,591721E+09	4,629650E+09	7,183519E+09	1,181317E+10
-623	2,314730E+09	2,314745E+09	3,591736E+09	3,591791E+09	4,629475E+09	7,183527E+09	1,181300E+10
-622	2,314819E+09	2,314812E+09	3,591749E+09	3,591819E+09	4,629631E+09	7,183569E+09	1,181320E+10
-621	2,314744E+09	2,314734E+09	3,591781E+09	3,591728E+09	4,629478E+09	7,183509E+09	1,181299E+10
-620	2,314693E+09	2,314738E+09	3,591783E+09	3,591782E+09	4,629431E+09	7,183565E+09	1,181300E+10
-619	2,314810E+09	2,314796E+09	3,591797E+09	3,591746E+09	4,629606E+09	7,183544E+09	1,181315E+10
-618	2,314717E+09	2,314718E+09	3,591781E+09	3,591742E+09	4,629435E+09	7,183523E+09	1,181296E+10
-617	2,314758E+09	2,314791E+09	3,591783E+09	3,591814E+09	4,629549E+09	7,183597E+09	1,181315E+10
-616	2,314841E+09	2,314843E+09	3,591771E+09	3,591727E+09	4,629684E+09	7,183498E+09	1,181318E+10
-615	2,314763E+09	2,314817E+09	3,591720E+09	3,591745E+09	4,629580E+09	7,183465E+09	1,181304E+10
-614	2,314914E+09	2,314904E+09	3,591723E+09	3,591763E+09	4,629818E+09	7,183487E+09	1,181331E+10
-613	2,314939E+09	2,314890E+09	3,591744E+09	3,591650E+09	4,629829E+09	7,183394E+09	1,181322E+10
-612	2,314886E+09	2,314906E+09	3,591700E+09	3,591710E+09	4,629792E+09	7,183410E+09	1,181320E+10
-611	2,315017E+09	2,315011E+09	3,591682E+09	3,591703E+09	4,630027E+09	7,183386E+09	1,181341E+10
-610	2,314933E+09	2,314956E+09	3,591687E+09	3,591667E+09	4,629889E+09	7,183354E+09	1,181324E+10
-609	2,314917E+09	2,314967E+09	3,591711E+09	3,591739E+09	4,629883E+09	7,183449E+09	1,181333E+10
-608	2,315003E+09	2,314989E+09	3,591736E+09	3,591667E+09	4,629992E+09	7,183403E+09	1,181340E+10
-607	2,314875E+09	2,314882E+09	3,591723E+09	3,591691E+09	4,629757E+09	7,183414E+09	1,181317E+10
-606	2,314924E+09	2,314899E+09	3,591725E+09	3,591769E+09	4,629823E+09	7,183494E+09	1,181332E+10
-605	2,314917E+09	2,314879E+09	3,591746E+09	3,591696E+09	4,629796E+09	7,183443E+09	1,181324E+10
-604	2,314775E+09	2,314827E+09	3,591714E+09	3,591757E+09	4,629602E+09	7,183471E+09	1,181307E+10
-603	2,314873E+09	2,314882E+09	3,591717E+09	3,591760E+09	4,629754E+09	7,183478E+09	1,181323E+10
-602	2,314819E+09	2,314809E+09	3,591758E+09	3,591685E+09	4,629628E+09	7,183443E+09	1,181307E+10
-601	2,314765E+09	2,314785E+09	3,591764E+09	3,591754E+09	4,629550E+09	7,183518E+09	1,181307E+10
-600	2,314887E+09	2,314863E+09	3,591755E+09	3,591712E+09	4,629750E+09	7,183467E+09	1,181322E+10

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	2,314783E+09	2,314816E+09	3,591727E+09	3,591708E+09	4,629599E+09	7,183435E+09	1,181303E+10
-598	2,314836E+09	2,314865E+09	3,591707E+09	3,591779E+09	4,629702E+09	7,183486E+09	1,181319E+10
-597	2,314940E+09	2,314919E+09	3,591729E+09	3,591672E+09	4,629859E+09	7,183401E+09	1,181326E+10
-596	2,314855E+09	2,314890E+09	3,591695E+09	3,591682E+09	4,629744E+09	7,183377E+09	1,181312E+10
-595	2,315007E+09	2,314981E+09	3,591664E+09	3,591698E+09	4,629987E+09	7,183362E+09	1,181335E+10
-594	2,315026E+09	2,314996E+09	3,591676E+09	3,591616E+09	4,630023E+09	7,183292E+09	1,181331E+10
-593	2,314950E+09	2,314998E+09	3,591658E+09	3,591690E+09	4,629948E+09	7,183348E+09	1,181330E+10
-592	2,315084E+09	2,315101E+09	3,591656E+09	3,591658E+09	4,630185E+09	7,183313E+09	1,181350E+10
-591	2,314996E+09	2,315039E+09	3,591681E+09	3,591614E+09	4,630035E+09	7,183295E+09	1,181333E+10
-590	2,314992E+09	2,315009E+09	3,591682E+09	3,591705E+09	4,630001E+09	7,183387E+09	1,181339E+10
-589	2,315086E+09	2,315032E+09	3,591710E+09	3,591642E+09	4,630118E+09	7,183353E+09	1,181347E+10
-588	2,314928E+09	2,314942E+09	3,591686E+09	3,591678E+09	4,629870E+09	7,183363E+09	1,181323E+10
-587	2,314977E+09	2,314970E+09	3,591645E+09	3,591739E+09	4,629947E+09	7,183384E+09	1,181333E+10
-586	2,314981E+09	2,314960E+09	3,591677E+09	3,591658E+09	4,629941E+09	7,183335E+09	1,181328E+10
-585	2,314840E+09	2,314881E+09	3,591691E+09	3,591705E+09	4,629721E+09	7,183396E+09	1,181312E+10
-584	2,314954E+09	2,314938E+09	3,591697E+09	3,591682E+09	4,629892E+09	7,183378E+09	1,181327E+10
-583	2,314889E+09	2,314884E+09	3,591738E+09	3,591624E+09	4,629773E+09	7,183362E+09	1,181313E+10
-582	2,314834E+09	2,314854E+09	3,591707E+09	3,591734E+09	4,629688E+09	7,183440E+09	1,181313E+10
-581	2,314959E+09	2,314946E+09	3,591712E+09	3,591693E+09	4,629904E+09	7,183404E+09	1,181331E+10
-580	2,314845E+09	2,314903E+09	3,591700E+09	3,591680E+09	4,629748E+09	7,183380E+09	1,181313E+10
-579	2,314919E+09	2,314940E+09	3,591652E+09	3,591723E+09	4,629859E+09	7,183375E+09	1,181323E+10
-578	2,315043E+09	2,315004E+09	3,591675E+09	3,591623E+09	4,630047E+09	7,183298E+09	1,181335E+10
-577	2,314950E+09	2,314962E+09	3,591657E+09	3,591642E+09	4,629912E+09	7,183300E+09	1,181321E+10
-576	2,315093E+09	2,315077E+09	3,591610E+09	3,591645E+09	4,630170E+09	7,183254E+09	1,181342E+10
-575	2,315093E+09	2,315113E+09	3,591633E+09	3,591567E+09	4,630207E+09	7,183200E+09	1,181341E+10
-574	2,315021E+09	2,315075E+09	3,591611E+09	3,591654E+09	4,630096E+09	7,183264E+09	1,181336E+10
-573	2,315164E+09	2,315161E+09	3,591646E+09	3,591611E+09	4,630326E+09	7,183258E+09	1,181358E+10
-572	2,315068E+09	2,315091E+09	3,591676E+09	3,591578E+09	4,630159E+09	7,183254E+09	1,181341E+10
-571	2,315063E+09	2,315054E+09	3,591623E+09	3,591670E+09	4,630117E+09	7,183292E+09	1,181341E+10
-570	2,315158E+09	2,315109E+09	3,591635E+09	3,591628E+09	4,630266E+09	7,183263E+09	1,181353E+10
-569	2,314987E+09	2,315008E+09	3,591633E+09	3,591652E+09	4,629995E+09	7,183285E+09	1,181328E+10
-568	2,315038E+09	2,315045E+09	3,591604E+09	3,591674E+09	4,630083E+09	7,183278E+09	1,181336E+10
-567	2,315044E+09	2,315043E+09	3,591666E+09	3,591584E+09	4,630087E+09	7,183250E+09	1,181334E+10
-566	2,314912E+09	2,314927E+09	3,591667E+09	3,591660E+09	4,629839E+09	7,183328E+09	1,181317E+10
-565	2,315024E+09	2,314992E+09	3,591686E+09	3,591652E+09	4,630016E+09	7,183337E+09	1,181335E+10
-564	2,314938E+09	2,314958E+09	3,591709E+09	3,591617E+09	4,629896E+09	7,183325E+09	1,181322E+10
-563	2,314889E+09	2,314929E+09	3,591630E+09	3,591713E+09	4,629818E+09	7,183343E+09	1,181316E+10
-562	2,315039E+09	2,315032E+09	3,591639E+09	3,591663E+09	4,630071E+09	7,183302E+09	1,181337E+10
-561	2,314938E+09	2,314966E+09	3,591660E+09	3,591627E+09	4,629904E+09	7,183286E+09	1,181319E+10
-560	2,315028E+09	2,315019E+09	3,591602E+09	3,591640E+09	4,630047E+09	7,183242E+09	1,181329E+10
-559	2,315140E+09	2,315109E+09	3,591633E+09	3,591548E+09	4,630249E+09	7,183181E+09	1,181343E+10
-558	2,315034E+09	2,315057E+09	3,591601E+09	3,591605E+09	4,630092E+09	7,183206E+09	1,181330E+10
-557	2,315166E+09	2,315175E+09	3,591589E+09	3,591606E+09	4,630341E+09	7,183195E+09	1,181354E+10
-556	2,315148E+09	2,315202E+09	3,591635E+09	3,591537E+09	4,630350E+09	7,183173E+09	1,181352E+10
-555	2,315091E+09	2,315135E+09	3,591580E+09	3,591617E+09	4,630225E+09	7,183197E+09	1,181342E+10
-554	2,315251E+09	2,315217E+09	3,591598E+09	3,591589E+09	4,630468E+09	7,183187E+09	1,181366E+10
-553	2,315146E+09	2,315133E+09	3,591630E+09	3,591564E+09	4,630280E+09	7,183194E+09	1,181347E+10
-552	2,315137E+09	2,315127E+09	3,591541E+09	3,591628E+09	4,630264E+09	7,183170E+09	1,181343E+10
-551	2,315218E+09	2,315202E+09	3,591572E+09	3,591571E+09	4,630420E+09	7,183143E+09	1,181356E+10

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	2,315054E+09	2,315074E+09	3,591583E+09	3,591598E+09	4,630127E+09	7,183181E+09	1,181331E+10
-549	2,315110E+09	2,315101E+09	3,591601E+09	3,591602E+09	4,630211E+09	7,183203E+09	1,181341E+10
-548	2,315101E+09	2,315104E+09	3,591670E+09	3,591538E+09	4,630205E+09	7,183208E+09	1,181341E+10
-547	2,314969E+09	2,314984E+09	3,591620E+09	3,591633E+09	4,629953E+09	7,183253E+09	1,181321E+10
-546	2,315083E+09	2,315075E+09	3,591621E+09	3,591651E+09	4,630158E+09	7,183272E+09	1,181343E+10
-545	2,314999E+09	2,315028E+09	3,591668E+09	3,591608E+09	4,630027E+09	7,183276E+09	1,181330E+10
-544	2,314968E+09	2,315009E+09	3,591579E+09	3,591656E+09	4,629977E+09	7,183235E+09	1,181321E+10
-543	2,315133E+09	2,315120E+09	3,591609E+09	3,591589E+09	4,630253E+09	7,183197E+09	1,181345E+10
-542	2,315045E+09	2,315032E+09	3,591614E+09	3,591570E+09	4,630077E+09	7,183184E+09	1,181326E+10
-541	2,315123E+09	2,315101E+09	3,591575E+09	3,591586E+09	4,630224E+09	7,183161E+09	1,181339E+10
-540	2,315206E+09	2,315217E+09	3,591600E+09	3,591520E+09	4,630423E+09	7,183120E+09	1,181354E+10
-539	2,315097E+09	2,315146E+09	3,591537E+09	3,591572E+09	4,630244E+09	7,183110E+09	1,181335E+10
-538	2,315240E+09	2,315261E+09	3,591541E+09	3,591577E+09	4,630502E+09	7,183119E+09	1,181362E+10
-537	2,315234E+09	2,315251E+09	3,591612E+09	3,591502E+09	4,630485E+09	7,183114E+09	1,181360E+10
-536	2,315183E+09	2,315192E+09	3,591525E+09	3,591560E+09	4,630375E+09	7,183085E+09	1,181346E+10
-535	2,315335E+09	2,315299E+09	3,591541E+09	3,591539E+09	4,630634E+09	7,183080E+09	1,181371E+10
-534	2,315222E+09	2,315207E+09	3,591553E+09	3,591534E+09	4,630429E+09	7,183087E+09	1,181352E+10
-533	2,315202E+09	2,315209E+09	3,591510E+09	3,591575E+09	4,630411E+09	7,183085E+09	1,181350E+10
-532	2,315265E+09	2,315283E+09	3,591568E+09	3,591520E+09	4,630548E+09	7,183089E+09	1,181364E+10
-531	2,315109E+09	2,315127E+09	3,591562E+09	3,591547E+09	4,630236E+09	7,183109E+09	1,181335E+10
-530	2,315172E+09	2,315159E+09	3,591575E+09	3,591580E+09	4,630330E+09	7,183155E+09	1,181349E+10
-529	2,315157E+09	2,315148E+09	3,591647E+09	3,591537E+09	4,630305E+09	7,183184E+09	1,181349E+10
-528	2,315028E+09	2,315057E+09	3,591551E+09	3,591611E+09	4,630085E+09	7,183162E+09	1,181325E+10
-527	2,315151E+09	2,315161E+09	3,591563E+09	3,591607E+09	4,630311E+09	7,183170E+09	1,181348E+10
-526	2,315089E+09	2,315089E+09	3,591609E+09	3,591560E+09	4,630177E+09	7,183169E+09	1,181335E+10
-525	2,315074E+09	2,315074E+09	3,591554E+09	3,591576E+09	4,630148E+09	7,183130E+09	1,181328E+10
-524	2,315221E+09	2,315202E+09	3,591585E+09	3,591527E+09	4,630423E+09	7,183113E+09	1,181354E+10
-523	2,315127E+09	2,315122E+09	3,591551E+09	3,591525E+09	4,630249E+09	7,183076E+09	1,181332E+10
-522	2,315197E+09	2,315211E+09	3,591510E+09	3,591561E+09	4,630408E+09	7,183071E+09	1,181348E+10
-521	2,315271E+09	2,315303E+09	3,591572E+09	3,591502E+09	4,630574E+09	7,183074E+09	1,181365E+10
-520	2,315176E+09	2,315234E+09	3,591499E+09	3,591522E+09	4,630409E+09	7,183020E+09	1,181343E+10
-519	2,315329E+09	2,315338E+09	3,591516E+09	3,591520E+09	4,630667E+09	7,183036E+09	1,181370E+10
-518	2,315333E+09	2,315302E+09	3,591561E+09	3,591473E+09	4,630635E+09	7,183034E+09	1,181367E+10
-517	2,315273E+09	2,315259E+09	3,591479E+09	3,591518E+09	4,630533E+09	7,182996E+09	1,181353E+10
-516	2,315393E+09	2,315390E+09	3,591490E+09	3,591508E+09	4,630783E+09	7,182997E+09	1,181378E+10
-515	2,315279E+09	2,315285E+09	3,591485E+09	3,591485E+09	4,630563E+09	7,182971E+09	1,181353E+10
-514	2,315265E+09	2,315283E+09	3,591472E+09	3,591524E+09	4,630547E+09	7,182997E+09	1,181354E+10
-513	2,315329E+09	2,315327E+09	3,591568E+09	3,591479E+09	4,630656E+09	7,183047E+09	1,181370E+10
-512	2,315176E+09	2,315182E+09	3,591531E+09	3,591500E+09	4,630359E+09	7,183030E+09	1,181339E+10
-511	2,315230E+09	2,315233E+09	3,591541E+09	3,591550E+09	4,630463E+09	7,183090E+09	1,181355E+10
-510	2,315220E+09	2,315210E+09	3,591588E+09	3,591531E+09	4,630430E+09	7,183119E+09	1,181355E+10
-509	2,315098E+09	2,315127E+09	3,591521E+09	3,591570E+09	4,630224E+09	7,183091E+09	1,181332E+10
-508	2,315220E+09	2,315238E+09	3,591543E+09	3,591561E+09	4,630458E+09	7,183104E+09	1,181356E+10
-507	2,315175E+09	2,315150E+09	3,591556E+09	3,591500E+09	4,630325E+09	7,183056E+09	1,181338E+10
-506	2,315164E+09	2,315155E+09	3,591502E+09	3,591533E+09	4,630320E+09	7,183036E+09	1,181336E+10
-505	2,315297E+09	2,315282E+09	3,591543E+09	3,591503E+09	4,630580E+09	7,183046E+09	1,181363E+10
-504	2,315195E+09	2,315227E+09	3,591481E+09	3,591482E+09	4,630422E+09	7,182963E+09	1,181339E+10
-503	2,315268E+09	2,315317E+09	3,591468E+09	3,591510E+09	4,630585E+09	7,182978E+09	1,181356E+10
-502	2,315360E+09	2,315369E+09	3,591530E+09	3,591391E+09	4,630729E+09	7,182922E+09	1,181365E+10

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	2,315280E+09	2,315294E+09	3,591479E+09	3,591457E+09	4,630575E+09	7,182936E+09	1,181351E+10
-500	2,315416E+09	2,315412E+09	3,591482E+09	3,591477E+09	4,630828E+09	7,182959E+09	1,181379E+10
-499	2,315412E+09	2,315379E+09	3,591482E+09	3,591437E+09	4,630791E+09	7,182919E+09	1,181371E+10
-498	2,315343E+09	2,315358E+09	3,591410E+09	3,591489E+09	4,630701E+09	7,182898E+09	1,181360E+10
-497	2,315449E+09	2,315463E+09	3,591467E+09	3,591475E+09	4,630912E+09	7,182942E+09	1,181385E+10
-496	2,315341E+09	2,315360E+09	3,591460E+09	3,591424E+09	4,630701E+09	7,182884E+09	1,181358E+10
-495	2,315332E+09	2,315347E+09	3,591468E+09	3,591468E+09	4,630679E+09	7,182936E+09	1,181362E+10
-494	2,315397E+09	2,315366E+09	3,591540E+09	3,591465E+09	4,630763E+09	7,183005E+09	1,181377E+10
-493	2,315243E+09	2,315239E+09	3,591500E+09	3,591479E+09	4,630482E+09	7,182979E+09	1,181346E+10
-492	2,315276E+09	2,315306E+09	3,591494E+09	3,591536E+09	4,630583E+09	7,183030E+09	1,181361E+10
-491	2,315282E+09	2,315272E+09	3,591516E+09	3,591495E+09	4,630554E+09	7,183011E+09	1,181356E+10
-490	2,315182E+09	2,315197E+09	3,591461E+09	3,591513E+09	4,630378E+09	7,182974E+09	1,181335E+10
-489	2,315306E+09	2,315292E+09	3,591512E+09	3,591507E+09	4,630598E+09	7,183019E+09	1,181362E+10
-488	2,315262E+09	2,315239E+09	3,591495E+09	3,591434E+09	4,630501E+09	7,182929E+09	1,181343E+10
-487	2,315241E+09	2,315263E+09	3,591456E+09	3,591479E+09	4,630504E+09	7,182935E+09	1,181344E+10
-486	2,315367E+09	2,315375E+09	3,591496E+09	3,591477E+09	4,630742E+09	7,182974E+09	1,181372E+10
-485	2,315275E+09	2,315315E+09	3,591470E+09	3,591431E+09	4,630590E+09	7,182901E+09	1,181349E+10
-484	2,315341E+09	2,315399E+09	3,591464E+09	3,591467E+09	4,630740E+09	7,182931E+09	1,181367E+10
-483	2,315451E+09	2,315427E+09	3,591484E+09	3,591420E+09	4,630877E+09	7,182903E+09	1,181378E+10
-482	2,315377E+09	2,315368E+09	3,591418E+09	3,591431E+09	4,630745E+09	7,182849E+09	1,181359E+10
-481	2,315494E+09	2,315485E+09	3,591426E+09	3,591463E+09	4,630979E+09	7,182889E+09	1,181387E+10
-480	2,315482E+09	2,315478E+09	3,591399E+09	3,591388E+09	4,630960E+09	7,182787E+09	1,181375E+10
-479	2,315414E+09	2,315451E+09	3,591372E+09	3,591421E+09	4,630865E+09	7,182794E+09	1,181366E+10
-478	2,315524E+09	2,315517E+09	3,591444E+09	3,591423E+09	4,631041E+09	7,182867E+09	1,181391E+10
-477	2,315420E+09	2,315410E+09	3,591462E+09	3,591363E+09	4,630830E+09	7,182825E+09	1,181366E+10
-476	2,315387E+09	2,315411E+09	3,591457E+09	3,591443E+09	4,630799E+09	7,182900E+09	1,181370E+10
-475	2,315448E+09	2,315424E+09	3,591472E+09	3,591453E+09	4,630871E+09	7,182925E+09	1,181380E+10
-474	2,315298E+09	2,315315E+09	3,591436E+09	3,591467E+09	4,630613E+09	7,182903E+09	1,181352E+10
-473	2,315335E+09	2,315363E+09	3,591460E+09	3,591512E+09	4,630697E+09	7,182973E+09	1,181367E+10
-472	2,315355E+09	2,315341E+09	3,591464E+09	3,591428E+09	4,630695E+09	7,182893E+09	1,181359E+10
-471	2,315269E+09	2,315272E+09	3,591434E+09	3,591442E+09	4,630542E+09	7,182876E+09	1,181342E+10
-470	2,315389E+09	2,315356E+09	3,591469E+09	3,591468E+09	4,630745E+09	7,182937E+09	1,181368E+10
-469	2,315340E+09	2,315329E+09	3,591461E+09	3,591386E+09	4,630669E+09	7,182847E+09	1,181352E+10
-468	2,315298E+09	2,315366E+09	3,591425E+09	3,591445E+09	4,630664E+09	7,182870E+09	1,181353E+10
-467	2,315435E+09	2,315450E+09	3,591443E+09	3,591435E+09	4,630886E+09	7,182879E+09	1,181376E+10
-466	2,315369E+09	2,315390E+09	3,591430E+09	3,591388E+09	4,630759E+09	7,182818E+09	1,181358E+10
-465	2,315438E+09	2,315452E+09	3,591434E+09	3,591436E+09	4,630890E+09	7,182870E+09	1,181376E+10
-464	2,315545E+09	2,315513E+09	3,591408E+09	3,591373E+09	4,631058E+09	7,182781E+09	1,181384E+10
-463	2,315467E+09	2,315476E+09	3,591353E+09	3,591382E+09	4,630942E+09	7,182734E+09	1,181368E+10
-462	2,315569E+09	2,315573E+09	3,591369E+09	3,591429E+09	4,631143E+09	7,182798E+09	1,181394E+10
-461	2,315561E+09	2,315566E+09	3,591387E+09	3,591321E+09	4,631128E+09	7,182709E+09	1,181384E+10
-460	2,315476E+09	2,315526E+09	3,591378E+09	3,591368E+09	4,631002E+09	7,182745E+09	1,181375E+10
-459	2,315586E+09	2,315564E+09	3,591416E+09	3,591388E+09	4,631151E+09	7,182805E+09	1,181396E+10
-458	2,315486E+09	2,315468E+09	3,591420E+09	3,591352E+09	4,630954E+09	7,182773E+09	1,181373E+10
-457	2,315433E+09	2,315461E+09	3,591411E+09	3,591450E+09	4,630894E+09	7,182861E+09	1,181375E+10
-456	2,315497E+09	2,315497E+09	3,591393E+09	3,591421E+09	4,630994E+09	7,182813E+09	1,181381E+10
-455	2,315370E+09	2,315385E+09	3,591387E+09	3,591403E+09	4,630756E+09	7,182790E+09	1,181355E+10
-454	2,315420E+09	2,315408E+09	3,591419E+09	3,591453E+09	4,630828E+09	7,182871E+09	1,181370E+10
-453	2,315450E+09	2,315405E+09	3,591442E+09	3,591348E+09	4,630855E+09	7,182790E+09	1,181364E+10

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	2,315338E+09	2,315362E+09	3,591412E+09	3,591391E+09	4,630700E+09	7,182804E+09	1,181350E+10
-451	2,315446E+09	2,315444E+09	3,591413E+09	3,591436E+09	4,630890E+09	7,182849E+09	1,181374E+10
-450	2,315404E+09	2,315427E+09	3,591423E+09	3,591363E+09	4,630831E+09	7,182787E+09	1,181362E+10
-449	2,315363E+09	2,315436E+09	3,591413E+09	3,591429E+09	4,630799E+09	7,182842E+09	1,181364E+10
-448	2,315519E+09	2,315525E+09	3,591397E+09	3,591388E+09	4,631044E+09	7,182785E+09	1,181383E+10
-447	2,315474E+09	2,315467E+09	3,591389E+09	3,591339E+09	4,630942E+09	7,182729E+09	1,181367E+10
-446	2,315539E+09	2,315522E+09	3,591366E+09	3,591413E+09	4,631061E+09	7,182779E+09	1,181384E+10
-445	2,315637E+09	2,315610E+09	3,591347E+09	3,591320E+09	4,631247E+09	7,182667E+09	1,181391E+10
-444	2,315537E+09	2,315585E+09	3,591311E+09	3,591327E+09	4,631122E+09	7,182639E+09	1,181376E+10
-443	2,315639E+09	2,315647E+09	3,591320E+09	3,591362E+09	4,631286E+09	7,182681E+09	1,181397E+10
-442	2,315640E+09	2,315634E+09	3,591365E+09	3,591267E+09	4,631274E+09	7,182632E+09	1,181391E+10
-441	2,315542E+09	2,315573E+09	3,591368E+09	3,591346E+09	4,631115E+09	7,182714E+09	1,181383E+10
-440	2,315640E+09	2,315630E+09	3,591356E+09	3,591361E+09	4,631271E+09	7,182718E+09	1,181399E+10
-439	2,315547E+09	2,315546E+09	3,591369E+09	3,591329E+09	4,631093E+09	7,182698E+09	1,181379E+10
-438	2,315493E+09	2,315515E+09	3,591357E+09	3,591431E+09	4,631008E+09	7,182788E+09	1,181380E+10
-437	2,315573E+09	2,315558E+09	3,591369E+09	3,591355E+09	4,631131E+09	7,182723E+09	1,181385E+10
-436	2,315444E+09	2,315455E+09	3,591375E+09	3,591337E+09	4,630899E+09	7,182712E+09	1,181361E+10
-435	2,315493E+09	2,315464E+09	3,591375E+09	3,591398E+09	4,630957E+09	7,182773E+09	1,181373E+10
-434	2,315524E+09	2,315488E+09	3,591398E+09	3,591319E+09	4,631012E+09	7,182718E+09	1,181373E+10
-433	2,315391E+09	2,315442E+09	3,591376E+09	3,591388E+09	4,630833E+09	7,182764E+09	1,181360E+10
-432	2,315497E+09	2,315536E+09	3,591352E+09	3,591400E+09	4,631034E+09	7,182752E+09	1,181379E+10
-431	2,315490E+09	2,315509E+09	3,591389E+09	3,591312E+09	4,630999E+09	7,182701E+09	1,181370E+10
-430	2,315462E+09	2,315488E+09	3,591372E+09	3,591390E+09	4,630951E+09	7,182761E+09	1,181371E+10
-429	2,315634E+09	2,315599E+09	3,591355E+09	3,591325E+09	4,631233E+09	7,182680E+09	1,181391E+10
-428	2,315568E+09	2,315570E+09	3,591335E+09	3,591287E+09	4,631138E+09	7,182622E+09	1,181376E+10
-427	2,315617E+09	2,315621E+09	3,591285E+09	3,591366E+09	4,631238E+09	7,182651E+09	1,181389E+10
-426	2,315717E+09	2,315715E+09	3,591302E+09	3,591269E+09	4,631432E+09	7,182571E+09	1,181400E+10
-425	2,315601E+09	2,315658E+09	3,591307E+09	3,591289E+09	4,631259E+09	7,182596E+09	1,181386E+10
-424	2,315701E+09	2,315717E+09	3,591294E+09	3,591308E+09	4,631419E+09	7,182602E+09	1,181402E+10
-423	2,315720E+09	2,315695E+09	3,591343E+09	3,591234E+09	4,631415E+09	7,182577E+09	1,181399E+10
-422	2,315609E+09	2,315619E+09	3,591318E+09	3,591346E+09	4,631228E+09	7,182664E+09	1,181389E+10
-421	2,315707E+09	2,315699E+09	3,591300E+09	3,591329E+09	4,631406E+09	7,182629E+09	1,181403E+10
-420	2,315606E+09	2,315622E+09	3,591324E+09	3,591283E+09	4,631228E+09	7,182608E+09	1,181384E+10
-419	2,315563E+09	2,315567E+09	3,591299E+09	3,591368E+09	4,631130E+09	7,182667E+09	1,181380E+10
-418	2,315658E+09	2,315617E+09	3,591336E+09	3,591292E+09	4,631275E+09	7,182628E+09	1,181390E+10
-417	2,315512E+09	2,315515E+09	3,591357E+09	3,591305E+09	4,631027E+09	7,182662E+09	1,181369E+10
-416	2,315544E+09	2,315553E+09	3,591317E+09	3,591358E+09	4,631097E+09	7,182675E+09	1,181377E+10
-415	2,315585E+09	2,315588E+09	3,591359E+09	3,591293E+09	4,631172E+09	7,182651E+09	1,181382E+10
-414	2,315455E+09	2,315513E+09	3,591344E+09	3,591373E+09	4,630968E+09	7,182717E+09	1,181369E+10
-413	2,315582E+09	2,315605E+09	3,591332E+09	3,591343E+09	4,631187E+09	7,182676E+09	1,181386E+10
-412	2,315583E+09	2,315584E+09	3,591369E+09	3,591260E+09	4,631167E+09	7,182629E+09	1,181380E+10
-411	2,315562E+09	2,315551E+09	3,591300E+09	3,591342E+09	4,631113E+09	7,182643E+09	1,181376E+10
-410	2,315729E+09	2,315691E+09	3,591285E+09	3,591287E+09	4,631420E+09	7,182572E+09	1,181399E+10
-409	2,315642E+09	2,315669E+09	3,591278E+09	3,591260E+09	4,631311E+09	7,182538E+09	1,181385E+10
-408	2,315683E+09	2,315722E+09	3,591219E+09	3,591297E+09	4,631405E+09	7,182516E+09	1,181392E+10
-407	2,315805E+09	2,315801E+09	3,591275E+09	3,591202E+09	4,631607E+09	7,182478E+09	1,181408E+10
-406	2,315688E+09	2,315709E+09	3,591285E+09	3,591251E+09	4,631397E+09	7,182536E+09	1,181393E+10
-405	2,315785E+09	2,315781E+09	3,591268E+09	3,591260E+09	4,631566E+09	7,182528E+09	1,181409E+10
-404	2,315785E+09	2,315780E+09	3,591305E+09	3,591209E+09	4,631565E+09	7,182514E+09	1,181408E+10

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	2,315667E+09	2,315687E+09	3,591245E+09	3,591323E+09	4,631355E+09	7,182568E+09	1,181392E+10
-402	2,315775E+09	2,315770E+09	3,591257E+09	3,591294E+09	4,631546E+09	7,182551E+09	1,181410E+10
-401	2,315669E+09	2,315679E+09	3,591307E+09	3,591248E+09	4,631348E+09	7,182555E+09	1,181390E+10
-400	2,315625E+09	2,315631E+09	3,591259E+09	3,591306E+09	4,631256E+09	7,182565E+09	1,181382E+10
-399	2,315735E+09	2,315689E+09	3,591304E+09	3,591252E+09	4,631424E+09	7,182556E+09	1,181398E+10
-398	2,315571E+09	2,315580E+09	3,591314E+09	3,591298E+09	4,631151E+09	7,182611E+09	1,181376E+10
-397	2,315603E+09	2,315639E+09	3,591278E+09	3,591319E+09	4,631242E+09	7,182597E+09	1,181384E+10
-396	2,315648E+09	2,315669E+09	3,591330E+09	3,591244E+09	4,631318E+09	7,182574E+09	1,181389E+10
-395	2,315537E+09	2,315565E+09	3,591292E+09	3,591317E+09	4,631103E+09	7,182609E+09	1,181371E+10
-394	2,315688E+09	2,315667E+09	3,591291E+09	3,591289E+09	4,631355E+09	7,182580E+09	1,181393E+10
-393	2,315673E+09	2,315657E+09	3,591321E+09	3,591230E+09	4,631330E+09	7,182552E+09	1,181388E+10
-392	2,315638E+09	2,315657E+09	3,591216E+09	3,591292E+09	4,631295E+09	7,182508E+09	1,181380E+10
-391	2,315815E+09	2,315804E+09	3,591225E+09	3,591240E+09	4,631619E+09	7,182465E+09	1,181408E+10
-390	2,315720E+09	2,315755E+09	3,591247E+09	3,591220E+09	4,631475E+09	7,182467E+09	1,181394E+10
-389	2,315768E+09	2,315806E+09	3,591209E+09	3,591225E+09	4,631575E+09	7,182434E+09	1,181401E+10
-388	2,315887E+09	2,315879E+09	3,591271E+09	3,591153E+09	4,631766E+09	7,182424E+09	1,181419E+10
-387	2,315767E+09	2,315766E+09	3,591235E+09	3,591230E+09	4,631532E+09	7,182465E+09	1,181400E+10
-386	2,315858E+09	2,315853E+09	3,591214E+09	3,591249E+09	4,631711E+09	7,182463E+09	1,181417E+10
-385	2,315839E+09	2,315852E+09	3,591253E+09	3,591206E+09	4,631690E+09	7,182459E+09	1,181415E+10
-384	2,315724E+09	2,315758E+09	3,591175E+09	3,591266E+09	4,631483E+09	7,182442E+09	1,181392E+10
-383	2,315857E+09	2,315832E+09	3,591218E+09	3,591231E+09	4,631689E+09	7,182450E+09	1,181414E+10
-382	2,315749E+09	2,315726E+09	3,591278E+09	3,591203E+09	4,631475E+09	7,182481E+09	1,181396E+10
-381	2,315698E+09	2,315700E+09	3,591227E+09	3,591243E+09	4,631399E+09	7,182470E+09	1,181387E+10
-380	2,315789E+09	2,315781E+09	3,591277E+09	3,591214E+09	4,631569E+09	7,182491E+09	1,181406E+10
-379	2,315625E+09	2,315651E+09	3,591262E+09	3,591269E+09	4,631276E+09	7,182532E+09	1,181381E+10
-378	2,315667E+09	2,315704E+09	3,591256E+09	3,591284E+09	4,631372E+09	7,182540E+09	1,181391E+10
-377	2,315717E+09	2,315726E+09	3,591315E+09	3,591221E+09	4,631443E+09	7,182537E+09	1,181398E+10
-376	2,315619E+09	2,315630E+09	3,591231E+09	3,591265E+09	4,631248E+09	7,182496E+09	1,181374E+10
-375	2,315789E+09	2,315747E+09	3,591224E+09	3,591254E+09	4,631537E+09	7,182478E+09	1,181402E+10
-374	2,315761E+09	2,315747E+09	3,591246E+09	3,591208E+09	4,631507E+09	7,182453E+09	1,181396E+10
-373	2,315723E+09	2,315768E+09	3,591157E+09	3,591222E+09	4,631491E+09	7,182379E+09	1,181387E+10
-372	2,315896E+09	2,315910E+09	3,591201E+09	3,591165E+09	4,631806E+09	7,182366E+09	1,181417E+10
-371	2,315809E+09	2,315825E+09	3,591213E+09	3,591157E+09	4,631635E+09	7,182370E+09	1,181401E+10
-370	2,315861E+09	2,315875E+09	3,591194E+09	3,591181E+09	4,631736E+09	7,182375E+09	1,181411E+10
-369	2,315956E+09	2,315951E+09	3,591241E+09	3,591149E+09	4,631907E+09	7,182390E+09	1,181430E+10
-368	2,315824E+09	2,315852E+09	3,591161E+09	3,591206E+09	4,631676E+09	7,182367E+09	1,181404E+10
-367	2,315932E+09	2,315934E+09	3,591156E+09	3,591225E+09	4,631867E+09	7,182382E+09	1,181425E+10
-366	2,315909E+09	2,315907E+09	3,591215E+09	3,591175E+09	4,631816E+09	7,182390E+09	1,181421E+10
-365	2,315805E+09	2,315823E+09	3,591153E+09	3,591189E+09	4,631628E+09	7,182342E+09	1,181397E+10
-364	2,315932E+09	2,315896E+09	3,591204E+09	3,591166E+09	4,631828E+09	7,182370E+09	1,181420E+10
-363	2,315812E+09	2,315782E+09	3,591229E+09	3,591169E+09	4,631594E+09	7,182398E+09	1,181399E+10
-362	2,315753E+09	2,315776E+09	3,591191E+09	3,591221E+09	4,631529E+09	7,182412E+09	1,181394E+10
-361	2,315825E+09	2,315851E+09	3,591245E+09	3,591206E+09	4,631677E+09	7,182452E+09	1,181413E+10
-360	2,315678E+09	2,315714E+09	3,591210E+09	3,591221E+09	4,631393E+09	7,182432E+09	1,181382E+10
-359	2,315759E+09	2,315758E+09	3,591212E+09	3,591239E+09	4,631517E+09	7,182451E+09	1,181397E+10
-358	2,315811E+09	2,315778E+09	3,591266E+09	3,591190E+09	4,631589E+09	7,182455E+09	1,181404E+10
-357	2,315715E+09	2,315724E+09	3,591167E+09	3,591200E+09	4,631438E+09	7,182367E+09	1,181381E+10
-356	2,315871E+09	2,315864E+09	3,591172E+09	3,591197E+09	4,631735E+09	7,182369E+09	1,181410E+10
-355	2,315839E+09	2,315848E+09	3,591190E+09	3,591155E+09	4,631688E+09	7,182345E+09	1,181403E+10

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	2,315807E+09	2,315860E+09	3,591149E+09	3,591163E+09	4,631666E+09	7,182312E+09	1,181398E+10
-353	2,315966E+09	2,315987E+09	3,591205E+09	3,591134E+09	4,631953E+09	7,182339E+09	1,181429E+10
-352	2,315886E+09	2,315894E+09	3,591175E+09	3,591120E+09	4,631780E+09	7,182295E+09	1,181407E+10
-351	2,315947E+09	2,315946E+09	3,591140E+09	3,591175E+09	4,631893E+09	7,182315E+09	1,181421E+10
-350	2,316029E+09	2,316023E+09	3,591173E+09	3,591152E+09	4,632052E+09	7,182325E+09	1,181438E+10
-349	2,315905E+09	2,315934E+09	3,591091E+09	3,591145E+09	4,631839E+09	7,182236E+09	1,181407E+10
-348	2,316013E+09	2,316008E+09	3,591119E+09	3,591147E+09	4,632021E+09	7,182266E+09	1,181429E+10
-347	2,315995E+09	2,315959E+09	3,591166E+09	3,591101E+09	4,631954E+09	7,182267E+09	1,181422E+10
-346	2,315884E+09	2,315881E+09	3,591134E+09	3,591129E+09	4,631765E+09	7,182263E+09	1,181403E+10
-345	2,315975E+09	2,315971E+09	3,591183E+09	3,591150E+09	4,631946E+09	7,182333E+09	1,181428E+10
-344	2,315848E+09	2,315863E+09	3,591176E+09	3,591142E+09	4,631711E+09	7,182318E+09	1,181403E+10
-343	2,315807E+09	2,315848E+09	3,591154E+09	3,591208E+09	4,631655E+09	7,182362E+09	1,181402E+10
-342	2,315885E+09	2,315901E+09	3,591219E+09	3,591191E+09	4,631787E+09	7,182410E+09	1,181420E+10
-341	2,315764E+09	2,315776E+09	3,591175E+09	3,591158E+09	4,631540E+09	7,182334E+09	1,181387E+10
-340	2,315852E+09	2,315828E+09	3,591176E+09	3,591184E+09	4,631680E+09	7,182360E+09	1,181404E+10
-339	2,315900E+09	2,315854E+09	3,591190E+09	3,591151E+09	4,631754E+09	7,182341E+09	1,181410E+10
-338	2,315798E+09	2,315825E+09	3,591118E+09	3,591153E+09	4,631623E+09	7,182271E+09	1,181389E+10
-337	2,315932E+09	2,315965E+09	3,591141E+09	3,591156E+09	4,631897E+09	7,182297E+09	1,181419E+10
-336	2,315910E+09	2,315935E+09	3,591152E+09	3,591086E+09	4,631845E+09	7,182238E+09	1,181408E+10
-335	2,315905E+09	2,315932E+09	3,591122E+09	3,591121E+09	4,631837E+09	7,182243E+09	1,181408E+10
-334	2,316052E+09	2,316046E+09	3,591168E+09	3,591119E+09	4,632098E+09	7,182287E+09	1,181439E+10
-333	2,315975E+09	2,315985E+09	3,591115E+09	3,591080E+09	4,631960E+09	7,182195E+09	1,181415E+10
-332	2,316029E+09	2,316041E+09	3,591082E+09	3,591134E+09	4,632069E+09	7,182216E+09	1,181428E+10
-331	2,316106E+09	2,316096E+09	3,591107E+09	3,591106E+09	4,632202E+09	7,182213E+09	1,181441E+10
-330	2,315989E+09	2,316006E+09	3,591072E+09	3,591077E+09	4,631995E+09	7,182149E+09	1,181414E+10
-329	2,316076E+09	2,316072E+09	3,591108E+09	3,591101E+09	4,632148E+09	7,182209E+09	1,181436E+10
-328	2,316054E+09	2,316023E+09	3,591126E+09	3,591053E+09	4,632076E+09	7,182179E+09	1,181426E+10
-327	2,315945E+09	2,315952E+09	3,591088E+09	3,591120E+09	4,631897E+09	7,182208E+09	1,181411E+10
-326	2,316013E+09	2,316036E+09	3,591138E+09	3,591154E+09	4,632050E+09	7,182292E+09	1,181434E+10
-325	2,315905E+09	2,315935E+09	3,591133E+09	3,591094E+09	4,631841E+09	7,182227E+09	1,181407E+10
-324	2,315881E+09	2,315904E+09	3,591130E+09	3,591147E+09	4,631785E+09	7,182276E+09	1,181406E+10
-323	2,315975E+09	2,315943E+09	3,591169E+09	3,591138E+09	4,631918E+09	7,182307E+09	1,181422E+10
-322	2,315861E+09	2,315841E+09	3,591139E+09	3,591101E+09	4,631703E+09	7,182240E+09	1,181394E+10
-321	2,315919E+09	2,315923E+09	3,591130E+09	3,591155E+09	4,631841E+09	7,182285E+09	1,181413E+10
-320	2,315964E+09	2,315959E+09	3,591125E+09	3,591100E+09	4,631922E+09	7,182225E+09	1,181415E+10
-319	2,315877E+09	2,315921E+09	3,591083E+09	3,591116E+09	4,631797E+09	7,182199E+09	1,181400E+10
-318	2,316005E+09	2,316040E+09	3,591129E+09	3,591125E+09	4,632045E+09	7,182253E+09	1,181430E+10
-317	2,316006E+09	2,316011E+09	3,591125E+09	3,591024E+09	4,632017E+09	7,182148E+09	1,181417E+10
-316	2,316000E+09	2,316007E+09	3,591088E+09	3,591081E+09	4,632007E+09	7,182169E+09	1,181418E+10
-315	2,316140E+09	2,316123E+09	3,591087E+09	3,591099E+09	4,632263E+09	7,182186E+09	1,181445E+10
-314	2,316063E+09	2,316074E+09	3,591053E+09	3,591040E+09	4,632136E+09	7,182093E+09	1,181423E+10
-313	2,316096E+09	2,316128E+09	3,591036E+09	3,591091E+09	4,632225E+09	7,182127E+09	1,181435E+10
-312	2,316181E+09	2,316166E+09	3,591054E+09	3,591027E+09	4,632347E+09	7,182081E+09	1,181443E+10
-311	2,316079E+09	2,316071E+09	3,591036E+09	3,591025E+09	4,632150E+09	7,182061E+09	1,181421E+10
-310	2,316137E+09	2,316134E+09	3,591079E+09	3,591076E+09	4,632272E+09	7,182155E+09	1,181443E+10
-309	2,316111E+09	2,316110E+09	3,591083E+09	3,591011E+09	4,632222E+09	7,182094E+09	1,181432E+10
-308	2,315998E+09	2,316033E+09	3,591064E+09	3,591089E+09	4,632031E+09	7,182153E+09	1,181418E+10
-307	2,316068E+09	2,316089E+09	3,591101E+09	3,591127E+09	4,632158E+09	7,182227E+09	1,181438E+10
-306	2,315982E+09	2,315984E+09	3,591126E+09	3,591047E+09	4,631966E+09	7,182173E+09	1,181414E+10

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	2,315950E+09	2,315956E+09	3,591109E+09	3,591116E+09	4,631906E+09	7,182224E+09	1,181413E+10
-304	2,316047E+09	2,316003E+09	3,591106E+09	3,591095E+09	4,632050E+09	7,182201E+09	1,181425E+10
-303	2,315945E+09	2,315931E+09	3,591067E+09	3,591081E+09	4,631876E+09	7,182149E+09	1,181402E+10
-302	2,315980E+09	2,316011E+09	3,591072E+09	3,591128E+09	4,631992E+09	7,182199E+09	1,181419E+10
-301	2,316042E+09	2,316057E+09	3,591079E+09	3,591025E+09	4,632100E+09	7,182104E+09	1,181420E+10
-300	2,315970E+09	2,316001E+09	3,591064E+09	3,591041E+09	4,631971E+09	7,182105E+09	1,181408E+10
-299	2,316096E+09	2,316100E+09	3,591085E+09	3,591076E+09	4,632196E+09	7,182161E+09	1,181436E+10
-298	2,316104E+09	2,316090E+09	3,591092E+09	3,590984E+09	4,632194E+09	7,182075E+09	1,181427E+10
-297	2,316071E+09	2,316105E+09	3,591035E+09	3,591066E+09	4,632175E+09	7,182100E+09	1,181428E+10
-296	2,316211E+09	2,316216E+09	3,591013E+09	3,591055E+09	4,632427E+09	7,182069E+09	1,181450E+10
-295	2,316153E+09	2,316162E+09	3,591000E+09	3,590999E+09	4,632315E+09	7,181999E+09	1,181431E+10
-294	2,316172E+09	2,316196E+09	3,591010E+09	3,591045E+09	4,632368E+09	7,182055E+09	1,181442E+10
-293	2,316267E+09	2,316241E+09	3,591023E+09	3,590957E+09	4,632507E+09	7,181980E+09	1,181449E+10
-292	2,316154E+09	2,316143E+09	3,591015E+09	3,590981E+09	4,632298E+09	7,181996E+09	1,181429E+10
-291	2,316190E+09	2,316202E+09	3,591026E+09	3,591061E+09	4,632392E+09	7,182087E+09	1,181448E+10
-290	2,316171E+09	2,316178E+09	3,591056E+09	3,590982E+09	4,632349E+09	7,182038E+09	1,181439E+10
-289	2,316046E+09	2,316093E+09	3,591042E+09	3,591062E+09	4,632138E+09	7,182104E+09	1,181424E+10
-288	2,316137E+09	2,316129E+09	3,591054E+09	3,591071E+09	4,632266E+09	7,182125E+09	1,181439E+10
-287	2,316074E+09	2,316034E+09	3,591071E+09	3,591013E+09	4,632108E+09	7,182084E+09	1,181419E+10
-286	2,316022E+09	2,316024E+09	3,591052E+09	3,591093E+09	4,632046E+09	7,182146E+09	1,181419E+10
-285	2,316123E+09	2,316104E+09	3,591033E+09	3,591037E+09	4,632227E+09	7,182070E+09	1,181430E+10
-284	2,316017E+09	2,316034E+09	3,591031E+09	3,591022E+09	4,632051E+09	7,182053E+09	1,181410E+10
-283	2,316049E+09	2,316094E+09	3,591038E+09	3,591074E+09	4,632143E+09	7,182113E+09	1,181426E+10
-282	2,316131E+09	2,316130E+09	3,591079E+09	3,590964E+09	4,632261E+09	7,182043E+09	1,181430E+10
-281	2,316046E+09	2,316073E+09	3,591052E+09	3,591014E+09	4,632120E+09	7,182065E+09	1,181419E+10
-280	2,316175E+09	2,316171E+09	3,591021E+09	3,591046E+09	4,632345E+09	7,182067E+09	1,181441E+10
-279	2,316195E+09	2,316184E+09	3,591010E+09	3,590977E+09	4,632379E+09	7,181987E+09	1,181437E+10
-278	2,316147E+09	2,316194E+09	3,590966E+09	3,591042E+09	4,632341E+09	7,182008E+09	1,181435E+10
-277	2,316304E+09	2,316306E+09	3,590954E+09	3,590972E+09	4,632609E+09	7,181926E+09	1,181454E+10
-276	2,316255E+09	2,316241E+09	3,590975E+09	3,590913E+09	4,632496E+09	7,181888E+09	1,181438E+10
-275	2,316258E+09	2,316260E+09	3,590971E+09	3,590987E+09	4,632518E+09	7,181958E+09	1,181448E+10
-274	2,316345E+09	2,316318E+09	3,591006E+09	3,590915E+09	4,632663E+09	7,181920E+09	1,181458E+10
-273	2,316198E+09	2,316230E+09	3,590992E+09	3,590974E+09	4,632429E+09	7,181965E+09	1,181439E+10
-272	2,316229E+09	2,316266E+09	3,590984E+09	3,591036E+09	4,632496E+09	7,182020E+09	1,181452E+10
-271	2,316238E+09	2,316237E+09	3,591021E+09	3,590970E+09	4,632475E+09	7,181991E+09	1,181447E+10
-270	2,316111E+09	2,316132E+09	3,591009E+09	3,591038E+09	4,632243E+09	7,182047E+09	1,181429E+10
-269	2,316219E+09	2,316185E+09	3,590998E+09	3,591014E+09	4,632404E+09	7,182012E+09	1,181442E+10
-268	2,316158E+09	2,316110E+09	3,591016E+09	3,590964E+09	4,632269E+09	7,181979E+09	1,181425E+10
-267	2,316085E+09	2,316107E+09	3,590978E+09	3,591054E+09	4,632192E+09	7,182032E+09	1,181422E+10
-266	2,316194E+09	2,316195E+09	3,591004E+09	3,590976E+09	4,632389E+09	7,181979E+09	1,181437E+10
-265	2,316078E+09	2,316117E+09	3,591020E+09	3,590969E+09	4,632195E+09	7,181989E+09	1,181418E+10
-264	2,316122E+09	2,316153E+09	3,591008E+09	3,591012E+09	4,632274E+09	7,182020E+09	1,181429E+10
-263	2,316225E+09	2,316201E+09	3,591033E+09	3,590942E+09	4,632426E+09	7,181975E+09	1,181440E+10
-262	2,316125E+09	2,316153E+09	3,590996E+09	3,591005E+09	4,632278E+09	7,182000E+09	1,181428E+10
-261	2,316263E+09	2,316273E+09	3,590943E+09	3,591002E+09	4,632536E+09	7,181946E+09	1,181448E+10
-260	2,316290E+09	2,316285E+09	3,590960E+09	3,590920E+09	4,632576E+09	7,181880E+09	1,181446E+10
-259	2,316237E+09	2,316277E+09	3,590920E+09	3,590980E+09	4,632514E+09	7,181900E+09	1,181441E+10
-258	2,316405E+09	2,316381E+09	3,590945E+09	3,590898E+09	4,632786E+09	7,181843E+09	1,181463E+10
-257	2,316327E+09	2,316321E+09	3,590966E+09	3,590875E+09	4,632648E+09	7,181840E+09	1,181449E+10

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	2,316316E+09	2,316333E+09	3,590923E+09	3,590959E+09	4,632649E+09	7,181882E+09	1,181453E+10
-255	2,316405E+09	2,316400E+09	3,590944E+09	3,590919E+09	4,632805E+09	7,181863E+09	1,181467E+10
-254	2,316246E+09	2,316295E+09	3,590949E+09	3,590968E+09	4,632541E+09	7,181916E+09	1,181446E+10
-253	2,316302E+09	2,316320E+09	3,590932E+09	3,590975E+09	4,632621E+09	7,181907E+09	1,181453E+10
-252	2,316325E+09	2,316285E+09	3,590984E+09	3,590905E+09	4,632610E+09	7,181888E+09	1,181450E+10
-251	2,316190E+09	2,316186E+09	3,590949E+09	3,590988E+09	4,632376E+09	7,181936E+09	1,181431E+10
-250	2,316298E+09	2,316261E+09	3,590956E+09	3,590959E+09	4,632559E+09	7,181915E+09	1,181447E+10
-249	2,316208E+09	2,316211E+09	3,590985E+09	3,590926E+09	4,632419E+09	7,181911E+09	1,181433E+10
-248	2,316134E+09	2,316187E+09	3,590943E+09	3,590999E+09	4,632321E+09	7,181943E+09	1,181426E+10
-247	2,316263E+09	2,316271E+09	3,590983E+09	3,590944E+09	4,632534E+09	7,181928E+09	1,181446E+10
-246	2,316148E+09	2,316175E+09	3,591008E+09	3,590949E+09	4,632323E+09	7,181957E+09	1,181428E+10
-245	2,316208E+09	2,316217E+09	3,590961E+09	3,590973E+09	4,632425E+09	7,181933E+09	1,181436E+10
-244	2,316318E+09	2,316286E+09	3,590973E+09	3,590915E+09	4,632605E+09	7,181888E+09	1,181449E+10
-243	2,316210E+09	2,316245E+09	3,590908E+09	3,590975E+09	4,632455E+09	7,181883E+09	1,181434E+10
-242	2,316363E+09	2,316365E+09	3,590896E+09	3,590936E+09	4,632729E+09	7,181831E+09	1,181456E+10
-241	2,316379E+09	2,316380E+09	3,590932E+09	3,590850E+09	4,632759E+09	7,181782E+09	1,181454E+10
-240	2,316325E+09	2,316347E+09	3,590880E+09	3,590904E+09	4,632671E+09	7,181784E+09	1,181446E+10
-239	2,316493E+09	2,316465E+09	3,590904E+09	3,590869E+09	4,632958E+09	7,181773E+09	1,181473E+10
-238	2,316387E+09	2,316404E+09	3,590926E+09	3,590867E+09	4,632791E+09	7,181794E+09	1,181458E+10
-237	2,316372E+09	2,316418E+09	3,590870E+09	3,590926E+09	4,632790E+09	7,181797E+09	1,181459E+10
-236	2,316471E+09	2,316475E+09	3,590912E+09	3,590882E+09	4,632946E+09	7,181794E+09	1,181474E+10
-235	2,316315E+09	2,316342E+09	3,590908E+09	3,590926E+09	4,632657E+09	7,181834E+09	1,181449E+10
-234	2,316390E+09	2,316362E+09	3,590913E+09	3,590916E+09	4,632752E+09	7,181829E+09	1,181458E+10
-233	2,316393E+09	2,316346E+09	3,590953E+09	3,590865E+09	4,632740E+09	7,181817E+09	1,181456E+10
-232	2,316247E+09	2,316254E+09	3,590884E+09	3,590944E+09	4,632501E+09	7,181829E+09	1,181433E+10
-231	2,316356E+09	2,316351E+09	3,590896E+09	3,590937E+09	4,632708E+09	7,181833E+09	1,181454E+10
-230	2,316258E+09	2,316286E+09	3,590959E+09	3,590895E+09	4,632544E+09	7,181854E+09	1,181440E+10
-229	2,316205E+09	2,316252E+09	3,590915E+09	3,590934E+09	4,632457E+09	7,181849E+09	1,181431E+10
-228	2,316352E+09	2,316333E+09	3,590959E+09	3,590893E+09	4,632685E+09	7,181853E+09	1,181454E+10
-227	2,316234E+09	2,316242E+09	3,590951E+09	3,590923E+09	4,632475E+09	7,181874E+09	1,181435E+10
-226	2,316304E+09	2,316303E+09	3,590908E+09	3,590936E+09	4,632608E+09	7,181844E+09	1,181445E+10
-225	2,316394E+09	2,316395E+09	3,590925E+09	3,590880E+09	4,632789E+09	7,181805E+09	1,181459E+10
-224	2,316293E+09	2,316338E+09	3,590854E+09	3,590911E+09	4,632632E+09	7,181765E+09	1,181440E+10
-223	2,316460E+09	2,316456E+09	3,590854E+09	3,590883E+09	4,632915E+09	7,181737E+09	1,181465E+10
-222	2,316462E+09	2,316457E+09	3,590913E+09	3,590809E+09	4,632919E+09	7,181723E+09	1,181464E+10
-221	2,316407E+09	2,316426E+09	3,590836E+09	3,590853E+09	4,632833E+09	7,181689E+09	1,181452E+10
-220	2,316563E+09	2,316554E+09	3,590856E+09	3,590843E+09	4,633117E+09	7,181698E+09	1,181482E+10
-219	2,316448E+09	2,316483E+09	3,590866E+09	3,590851E+09	4,632930E+09	7,181717E+09	1,181465E+10
-218	2,316451E+09	2,316476E+09	3,590841E+09	3,590874E+09	4,632927E+09	7,181715E+09	1,181464E+10
-217	2,316542E+09	2,316531E+09	3,590892E+09	3,590827E+09	4,633073E+09	7,181718E+09	1,181479E+10
-216	2,316394E+09	2,316385E+09	3,590857E+09	3,590861E+09	4,632778E+09	7,181718E+09	1,181450E+10
-215	2,316468E+09	2,316429E+09	3,590853E+09	3,590886E+09	4,632897E+09	7,181739E+09	1,181464E+10
-214	2,316444E+09	2,316429E+09	3,590908E+09	3,590847E+09	4,632873E+09	7,181754E+09	1,181463E+10
-213	2,316298E+09	2,316341E+09	3,590840E+09	3,590896E+09	4,632639E+09	7,181737E+09	1,181438E+10
-212	2,316414E+09	2,316432E+09	3,590882E+09	3,590889E+09	4,632846E+09	7,181771E+09	1,181462E+10
-211	2,316325E+09	2,316345E+09	3,590939E+09	3,590859E+09	4,632669E+09	7,181798E+09	1,181447E+10
-210	2,316293E+09	2,316302E+09	3,590906E+09	3,590890E+09	4,632596E+09	7,181796E+09	1,181439E+10
-209	2,316426E+09	2,316407E+09	3,590925E+09	3,590871E+09	4,632834E+09	7,181797E+09	1,181463E+10
-208	2,316310E+09	2,316321E+09	3,590868E+09	3,590891E+09	4,632631E+09	7,181759E+09	1,181439E+10

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							
-207	2,316392E+09	2,316404E+09	3,590826E+09	3,590910E+09	4,632796E+09	7,181736E+09	1,181453E+10
-206	2,316477E+09	2,316483E+09	3,590876E+09	3,590827E+09	4,632960E+09	7,181703E+09	1,181466E+10
-205	2,316389E+09	2,316419E+09	3,590808E+09	3,590819E+09	4,632809E+09	7,181628E+09	1,181444E+10
-204	2,316558E+09	2,316541E+09	3,590823E+09	3,590811E+09	4,633099E+09	7,181634E+09	1,181473E+10
-203	2,316544E+09	2,316540E+09	3,590865E+09	3,590774E+09	4,633084E+09	7,181639E+09	1,181472E+10
-202	2,316488E+09	2,316514E+09	3,590805E+09	3,590818E+09	4,633002E+09	7,181623E+09	1,181462E+10
-201	2,316619E+09	2,316646E+09	3,590830E+09	3,590816E+09	4,633266E+09	7,181645E+09	1,181491E+10
-200	2,316515E+09	2,316544E+09	3,590825E+09	3,590807E+09	4,633059E+09	7,181632E+09	1,181469E+10
-199	2,316535E+09	2,316534E+09	3,590801E+09	3,590843E+09	4,633069E+09	7,181643E+09	1,181471E+10
-198	2,316614E+09	2,316580E+09	3,590861E+09	3,590799E+09	4,633194E+09	7,181660E+09	1,181485E+10
-197	2,316465E+09	2,316451E+09	3,590797E+09	3,590814E+09	4,632916E+09	7,181611E+09	1,181453E+10
-196	2,316529E+09	2,316518E+09	3,590794E+09	3,590850E+09	4,633047E+09	7,181644E+09	1,181469E+10
-195	2,316496E+09	2,316511E+09	3,590857E+09	3,590815E+09	4,633007E+09	7,181672E+09	1,181468E+10
-194	2,316372E+09	2,316404E+09	3,590831E+09	3,590836E+09	4,632776E+09	7,181666E+09	1,181444E+10
-193	2,316476E+09	2,316494E+09	3,590880E+09	3,590837E+09	4,632969E+09	7,181717E+09	1,181469E+10
-192	2,316402E+09	2,316395E+09	3,590899E+09	3,590816E+09	4,632797E+09	7,181715E+09	1,181451E+10
-191	2,316378E+09	2,316375E+09	3,590840E+09	3,590875E+09	4,632753E+09	7,181714E+09	1,181447E+10
-190	2,316494E+09	2,316493E+09	3,590867E+09	3,590857E+09	4,632987E+09	7,181724E+09	1,181471E+10
-189	2,316391E+09	2,316418E+09	3,590800E+09	3,590829E+09	4,632809E+09	7,181630E+09	1,181444E+10
-188	2,316483E+09	2,316499E+09	3,590784E+09	3,590840E+09	4,632982E+09	7,181624E+09	1,181461E+10
-187	2,316570E+09	2,316564E+09	3,590842E+09	3,590768E+09	4,633134E+09	7,181610E+09	1,181474E+10
-186	2,316494E+09	2,316492E+09	3,590794E+09	3,590756E+09	4,632986E+09	7,181550E+09	1,181454E+10
-185	2,316627E+09	2,316635E+09	3,590798E+09	3,590777E+09	4,633262E+09	7,181576E+09	1,181484E+10
-184	2,316611E+09	2,316627E+09	3,590801E+09	3,590749E+09	4,633238E+09	7,181550E+09	1,181479E+10
-183	2,316563E+09	2,316599E+09	3,590746E+09	3,590803E+09	4,633162E+09	7,181549E+09	1,181471E+10
-182	2,316690E+09	2,316709E+09	3,590797E+09	3,590785E+09	4,633398E+09	7,181582E+09	1,181498E+10
-181	2,316603E+09	2,316598E+09	3,590773E+09	3,590739E+09	4,633201E+09	7,181512E+09	1,181471E+10
-180	2,316624E+09	2,316601E+09	3,590748E+09	3,590790E+09	4,633225E+09	7,181538E+09	1,181476E+10
-179	2,316684E+09	2,316655E+09	3,590799E+09	3,590767E+09	4,633339E+09	7,181566E+09	1,181490E+10
-178	2,316533E+09	2,316536E+09	3,590765E+09	3,590766E+09	4,633068E+09	7,181532E+09	1,181460E+10
-177	2,316570E+09	2,316610E+09	3,590787E+09	3,590803E+09	4,633180E+09	7,181591E+09	1,181477E+10
-176	2,316551E+09	2,316567E+09	3,590837E+09	3,590766E+09	4,633119E+09	7,181602E+09	1,181472E+10
-175	2,316445E+09	2,316456E+09	3,590812E+09	3,590812E+09	4,632900E+09	7,181624E+09	1,181452E+10
-174	2,316541E+09	2,316537E+09	3,590855E+09	3,590824E+09	4,633078E+09	7,181678E+09	1,181476E+10
-173	2,316475E+09	2,316458E+09	3,590825E+09	3,590783E+09	4,632932E+09	7,181608E+09	1,181454E+10
-172	2,316457E+09	2,316469E+09	3,590756E+09	3,590843E+09	4,632926E+09	7,181599E+09	1,181453E+10
-171	2,316576E+09	2,316580E+09	3,590794E+09	3,590810E+09	4,633156E+09	7,181604E+09	1,181476E+10
-170	2,316498E+09	2,316500E+09	3,590770E+09	3,590739E+09	4,632997E+09	7,181509E+09	1,181451E+10
-169	2,316572E+09	2,316590E+09	3,590768E+09	3,590755E+09	4,633163E+09	7,181522E+09	1,181468E+10
-168	2,316660E+09	2,316644E+09	3,590797E+09	3,590709E+09	4,633305E+09	7,181506E+09	1,181481E+10
-167	2,316579E+09	2,316591E+09	3,590745E+09	3,590741E+09	4,633170E+09	7,181486E+09	1,181466E+10
-166	2,316685E+09	2,316730E+09	3,590762E+09	3,590773E+09	4,633414E+09	7,181536E+09	1,181495E+10
-165	2,316682E+09	2,316713E+09	3,590752E+09	3,590712E+09	4,633395E+09	7,181464E+09	1,181486E+10
-164	2,316650E+09	2,316677E+09	3,590703E+09	3,590760E+09	4,633326E+09	7,181463E+09	1,181479E+10
-163	2,316778E+09	2,316764E+09	3,590756E+09	3,590745E+09	4,633542E+09	7,181501E+09	1,181504E+10
-162	2,316704E+09	2,316658E+09	3,590739E+09	3,590681E+09	4,633361E+09	7,181420E+09	1,181478E+10
-161	2,316684E+09	2,316687E+09	3,590708E+09	3,590744E+09	4,633372E+09	7,181452E+09	1,181482E+10
-160	2,316739E+09	2,316736E+09	3,590738E+09	3,590730E+09	4,633475E+09	7,181468E+09	1,181494E+10
-159	2,316593E+09	2,316609E+09	3,590729E+09	3,590733E+09	4,633202E+09	7,181462E+09	1,181466E+10

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							
-158	2,316616E+09	2,316659E+09	3,590783E+09	3,590767E+09	4,633276E+09	7,181550E+09	1,181483E+10
-157	2,316619E+09	2,316611E+09	3,590802E+09	3,590713E+09	4,633230E+09	7,181515E+09	1,181475E+10
-156	2,316522E+09	2,316514E+09	3,590757E+09	3,590781E+09	4,633037E+09	7,181538E+09	1,181457E+10
-155	2,316613E+09	2,316606E+09	3,590785E+09	3,590809E+09	4,633219E+09	7,181594E+09	1,181481E+10
-154	2,316563E+09	2,316545E+09	3,590768E+09	3,590734E+09	4,633107E+09	7,181502E+09	1,181461E+10
-153	2,316529E+09	2,316573E+09	3,590723E+09	3,590776E+09	4,633102E+09	7,181498E+09	1,181460E+10
-152	2,316663E+09	2,316663E+09	3,590753E+09	3,590739E+09	4,633325E+09	7,181493E+09	1,181482E+10
-151	2,316594E+09	2,316582E+09	3,590747E+09	3,590690E+09	4,633177E+09	7,181437E+09	1,181461E+10
-150	2,316644E+09	2,316669E+09	3,590752E+09	3,590730E+09	4,633313E+09	7,181482E+09	1,181479E+10
-149	2,316731E+09	2,316734E+09	3,590736E+09	3,590682E+09	4,633466E+09	7,181419E+09	1,181488E+10
-148	2,316656E+09	2,316693E+09	3,590677E+09	3,590725E+09	4,633348E+09	7,181403E+09	1,181475E+10
-147	2,316766E+09	2,316804E+09	3,590707E+09	3,590745E+09	4,633571E+09	7,181452E+09	1,181502E+10
-146	2,316790E+09	2,316776E+09	3,590717E+09	3,590642E+09	4,633566E+09	7,181359E+09	1,181492E+10
-145	2,316744E+09	2,316752E+09	3,590671E+09	3,590686E+09	4,633496E+09	7,181358E+09	1,181485E+10
-144	2,316866E+09	2,316829E+09	3,590690E+09	3,590688E+09	4,633695E+09	7,181378E+09	1,181507E+10
-143	2,316777E+09	2,316747E+09	3,590687E+09	3,590649E+09	4,633524E+09	7,181336E+09	1,181486E+10
-142	2,316725E+09	2,316771E+09	3,590685E+09	3,590717E+09	4,633496E+09	7,181402E+09	1,181490E+10
-141	2,316783E+09	2,316804E+09	3,590707E+09	3,590682E+09	4,633588E+09	7,181390E+09	1,181498E+10
-140	2,316656E+09	2,316671E+09	3,590707E+09	3,590701E+09	4,633327E+09	7,181408E+09	1,181474E+10
-139	2,316683E+09	2,316695E+09	3,590756E+09	3,590748E+09	4,633378E+09	7,181504E+09	1,181488E+10
-138	2,316704E+09	2,316659E+09	3,590763E+09	3,590678E+09	4,633363E+09	7,181441E+09	1,181480E+10
-137	2,316587E+09	2,316602E+09	3,590696E+09	3,590744E+09	4,633189E+09	7,181441E+09	1,181463E+10
-136	2,316686E+09	2,316688E+09	3,590700E+09	3,590767E+09	4,633374E+09	7,181467E+09	1,181484E+10
-135	2,316650E+09	2,316635E+09	3,590718E+09	3,590678E+09	4,633285E+09	7,181397E+09	1,181468E+10
-134	2,316604E+09	2,316650E+09	3,590710E+09	3,590712E+09	4,633254E+09	7,181421E+09	1,181467E+10
-133	2,316747E+09	2,316738E+09	3,590717E+09	3,590669E+09	4,633485E+09	7,181386E+09	1,181487E+10
-132	2,316682E+09	2,316677E+09	3,590699E+09	3,590658E+09	4,633358E+09	7,181357E+09	1,181472E+10
-131	2,316715E+09	2,316759E+09	3,590704E+09	3,590722E+09	4,633473E+09	7,181425E+09	1,181490E+10
-130	2,316820E+09	2,316828E+09	3,590697E+09	3,590646E+09	4,633647E+09	7,181343E+09	1,181499E+10
-129	2,316736E+09	2,316786E+09	3,590648E+09	3,590671E+09	4,633522E+09	7,181319E+09	1,181484E+10
-128	2,316864E+09	2,316868E+09	3,590657E+09	3,590691E+09	4,633732E+09	7,181348E+09	1,181508E+10
-127	2,316896E+09	2,316841E+09	3,590674E+09	3,590593E+09	4,633738E+09	7,181267E+09	1,181500E+10
-126	2,316813E+09	2,316822E+09	3,590635E+09	3,590651E+09	4,633635E+09	7,181287E+09	1,181492E+10
-125	2,316923E+09	2,316914E+09	3,590621E+09	3,590647E+09	4,633838E+09	7,181267E+09	1,181511E+10
-124	2,316834E+09	2,316839E+09	3,590629E+09	3,590620E+09	4,633673E+09	7,181248E+09	1,181492E+10
-123	2,316778E+09	2,316830E+09	3,590660E+09	3,590685E+09	4,633608E+09	7,181345E+09	1,181495E+10
-122	2,316861E+09	2,316851E+09	3,590692E+09	3,590623E+09	4,633712E+09	7,181315E+09	1,181503E+10
-121	2,316725E+09	2,316729E+09	3,590685E+09	3,590650E+09	4,633454E+09	7,181335E+09	1,181479E+10
-120	2,316757E+09	2,316746E+09	3,590689E+09	3,590720E+09	4,633503E+09	7,181409E+09	1,181491E+10
-119	2,316778E+09	2,316738E+09	3,590704E+09	3,590656E+09	4,633516E+09	7,181359E+09	1,181488E+10
-118	2,316641E+09	2,316689E+09	3,590662E+09	3,590710E+09	4,633330E+09	7,181372E+09	1,181470E+10
-117	2,316752E+09	2,316769E+09	3,590656E+09	3,590701E+09	4,633521E+09	7,181357E+09	1,181488E+10
-116	2,316735E+09	2,316721E+09	3,590688E+09	3,590626E+09	4,633456E+09	7,181314E+09	1,181477E+10
-115	2,316687E+09	2,316714E+09	3,590691E+09	3,590677E+09	4,633401E+09	7,181367E+09	1,181477E+10
-114	2,316835E+09	2,316815E+09	3,590683E+09	3,590630E+09	4,633650E+09	7,181313E+09	1,181496E+10
-113	2,316755E+09	2,316783E+09	3,590652E+09	3,590628E+09	4,633538E+09	7,181280E+09	1,181482E+10
-112	2,316799E+09	2,316839E+09	3,590627E+09	3,590690E+09	4,633638E+09	7,181317E+09	1,181495E+10
-111	2,316919E+09	2,316905E+09	3,590650E+09	3,590597E+09	4,633824E+09	7,181247E+09	1,181507E+10
-110	2,316828E+09	2,316857E+09	3,590616E+09	3,590611E+09	4,633685E+09	7,181227E+09	1,181491E+10

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							
-109	2,316956E+09	2,316937E+09	3,590591E+09	3,590622E+09	4,633892E+09	7,181213E+09	1,181511E+10
-108	2,316982E+09	2,316940E+09	3,590603E+09	3,590556E+09	4,633922E+09	7,181159E+09	1,181508E+10
-107	2,316875E+09	2,316911E+09	3,590588E+09	3,590627E+09	4,633786E+09	7,181215E+09	1,181500E+10
-106	2,316987E+09	2,317001E+09	3,590596E+09	3,590596E+09	4,633987E+09	7,181192E+09	1,181518E+10
-105	2,316889E+09	2,316922E+09	3,590627E+09	3,590565E+09	4,633811E+09	7,181193E+09	1,181500E+10
-104	2,316846E+09	2,316871E+09	3,590636E+09	3,590649E+09	4,633717E+09	7,181284E+09	1,181500E+10
-103	2,316938E+09	2,316893E+09	3,590671E+09	3,590600E+09	4,633832E+09	7,181271E+09	1,181510E+10
-102	2,316780E+09	2,316785E+09	3,590649E+09	3,590637E+09	4,633565E+09	7,181285E+09	1,181485E+10
-101	2,316813E+09	2,316818E+09	3,590606E+09	3,590690E+09	4,633630E+09	7,181296E+09	1,181493E+10
-100	2,316849E+09	2,316828E+09	3,590630E+09	3,590620E+09	4,633677E+09	7,181250E+09	1,181493E+10
-99	2,316715E+09	2,316756E+09	3,590633E+09	3,590656E+09	4,633471E+09	7,181289E+09	1,181476E+10
-98	2,316846E+09	2,316838E+09	3,590637E+09	3,590619E+09	4,633684E+09	7,181256E+09	1,181494E+10
-97	2,316819E+09	2,316807E+09	3,590666E+09	3,590559E+09	4,633626E+09	7,181226E+09	1,181485E+10
-96	2,316767E+09	2,316792E+09	3,590634E+09	3,590650E+09	4,633558E+09	7,181284E+09	1,181484E+10
-95	2,316914E+09	2,316909E+09	3,590634E+09	3,590609E+09	4,633824E+09	7,181243E+09	1,181507E+10
-94	2,316819E+09	2,316874E+09	3,590620E+09	3,590600E+09	4,633693E+09	7,181221E+09	1,181491E+10
-93	2,316882E+09	2,316917E+09	3,590571E+09	3,590636E+09	4,633798E+09	7,181208E+09	1,181501E+10
-92	2,317022E+09	2,316988E+09	3,590593E+09	3,590550E+09	4,634010E+09	7,181144E+09	1,181515E+10
-91	2,316923E+09	2,316925E+09	3,590576E+09	3,590570E+09	4,633848E+09	7,181146E+09	1,181499E+10
-90	2,317045E+09	2,317025E+09	3,590536E+09	3,590566E+09	4,634070E+09	7,181102E+09	1,181517E+10
-89	2,317046E+09	2,317052E+09	3,590558E+09	3,590504E+09	4,634098E+09	7,181062E+09	1,181516E+10
-88	2,316940E+09	2,316987E+09	3,590541E+09	3,590588E+09	4,633926E+09	7,181129E+09	1,181506E+10
-87	2,317057E+09	2,317059E+09	3,590587E+09	3,590548E+09	4,634116E+09	7,181136E+09	1,181525E+10
-86	2,316951E+09	2,316969E+09	3,590626E+09	3,590528E+09	4,633919E+09	7,181154E+09	1,181507E+10
-85	2,316912E+09	2,316912E+09	3,590582E+09	3,590613E+09	4,633824E+09	7,181194E+09	1,181502E+10
-84	2,317007E+09	2,316966E+09	3,590597E+09	3,590589E+09	4,633973E+09	7,181186E+09	1,181516E+10
-83	2,316843E+09	2,316856E+09	3,590594E+09	3,590617E+09	4,633699E+09	7,181212E+09	1,181491E+10
-82	2,316885E+09	2,316897E+09	3,590562E+09	3,590628E+09	4,633782E+09	7,181189E+09	1,181497E+10
-81	2,316923E+09	2,316920E+09	3,590614E+09	3,590545E+09	4,633843E+09	7,181159E+09	1,181500E+10
-80	2,316801E+09	2,316814E+09	3,590601E+09	3,590601E+09	4,633616E+09	7,181202E+09	1,181482E+10
-79	2,316927E+09	2,316903E+09	3,590620E+09	3,590578E+09	4,633830E+09	7,181198E+09	1,181503E+10
-78	2,316878E+09	2,316893E+09	3,590635E+09	3,590544E+09	4,633771E+09	7,181179E+09	1,181495E+10
-77	2,316829E+09	2,316876E+09	3,590554E+09	3,590625E+09	4,633705E+09	7,181179E+09	1,181488E+10
-76	2,316998E+09	2,317004E+09	3,590561E+09	3,590582E+09	4,634002E+09	7,181143E+09	1,181515E+10
-75	2,316918E+09	2,316943E+09	3,590577E+09	3,590550E+09	4,633860E+09	7,181127E+09	1,181499E+10
-74	2,316996E+09	2,316992E+09	3,590521E+09	3,590554E+09	4,633988E+09	7,181075E+09	1,181506E+10
-73	2,317122E+09	2,317089E+09	3,590548E+09	3,590475E+09	4,634211E+09	7,181022E+09	1,181523E+10
-72	2,317010E+09	2,317017E+09	3,590513E+09	3,590526E+09	4,634027E+09	7,181039E+09	1,181507E+10
-71	2,317115E+09	2,317123E+09	3,590511E+09	3,590524E+09	4,634237E+09	7,181035E+09	1,181527E+10
-70	2,317095E+09	2,317138E+09	3,590559E+09	3,590472E+09	4,634233E+09	7,181030E+09	1,181526E+10
-69	2,316997E+09	2,317043E+09	3,590516E+09	3,590550E+09	4,634040E+09	7,181066E+09	1,181511E+10
-68	2,317131E+09	2,317113E+09	3,590550E+09	3,590533E+09	4,634245E+09	7,181083E+09	1,181533E+10
-67	2,317023E+09	2,317005E+09	3,590591E+09	3,590522E+09	4,634028E+09	7,181113E+09	1,181514E+10
-66	2,316986E+09	2,316978E+09	3,590511E+09	3,590581E+09	4,633965E+09	7,181092E+09	1,181506E+10
-65	2,317072E+09	2,317056E+09	3,590531E+09	3,590537E+09	4,634128E+09	7,181068E+09	1,181520E+10
-64	2,316916E+09	2,316925E+09	3,590535E+09	3,590561E+09	4,633841E+09	7,181095E+09	1,181494E+10
-63	2,316966E+09	2,316963E+09	3,590546E+09	3,590549E+09	4,633929E+09	7,181094E+09	1,181502E+10
-62	2,316988E+09	2,316988E+09	3,590608E+09	3,590487E+09	4,633976E+09	7,181095E+09	1,181507E+10
-61	2,316866E+09	2,316882E+09	3,590552E+09	3,590563E+09	4,633748E+09	7,181114E+09	1,181486E+10

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							
-60	2,316992E+09	2,316997E+09	3,590554E+09	3,590571E+09	4,633989E+09	7,181125E+09	1,181511E+10
-59	2,316945E+09	2,316974E+09	3,590593E+09	3,590533E+09	4,633919E+09	7,181127E+09	1,181505E+10
-58	2,316917E+09	2,316963E+09	3,590504E+09	3,590570E+09	4,633880E+09	7,181074E+09	1,181495E+10
-57	2,317097E+09	2,317096E+09	3,590528E+09	3,590508E+09	4,634193E+09	7,181036E+09	1,181523E+10
-56	2,317031E+09	2,317012E+09	3,590527E+09	3,590491E+09	4,634042E+09	7,181018E+09	1,181506E+10
-55	2,317099E+09	2,317073E+09	3,590486E+09	3,590496E+09	4,634172E+09	7,180982E+09	1,181515E+10
-54	2,317190E+09	2,317193E+09	3,590510E+09	3,590442E+09	4,634383E+09	7,180951E+09	1,181533E+10
-53	2,317071E+09	2,317109E+09	3,590450E+09	3,590490E+09	4,634180E+09	7,180940E+09	1,181512E+10
-52	2,317180E+09	2,317210E+09	3,590468E+09	3,590497E+09	4,634391E+09	7,180964E+09	1,181535E+10
-51	2,317172E+09	2,317188E+09	3,590546E+09	3,590442E+09	4,634360E+09	7,180988E+09	1,181535E+10
-50	2,317085E+09	2,317091E+09	3,590474E+09	3,590498E+09	4,634177E+09	7,180972E+09	1,181515E+10
-49	2,317211E+09	2,317185E+09	3,590499E+09	3,590489E+09	4,634396E+09	7,180988E+09	1,181538E+10
-48	2,317099E+09	2,317073E+09	3,590509E+09	3,590493E+09	4,634172E+09	7,181003E+09	1,181517E+10
-47	2,317052E+09	2,317057E+09	3,590467E+09	3,590529E+09	4,634109E+09	7,180996E+09	1,181511E+10
-46	2,317123E+09	2,317141E+09	3,590518E+09	3,590483E+09	4,634264E+09	7,181001E+09	1,181526E+10
-45	2,316976E+09	2,316987E+09	3,590505E+09	3,590500E+09	4,633963E+09	7,181006E+09	1,181497E+10
-44	2,317034E+09	2,317031E+09	3,590519E+09	3,590517E+09	4,634065E+09	7,181035E+09	1,181510E+10
-43	2,317054E+09	2,317044E+09	3,590585E+09	3,590477E+09	4,634098E+09	7,181062E+09	1,181516E+10
-42	2,316936E+09	2,316963E+09	3,590488E+09	3,590536E+09	4,633898E+09	7,181024E+09	1,181492E+10
-41	2,317066E+09	2,317094E+09	3,590496E+09	3,590529E+09	4,634160E+09	7,181025E+09	1,181518E+10
-40	2,317041E+09	2,317044E+09	3,590530E+09	3,590485E+09	4,634086E+09	7,181016E+09	1,181510E+10
-39	2,317029E+09	2,317034E+09	3,590473E+09	3,590491E+09	4,634063E+09	7,180964E+09	1,181503E+10
-38	2,317193E+09	2,317180E+09	3,590498E+09	3,590444E+09	4,634373E+09	7,180942E+09	1,181532E+10
-37	2,317117E+09	2,317103E+09	3,590459E+09	3,590439E+09	4,634220E+09	7,180899E+09	1,181512E+10
-36	2,317174E+09	2,317189E+09	3,590421E+09	3,590471E+09	4,634364E+09	7,180892E+09	1,181526E+10
-35	2,317254E+09	2,317283E+09	3,590485E+09	3,590424E+09	4,634538E+09	7,180909E+09	1,181545E+10
-34	2,317147E+09	2,317194E+09	3,590422E+09	3,590445E+09	4,634340E+09	7,180866E+09	1,181521E+10
-33	2,317261E+09	2,317282E+09	3,590448E+09	3,590442E+09	4,634543E+09	7,180891E+09	1,181543E+10
-32	2,317262E+09	2,317230E+09	3,590501E+09	3,590414E+09	4,634491E+09	7,180915E+09	1,181541E+10
-31	2,317169E+09	2,317148E+09	3,590428E+09	3,590460E+09	4,634318E+09	7,180888E+09	1,181521E+10
-30	2,317264E+09	2,317265E+09	3,590443E+09	3,590460E+09	4,634528E+09	7,180903E+09	1,181543E+10
-29	2,317153E+09	2,317148E+09	3,590434E+09	3,590446E+09	4,634300E+09	7,180880E+09	1,181518E+10
-28	2,317117E+09	2,317134E+09	3,590419E+09	3,590477E+09	4,634251E+09	7,180896E+09	1,181515E+10
-27	2,317191E+09	2,317190E+09	3,590512E+09	3,590433E+09	4,634381E+09	7,180945E+09	1,181533E+10
-26	2,317053E+09	2,317049E+09	3,590474E+09	3,590443E+09	4,634102E+09	7,180917E+09	1,181502E+10
-25	2,317100E+09	2,317113E+09	3,590483E+09	3,590477E+09	4,634213E+09	7,180960E+09	1,181517E+10
-24	2,317124E+09	2,317118E+09	3,590525E+09	3,590465E+09	4,634242E+09	7,180990E+09	1,181523E+10
-23	2,317014E+09	2,317042E+09	3,590453E+09	3,590494E+09	4,634057E+09	7,180947E+09	1,181500E+10
-22	2,317142E+09	2,317178E+09	3,590472E+09	3,590483E+09	4,634320E+09	7,180955E+09	1,181528E+10
-21	2,317136E+09	2,317117E+09	3,590474E+09	3,590427E+09	4,634252E+09	7,180901E+09	1,181515E+10
-20	2,317128E+09	2,317123E+09	3,590417E+09	3,590451E+09	4,634252E+09	7,180868E+09	1,181512E+10
-19	2,317280E+09	2,317267E+09	3,590457E+09	3,590419E+09	4,634547E+09	7,180876E+09	1,181542E+10
-18	2,317196E+09	2,317211E+09	3,590389E+09	3,590394E+09	4,634408E+09	7,180783E+09	1,181519E+10
-17	2,317247E+09	2,317299E+09	3,590380E+09	3,590417E+09	4,634546E+09	7,180796E+09	1,181534E+10
-16	2,317342E+09	2,317351E+09	3,590444E+09	3,590378E+09	4,634693E+09	7,180821E+09	1,181551E+10
-15	2,317242E+09	2,317248E+09	3,590404E+09	3,590381E+09	4,634490E+09	7,180785E+09	1,181528E+10
-14	2,317338E+09	2,317346E+09	3,590421E+09	3,590402E+09	4,634684E+09	7,180823E+09	1,181551E+10
-13	2,317332E+09	2,317295E+09	3,590422E+09	3,590381E+09	4,634627E+09	7,180803E+09	1,181543E+10
-12	2,317233E+09	2,317239E+09	3,590354E+09	3,590437E+09	4,634472E+09	7,180791E+09	1,181526E+10

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	2,317320E+09	2,317334E+09	3,590413E+09	3,590429E+09	4,634654E+09	7,180843E+09	1,181550E+10
-10	2,317217E+09	2,317222E+09	3,590405E+09	3,590380E+09	4,634439E+09	7,180785E+09	1,181522E+10
-9	2,317185E+09	2,317204E+09	3,590414E+09	3,590413E+09	4,634390E+09	7,180826E+09	1,181522E+10
-8	2,317264E+09	2,317235E+09	3,590484E+09	3,590408E+09	4,634499E+09	7,180892E+09	1,181539E+10
-7	2,317124E+09	2,317111E+09	3,590446E+09	3,590418E+09	4,634235E+09	7,180863E+09	1,181510E+10
-6	2,317150E+09	2,317196E+09	3,590439E+09	3,590464E+09	4,634346E+09	7,180903E+09	1,181525E+10
-5	2,317188E+09	2,317190E+09	3,590452E+09	3,590432E+09	4,634379E+09	7,180884E+09	1,181526E+10
-4	2,317105E+09	2,317125E+09	3,590393E+09	3,590447E+09	4,634229E+09	7,180840E+09	1,181507E+10
-3	2,317241E+09	2,317239E+09	3,590438E+09	3,590432E+09	4,634480E+09	7,180871E+09	1,181535E+10
-2	2,317238E+09	2,317208E+09	3,590411E+09	3,590359E+09	4,634447E+09	7,180769E+09	1,181522E+10
-1	2,317219E+09	2,317236E+09	3,590362E+09	3,590387E+09	4,634455E+09	7,180749E+09	1,181520E+10
1	2,317357E+09	2,317364E+09	3,590401E+09	3,590384E+09	4,634722E+09	7,180785E+09	1,181551E+10
2	2,317278E+09	2,317306E+09	3,590375E+09	3,590338E+09	4,634583E+09	7,180714E+09	1,181530E+10
3	2,317314E+09	2,317381E+09	3,590376E+09	3,590372E+09	4,634695E+09	7,180749E+09	1,181544E+10
4	2,317422E+09	2,317407E+09	3,590403E+09	3,590339E+09	4,634828E+09	7,180742E+09	1,181557E+10
5	2,317332E+09	2,317314E+09	3,590346E+09	3,590361E+09	4,634645E+09	7,180707E+09	1,181535E+10
6	2,317411E+09	2,317405E+09	3,590367E+09	3,590393E+09	4,634817E+09	7,180760E+09	1,181558E+10
7	2,317400E+09	2,317384E+09	3,590337E+09	3,590337E+09	4,634784E+09	7,180674E+09	1,181546E+10
8	2,317301E+09	2,317329E+09	3,590309E+09	3,590368E+09	4,634630E+09	7,180677E+09	1,181531E+10
9	2,317394E+09	2,317390E+09	3,590384E+09	3,590371E+09	4,634784E+09	7,180755E+09	1,181554E+10
10	2,317298E+09	2,317276E+09	3,590404E+09	3,590311E+09	4,634574E+09	7,180715E+09	1,181529E+10
11	2,317240E+09	2,317272E+09	3,590404E+09	3,590380E+09	4,634512E+09	7,180784E+09	1,181530E+10
12	2,317315E+09	2,317303E+09	3,590422E+09	3,590394E+09	4,634618E+09	7,180816E+09	1,181543E+10
13	2,317182E+09	2,317198E+09	3,590384E+09	3,590413E+09	4,634380E+09	7,180797E+09	1,181518E+10
14	2,317217E+09	2,317261E+09	3,590409E+09	3,590447E+09	4,634478E+09	7,180856E+09	1,181533E+10
15	2,317276E+09	2,317265E+09	3,590398E+09	3,590368E+09	4,634541E+09	7,180766E+09	1,181531E+10
16	2,317205E+09	2,317208E+09	3,590358E+09	3,590371E+09	4,634413E+09	7,180729E+09	1,181514E+10
17	2,317340E+09	2,317310E+09	3,590385E+09	3,590384E+09	4,634651E+09	7,180769E+09	1,181542E+10
18	2,317327E+09	2,317304E+09	3,590368E+09	3,590301E+09	4,634631E+09	7,180669E+09	1,181530E+10
19	2,317281E+09	2,317348E+09	3,590327E+09	3,590348E+09	4,634628E+09	7,180675E+09	1,181530E+10
20	2,317425E+09	2,317448E+09	3,590347E+09	3,590339E+09	4,634873E+09	7,180686E+09	1,181556E+10
21	2,317367E+09	2,317384E+09	3,590339E+09	3,590298E+09	4,634751E+09	7,180637E+09	1,181539E+10
22	2,317407E+09	2,317430E+09	3,590353E+09	3,590344E+09	4,634837E+09	7,180697E+09	1,181553E+10
23	2,317511E+09	2,317481E+09	3,590332E+09	3,590295E+09	4,634992E+09	7,180627E+09	1,181562E+10
24	2,317415E+09	2,317411E+09	3,590281E+09	3,590314E+09	4,634826E+09	7,180595E+09	1,181542E+10
25	2,317484E+09	2,317484E+09	3,590302E+09	3,590359E+09	4,634968E+09	7,180662E+09	1,181563E+10
26	2,317473E+09	2,317466E+09	3,590320E+09	3,590270E+09	4,634939E+09	7,180590E+09	1,181553E+10
27	2,317358E+09	2,317405E+09	3,590314E+09	3,590312E+09	4,634763E+09	7,180626E+09	1,181539E+10
28	2,317450E+09	2,317440E+09	3,590361E+09	3,590331E+09	4,634890E+09	7,180692E+09	1,181558E+10
29	2,317363E+09	2,317338E+09	3,590372E+09	3,590303E+09	4,634701E+09	7,180674E+09	1,181538E+10
30	2,317291E+09	2,317323E+09	3,590365E+09	3,590390E+09	4,634614E+09	7,180755E+09	1,181537E+10
31	2,317371E+09	2,317380E+09	3,590344E+09	3,590367E+09	4,634751E+09	7,180711E+09	1,181546E+10
32	2,317263E+09	2,317276E+09	3,590328E+09	3,590348E+09	4,634539E+09	7,180676E+09	1,181521E+10
33	2,317312E+09	2,317312E+09	3,590356E+09	3,590384E+09	4,634624E+09	7,180740E+09	1,181536E+10
34	2,317384E+09	2,317336E+09	3,590367E+09	3,590281E+09	4,634720E+09	7,180648E+09	1,181537E+10
35	2,317287E+09	2,317305E+09	3,590325E+09	3,590310E+09	4,634591E+09	7,180635E+09	1,181523E+10
36	2,317407E+09	2,317409E+09	3,590321E+09	3,590341E+09	4,634816E+09	7,180662E+09	1,181548E+10
37	2,317400E+09	2,317415E+09	3,590323E+09	3,590274E+09	4,634815E+09	7,180597E+09	1,181541E+10
38	2,317351E+09	2,317425E+09	3,590316E+09	3,590329E+09	4,634776E+09	7,180645E+09	1,181542E+10

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							
39	2,317508E+09	2,317528E+09	3,590305E+09	3,590292E+09	4,635036E+09	7,180598E+09	1,181563E+10
40	2,317470E+09	2,317460E+09	3,590301E+09	3,590251E+09	4,634930E+09	7,180552E+09	1,181548E+10
41	2,317505E+09	2,317491E+09	3,590288E+09	3,590323E+09	4,634996E+09	7,180611E+09	1,181561E+10
42	2,317602E+09	2,317569E+09	3,590270E+09	3,590246E+09	4,635170E+09	7,180517E+09	1,181569E+10
43	2,317478E+09	2,317514E+09	3,590236E+09	3,590263E+09	4,634993E+09	7,180499E+09	1,181549E+10
44	2,317547E+09	2,317559E+09	3,590254E+09	3,590296E+09	4,635105E+09	7,180549E+09	1,181565E+10
45	2,317548E+09	2,317534E+09	3,590299E+09	3,590218E+09	4,635082E+09	7,180517E+09	1,181560E+10
46	2,317424E+09	2,317449E+09	3,590313E+09	3,590289E+09	4,634873E+09	7,180602E+09	1,181548E+10
47	2,317506E+09	2,317503E+09	3,590305E+09	3,590301E+09	4,635009E+09	7,180605E+09	1,181561E+10
48	2,317423E+09	2,317417E+09	3,590321E+09	3,590276E+09	4,634840E+09	7,180597E+09	1,181544E+10
49	2,317355E+09	2,317382E+09	3,590308E+09	3,590370E+09	4,634737E+09	7,180678E+09	1,181542E+10
50	2,317452E+09	2,317443E+09	3,590315E+09	3,590301E+09	4,634895E+09	7,180616E+09	1,181551E+10
51	2,317342E+09	2,317353E+09	3,590310E+09	3,590282E+09	4,634695E+09	7,180592E+09	1,181529E+10
52	2,317396E+09	2,317376E+09	3,590303E+09	3,590325E+09	4,634773E+09	7,180628E+09	1,181540E+10
53	2,317470E+09	2,317428E+09	3,590315E+09	3,590247E+09	4,634898E+09	7,180562E+09	1,181546E+10
54	2,317353E+09	2,317395E+09	3,590286E+09	3,590299E+09	4,634747E+09	7,180584E+09	1,181533E+10
55	2,317467E+09	2,317512E+09	3,590257E+09	3,590299E+09	4,634979E+09	7,180556E+09	1,181553E+10
56	2,317487E+09	2,317508E+09	3,590290E+09	3,590218E+09	4,634995E+09	7,180508E+09	1,181550E+10
57	2,317452E+09	2,317481E+09	3,590277E+09	3,590287E+09	4,634934E+09	7,180564E+09	1,181550E+10
58	2,317620E+09	2,317597E+09	3,590268E+09	3,590230E+09	4,635217E+09	7,180498E+09	1,181572E+10
59	2,317561E+09	2,317557E+09	3,590250E+09	3,590205E+09	4,635118E+09	7,180455E+09	1,181557E+10
60	2,317579E+09	2,317584E+09	3,590206E+09	3,590282E+09	4,635163E+09	7,180489E+09	1,181565E+10
61	2,317678E+09	2,317671E+09	3,590223E+09	3,590206E+09	4,635349E+09	7,180429E+09	1,181578E+10
62	2,317542E+09	2,317582E+09	3,590230E+09	3,590225E+09	4,635124E+09	7,180456E+09	1,181558E+10
63	2,317606E+09	2,317625E+09	3,590228E+09	3,590238E+09	4,635232E+09	7,180466E+09	1,181570E+10
64	2,317624E+09	2,317595E+09	3,590278E+09	3,590176E+09	4,635219E+09	7,180454E+09	1,181567E+10
65	2,317488E+09	2,317490E+09	3,590264E+09	3,590284E+09	4,634978E+09	7,180549E+09	1,181553E+10
66	2,317570E+09	2,317570E+09	3,590251E+09	3,590270E+09	4,635140E+09	7,180522E+09	1,181566E+10
67	2,317481E+09	2,317496E+09	3,590273E+09	3,590235E+09	4,634977E+09	7,180508E+09	1,181548E+10
68	2,317427E+09	2,317439E+09	3,590245E+09	3,590310E+09	4,634866E+09	7,180554E+09	1,181542E+10
69	2,317545E+09	2,317511E+09	3,590273E+09	3,590239E+09	4,635056E+09	7,180512E+09	1,181557E+10
70	2,317424E+09	2,317419E+09	3,590284E+09	3,590241E+09	4,634843E+09	7,180525E+09	1,181537E+10
71	2,317463E+09	2,317475E+09	3,590237E+09	3,590274E+09	4,634938E+09	7,180511E+09	1,181545E+10
72	2,317543E+09	2,317541E+09	3,590267E+09	3,590207E+09	4,635084E+09	7,180474E+09	1,181556E+10
73	2,317425E+09	2,317478E+09	3,590250E+09	3,590276E+09	4,634903E+09	7,180526E+09	1,181543E+10
74	2,317556E+09	2,317593E+09	3,590242E+09	3,590240E+09	4,635149E+09	7,180482E+09	1,181563E+10
75	2,317579E+09	2,317590E+09	3,590277E+09	3,590169E+09	4,635169E+09	7,180446E+09	1,181561E+10
76	2,317552E+09	2,317546E+09	3,590215E+09	3,590248E+09	4,635098E+09	7,180463E+09	1,181556E+10
77	2,317718E+09	2,317684E+09	3,590201E+09	3,590202E+09	4,635402E+09	7,180403E+09	1,181581E+10
78	2,317637E+09	2,317649E+09	3,590193E+09	3,590185E+09	4,635286E+09	7,180378E+09	1,181566E+10
79	2,317647E+09	2,317680E+09	3,590131E+09	3,590216E+09	4,635327E+09	7,180347E+09	1,181567E+10
80	2,317760E+09	2,317753E+09	3,590191E+09	3,590134E+09	4,635513E+09	7,180325E+09	1,181584E+10
81	2,317624E+09	2,317630E+09	3,590209E+09	3,590181E+09	4,635255E+09	7,180389E+09	1,181564E+10
82	2,317683E+09	2,317681E+09	3,590207E+09	3,590184E+09	4,635364E+09	7,180391E+09	1,181576E+10
83	2,317680E+09	2,317673E+09	3,590247E+09	3,590150E+09	4,635354E+09	7,180397E+09	1,181575E+10
84	2,317541E+09	2,317556E+09	3,590193E+09	3,590265E+09	4,635097E+09	7,180458E+09	1,181555E+10
85	2,317636E+09	2,317641E+09	3,590206E+09	3,590241E+09	4,635277E+09	7,180448E+09	1,181572E+10
86	2,317548E+09	2,317554E+09	3,590252E+09	3,590202E+09	4,635102E+09	7,180454E+09	1,181556E+10
87	2,317498E+09	2,317508E+09	3,590195E+09	3,590244E+09	4,635006E+09	7,180439E+09	1,181545E+10

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 ^o	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
88	2,317633E+09	2,317589E+09	3,590235E+09	3,590188E+09	4,635222E+09	7,180423E+09	1,181564E+10
89	2,317499E+09	2,317493E+09	3,590234E+09	3,590221E+09	4,634992E+09	7,180455E+09	1,181545E+10
90	2,317532E+09	2,317572E+09	3,590195E+09	3,590226E+09	4,635104E+09	7,180421E+09	1,181552E+10
91	2,317611E+09	2,317641E+09	3,590241E+09	3,590158E+09	4,635252E+09	7,180399E+09	1,181565E+10
92	2,317512E+09	2,317543E+09	3,590204E+09	3,590224E+09	4,635054E+09	7,180427E+09	1,181548E+10
93	2,317666E+09	2,317662E+09	3,590206E+09	3,590194E+09	4,635328E+09	7,180399E+09	1,181573E+10
94	2,317678E+09	2,317660E+09	3,590230E+09	3,590142E+09	4,635338E+09	7,180372E+09	1,181571E+10
95	2,317634E+09	2,317648E+09	3,590123E+09	3,590200E+09	4,635282E+09	7,180323E+09	1,181560E+10
96	2,317807E+09	2,317796E+09	3,590131E+09	3,590152E+09	4,635603E+09	7,180283E+09	1,181589E+10
97	2,317715E+09	2,317732E+09	3,590151E+09	3,590140E+09	4,635447E+09	7,180291E+09	1,181574E+10
98	2,317727E+09	2,317763E+09	3,590120E+09	3,590139E+09	4,635490E+09	7,180259E+09	1,181575E+10
99	2,317834E+09	2,317829E+09	3,590189E+09	3,590080E+09	4,635663E+09	7,180269E+09	1,181593E+10
100	2,317694E+09	2,317682E+09	3,590166E+09	3,590157E+09	4,635376E+09	7,180323E+09	1,181570E+10
101	2,317748E+09	2,317749E+09	3,590159E+09	3,590177E+09	4,635497E+09	7,180336E+09	1,181583E+10
102	2,317729E+09	2,317740E+09	3,590198E+09	3,590151E+09	4,635468E+09	7,180350E+09	1,181582E+10
103	2,317595E+09	2,317627E+09	3,590120E+09	3,590213E+09	4,635222E+09	7,180333E+09	1,181556E+10
104	2,317721E+09	2,317704E+09	3,590162E+09	3,590176E+09	4,635424E+09	7,180338E+09	1,181576E+10
105	2,317635E+09	2,317604E+09	3,590216E+09	3,590151E+09	4,635239E+09	7,180367E+09	1,181561E+10
106	2,317582E+09	2,317585E+09	3,590160E+09	3,590174E+09	4,635168E+09	7,180334E+09	1,181550E+10
107	2,317695E+09	2,317693E+09	3,590205E+09	3,590143E+09	4,635388E+09	7,180348E+09	1,181574E+10
108	2,317561E+09	2,317581E+09	3,590185E+09	3,590191E+09	4,635142E+09	7,180376E+09	1,181552E+10
109	2,317605E+09	2,317652E+09	3,590174E+09	3,590193E+09	4,635256E+09	7,180367E+09	1,181562E+10
110	2,317687E+09	2,317707E+09	3,590230E+09	3,590137E+09	4,635394E+09	7,180367E+09	1,181576E+10
111	2,317601E+09	2,317614E+09	3,590140E+09	3,590172E+09	4,635215E+09	7,180312E+09	1,181553E+10
112	2,317772E+09	2,317741E+09	3,590137E+09	3,590156E+09	4,635513E+09	7,180293E+09	1,181581E+10
113	2,317772E+09	2,317748E+09	3,590150E+09	3,590119E+09	4,635519E+09	7,180269E+09	1,181579E+10
114	2,317722E+09	2,317757E+09	3,590055E+09	3,590130E+09	4,635479E+09	7,180185E+09	1,181566E+10
115	2,317885E+09	2,317902E+09	3,590103E+09	3,590076E+09	4,635787E+09	7,180178E+09	1,181597E+10
116	2,317800E+09	2,317802E+09	3,590117E+09	3,590073E+09	4,635601E+09	7,180190E+09	1,181579E+10
117	2,317813E+09	2,317827E+09	3,590108E+09	3,590092E+09	4,635640E+09	7,180200E+09	1,181584E+10
118	2,317895E+09	2,317893E+09	3,590166E+09	3,590074E+09	4,635788E+09	7,180240E+09	1,181603E+10
119	2,317744E+09	2,317760E+09	3,590094E+09	3,590135E+09	4,635504E+09	7,180228E+09	1,181573E+10
120	2,317813E+09	2,317824E+09	3,590102E+09	3,590156E+09	4,635638E+09	7,180257E+09	1,181590E+10
121	2,317797E+09	2,317792E+09	3,590158E+09	3,590123E+09	4,635589E+09	7,180281E+09	1,181587E+10
122	2,317676E+09	2,317691E+09	3,590095E+09	3,590137E+09	4,635366E+09	7,180231E+09	1,181560E+10
123	2,317800E+09	2,317775E+09	3,590146E+09	3,590112E+09	4,635574E+09	7,180258E+09	1,181583E+10
124	2,317709E+09	2,317666E+09	3,590166E+09	3,590113E+09	4,635375E+09	7,180279E+09	1,181565E+10
125	2,317649E+09	2,317671E+09	3,590123E+09	3,590150E+09	4,635320E+09	7,180272E+09	1,181559E+10
126	2,317744E+09	2,317776E+09	3,590168E+09	3,590130E+09	4,635520E+09	7,180298E+09	1,181582E+10
127	2,317622E+09	2,317658E+09	3,590127E+09	3,590140E+09	4,635279E+09	7,180267E+09	1,181555E+10
128	2,317702E+09	2,317719E+09	3,590129E+09	3,590143E+09	4,635421E+09	7,180273E+09	1,181569E+10
129	2,317789E+09	2,317763E+09	3,590177E+09	3,590102E+09	4,635552E+09	7,180279E+09	1,181583E+10
130	2,317706E+09	2,317709E+09	3,590074E+09	3,590107E+09	4,635415E+09	7,180180E+09	1,181560E+10
131	2,317862E+09	2,317860E+09	3,590076E+09	3,590098E+09	4,635721E+09	7,180175E+09	1,181590E+10
132	2,317855E+09	2,317852E+09	3,590086E+09	3,590064E+09	4,635706E+09	7,180150E+09	1,181586E+10
133	2,317808E+09	2,317853E+09	3,590043E+09	3,590068E+09	4,635660E+09	7,180111E+09	1,181577E+10
134	2,317953E+09	2,317978E+09	3,590107E+09	3,590039E+09	4,635931E+09	7,180146E+09	1,181608E+10
135	2,317869E+09	2,317869E+09	3,590084E+09	3,590032E+09	4,635738E+09	7,180116E+09	1,181585E+10
136	2,317891E+09	2,317891E+09	3,590063E+09	3,590082E+09	4,635782E+09	7,180145E+09	1,181593E+10

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	2,317958E+09	2,317954E+09	3,590104E+09	3,590081E+09	4,635913E+09	7,180185E+09	1,181610E+10
138	2,317816E+09	2,317837E+09	3,590030E+09	3,590085E+09	4,635653E+09	7,180115E+09	1,181577E+10
139	2,317887E+09	2,317895E+09	3,590066E+09	3,590089E+09	4,635782E+09	7,180155E+09	1,181594E+10
140	2,317883E+09	2,317843E+09	3,590112E+09	3,590057E+09	4,635725E+09	7,180169E+09	1,181589E+10
141	2,317763E+09	2,317750E+09	3,590072E+09	3,590074E+09	4,635512E+09	7,180146E+09	1,181566E+10
142	2,317852E+09	2,317850E+09	3,590121E+09	3,590088E+09	4,635702E+09	7,180209E+09	1,181591E+10
143	2,317753E+09	2,317758E+09	3,590103E+09	3,590076E+09	4,635511E+09	7,180180E+09	1,181569E+10
144	2,317708E+09	2,317753E+09	3,590080E+09	3,590127E+09	4,635461E+09	7,180207E+09	1,181567E+10
145	2,317809E+09	2,317837E+09	3,590141E+09	3,590111E+09	4,635647E+09	7,180252E+09	1,181590E+10
146	2,317714E+09	2,317728E+09	3,590092E+09	3,590077E+09	4,635443E+09	7,180168E+09	1,181561E+10
147	2,317802E+09	2,317794E+09	3,590094E+09	3,590088E+09	4,635597E+09	7,180182E+09	1,181578E+10
148	2,317888E+09	2,317842E+09	3,590099E+09	3,590062E+09	4,635730E+09	7,180161E+09	1,181589E+10
149	2,317799E+09	2,317813E+09	3,590016E+09	3,590058E+09	4,635613E+09	7,180073E+09	1,181569E+10
150	2,317930E+09	2,317965E+09	3,590036E+09	3,590055E+09	4,635895E+09	7,180092E+09	1,181599E+10
151	2,317928E+09	2,317944E+09	3,590040E+09	3,589989E+09	4,635872E+09	7,180028E+09	1,181590E+10
152	2,317903E+09	2,317926E+09	3,590018E+09	3,590018E+09	4,635829E+09	7,180035E+09	1,181586E+10
153	2,318036E+09	2,318035E+09	3,590077E+09	3,590020E+09	4,636071E+09	7,180097E+09	1,181617E+10
154	2,317951E+09	2,317952E+09	3,590033E+09	3,589995E+09	4,635903E+09	7,180028E+09	1,181593E+10
155	2,317962E+09	2,317981E+09	3,590015E+09	3,590052E+09	4,635943E+09	7,180067E+09	1,181601E+10
156	2,318029E+09	2,318020E+09	3,590041E+09	3,590046E+09	4,636049E+09	7,180088E+09	1,181614E+10
157	2,317897E+09	2,317904E+09	3,590008E+09	3,590027E+09	4,635801E+09	7,180035E+09	1,181584E+10
158	2,317953E+09	2,317955E+09	3,590047E+09	3,590043E+09	4,635908E+09	7,180089E+09	1,181600E+10
159	2,317944E+09	2,317905E+09	3,590062E+09	3,590000E+09	4,635849E+09	7,180063E+09	1,181591E+10
160	2,317830E+09	2,317825E+09	3,590024E+09	3,590054E+09	4,635655E+09	7,180078E+09	1,181573E+10
161	2,317897E+09	2,317922E+09	3,590073E+09	3,590082E+09	4,635819E+09	7,180155E+09	1,181597E+10
162	2,317815E+09	2,317842E+09	3,590060E+09	3,590025E+09	4,635657E+09	7,180085E+09	1,181574E+10
163	2,317786E+09	2,317822E+09	3,590057E+09	3,590065E+09	4,635608E+09	7,180122E+09	1,181573E+10
164	2,317905E+09	2,317886E+09	3,590092E+09	3,590057E+09	4,635791E+09	7,180149E+09	1,181594E+10
165	2,317822E+09	2,317800E+09	3,590053E+09	3,590019E+09	4,635622E+09	7,180072E+09	1,181569E+10
166	2,317882E+09	2,317890E+09	3,590040E+09	3,590058E+09	4,635772E+09	7,180098E+09	1,181587E+10
167	2,317960E+09	2,317953E+09	3,590023E+09	3,590008E+09	4,635913E+09	7,180030E+09	1,181594E+10
168	2,317886E+09	2,317918E+09	3,589973E+09	3,590013E+09	4,635803E+09	7,179986E+09	1,181579E+10
169	2,318005E+09	2,318046E+09	3,590022E+09	3,590018E+09	4,636051E+09	7,180039E+09	1,181609E+10
170	2,318022E+09	2,318027E+09	3,590020E+09	3,589927E+09	4,636049E+09	7,179947E+09	1,181600E+10
171	2,317993E+09	2,318001E+09	3,589997E+09	3,589981E+09	4,635993E+09	7,179978E+09	1,181597E+10
172	2,318117E+09	2,318105E+09	3,590010E+09	3,590009E+09	4,636222E+09	7,180018E+09	1,181624E+10
173	2,318033E+09	2,318032E+09	3,589974E+09	3,589965E+09	4,636065E+09	7,179939E+09	1,181600E+10
174	2,318022E+09	2,318057E+09	3,589966E+09	3,590018E+09	4,636079E+09	7,179985E+09	1,181606E+10
175	2,318099E+09	2,318084E+09	3,589981E+09	3,589970E+09	4,636183E+09	7,179950E+09	1,181613E+10
176	2,317984E+09	2,317962E+09	3,589967E+09	3,589967E+09	4,635946E+09	7,179934E+09	1,181588E+10
177	2,318017E+09	2,318013E+09	3,590014E+09	3,590010E+09	4,636030E+09	7,180024E+09	1,181605E+10
178	2,318006E+09	2,317994E+09	3,590015E+09	3,589951E+09	4,636000E+09	7,179966E+09	1,181597E+10
179	2,317884E+09	2,317913E+09	3,589998E+09	3,590017E+09	4,635797E+09	7,180015E+09	1,181581E+10
180	2,317954E+09	2,317985E+09	3,590035E+09	3,590052E+09	4,635940E+09	7,180087E+09	1,181603E+10
181	2,317896E+09	2,317900E+09	3,590054E+09	3,589976E+09	4,635796E+09	7,180030E+09	1,181583E+10
182	2,317862E+09	2,317881E+09	3,590036E+09	3,590034E+09	4,635743E+09	7,180070E+09	1,181581E+10
183	2,317988E+09	2,317952E+09	3,590024E+09	3,590010E+09	4,635941E+09	7,180034E+09	1,181597E+10
184	2,317916E+09	2,317894E+09	3,589975E+09	3,589994E+09	4,635811E+09	7,179969E+09	1,181578E+10
185	2,317957E+09	2,317990E+09	3,589972E+09	3,590030E+09	4,635947E+09	7,180002E+09	1,181595E+10

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							
186	2,318047E+09	2,318064E+09	3,589971E+09	3,589931E+09	4,636111E+09	7,179902E+09	1,181601E+10
187	2,317983E+09	2,318010E+09	3,589959E+09	3,589938E+09	4,635993E+09	7,179896E+09	1,181589E+10
188	2,318100E+09	2,318110E+09	3,589984E+09	3,589966E+09	4,636210E+09	7,179950E+09	1,181616E+10
189	2,318121E+09	2,318104E+09	3,589994E+09	3,589887E+09	4,636225E+09	7,179881E+09	1,181611E+10
190	2,318062E+09	2,318091E+09	3,589945E+09	3,589968E+09	4,636152E+09	7,179913E+09	1,181607E+10
191	2,318179E+09	2,318189E+09	3,589931E+09	3,589968E+09	4,636368E+09	7,179899E+09	1,181627E+10
192	2,318115E+09	2,318114E+09	3,589920E+09	3,589928E+09	4,636228E+09	7,179847E+09	1,181608E+10
193	2,318093E+09	2,318117E+09	3,589935E+09	3,589975E+09	4,636210E+09	7,179909E+09	1,181612E+10
194	2,318181E+09	2,318153E+09	3,589949E+09	3,589897E+09	4,636334E+09	7,179846E+09	1,181618E+10
195	2,318059E+09	2,318032E+09	3,589947E+09	3,589917E+09	4,636091E+09	7,179864E+09	1,181596E+10
196	2,318070E+09	2,318080E+09	3,589963E+09	3,589987E+09	4,636151E+09	7,179950E+09	1,181610E+10
197	2,318066E+09	2,318070E+09	3,589988E+09	3,589919E+09	4,636136E+09	7,179906E+09	1,181604E+10
198	2,317932E+09	2,317979E+09	3,589975E+09	3,589991E+09	4,635911E+09	7,179965E+09	1,181588E+10
199	2,318022E+09	2,318034E+09	3,589988E+09	3,589995E+09	4,636055E+09	7,179983E+09	1,181604E+10
200	2,317995E+09	2,317957E+09	3,590000E+09	3,589940E+09	4,635952E+09	7,179940E+09	1,181589E+10
201	2,317944E+09	2,317952E+09	3,589976E+09	3,590011E+09	4,635896E+09	7,179986E+09	1,181588E+10
202	2,318076E+09	2,318062E+09	3,589948E+09	3,589954E+09	4,636138E+09	7,179902E+09	1,181604E+10
203	2,318001E+09	2,318008E+09	3,589933E+09	3,589933E+09	4,636009E+09	7,179866E+09	1,181588E+10
204	2,318037E+09	2,318083E+09	3,589935E+09	3,589973E+09	4,636120E+09	7,179908E+09	1,181603E+10
205	2,318145E+09	2,318146E+09	3,589967E+09	3,589864E+09	4,636291E+09	7,179830E+09	1,181612E+10
206	2,318062E+09	2,318086E+09	3,589947E+09	3,589906E+09	4,636148E+09	7,179853E+09	1,181600E+10
207	2,318176E+09	2,318182E+09	3,589924E+09	3,589933E+09	4,636358E+09	7,179857E+09	1,181622E+10
208	2,318207E+09	2,318191E+09	3,589915E+09	3,589881E+09	4,636398E+09	7,179796E+09	1,181619E+10
209	2,318132E+09	2,318173E+09	3,589875E+09	3,589952E+09	4,636304E+09	7,179827E+09	1,181613E+10
210	2,318266E+09	2,318272E+09	3,589868E+09	3,589892E+09	4,636538E+09	7,179760E+09	1,181630E+10
211	2,318210E+09	2,318185E+09	3,589893E+09	3,589842E+09	4,636395E+09	7,179734E+09	1,181613E+10
212	2,318178E+09	2,318174E+09	3,589893E+09	3,589912E+09	4,636352E+09	7,179805E+09	1,181616E+10
213	2,318259E+09	2,318226E+09	3,589929E+09	3,589847E+09	4,636484E+09	7,179775E+09	1,181626E+10
214	2,318101E+09	2,318119E+09	3,589922E+09	3,589905E+09	4,636219E+09	7,179826E+09	1,181605E+10
215	2,318107E+09	2,318151E+09	3,589917E+09	3,589958E+09	4,636257E+09	7,179875E+09	1,181613E+10
216	2,318129E+09	2,318134E+09	3,589955E+09	3,589904E+09	4,636263E+09	7,179859E+09	1,181612E+10
217	2,318000E+09	2,318028E+09	3,589946E+09	3,589971E+09	4,636028E+09	7,179917E+09	1,181594E+10
218	2,318112E+09	2,318095E+09	3,589936E+09	3,589942E+09	4,636207E+09	7,179879E+09	1,181609E+10
219	2,318091E+09	2,318040E+09	3,589948E+09	3,589894E+09	4,636131E+09	7,179842E+09	1,181597E+10
220	2,318026E+09	2,318042E+09	3,589894E+09	3,589970E+09	4,636068E+09	7,179864E+09	1,181593E+10
221	2,318162E+09	2,318164E+09	3,589908E+09	3,589889E+09	4,636326E+09	7,179797E+09	1,181612E+10
222	2,318073E+09	2,318104E+09	3,589912E+09	3,589873E+09	4,636177E+09	7,179785E+09	1,181596E+10
223	2,318114E+09	2,318152E+09	3,589899E+09	3,589900E+09	4,636266E+09	7,179799E+09	1,181606E+10
224	2,318242E+09	2,318223E+09	3,589925E+09	3,589835E+09	4,636465E+09	7,179760E+09	1,181622E+10
225	2,318143E+09	2,318164E+09	3,589893E+09	3,589898E+09	4,636306E+09	7,179791E+09	1,181610E+10
226	2,318262E+09	2,318280E+09	3,589850E+09	3,589894E+09	4,636542E+09	7,179743E+09	1,181629E+10
227	2,318298E+09	2,318288E+09	3,589866E+09	3,589830E+09	4,636586E+09	7,179696E+09	1,181628E+10
228	2,318217E+09	2,318248E+09	3,589825E+09	3,589895E+09	4,636465E+09	7,179721E+09	1,181619E+10
229	2,318362E+09	2,318341E+09	3,589856E+09	3,589819E+09	4,636703E+09	7,179675E+09	1,181638E+10
230	2,318279E+09	2,318257E+09	3,589880E+09	3,589800E+09	4,636536E+09	7,179680E+09	1,181622E+10
231	2,318230E+09	2,318241E+09	3,589847E+09	3,589876E+09	4,636471E+09	7,179722E+09	1,181619E+10
232	2,318314E+09	2,318308E+09	3,589872E+09	3,589847E+09	4,636621E+09	7,179719E+09	1,181634E+10
233	2,318143E+09	2,318185E+09	3,589882E+09	3,589903E+09	4,636328E+09	7,179785E+09	1,181611E+10
234	2,318175E+09	2,318210E+09	3,589874E+09	3,589905E+09	4,636385E+09	7,179779E+09	1,181616E+10

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	2,318218E+09	2,318184E+09	3,589925E+09	3,589844E+09	4,636402E+09	7,179769E+09	1,181617E+10
236	2,318089E+09	2,318082E+09	3,589884E+09	3,589924E+09	4,636171E+09	7,179808E+09	1,181598E+10
237	2,318206E+09	2,318174E+09	3,589884E+09	3,589884E+09	4,636380E+09	7,179768E+09	1,181615E+10
238	2,318153E+09	2,318146E+09	3,589900E+09	3,589851E+09	4,636299E+09	7,179751E+09	1,181605E+10
239	2,318086E+09	2,318136E+09	3,589846E+09	3,589905E+09	4,636222E+09	7,179751E+09	1,181597E+10
240	2,318240E+09	2,318252E+09	3,589879E+09	3,589847E+09	4,636493E+09	7,179727E+09	1,181622E+10
241	2,318149E+09	2,318174E+09	3,589900E+09	3,589846E+09	4,636324E+09	7,179746E+09	1,181607E+10
242	2,318206E+09	2,318225E+09	3,589856E+09	3,589856E+09	4,636431E+09	7,179713E+09	1,181614E+10
243	2,318337E+09	2,318310E+09	3,589872E+09	3,589806E+09	4,636647E+09	7,179679E+09	1,181633E+10
244	2,318231E+09	2,318255E+09	3,589805E+09	3,589874E+09	4,636486E+09	7,179679E+09	1,181617E+10
245	2,318361E+09	2,318370E+09	3,589797E+09	3,589832E+09	4,636731E+09	7,179629E+09	1,181636E+10
246	2,318381E+09	2,318378E+09	3,589832E+09	3,589764E+09	4,636759E+09	7,179597E+09	1,181636E+10
247	2,318300E+09	2,318314E+09	3,589781E+09	3,589814E+09	4,636615E+09	7,179595E+09	1,181621E+10
248	2,318445E+09	2,318419E+09	3,589815E+09	3,589784E+09	4,636864E+09	7,179600E+09	1,181646E+10
249	2,318334E+09	2,318337E+09	3,589846E+09	3,589792E+09	4,636671E+09	7,179638E+09	1,181631E+10
250	2,318281E+09	2,318326E+09	3,589800E+09	3,589846E+09	4,636607E+09	7,179646E+09	1,181625E+10
251	2,318374E+09	2,318383E+09	3,589850E+09	3,589815E+09	4,636757E+09	7,179665E+09	1,181642E+10
252	2,318212E+09	2,318233E+09	3,589844E+09	3,589866E+09	4,636445E+09	7,179710E+09	1,181615E+10
253	2,318264E+09	2,318251E+09	3,589856E+09	3,589848E+09	4,636515E+09	7,179704E+09	1,181622E+10
254	2,318292E+09	2,318247E+09	3,589890E+09	3,589804E+09	4,636539E+09	7,179694E+09	1,181623E+10
255	2,318154E+09	2,318152E+09	3,589810E+09	3,589874E+09	4,636306E+09	7,179685E+09	1,181599E+10
256	2,318275E+09	2,318273E+09	3,589813E+09	3,589858E+09	4,636548E+09	7,179671E+09	1,181622E+10
257	2,318214E+09	2,318235E+09	3,589861E+09	3,589816E+09	4,636449E+09	7,179677E+09	1,181613E+10
258	2,318165E+09	2,318216E+09	3,589814E+09	3,589831E+09	4,636381E+09	7,179645E+09	1,181603E+10
259	2,318335E+09	2,318327E+09	3,589859E+09	3,589787E+09	4,636662E+09	7,179646E+09	1,181631E+10
260	2,318243E+09	2,318246E+09	3,589847E+09	3,589815E+09	4,636489E+09	7,179661E+09	1,181615E+10
261	2,318306E+09	2,318313E+09	3,589807E+09	3,589820E+09	4,636619E+09	7,179627E+09	1,181625E+10
262	2,318413E+09	2,318418E+09	3,589819E+09	3,589776E+09	4,636831E+09	7,179595E+09	1,181643E+10
263	2,318310E+09	2,318346E+09	3,589745E+09	3,589812E+09	4,636656E+09	7,179557E+09	1,181621E+10
264	2,318455E+09	2,318459E+09	3,589752E+09	3,589784E+09	4,636914E+09	7,179537E+09	1,181645E+10
265	2,318461E+09	2,318451E+09	3,589813E+09	3,589726E+09	4,636912E+09	7,179539E+09	1,181645E+10
266	2,318381E+09	2,318390E+09	3,589745E+09	3,589764E+09	4,636771E+09	7,179509E+09	1,181628E+10
267	2,318513E+09	2,318500E+09	3,589777E+09	3,589754E+09	4,637013E+09	7,179531E+09	1,181654E+10
268	2,318391E+09	2,318411E+09	3,589789E+09	3,589778E+09	4,636802E+09	7,179567E+09	1,181637E+10
269	2,318354E+09	2,318383E+09	3,589771E+09	3,589795E+09	4,636737E+09	7,179566E+09	1,181630E+10
270	2,318436E+09	2,318436E+09	3,589827E+09	3,589763E+09	4,636872E+09	7,179590E+09	1,181646E+10
271	2,318288E+09	2,318274E+09	3,589791E+09	3,589800E+09	4,636562E+09	7,179591E+09	1,181615E+10
272	2,318348E+09	2,318316E+09	3,589789E+09	3,589817E+09	4,636664E+09	7,179606E+09	1,181627E+10
273	2,318353E+09	2,318331E+09	3,589836E+09	3,589784E+09	4,636684E+09	7,179619E+09	1,181630E+10
274	2,318218E+09	2,318251E+09	3,589755E+09	3,589819E+09	4,636469E+09	7,179574E+09	1,181604E+10
275	2,318344E+09	2,318367E+09	3,589793E+09	3,589799E+09	4,636711E+09	7,179592E+09	1,181630E+10
276	2,318291E+09	2,318310E+09	3,589838E+09	3,589771E+09	4,636601E+09	7,179609E+09	1,181621E+10
277	2,318263E+09	2,318278E+09	3,589806E+09	3,589779E+09	4,636541E+09	7,179585E+09	1,181613E+10
278	2,318414E+09	2,318408E+09	3,589829E+09	3,589762E+09	4,636823E+09	7,179591E+09	1,181641E+10
279	2,318324E+09	2,318331E+09	3,589766E+09	3,589783E+09	4,636655E+09	7,179550E+09	1,181620E+10
280	2,318396E+09	2,318416E+09	3,589724E+09	3,589801E+09	4,636812E+09	7,179525E+09	1,181634E+10
281	2,318498E+09	2,318509E+09	3,589771E+09	3,589734E+09	4,637006E+09	7,179505E+09	1,181651E+10
282	2,318409E+09	2,318427E+09	3,589700E+09	3,589724E+09	4,636836E+09	7,179423E+09	1,181626E+10
283	2,318555E+09	2,318540E+09	3,589725E+09	3,589711E+09	4,637096E+09	7,179435E+09	1,181653E+10

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	2,318546E+09	2,318528E+09	3,589762E+09	3,589685E+09	4,637074E+09	7,179447E+09	1,181652E+10
285	2,318457E+09	2,318471E+09	3,589714E+09	3,589724E+09	4,636928E+09	7,179438E+09	1,181637E+10
286	2,318559E+09	2,318590E+09	3,589751E+09	3,589729E+09	4,637148E+09	7,179480E+09	1,181663E+10
287	2,318445E+09	2,318468E+09	3,589749E+09	3,589735E+09	4,636913E+09	7,179484E+09	1,181640E+10
288	2,318429E+09	2,318436E+09	3,589734E+09	3,589771E+09	4,636864E+09	7,179505E+09	1,181637E+10
289	2,318506E+09	2,318480E+09	3,589795E+09	3,589741E+09	4,636986E+09	7,179536E+09	1,181652E+10
290	2,318363E+09	2,318337E+09	3,589730E+09	3,589751E+09	4,636700E+09	7,179481E+09	1,181618E+10
291	2,318418E+09	2,318407E+09	3,589727E+09	3,589776E+09	4,636825E+09	7,179502E+09	1,181633E+10
292	2,318416E+09	2,318421E+09	3,589773E+09	3,589746E+09	4,636837E+09	7,179519E+09	1,181636E+10
293	2,318299E+09	2,318327E+09	3,589740E+09	3,589750E+09	4,636626E+09	7,179490E+09	1,181612E+10
294	2,318411E+09	2,318441E+09	3,589789E+09	3,589738E+09	4,636853E+09	7,179526E+09	1,181638E+10
295	2,318372E+09	2,318369E+09	3,589800E+09	3,589718E+09	4,636742E+09	7,179518E+09	1,181626E+10
296	2,318355E+09	2,318360E+09	3,589745E+09	3,589766E+09	4,636714E+09	7,179511E+09	1,181623E+10
297	2,318489E+09	2,318500E+09	3,589771E+09	3,589755E+09	4,636988E+09	7,179526E+09	1,181651E+10
298	2,318413E+09	2,318434E+09	3,589699E+09	3,589729E+09	4,636846E+09	7,179428E+09	1,181627E+10
299	2,318495E+09	2,318512E+09	3,589677E+09	3,589733E+09	4,637008E+09	7,179410E+09	1,181642E+10
300	2,318596E+09	2,318589E+09	3,589730E+09	3,589673E+09	4,637185E+09	7,179402E+09	1,181659E+10
301	2,318517E+09	2,318501E+09	3,589681E+09	3,589652E+09	4,637018E+09	7,179334E+09	1,181635E+10
302	2,318622E+09	2,318628E+09	3,589699E+09	3,589669E+09	4,637250E+09	7,179368E+09	1,181662E+10
303	2,318606E+09	2,318612E+09	3,589701E+09	3,589657E+09	4,637218E+09	7,179358E+09	1,181658E+10
304	2,318522E+09	2,318553E+09	3,589656E+09	3,589714E+09	4,637075E+09	7,179370E+09	1,181645E+10
305	2,318617E+09	2,318648E+09	3,589721E+09	3,589705E+09	4,637264E+09	7,179427E+09	1,181669E+10
306	2,318526E+09	2,318518E+09	3,589702E+09	3,589670E+09	4,637044E+09	7,179372E+09	1,181642E+10
307	2,318516E+09	2,318494E+09	3,589684E+09	3,589716E+09	4,637010E+09	7,179400E+09	1,181641E+10
308	2,318581E+09	2,318550E+09	3,589730E+09	3,589706E+09	4,637131E+09	7,179436E+09	1,181657E+10
309	2,318439E+09	2,318424E+09	3,589690E+09	3,589696E+09	4,636863E+09	7,179386E+09	1,181625E+10
310	2,318464E+09	2,318507E+09	3,589710E+09	3,589723E+09	4,636971E+09	7,179432E+09	1,181640E+10
311	2,318476E+09	2,318494E+09	3,589749E+09	3,589688E+09	4,636970E+09	7,179438E+09	1,181641E+10
312	2,318376E+09	2,318393E+09	3,589724E+09	3,589724E+09	4,636770E+09	7,179448E+09	1,181622E+10
313	2,318482E+09	2,318498E+09	3,589773E+09	3,589728E+09	4,636980E+09	7,179500E+09	1,181648E+10
314	2,318456E+09	2,318439E+09	3,589735E+09	3,589688E+09	4,636895E+09	7,179422E+09	1,181632E+10
315	2,318444E+09	2,318458E+09	3,589664E+09	3,589739E+09	4,636902E+09	7,179403E+09	1,181630E+10
316	2,318582E+09	2,318592E+09	3,589688E+09	3,589710E+09	4,637174E+09	7,179398E+09	1,181657E+10
317	2,318525E+09	2,318519E+09	3,589657E+09	3,589638E+09	4,637044E+09	7,179294E+09	1,181634E+10
318	2,318588E+09	2,318606E+09	3,589654E+09	3,589644E+09	4,637195E+09	7,179298E+09	1,181649E+10
319	2,318687E+09	2,318668E+09	3,589680E+09	3,589605E+09	4,637355E+09	7,179285E+09	1,181664E+10
320	2,318599E+09	2,318596E+09	3,589634E+09	3,589634E+09	4,637195E+09	7,179268E+09	1,181646E+10
321	2,318673E+09	2,318719E+09	3,589665E+09	3,589665E+09	4,637391E+09	7,179330E+09	1,181672E+10
322	2,318666E+09	2,318693E+09	3,589656E+09	3,589621E+09	4,637359E+09	7,179278E+09	1,181664E+10
323	2,318599E+09	2,318623E+09	3,589620E+09	3,589675E+09	4,637222E+09	7,179295E+09	1,181652E+10
324	2,318699E+09	2,318694E+09	3,589680E+09	3,589669E+09	4,637393E+09	7,179349E+09	1,181674E+10
325	2,318623E+09	2,318568E+09	3,589669E+09	3,589613E+09	4,637191E+09	7,179282E+09	1,181647E+10
326	2,318579E+09	2,318575E+09	3,589641E+09	3,589669E+09	4,637154E+09	7,179310E+09	1,181646E+10
327	2,318637E+09	2,318632E+09	3,589663E+09	3,589664E+09	4,637269E+09	7,179327E+09	1,181660E+10
328	2,318503E+09	2,318509E+09	3,589649E+09	3,589665E+09	4,637013E+09	7,179314E+09	1,181633E+10
329	2,318516E+09	2,318568E+09	3,589704E+09	3,589686E+09	4,637084E+09	7,179390E+09	1,181647E+10
330	2,318552E+09	2,318550E+09	3,589721E+09	3,589631E+09	4,637102E+09	7,179352E+09	1,181645E+10
331	2,318467E+09	2,318459E+09	3,589672E+09	3,589688E+09	4,636926E+09	7,179359E+09	1,181629E+10
332	2,318566E+09	2,318571E+09	3,589699E+09	3,589710E+09	4,637137E+09	7,179409E+09	1,181655E+10

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							
333	2,318555E+09	2,318535E+09	3,589670E+09	3,589637E+09	4,637090E+09	7,179308E+09	1,181640E+10
334	2,318523E+09	2,318567E+09	3,589618E+09	3,589672E+09	4,637091E+09	7,179290E+09	1,181638E+10
335	2,318674E+09	2,318681E+09	3,589639E+09	3,589636E+09	4,637355E+09	7,179275E+09	1,181663E+10
336	2,318628E+09	2,318609E+09	3,589626E+09	3,589584E+09	4,637236E+09	7,179210E+09	1,181645E+10
337	2,318663E+09	2,318688E+09	3,589638E+09	3,589613E+09	4,637351E+09	7,179250E+09	1,181660E+10
338	2,318760E+09	2,318758E+09	3,589626E+09	3,589571E+09	4,637519E+09	7,179196E+09	1,181671E+10
339	2,318671E+09	2,318694E+09	3,589573E+09	3,589617E+09	4,637366E+09	7,179190E+09	1,181656E+10
340	2,318744E+09	2,318791E+09	3,589613E+09	3,589642E+09	4,637535E+09	7,179255E+09	1,181679E+10
341	2,318764E+09	2,318749E+09	3,589627E+09	3,589555E+09	4,637512E+09	7,179181E+09	1,181669E+10
342	2,318681E+09	2,318687E+09	3,589591E+09	3,589606E+09	4,637368E+09	7,179197E+09	1,181657E+10
343	2,318782E+09	2,318751E+09	3,589616E+09	3,589615E+09	4,637533E+09	7,179230E+09	1,181676E+10
344	2,318696E+09	2,318653E+09	3,589614E+09	3,589585E+09	4,637349E+09	7,179199E+09	1,181655E+10
345	2,318621E+09	2,318663E+09	3,589615E+09	3,589647E+09	4,637284E+09	7,179262E+09	1,181655E+10
346	2,318687E+09	2,318707E+09	3,589630E+09	3,589612E+09	4,637394E+09	7,179242E+09	1,181664E+10
347	2,318570E+09	2,318579E+09	3,589629E+09	3,589627E+09	4,637149E+09	7,179257E+09	1,181641E+10
348	2,318589E+09	2,318614E+09	3,589676E+09	3,589660E+09	4,637203E+09	7,179336E+09	1,181654E+10
349	2,318643E+09	2,318602E+09	3,589683E+09	3,589590E+09	4,637245E+09	7,179274E+09	1,181652E+10
350	2,318539E+09	2,318550E+09	3,589612E+09	3,589651E+09	4,637089E+09	7,179263E+09	1,181635E+10
351	2,318647E+09	2,318659E+09	3,589607E+09	3,589669E+09	4,637307E+09	7,179275E+09	1,181658E+10
352	2,318650E+09	2,318634E+09	3,589610E+09	3,589585E+09	4,637284E+09	7,179195E+09	1,181648E+10
353	2,318608E+09	2,318652E+09	3,589594E+09	3,589606E+09	4,637260E+09	7,179201E+09	1,181646E+10
354	2,318766E+09	2,318762E+09	3,589598E+09	3,589556E+09	4,637528E+09	7,179154E+09	1,181668E+10
355	2,318722E+09	2,318705E+09	3,589580E+09	3,589542E+09	4,637427E+09	7,179121E+09	1,181655E+10
356	2,318737E+09	2,318778E+09	3,589587E+09	3,589597E+09	4,637515E+09	7,179184E+09	1,181670E+10
357	2,318843E+09	2,318851E+09	3,589588E+09	3,589533E+09	4,637694E+09	7,179121E+09	1,181681E+10
358	2,318743E+09	2,318786E+09	3,589547E+09	3,589569E+09	4,637529E+09	7,179116E+09	1,181665E+10
359	2,318829E+09	2,318848E+09	3,589569E+09	3,589594E+09	4,637677E+09	7,179163E+09	1,181684E+10
360	2,318861E+09	2,318809E+09	3,589590E+09	3,589519E+09	4,637670E+09	7,179109E+09	1,181678E+10
361	2,318749E+09	2,318748E+09	3,589557E+09	3,589579E+09	4,637496E+09	7,179136E+09	1,181663E+10
362	2,318842E+09	2,318830E+09	3,589547E+09	3,589575E+09	4,637672E+09	7,179122E+09	1,181679E+10
363	2,318757E+09	2,318746E+09	3,589548E+09	3,589552E+09	4,637503E+09	7,179100E+09	1,181660E+10
364	2,318676E+09	2,318727E+09	3,589581E+09	3,589608E+09	4,637403E+09	7,179189E+09	1,181659E+10
365	2,318766E+09	2,318763E+09	3,589615E+09	3,589544E+09	4,637529E+09	7,179159E+09	1,181669E+10
366	2,318641E+09	2,318642E+09	3,589609E+09	3,589570E+09	4,637283E+09	7,179179E+09	1,181646E+10
367	2,318666E+09	2,318670E+09	3,589613E+09	3,589628E+09	4,637336E+09	7,179241E+09	1,181658E+10
368	2,318724E+09	2,318688E+09	3,589620E+09	3,589571E+09	4,637413E+09	7,179190E+09	1,181660E+10
369	2,318602E+09	2,318646E+09	3,589568E+09	3,589619E+09	4,637248E+09	7,179187E+09	1,181644E+10
370	2,318726E+09	2,318750E+09	3,589554E+09	3,589600E+09	4,637476E+09	7,179154E+09	1,181663E+10
371	2,318745E+09	2,318729E+09	3,589572E+09	3,589525E+09	4,637474E+09	7,179097E+09	1,181657E+10
372	2,318700E+09	2,318726E+09	3,589570E+09	3,589562E+09	4,637426E+09	7,179132E+09	1,181656E+10
373	2,318863E+09	2,318844E+09	3,589567E+09	3,589506E+09	4,637706E+09	7,179073E+09	1,181678E+10
374	2,318794E+09	2,318813E+09	3,589538E+09	3,589509E+09	4,637607E+09	7,179047E+09	1,181665E+10
375	2,318815E+09	2,318863E+09	3,589518E+09	3,589571E+09	4,637678E+09	7,179090E+09	1,181677E+10
376	2,318933E+09	2,318929E+09	3,589547E+09	3,589498E+09	4,637862E+09	7,179045E+09	1,181691E+10
377	2,318827E+09	2,318850E+09	3,589523E+09	3,589523E+09	4,637677E+09	7,179045E+09	1,181672E+10
378	2,318919E+09	2,318903E+09	3,589506E+09	3,589529E+09	4,637822E+09	7,179035E+09	1,181686E+10
379	2,318945E+09	2,318893E+09	3,589518E+09	3,589481E+09	4,637837E+09	7,178999E+09	1,181684E+10
380	2,318811E+09	2,318831E+09	3,589500E+09	3,589550E+09	4,637642E+09	7,179049E+09	1,181669E+10
381	2,318902E+09	2,318913E+09	3,589514E+09	3,589517E+09	4,637815E+09	7,179032E+09	1,181685E+10

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							
382	2,318808E+09	2,318832E+09	3,589545E+09	3,589493E+09	4,637640E+09	7,179038E+09	1,181668E+10
383	2,318741E+09	2,318774E+09	3,589557E+09	3,589566E+09	4,637515E+09	7,179123E+09	1,181664E+10
384	2,318842E+09	2,318811E+09	3,589597E+09	3,589520E+09	4,637653E+09	7,179117E+09	1,181677E+10
385	2,318702E+09	2,318701E+09	3,589575E+09	3,589558E+09	4,637403E+09	7,179133E+09	1,181654E+10
386	2,318731E+09	2,318744E+09	3,589529E+09	3,589597E+09	4,637475E+09	7,179126E+09	1,181660E+10
387	2,318805E+09	2,318786E+09	3,589538E+09	3,589536E+09	4,637591E+09	7,179075E+09	1,181667E+10
388	2,318689E+09	2,318724E+09	3,589523E+09	3,589560E+09	4,637412E+09	7,179084E+09	1,181650E+10
389	2,318831E+09	2,318828E+09	3,589527E+09	3,589508E+09	4,637660E+09	7,179035E+09	1,181669E+10
390	2,318839E+09	2,318826E+09	3,589548E+09	3,589449E+09	4,637665E+09	7,178997E+09	1,181666E+10
391	2,318787E+09	2,318812E+09	3,589516E+09	3,589527E+09	4,637599E+09	7,179043E+09	1,181664E+10
392	2,318944E+09	2,318947E+09	3,589524E+09	3,589490E+09	4,637891E+09	7,179014E+09	1,181690E+10
393	2,318859E+09	2,318907E+09	3,589510E+09	3,589490E+09	4,637766E+09	7,179000E+09	1,181677E+10
394	2,318894E+09	2,318938E+09	3,589468E+09	3,589525E+09	4,637833E+09	7,178993E+09	1,181683E+10
395	2,319032E+09	2,319005E+09	3,589490E+09	3,589455E+09	4,638038E+09	7,178945E+09	1,181698E+10
396	2,318918E+09	2,318908E+09	3,589477E+09	3,589481E+09	4,637826E+09	7,178958E+09	1,181678E+10
397	2,319007E+09	2,318981E+09	3,589451E+09	3,589471E+09	4,637988E+09	7,178921E+09	1,181691E+10
398	2,319006E+09	2,318996E+09	3,589468E+09	3,589427E+09	4,638002E+09	7,178895E+09	1,181690E+10
399	2,318870E+09	2,318906E+09	3,589451E+09	3,589508E+09	4,637776E+09	7,178959E+09	1,181674E+10
400	2,318967E+09	2,318976E+09	3,589505E+09	3,589469E+09	4,637943E+09	7,178974E+09	1,181692E+10
401	2,318865E+09	2,318880E+09	3,589548E+09	3,589454E+09	4,637744E+09	7,179002E+09	1,181675E+10
402	2,318807E+09	2,318815E+09	3,589510E+09	3,589527E+09	4,637623E+09	7,179037E+09	1,181666E+10
403	2,318916E+09	2,318883E+09	3,589524E+09	3,589508E+09	4,637798E+09	7,179032E+09	1,181683E+10
404	2,318770E+09	2,318778E+09	3,589513E+09	3,589539E+09	4,637549E+09	7,179052E+09	1,181660E+10
405	2,318815E+09	2,318832E+09	3,589476E+09	3,589534E+09	4,637647E+09	7,179010E+09	1,181666E+10
406	2,318887E+09	2,318887E+09	3,589515E+09	3,589459E+09	4,637774E+09	7,178973E+09	1,181675E+10
407	2,318784E+09	2,318797E+09	3,589491E+09	3,589501E+09	4,637581E+09	7,178992E+09	1,181657E+10
408	2,318922E+09	2,318906E+09	3,589511E+09	3,589464E+09	4,637828E+09	7,178975E+09	1,181680E+10
409	2,318908E+09	2,318919E+09	3,589523E+09	3,589432E+09	4,637827E+09	7,178955E+09	1,181678E+10
410	2,318857E+09	2,318902E+09	3,589438E+09	3,589501E+09	4,637758E+09	7,178940E+09	1,181670E+10
411	2,319026E+09	2,319045E+09	3,589449E+09	3,589466E+09	4,638071E+09	7,178915E+09	1,181699E+10
412	2,318954E+09	2,318977E+09	3,589463E+09	3,589444E+09	4,637931E+09	7,178907E+09	1,181684E+10
413	2,319006E+09	2,319003E+09	3,589417E+09	3,589443E+09	4,638009E+09	7,178860E+09	1,181687E+10
414	2,319128E+09	2,319094E+09	3,589445E+09	3,589380E+09	4,638222E+09	7,178824E+09	1,181705E+10
415	2,319003E+09	2,318990E+09	3,589409E+09	3,589434E+09	4,637993E+09	7,178843E+09	1,181684E+10
416	2,319073E+09	2,319074E+09	3,589419E+09	3,589427E+09	4,638147E+09	7,178846E+09	1,181699E+10
417	2,319050E+09	2,319082E+09	3,589465E+09	3,589392E+09	4,638132E+09	7,178858E+09	1,181699E+10
418	2,318922E+09	2,318962E+09	3,589429E+09	3,589464E+09	4,637884E+09	7,178894E+09	1,181678E+10
419	2,319034E+09	2,319031E+09	3,589474E+09	3,589451E+09	4,638065E+09	7,178925E+09	1,181699E+10
420	2,318936E+09	2,318917E+09	3,589516E+09	3,589445E+09	4,637853E+09	7,178961E+09	1,181681E+10
421	2,318885E+09	2,318879E+09	3,589443E+09	3,589495E+09	4,637763E+09	7,178938E+09	1,181670E+10
422	2,318986E+09	2,318979E+09	3,589457E+09	3,589461E+09	4,637965E+09	7,178918E+09	1,181688E+10
423	2,318852E+09	2,318858E+09	3,589446E+09	3,589485E+09	4,637711E+09	7,178931E+09	1,181664E+10
424	2,318907E+09	2,318912E+09	3,589455E+09	3,589458E+09	4,637820E+09	7,178913E+09	1,181673E+10
425	2,318967E+09	2,318966E+09	3,589503E+09	3,589394E+09	4,637933E+09	7,178898E+09	1,181683E+10
426	2,318862E+09	2,318873E+09	3,589442E+09	3,589451E+09	4,637735E+09	7,178892E+09	1,181663E+10
427	2,318998E+09	2,319009E+09	3,589442E+09	3,589448E+09	4,638006E+09	7,178890E+09	1,181690E+10
428	2,318979E+09	2,319008E+09	3,589475E+09	3,589418E+09	4,637987E+09	7,178893E+09	1,181688E+10
429	2,318947E+09	2,318992E+09	3,589390E+09	3,589448E+09	4,637939E+09	7,178838E+09	1,181678E+10
430	2,319123E+09	2,319136E+09	3,589417E+09	3,589396E+09	4,638259E+09	7,178812E+09	1,181707E+10

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							
431	2,319064E+09	2,319042E+09	3,589413E+09	3,589388E+09	4,638107E+09	7,178801E+09	1,181691E+10
432	2,319108E+09	2,319078E+09	3,589380E+09	3,589388E+09	4,638186E+09	7,178769E+09	1,181695E+10
433	2,319194E+09	2,319188E+09	3,589405E+09	3,589347E+09	4,638381E+09	7,178752E+09	1,181713E+10
434	2,319058E+09	2,319079E+09	3,589345E+09	3,589396E+09	4,638137E+09	7,178740E+09	1,181688E+10
435	2,319130E+09	2,319160E+09	3,589372E+09	3,589398E+09	4,638291E+09	7,178770E+09	1,181706E+10
436	2,319116E+09	2,319131E+09	3,589455E+09	3,589358E+09	4,638247E+09	7,178813E+09	1,181706E+10
437	2,319004E+09	2,319007E+09	3,589396E+09	3,589411E+09	4,638012E+09	7,178807E+09	1,181682E+10
438	2,319107E+09	2,319097E+09	3,589431E+09	3,589409E+09	4,638205E+09	7,178840E+09	1,181704E+10
439	2,319013E+09	2,318984E+09	3,589441E+09	3,589423E+09	4,637997E+09	7,178864E+09	1,181686E+10
440	2,318957E+09	2,318961E+09	3,589394E+09	3,589453E+09	4,637918E+09	7,178846E+09	1,181676E+10
441	2,319046E+09	2,319068E+09	3,589436E+09	3,589412E+09	4,638115E+09	7,178848E+09	1,181696E+10
442	2,318926E+09	2,318930E+09	3,589406E+09	3,589415E+09	4,637855E+09	7,178822E+09	1,181668E+10
443	2,318986E+09	2,318991E+09	3,589418E+09	3,589414E+09	4,637977E+09	7,178832E+09	1,181681E+10
444	2,319045E+09	2,319034E+09	3,589477E+09	3,589371E+09	4,638079E+09	7,178848E+09	1,181693E+10
445	2,318942E+09	2,318960E+09	3,589380E+09	3,589416E+09	4,637902E+09	7,178796E+09	1,181670E+10
446	2,319074E+09	2,319114E+09	3,589386E+09	3,589407E+09	4,638188E+09	7,178793E+09	1,181698E+10
447	2,319078E+09	2,319085E+09	3,589411E+09	3,589373E+09	4,638163E+09	7,178784E+09	1,181695E+10
448	2,319059E+09	2,319065E+09	3,589357E+09	3,589375E+09	4,638124E+09	7,178732E+09	1,181686E+10
449	2,319221E+09	2,319216E+09	3,589385E+09	3,589333E+09	4,638437E+09	7,178718E+09	1,181715E+10
450	2,319153E+09	2,319126E+09	3,589341E+09	3,589330E+09	4,638280E+09	7,178671E+09	1,181695E+10
451	2,319182E+09	2,319190E+09	3,589308E+09	3,589361E+09	4,638372E+09	7,178669E+09	1,181704E+10
452	2,319255E+09	2,319278E+09	3,589374E+09	3,589324E+09	4,638533E+09	7,178697E+09	1,181723E+10
453	2,319126E+09	2,319160E+09	3,589320E+09	3,589347E+09	4,638286E+09	7,178667E+09	1,181695E+10
454	2,319198E+09	2,319233E+09	3,589365E+09	3,589346E+09	4,638432E+09	7,178711E+09	1,181714E+10
455	2,319197E+09	2,319171E+09	3,589422E+09	3,589335E+09	4,638368E+09	7,178757E+09	1,181712E+10
456	2,319086E+09	2,319059E+09	3,589362E+09	3,589382E+09	4,638145E+09	7,178744E+09	1,181689E+10
457	2,319165E+09	2,319170E+09	3,589376E+09	3,589386E+09	4,638335E+09	7,178763E+09	1,181710E+10
458	2,319071E+09	2,319060E+09	3,589358E+09	3,589378E+09	4,638131E+09	7,178736E+09	1,181687E+10
459	2,319029E+09	2,319047E+09	3,589332E+09	3,589399E+09	4,638076E+09	7,178731E+09	1,181681E+10
460	2,319123E+09	2,319126E+09	3,589418E+09	3,589351E+09	4,638249E+09	7,178769E+09	1,181702E+10
461	2,319013E+09	2,319001E+09	3,589373E+09	3,589346E+09	4,638014E+09	7,178719E+09	1,181673E+10
462	2,319062E+09	2,319082E+09	3,589382E+09	3,589363E+09	4,638144E+09	7,178745E+09	1,181689E+10
463	2,319122E+09	2,319119E+09	3,589417E+09	3,589353E+09	4,638241E+09	7,178770E+09	1,181701E+10
464	2,319027E+09	2,319051E+09	3,589343E+09	3,589377E+09	4,638078E+09	7,178721E+09	1,181680E+10
465	2,319153E+09	2,319203E+09	3,589362E+09	3,589364E+09	4,638355E+09	7,178726E+09	1,181708E+10
466	2,319173E+09	2,319160E+09	3,589355E+09	3,589316E+09	4,638334E+09	7,178671E+09	1,181700E+10
467	2,319162E+09	2,319153E+09	3,589295E+09	3,589334E+09	4,638315E+09	7,178629E+09	1,181694E+10
468	2,319310E+09	2,319296E+09	3,589340E+09	3,589304E+09	4,638606E+09	7,178644E+09	1,181725E+10
469	2,319234E+09	2,319232E+09	3,589272E+09	3,589282E+09	4,638466E+09	7,178555E+09	1,181702E+10
470	2,319248E+09	2,319299E+09	3,589269E+09	3,589306E+09	4,638547E+09	7,178576E+09	1,181712E+10
471	2,319333E+09	2,319347E+09	3,589341E+09	3,589282E+09	4,638680E+09	7,178623E+09	1,181730E+10
472	2,319214E+09	2,319210E+09	3,589313E+09	3,589289E+09	4,638423E+09	7,178601E+09	1,181702E+10
473	2,319268E+09	2,319286E+09	3,589346E+09	3,589311E+09	4,638554E+09	7,178657E+09	1,181721E+10
474	2,319264E+09	2,319227E+09	3,589344E+09	3,589303E+09	4,638490E+09	7,178647E+09	1,181714E+10
475	2,319147E+09	2,319144E+09	3,589278E+09	3,589361E+09	4,638291E+09	7,178639E+09	1,181693E+10
476	2,319224E+09	2,319242E+09	3,589335E+09	3,589355E+09	4,638466E+09	7,178690E+09	1,181716E+10
477	2,319143E+09	2,319138E+09	3,589318E+09	3,589307E+09	4,638281E+09	7,178625E+09	1,181691E+10
478	2,319103E+09	2,319127E+09	3,589321E+09	3,589325E+09	4,638231E+09	7,178646E+09	1,181688E+10
479	2,319206E+09	2,319184E+09	3,589388E+09	3,589314E+09	4,638390E+09	7,178702E+09	1,181709E+10

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							
480	2,319094E+09	2,319073E+09	3,589346E+09	3,589313E+09	4,638167E+09	7,178659E+09	1,181683E+10
481	2,319119E+09	2,319175E+09	3,589339E+09	3,589348E+09	4,638295E+09	7,178686E+09	1,181698E+10
482	2,319191E+09	2,319204E+09	3,589340E+09	3,589319E+09	4,638395E+09	7,178659E+09	1,181705E+10
483	2,319121E+09	2,319143E+09	3,589278E+09	3,589333E+09	4,638263E+09	7,178611E+09	1,181687E+10
484	2,319258E+09	2,319269E+09	3,589324E+09	3,589312E+09	4,638527E+09	7,178637E+09	1,181716E+10
485	2,319282E+09	2,319250E+09	3,589291E+09	3,589244E+09	4,638533E+09	7,178535E+09	1,181707E+10
486	2,319256E+09	2,319267E+09	3,589242E+09	3,589270E+09	4,638523E+09	7,178512E+09	1,181704E+10
487	2,319390E+09	2,319395E+09	3,589284E+09	3,589269E+09	4,638785E+09	7,178553E+09	1,181734E+10
488	2,319314E+09	2,319327E+09	3,589262E+09	3,589231E+09	4,638641E+09	7,178492E+09	1,181713E+10
489	2,319310E+09	2,319377E+09	3,589270E+09	3,589262E+09	4,638688E+09	7,178532E+09	1,181722E+10
490	2,319401E+09	2,319397E+09	3,589305E+09	3,589243E+09	4,638798E+09	7,178548E+09	1,181735E+10
491	2,319293E+09	2,319268E+09	3,589259E+09	3,589273E+09	4,638562E+09	7,178532E+09	1,181709E+10
492	2,319335E+09	2,319332E+09	3,589293E+09	3,589305E+09	4,638667E+09	7,178598E+09	1,181727E+10
493	2,319329E+09	2,319307E+09	3,589259E+09	3,589264E+09	4,638636E+09	7,178523E+09	1,181716E+10
494	2,319215E+09	2,319235E+09	3,589224E+09	3,589295E+09	4,638450E+09	7,178519E+09	1,181697E+10
495	2,319302E+09	2,319302E+09	3,589298E+09	3,589293E+09	4,638604E+09	7,178591E+09	1,181719E+10
496	2,319231E+09	2,319200E+09	3,589314E+09	3,589229E+09	4,638431E+09	7,178543E+09	1,181697E+10
497	2,319167E+09	2,319200E+09	3,589311E+09	3,589282E+09	4,638366E+09	7,178592E+09	1,181696E+10
498	2,319263E+09	2,319260E+09	3,589326E+09	3,589291E+09	4,638523E+09	7,178616E+09	1,181714E+10
499	2,319159E+09	2,319171E+09	3,589280E+09	3,589307E+09	4,638330E+09	7,178586E+09	1,181692E+10
500	2,319191E+09	2,319249E+09	3,589306E+09	3,589332E+09	4,638439E+09	7,178637E+09	1,181708E+10
501	2,319285E+09	2,319287E+09	3,589288E+09	3,589260E+09	4,638572E+09	7,178548E+09	1,181712E+10
502	2,319227E+09	2,319233E+09	3,589242E+09	3,589260E+09	4,638460E+09	7,178502E+09	1,181696E+10
503	2,319369E+09	2,319344E+09	3,589272E+09	3,589266E+09	4,638712E+09	7,178538E+09	1,181725E+10
504	2,319383E+09	2,319345E+09	3,589246E+09	3,589186E+09	4,638728E+09	7,178432E+09	1,181716E+10
505	2,319322E+09	2,319379E+09	3,589203E+09	3,589230E+09	4,638701E+09	7,178432E+09	1,181713E+10
506	2,319455E+09	2,319482E+09	3,589225E+09	3,589219E+09	4,638937E+09	7,178445E+09	1,181738E+10
507	2,319394E+09	2,319403E+09	3,589222E+09	3,589190E+09	4,638797E+09	7,178413E+09	1,181721E+10
508	2,319392E+09	2,319421E+09	3,589252E+09	3,589234E+09	4,638813E+09	7,178486E+09	1,181730E+10
509	2,319484E+09	2,319459E+09	3,589239E+09	3,589201E+09	4,638943E+09	7,178440E+09	1,181738E+10
510	2,319369E+09	2,319356E+09	3,589194E+09	3,589230E+09	4,638725E+09	7,178424E+09	1,181715E+10
511	2,319406E+09	2,319407E+09	3,589223E+09	3,589275E+09	4,638813E+09	7,178498E+09	1,181731E+10
512	2,319403E+09	2,319386E+09	3,589235E+09	3,589197E+09	4,638789E+09	7,178433E+09	1,181722E+10
513	2,319274E+09	2,319314E+09	3,589226E+09	3,589234E+09	4,638588E+09	7,178459E+09	1,181705E+10
514	2,319362E+09	2,319359E+09	3,589270E+09	3,589241E+09	4,638721E+09	7,178511E+09	1,181723E+10
515	2,319300E+09	2,319271E+09	3,589280E+09	3,589213E+09	4,638570E+09	7,178493E+09	1,181706E+10
516	2,319225E+09	2,319261E+09	3,589277E+09	3,589285E+09	4,638485E+09	7,178562E+09	1,181705E+10
517	2,319324E+09	2,319347E+09	3,589252E+09	3,589265E+09	4,638671E+09	7,178517E+09	1,181719E+10
518	2,319244E+09	2,319263E+09	3,589228E+09	3,589251E+09	4,638507E+09	7,178479E+09	1,181699E+10
519	2,319297E+09	2,319308E+09	3,589253E+09	3,589275E+09	4,638605E+09	7,178528E+09	1,181713E+10
520	2,319405E+09	2,319361E+09	3,589255E+09	3,589176E+09	4,638766E+09	7,178431E+09	1,181720E+10
521	2,319323E+09	2,319331E+09	3,589201E+09	3,589194E+09	4,638653E+09	7,178395E+09	1,181705E+10
522	2,319442E+09	2,319444E+09	3,589197E+09	3,589215E+09	4,638887E+09	7,178411E+09	1,181730E+10
523	2,319457E+09	2,319463E+09	3,589192E+09	3,589155E+09	4,638921E+09	7,178347E+09	1,181727E+10
524	2,319390E+09	2,319457E+09	3,589190E+09	3,589206E+09	4,638847E+09	7,178396E+09	1,181724E+10
525	2,319529E+09	2,319560E+09	3,589191E+09	3,589173E+09	4,639089E+09	7,178364E+09	1,181745E+10
526	2,319486E+09	2,319474E+09	3,589193E+09	3,589145E+09	4,638960E+09	7,178338E+09	1,181730E+10
527	2,319482E+09	2,319469E+09	3,589196E+09	3,589216E+09	4,638951E+09	7,178412E+09	1,181736E+10
528	2,319569E+09	2,319533E+09	3,589182E+09	3,589159E+09	4,639102E+09	7,178340E+09	1,181744E+10

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							
529	2,319428E+09	2,319449E+09	3,589144E+09	3,589182E+09	4,638878E+09	7,178326E+09	1,181720E+10
530	2,319465E+09	2,319479E+09	3,589166E+09	3,589211E+09	4,638944E+09	7,178376E+09	1,181732E+10
531	2,319477E+09	2,319458E+09	3,589207E+09	3,589140E+09	4,638935E+09	7,178347E+09	1,181728E+10
532	2,319341E+09	2,319360E+09	3,589224E+09	3,589201E+09	4,638701E+09	7,178425E+09	1,181713E+10
533	2,319421E+09	2,319428E+09	3,589222E+09	3,589205E+09	4,638850E+09	7,178427E+09	1,181728E+10
534	2,319364E+09	2,319358E+09	3,589234E+09	3,589186E+09	4,638722E+09	7,178420E+09	1,181714E+10
535	2,319297E+09	2,319330E+09	3,589222E+09	3,589271E+09	4,638627E+09	7,178494E+09	1,181712E+10
536	2,319416E+09	2,319418E+09	3,589220E+09	3,589204E+09	4,638834E+09	7,178424E+09	1,181726E+10
537	2,319333E+09	2,319346E+09	3,589203E+09	3,589185E+09	4,638679E+09	7,178388E+09	1,181707E+10
538	2,319393E+09	2,319381E+09	3,589189E+09	3,589211E+09	4,638773E+09	7,178400E+09	1,181717E+10
539	2,319501E+09	2,319457E+09	3,589192E+09	3,589135E+09	4,638958E+09	7,178328E+09	1,181729E+10
540	2,319398E+09	2,319426E+09	3,589157E+09	3,589174E+09	4,638824E+09	7,178331E+09	1,181715E+10
541	2,319508E+09	2,319555E+09	3,589129E+09	3,589167E+09	4,639063E+09	7,178295E+09	1,181736E+10
542	2,319542E+09	2,319563E+09	3,589160E+09	3,589096E+09	4,639105E+09	7,178256E+09	1,181736E+10
543	2,319488E+09	2,319515E+09	3,589157E+09	3,589164E+09	4,639003E+09	7,178321E+09	1,181732E+10
544	2,319635E+09	2,319620E+09	3,589163E+09	3,589112E+09	4,639255E+09	7,178275E+09	1,181753E+10
545	2,319569E+09	2,319559E+09	3,589148E+09	3,589104E+09	4,639128E+09	7,178252E+09	1,181738E+10
546	2,319550E+09	2,319551E+09	3,589110E+09	3,589179E+09	4,639101E+09	7,178289E+09	1,181739E+10
547	2,319638E+09	2,319628E+09	3,589126E+09	3,589123E+09	4,639265E+09	7,178249E+09	1,181751E+10
548	2,319489E+09	2,319516E+09	3,589136E+09	3,589144E+09	4,639005E+09	7,178281E+09	1,181729E+10
549	2,319522E+09	2,319547E+09	3,589142E+09	3,589150E+09	4,639070E+09	7,178292E+09	1,181736E+10
550	2,319552E+09	2,319525E+09	3,589194E+09	3,589097E+09	4,639077E+09	7,178291E+09	1,181737E+10
551	2,319411E+09	2,319404E+09	3,589183E+09	3,589195E+09	4,638815E+09	7,178378E+09	1,181719E+10
552	2,319489E+09	2,319498E+09	3,589175E+09	3,589177E+09	4,638988E+09	7,178352E+09	1,181734E+10
553	2,319427E+09	2,319445E+09	3,589183E+09	3,589147E+09	4,638872E+09	7,178330E+09	1,181720E+10
554	2,319373E+09	2,319393E+09	3,589150E+09	3,589211E+09	4,638766E+09	7,178361E+09	1,181713E+10
555	2,319517E+09	2,319493E+09	3,589170E+09	3,589141E+09	4,639011E+09	7,178311E+09	1,181732E+10
556	2,319428E+09	2,319416E+09	3,589169E+09	3,589136E+09	4,638844E+09	7,178304E+09	1,181715E+10
557	2,319472E+09	2,319484E+09	3,589117E+09	3,589151E+09	4,638956E+09	7,178269E+09	1,181722E+10
558	2,319583E+09	2,319580E+09	3,589138E+09	3,589087E+09	4,639163E+09	7,178224E+09	1,181739E+10
559	2,319476E+09	2,319518E+09	3,589119E+09	3,589146E+09	4,638994E+09	7,178264E+09	1,181726E+10
560	2,319596E+09	2,319641E+09	3,589118E+09	3,589106E+09	4,639237E+09	7,178224E+09	1,181746E+10
561	2,319629E+09	2,319646E+09	3,589152E+09	3,589046E+09	4,639274E+09	7,178198E+09	1,181747E+10
562	2,319579E+09	2,319574E+09	3,589101E+09	3,589127E+09	4,639153E+09	7,178228E+09	1,181738E+10
563	2,319727E+09	2,319698E+09	3,589098E+09	3,589090E+09	4,639425E+09	7,178188E+09	1,181761E+10
564	2,319639E+09	2,319639E+09	3,589091E+09	3,589089E+09	4,639278E+09	7,178180E+09	1,181746E+10
565	2,319613E+09	2,319643E+09	3,589034E+09	3,589122E+09	4,639256E+09	7,178156E+09	1,181741E+10
566	2,319716E+09	2,319708E+09	3,589093E+09	3,589053E+09	4,639424E+09	7,178146E+09	1,181757E+10
567	2,319571E+09	2,319564E+09	3,589117E+09	3,589097E+09	4,639135E+09	7,178215E+09	1,181735E+10
568	2,319602E+09	2,319602E+09	3,589122E+09	3,589089E+09	4,639205E+09	7,178211E+09	1,181742E+10
569	2,319608E+09	2,319604E+09	3,589162E+09	3,589064E+09	4,639212E+09	7,178227E+09	1,181744E+10
570	2,319464E+09	2,319477E+09	3,589109E+09	3,589173E+09	4,638941E+09	7,178282E+09	1,181722E+10
571	2,319557E+09	2,319576E+09	3,589123E+09	3,589150E+09	4,639132E+09	7,178273E+09	1,181741E+10
572	2,319499E+09	2,319509E+09	3,589160E+09	3,589115E+09	4,639008E+09	7,178275E+09	1,181728E+10
573	2,319455E+09	2,319470E+09	3,589093E+09	3,589144E+09	4,638925E+09	7,178238E+09	1,181716E+10
574	2,319617E+09	2,319580E+09	3,589127E+09	3,589083E+09	4,639196E+09	7,178210E+09	1,181741E+10
575	2,319518E+09	2,319498E+09	3,589115E+09	3,589106E+09	4,639016E+09	7,178221E+09	1,181724E+10
576	2,319553E+09	2,319589E+09	3,589071E+09	3,589095E+09	4,639142E+09	7,178166E+09	1,181731E+10
577	2,319655E+09	2,319691E+09	3,589109E+09	3,589033E+09	4,639346E+09	7,178143E+09	1,181749E+10

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							
578	2,319562E+09	2,319591E+09	3,589073E+09	3,589091E+09	4,639153E+09	7,178164E+09	1,181732E+10
579	2,319699E+09	2,319711E+09	3,589086E+09	3,589062E+09	4,639410E+09	7,178148E+09	1,181756E+10
580	2,319723E+09	2,319711E+09	3,589115E+09	3,589025E+09	4,639434E+09	7,178140E+09	1,181757E+10
581	2,319658E+09	2,319666E+09	3,589014E+09	3,589087E+09	4,639324E+09	7,178101E+09	1,181742E+10
582	2,319812E+09	2,319803E+09	3,589030E+09	3,589050E+09	4,639614E+09	7,178080E+09	1,181769E+10
583	2,319717E+09	2,319715E+09	3,589045E+09	3,589049E+09	4,639432E+09	7,178093E+09	1,181753E+10
584	2,319690E+09	2,319719E+09	3,589021E+09	3,589044E+09	4,639409E+09	7,178065E+09	1,181747E+10
585	2,319785E+09	2,319783E+09	3,589089E+09	3,588993E+09	4,639568E+09	7,178082E+09	1,181765E+10
586	2,319635E+09	2,319612E+09	3,589075E+09	3,589067E+09	4,639246E+09	7,178142E+09	1,181739E+10
587	2,319662E+09	2,319669E+09	3,589078E+09	3,589081E+09	4,639331E+09	7,178159E+09	1,181749E+10
588	2,319655E+09	2,319670E+09	3,589116E+09	3,589066E+09	4,639325E+09	7,178182E+09	1,181751E+10
589	2,319520E+09	2,319552E+09	3,589034E+09	3,589126E+09	4,639071E+09	7,178160E+09	1,181723E+10
590	2,319647E+09	2,319644E+09	3,589075E+09	3,589086E+09	4,639292E+09	7,178161E+09	1,181745E+10
591	2,319599E+09	2,319563E+09	3,589116E+09	3,589060E+09	4,639162E+09	7,178176E+09	1,181734E+10
592	2,319554E+09	2,319553E+09	3,589052E+09	3,589066E+09	4,639107E+09	7,178118E+09	1,181722E+10
593	2,319692E+09	2,319691E+09	3,589087E+09	3,589027E+09	4,639384E+09	7,178113E+09	1,181750E+10
594	2,319587E+09	2,319599E+09	3,589058E+09	3,589066E+09	4,639186E+09	7,178124E+09	1,181731E+10
595	2,319631E+09	2,319685E+09	3,589047E+09	3,589058E+09	4,639316E+09	7,178106E+09	1,181742E+10
596	2,319731E+09	2,319766E+09	3,589103E+09	3,589012E+09	4,639497E+09	7,178115E+09	1,181761E+10
597	2,319652E+09	2,319667E+09	3,589020E+09	3,589048E+09	4,639319E+09	7,178067E+09	1,181739E+10
598	2,319807E+09	2,319787E+09	3,589026E+09	3,589030E+09	4,639593E+09	7,178056E+09	1,181765E+10
599	2,319820E+09	2,319790E+09	3,589038E+09	3,589009E+09	4,639609E+09	7,178047E+09	1,181766E+10
600	2,319748E+09	2,319768E+09	3,588939E+09	3,589021E+09	4,639516E+09	7,177960E+09	1,181748E+10
601	2,319884E+09	2,319903E+09	3,588991E+09	3,588973E+09	4,639788E+09	7,177964E+09	1,181775E+10
602	2,319794E+09	2,319784E+09	3,589006E+09	3,588976E+09	4,639578E+09	7,177983E+09	1,181756E+10
603	2,319769E+09	2,319780E+09	3,589008E+09	3,588990E+09	4,639549E+09	7,177999E+09	1,181755E+10
604	2,319840E+09	2,319841E+09	3,589074E+09	3,588981E+09	4,639681E+09	7,178055E+09	1,181774E+10
605	2,319681E+09	2,319687E+09	3,589007E+09	3,589045E+09	4,639368E+09	7,178052E+09	1,181742E+10
606	2,319723E+09	2,319744E+09	3,589023E+09	3,589062E+09	4,639468E+09	7,178085E+09	1,181755E+10
607	2,319725E+09	2,319725E+09	3,589075E+09	3,589042E+09	4,639450E+09	7,178117E+09	1,181757E+10
608	2,319607E+09	2,319618E+09	3,589003E+09	3,589050E+09	4,639225E+09	7,178054E+09	1,181728E+10
609	2,319734E+09	2,319721E+09	3,589052E+09	3,589018E+09	4,639455E+09	7,178070E+09	1,181753E+10
610	2,319684E+09	2,319634E+09	3,589059E+09	3,589013E+09	4,639318E+09	7,178072E+09	1,181739E+10
611	2,319630E+09	2,319648E+09	3,589009E+09	3,589034E+09	4,639278E+09	7,178043E+09	1,181732E+10
612	2,319749E+09	2,319788E+09	3,589051E+09	3,589012E+09	4,639537E+09	7,178063E+09	1,181760E+10
613	2,319653E+09	2,319690E+09	3,589002E+09	3,589018E+09	4,639343E+09	7,178020E+09	1,181736E+10
614	2,319732E+09	2,319761E+09	3,589012E+09	3,589013E+09	4,639493E+09	7,178024E+09	1,181752E+10
615	2,319840E+09	2,319823E+09	3,589054E+09	3,588978E+09	4,639662E+09	7,178032E+09	1,181769E+10
616	2,319761E+09	2,319755E+09	3,588953E+09	3,588985E+09	4,639515E+09	7,177938E+09	1,181745E+10
617	2,319897E+09	2,319900E+09	3,588959E+09	3,588975E+09	4,639797E+09	7,177934E+09	1,181773E+10
618	2,319899E+09	2,319887E+09	3,588963E+09	3,588954E+09	4,639786E+09	7,177917E+09	1,181770E+10
619	2,319827E+09	2,319860E+09	3,588919E+09	3,588959E+09	4,639688E+09	7,177879E+09	1,181757E+10
620	2,319947E+09	2,319974E+09	3,588995E+09	3,588932E+09	4,639921E+09	7,177927E+09	1,181785E+10
621	2,319856E+09	2,319847E+09	3,588977E+09	3,588931E+09	4,639703E+09	7,177908E+09	1,181761E+10
622	2,319840E+09	2,319839E+09	3,588973E+09	3,588977E+09	4,639680E+09	7,177949E+09	1,181763E+10
623	2,319898E+09	2,319896E+09	3,589018E+09	3,588988E+09	4,639794E+09	7,178006E+09	1,181780E+10
624	2,319749E+09	2,319762E+09	3,588944E+09	3,589001E+09	4,639511E+09	7,177945E+09	1,181746E+10
625	2,319796E+09	2,319816E+09	3,588983E+09	3,588999E+09	4,639612E+09	7,177981E+09	1,181759E+10
626	2,319813E+09	2,319777E+09	3,589023E+09	3,588975E+09	4,639590E+09	7,177997E+09	1,181759E+10

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 ^o	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
627	2,319702E+09	2,319686E+09	3,588975E+09	3,588984E+09	4,639388E+09	7,177959E+09	1,181735E+10
628	2,319798E+09	2,319804E+09	3,589023E+09	3,588988E+09	4,639603E+09	7,178011E+09	1,181761E+10
629	2,319740E+09	2,319741E+09	3,588994E+09	3,588973E+09	4,639481E+09	7,177967E+09	1,181745E+10
630	2,319701E+09	2,319745E+09	3,588965E+09	3,589006E+09	4,639447E+09	7,177971E+09	1,181742E+10
631	2,319823E+09	2,319862E+09	3,589025E+09	3,588990E+09	4,639685E+09	7,178014E+09	1,181770E+10
632	2,319754E+09	2,319770E+09	3,588968E+09	3,588952E+09	4,639523E+09	7,177920E+09	1,181744E+10
633	2,319834E+09	2,319839E+09	3,588975E+09	3,588957E+09	4,639673E+09	7,177932E+09	1,181760E+10
634	2,319941E+09	2,319900E+09	3,588977E+09	3,588939E+09	4,639841E+09	7,177916E+09	1,181776E+10
635	2,319856E+09	2,319856E+09	3,588888E+09	3,588938E+09	4,639713E+09	7,177827E+09	1,181754E+10
636	2,319965E+09	2,320001E+09	3,588913E+09	3,588935E+09	4,639966E+09	7,177848E+09	1,181781E+10
637	2,319970E+09	2,319978E+09	3,588911E+09	3,588879E+09	4,639948E+09	7,177790E+09	1,181774E+10
638	2,319916E+09	2,319931E+09	3,588897E+09	3,588904E+09	4,639847E+09	7,177801E+09	1,181765E+10
639	2,320023E+09	2,320026E+09	3,588972E+09	3,588908E+09	4,640049E+09	7,177880E+09	1,181793E+10
640	2,319931E+09	2,319921E+09	3,588932E+09	3,588891E+09	4,639852E+09	7,177824E+09	1,181768E+10
641	2,319901E+09	2,319923E+09	3,588929E+09	3,588949E+09	4,639823E+09	7,177877E+09	1,181770E+10
642	2,319961E+09	2,319960E+09	3,588956E+09	3,588959E+09	4,639921E+09	7,177915E+09	1,181784E+10
643	2,319825E+09	2,319828E+09	3,588921E+09	3,588949E+09	4,639653E+09	7,177870E+09	1,181752E+10
644	2,319864E+09	2,319877E+09	3,588965E+09	3,588959E+09	4,639742E+09	7,177925E+09	1,181767E+10
645	2,319882E+09	2,319844E+09	3,588971E+09	3,588920E+09	4,639726E+09	7,177890E+09	1,181762E+10
646	2,319781E+09	2,319767E+09	3,588927E+09	3,588959E+09	4,639549E+09	7,177885E+09	1,181743E+10
647	2,319858E+09	2,319885E+09	3,588968E+09	3,588973E+09	4,639744E+09	7,177941E+09	1,181768E+10
648	2,319811E+09	2,319836E+09	3,588944E+09	3,588915E+09	4,639647E+09	7,177859E+09	1,181751E+10
649	2,319784E+09	2,319829E+09	3,588940E+09	3,588940E+09	4,639613E+09	7,177880E+09	1,181749E+10
650	2,319922E+09	2,319919E+09	3,588974E+09	3,588933E+09	4,639841E+09	7,177907E+09	1,181775E+10
651	2,319865E+09	2,319844E+09	3,588929E+09	3,588896E+09	4,639710E+09	7,177825E+09	1,181753E+10
652	2,319920E+09	2,319932E+09	3,588918E+09	3,588928E+09	4,639852E+09	7,177846E+09	1,181770E+10
653	2,320017E+09	2,320010E+09	3,588893E+09	3,588885E+09	4,640027E+09	7,177778E+09	1,181781E+10
654	2,319945E+09	2,319962E+09	3,588839E+09	3,588891E+09	4,639908E+09	7,177729E+09	1,181764E+10
655	2,320041E+09	2,320080E+09	3,588893E+09	3,588891E+09	4,640122E+09	7,177784E+09	1,181791E+10
656	2,320060E+09	2,320060E+09	3,588892E+09	3,588812E+09	4,640120E+09	7,177704E+09	1,181782E+10
657	2,319999E+09	2,320002E+09	3,588882E+09	3,588862E+09	4,640001E+09	7,177744E+09	1,181774E+10
658	2,320093E+09	2,320087E+09	3,588912E+09	3,588897E+09	4,640180E+09	7,177809E+09	1,181799E+10
659	2,320002E+09	2,319998E+09	3,588882E+09	3,588871E+09	4,640001E+09	7,177753E+09	1,181775E+10
660	2,319954E+09	2,319994E+09	3,588884E+09	3,588927E+09	4,639947E+09	7,177812E+09	1,181776E+10
661	2,320028E+09	2,320022E+09	3,588898E+09	3,588893E+09	4,640050E+09	7,177791E+09	1,181784E+10
662	2,319918E+09	2,319886E+09	3,588878E+09	3,588888E+09	4,639803E+09	7,177766E+09	1,181757E+10
663	2,319939E+09	2,319936E+09	3,588926E+09	3,588919E+09	4,639875E+09	7,177845E+09	1,181772E+10
664	2,319957E+09	2,319939E+09	3,588915E+09	3,588859E+09	4,639896E+09	7,177773E+09	1,181767E+10
665	2,319842E+09	2,319865E+09	3,588892E+09	3,588911E+09	4,639708E+09	7,177804E+09	1,181751E+10
666	2,319920E+09	2,319962E+09	3,588929E+09	3,588936E+09	4,639881E+09	7,177865E+09	1,181775E+10
667	2,319897E+09	2,319907E+09	3,588937E+09	3,588864E+09	4,639804E+09	7,177801E+09	1,181760E+10
668	2,319865E+09	2,319894E+09	3,588922E+09	3,588911E+09	4,639759E+09	7,177833E+09	1,181759E+10
669	2,320012E+09	2,319990E+09	3,588907E+09	3,588887E+09	4,640002E+09	7,177794E+09	1,181780E+10
670	2,319968E+09	2,319938E+09	3,588850E+09	3,588870E+09	4,639906E+09	7,177720E+09	1,181763E+10
671	2,320003E+09	2,320033E+09	3,588843E+09	3,588901E+09	4,640036E+09	7,177744E+09	1,181778E+10
672	2,320109E+09	2,320122E+09	3,588832E+09	3,588806E+09	4,640230E+09	7,177638E+09	1,181787E+10
673	2,320039E+09	2,320056E+09	3,588822E+09	3,588809E+09	4,640095E+09	7,177631E+09	1,181773E+10
674	2,320131E+09	2,320145E+09	3,588861E+09	3,588834E+09	4,640276E+09	7,177695E+09	1,181797E+10
675	2,320149E+09	2,320133E+09	3,588875E+09	3,588772E+09	4,640282E+09	7,177647E+09	1,181793E+10

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							
676	2,320058E+09	2,320083E+09	3,588843E+09	3,588859E+09	4,640141E+09	7,177702E+09	1,181784E+10
677	2,320145E+09	2,320164E+09	3,588838E+09	3,588868E+09	4,640309E+09	7,177706E+09	1,181801E+10
678	2,320078E+09	2,320071E+09	3,588830E+09	3,588842E+09	4,640149E+09	7,177673E+09	1,181782E+10
679	2,320026E+09	2,320047E+09	3,588846E+09	3,58887E+09	4,640073E+09	7,177733E+09	1,181781E+10
680	2,320112E+09	2,320087E+09	3,588858E+09	3,588816E+09	4,640199E+09	7,177674E+09	1,181787E+10
681	2,319997E+09	2,319958E+09	3,588853E+09	3,588829E+09	4,639955E+09	7,177682E+09	1,181764E+10
682	2,320000E+09	2,320007E+09	3,588868E+09	3,58886E+09	4,640007E+09	7,177755E+09	1,181776E+10
683	2,320022E+09	2,320026E+09	3,588883E+09	3,588821E+09	4,640048E+09	7,177704E+09	1,181775E+10
684	2,319896E+09	2,319944E+09	3,588867E+09	3,588883E+09	4,639840E+09	7,177750E+09	1,181759E+10
685	2,319991E+09	2,320022E+09	3,588882E+09	3,588878E+09	4,640013E+09	7,177759E+09	1,181777E+10
686	2,320002E+09	2,319973E+09	3,588886E+09	3,588826E+09	4,639975E+09	7,177712E+09	1,181769E+10
687	2,319960E+09	2,319968E+09	3,588858E+09	3,588885E+09	4,639928E+09	7,177743E+09	1,181767E+10
688	2,320110E+09	2,320102E+09	3,588824E+09	3,588829E+09	4,640212E+09	7,177653E+09	1,181786E+10
689	2,320060E+09	2,320059E+09	3,588799E+09	3,588805E+09	4,640120E+09	7,177603E+09	1,181772E+10
690	2,320087E+09	2,320131E+09	3,588799E+09	3,588841E+09	4,640218E+09	7,177639E+09	1,181786E+10
691	2,320206E+09	2,320212E+09	3,588831E+09	3,588739E+09	4,640418E+09	7,177570E+09	1,181799E+10
692	2,320115E+09	2,320133E+09	3,588820E+09	3,588781E+09	4,640248E+09	7,177600E+09	1,181785E+10
693	2,320201E+09	2,320213E+09	3,588814E+09	3,588806E+09	4,640414E+09	7,177620E+09	1,181803E+10
694	2,320230E+09	2,320210E+09	3,588806E+09	3,588770E+09	4,640440E+09	7,177576E+09	1,181802E+10
695	2,320121E+09	2,320154E+09	3,588774E+09	3,588850E+09	4,640275E+09	7,177624E+09	1,181790E+10
696	2,320226E+09	2,320239E+09	3,588772E+09	3,588797E+09	4,640466E+09	7,177569E+09	1,181804E+10
697	2,320167E+09	2,320135E+09	3,588798E+09	3,588757E+09	4,640302E+09	7,177555E+09	1,181786E+10
698	2,320109E+09	2,320100E+09	3,588800E+09	3,588821E+09	4,640209E+09	7,177622E+09	1,181783E+10
699	2,320193E+09	2,320159E+09	3,588832E+09	3,588760E+09	4,640352E+09	7,177592E+09	1,181794E+10
700	2,320042E+09	2,320048E+09	3,588825E+09	3,588810E+09	4,640090E+09	7,177635E+09	1,181773E+10
701	2,320038E+09	2,320088E+09	3,588820E+09	3,588851E+09	4,640126E+09	7,177671E+09	1,181780E+10
702	2,320088E+09	2,320100E+09	3,588851E+09	3,588801E+09	4,640188E+09	7,177652E+09	1,181784E+10
703	2,319969E+09	2,320001E+09	3,588840E+09	3,588863E+09	4,639970E+09	7,177703E+09	1,181767E+10
704	2,320090E+09	2,320089E+09	3,588829E+09	3,588823E+09	4,640179E+09	7,177652E+09	1,181783E+10
705	2,320106E+09	2,320059E+09	3,588833E+09	3,588777E+09	4,640164E+09	7,177610E+09	1,181777E+10
706	2,320052E+09	2,320064E+09	3,588771E+09	3,588845E+09	4,640116E+09	7,177617E+09	1,181773E+10
707	2,320204E+09	2,320211E+09	3,588777E+09	3,588766E+09	4,640415E+09	7,177543E+09	1,181796E+10
708	2,320139E+09	2,320164E+09	3,588777E+09	3,588747E+09	4,640302E+09	7,177524E+09	1,181783E+10
709	2,320168E+09	2,320206E+09	3,588763E+09	3,588763E+09	4,640374E+09	7,177526E+09	1,181790E+10
710	2,320303E+09	2,320288E+09	3,588795E+09	3,588705E+09	4,640591E+09	7,177500E+09	1,181809E+10
711	2,320195E+09	2,320206E+09	3,588768E+09	3,588770E+09	4,640401E+09	7,177539E+09	1,181794E+10
712	2,320278E+09	2,320302E+09	3,588740E+09	3,588767E+09	4,640580E+09	7,177507E+09	1,181809E+10
713	2,320309E+09	2,320300E+09	3,588757E+09	3,588724E+09	4,640610E+09	7,177481E+09	1,181809E+10
714	2,320199E+09	2,320220E+09	3,588720E+09	3,588798E+09	4,640420E+09	7,177518E+09	1,181794E+10
715	2,320317E+09	2,320302E+09	3,588757E+09	3,588727E+09	4,640619E+09	7,177484E+09	1,181810E+10
716	2,320235E+09	2,320204E+09	3,588781E+09	3,588714E+09	4,640438E+09	7,177496E+09	1,181793E+10
717	2,320162E+09	2,320166E+09	3,588751E+09	3,588778E+09	4,640328E+09	7,177529E+09	1,181786E+10
718	2,320250E+09	2,320245E+09	3,588776E+09	3,588752E+09	4,640496E+09	7,177528E+09	1,181802E+10
719	2,320089E+09	2,320122E+09	3,588782E+09	3,588803E+09	4,640211E+09	7,177585E+09	1,181780E+10
720	2,320107E+09	2,320157E+09	3,588778E+09	3,588794E+09	4,640264E+09	7,177573E+09	1,181784E+10
721	2,320180E+09	2,320161E+09	3,588826E+09	3,588738E+09	4,640341E+09	7,177564E+09	1,181790E+10
722	2,320066E+09	2,320060E+09	3,588779E+09	3,588816E+09	4,640126E+09	7,177595E+09	1,181772E+10
723	2,320195E+09	2,320174E+09	3,588779E+09	3,588769E+09	4,640369E+09	7,177548E+09	1,181792E+10
724	2,320181E+09	2,320171E+09	3,588779E+09	3,588739E+09	4,640352E+09	7,177518E+09	1,181787E+10

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							
725	2,320122E+09	2,320168E+09	3,588715E+09	3,588781E+09	4,640290E+09	7,177496E+09	1,181779E+10
726	2,320293E+09	2,320309E+09	3,588742E+09	3,588717E+09	4,640602E+09	7,177459E+09	1,181806E+10
727	2,320219E+09	2,320239E+09	3,588761E+09	3,588713E+09	4,640458E+09	7,177474E+09	1,181793E+10
728	2,320260E+09	2,320283E+09	3,588724E+09	3,588714E+09	4,640543E+09	7,177439E+09	1,181798E+10
729	2,320393E+09	2,320370E+09	3,588748E+09	3,588675E+09	4,640763E+09	7,177423E+09	1,181819E+10
730	2,320275E+09	2,320289E+09	3,588686E+09	3,588753E+09	4,640564E+09	7,177439E+09	1,181800E+10
731	2,320369E+09	2,320383E+09	3,588687E+09	3,588715E+09	4,640752E+09	7,177402E+09	1,181815E+10
732	2,320384E+09	2,320379E+09	3,588723E+09	3,588666E+09	4,640763E+09	7,177389E+09	1,181815E+10
733	2,320276E+09	2,320280E+09	3,588673E+09	3,588717E+09	4,640556E+09	7,177390E+09	1,181795E+10
734	2,320398E+09	2,320371E+09	3,588713E+09	3,588687E+09	4,640769E+09	7,177400E+09	1,181817E+10
735	2,320289E+09	2,320280E+09	3,588744E+09	3,588700E+09	4,640569E+09	7,177444E+09	1,181801E+10
736	2,320213E+09	2,320254E+09	3,588702E+09	3,588740E+09	4,640467E+09	7,177442E+09	1,181791E+10
737	2,320306E+09	2,320326E+09	3,588756E+09	3,588715E+09	4,640632E+09	7,177470E+09	1,181810E+10
738	2,320158E+09	2,320179E+09	3,588749E+09	3,588770E+09	4,640337E+09	7,177519E+09	1,181786E+10
739	2,320200E+09	2,320205E+09	3,588766E+09	3,588744E+09	4,640406E+09	7,177509E+09	1,181791E+10
740	2,320263E+09	2,320228E+09	3,588796E+09	3,588707E+09	4,640491E+09	7,177502E+09	1,181799E+10
741	2,320145E+09	2,320135E+09	3,588699E+09	3,588766E+09	4,640280E+09	7,177466E+09	1,181775E+10
742	2,320279E+09	2,320279E+09	3,588696E+09	3,588741E+09	4,640559E+09	7,177437E+09	1,181800E+10
743	2,320255E+09	2,320272E+09	3,588725E+09	3,588697E+09	4,640527E+09	7,177422E+09	1,181795E+10
744	2,320211E+09	2,320258E+09	3,588673E+09	3,588696E+09	4,640468E+09	7,177369E+09	1,181784E+10
745	2,320391E+09	2,320392E+09	3,588723E+09	3,588646E+09	4,640783E+09	7,177369E+09	1,181815E+10
746	2,320316E+09	2,320313E+09	3,588710E+09	3,588677E+09	4,640629E+09	7,177387E+09	1,181802E+10
747	2,320357E+09	2,320369E+09	3,588681E+09	3,588679E+09	4,640726E+09	7,177360E+09	1,181809E+10
748	2,320463E+09	2,320474E+09	3,588697E+09	3,588652E+09	4,640937E+09	7,177349E+09	1,181829E+10
749	2,320347E+09	2,320373E+09	3,588623E+09	3,588698E+09	4,640720E+09	7,177320E+09	1,181804E+10
750	2,320457E+09	2,320464E+09	3,588641E+09	3,588672E+09	4,640921E+09	7,177313E+09	1,181823E+10
751	2,320460E+09	2,320444E+09	3,588698E+09	3,588627E+09	4,640905E+09	7,177325E+09	1,181823E+10
752	2,320352E+09	2,320349E+09	3,588637E+09	3,588660E+09	4,640701E+09	7,177297E+09	1,181800E+10
753	2,320462E+09	2,320451E+09	3,588680E+09	3,588651E+09	4,640914E+09	7,177331E+09	1,181824E+10
754	2,320343E+09	2,320355E+09	3,588692E+09	3,588684E+09	4,640698E+09	7,177376E+09	1,181807E+10
755	2,320283E+09	2,320317E+09	3,588682E+09	3,588697E+09	4,640600E+09	7,177379E+09	1,181798E+10
756	2,320368E+09	2,320382E+09	3,588738E+09	3,588671E+09	4,640751E+09	7,177409E+09	1,181816E+10
757	2,320237E+09	2,320224E+09	3,588698E+09	3,588709E+09	4,640460E+09	7,177407E+09	1,181787E+10
758	2,320295E+09	2,320273E+09	3,588693E+09	3,588712E+09	4,640568E+09	7,177406E+09	1,181797E+10
759	2,320335E+09	2,320314E+09	3,588728E+09	3,588683E+09	4,640649E+09	7,177411E+09	1,181806E+10
760	2,320221E+09	2,320244E+09	3,588632E+09	3,588703E+09	4,640465E+09	7,177335E+09	1,181780E+10
761	2,320358E+09	2,320383E+09	3,588666E+09	3,588672E+09	4,640741E+09	7,177338E+09	1,181808E+10
762	2,320341E+09	2,320357E+09	3,588698E+09	3,588644E+09	4,640698E+09	7,177342E+09	1,181804E+10
763	2,320314E+09	2,320330E+09	3,588667E+09	3,588639E+09	4,640644E+09	7,177306E+09	1,181795E+10
764	2,320470E+09	2,320476E+09	3,588699E+09	3,588620E+09	4,640946E+09	7,177319E+09	1,181827E+10
765	2,320395E+09	2,320397E+09	3,588635E+09	3,588648E+09	4,640793E+09	7,177283E+09	1,181808E+10
766	2,320444E+09	2,320466E+09	3,588598E+09	3,588666E+09	4,640910E+09	7,177264E+09	1,181817E+10
767	2,320542E+09	2,320557E+09	3,588645E+09	3,588617E+09	4,641099E+09	7,177261E+09	1,181836E+10
768	2,320441E+09	2,320448E+09	3,588574E+09	3,588609E+09	4,640890E+09	7,177183E+09	1,181807E+10
769	2,320551E+09	2,320537E+09	3,588613E+09	3,588595E+09	4,641088E+09	7,177208E+09	1,181830E+10
770	2,320542E+09	2,320517E+09	3,588651E+09	3,588586E+09	4,641059E+09	7,177236E+09	1,181829E+10
771	2,320425E+09	2,320427E+09	3,588610E+09	3,588621E+09	4,640852E+09	7,177231E+09	1,181808E+10
772	2,320503E+09	2,320540E+09	3,588660E+09	3,588629E+09	4,641044E+09	7,177289E+09	1,181833E+10
773	2,320395E+09	2,320414E+09	3,588652E+09	3,588642E+09	4,640808E+09	7,177294E+09	1,181810E+10

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							
774	2,320356E+09	2,320371E+09	3,588644E+09	3,588674E+09	4,640727E+09	7,177318E+09	1,181804E+10
775	2,320441E+09	2,320430E+09	3,588704E+09	3,588649E+09	4,640871E+09	7,177353E+09	1,181822E+10
776	2,320320E+09	2,320289E+09	3,588631E+09	3,588655E+09	4,640609E+09	7,177286E+09	1,181790E+10
777	2,320376E+09	2,320367E+09	3,588626E+09	3,588666E+09	4,640743E+09	7,177292E+09	1,181804E+10
778	2,320412E+09	2,320414E+09	3,588654E+09	3,588640E+09	4,640826E+09	7,177294E+09	1,181812E+10
779	2,320312E+09	2,320334E+09	3,588611E+09	3,588627E+09	4,640647E+09	7,177237E+09	1,181788E+10
780	2,320433E+09	2,320471E+09	3,588661E+09	3,588603E+09	4,640905E+09	7,177263E+09	1,181817E+10
781	2,320427E+09	2,320426E+09	3,588661E+09	3,588583E+09	4,640853E+09	7,177243E+09	1,181810E+10
782	2,320409E+09	2,320416E+09	3,588611E+09	3,588624E+09	4,640825E+09	7,177235E+09	1,181806E+10
783	2,320546E+09	2,320568E+09	3,588640E+09	3,588615E+09	4,641113E+09	7,177255E+09	1,181837E+10
784	2,320480E+09	2,320498E+09	3,588566E+09	3,588598E+09	4,640979E+09	7,177164E+09	1,181814E+10
785	2,320539E+09	2,320560E+09	3,588554E+09	3,588604E+09	4,641099E+09	7,177158E+09	1,181826E+10
786	2,320637E+09	2,320632E+09	3,588604E+09	3,588562E+09	4,641269E+09	7,177166E+09	1,181844E+10
787	2,320546E+09	2,320517E+09	3,588562E+09	3,588543E+09	4,641063E+09	7,177104E+09	1,181817E+10
788	2,320616E+09	2,320616E+09	3,588591E+09	3,588554E+09	4,641232E+09	7,177145E+09	1,181838E+10
789	2,320596E+09	2,320594E+09	3,588591E+09	3,588555E+09	4,641190E+09	7,177147E+09	1,181834E+10
790	2,320485E+09	2,320507E+09	3,588551E+09	3,588611E+09	4,640993E+09	7,177162E+09	1,181816E+10
791	2,320552E+09	2,320595E+09	3,588628E+09	3,588607E+09	4,641148E+09	7,177234E+09	1,181838E+10
792	2,320470E+09	2,320463E+09	3,588609E+09	3,588577E+09	4,640933E+09	7,177186E+09	1,181812E+10
793	2,320444E+09	2,320426E+09	3,588595E+09	3,588618E+09	4,640871E+09	7,177213E+09	1,181808E+10
794	2,320524E+09	2,320498E+09	3,588634E+09	3,588614E+09	4,641022E+09	7,177248E+09	1,181827E+10
795	2,320407E+09	2,320381E+09	3,588582E+09	3,588597E+09	4,640788E+09	7,177179E+09	1,181797E+10
796	2,320434E+09	2,320476E+09	3,588597E+09	3,588608E+09	4,640909E+09	7,177205E+09	1,181811E+10
797	2,320481E+09	2,320500E+09	3,588622E+09	3,588573E+09	4,640981E+09	7,177195E+09	1,181818E+10
798	2,320399E+09	2,320413E+09	3,588590E+09	3,588592E+09	4,640812E+09	7,177181E+09	1,181799E+10
799	2,320508E+09	2,320537E+09	3,588645E+09	3,588587E+09	4,641046E+09	7,177231E+09	1,181828E+10
800	2,320515E+09	2,320504E+09	3,588602E+09	3,588549E+09	4,641020E+09	7,177151E+09	1,181817E+10
801	2,320500E+09	2,320514E+09	3,588536E+09	3,588599E+09	4,641015E+09	7,177136E+09	1,181815E+10
802	2,320641E+09	2,320662E+09	3,588560E+09	3,588582E+09	4,641302E+09	7,177142E+09	1,181844E+10
803	2,320595E+09	2,320582E+09	3,588524E+09	3,588516E+09	4,641177E+09	7,177039E+09	1,181822E+10
804	2,320633E+09	2,320649E+09	3,588528E+09	3,588522E+09	4,641282E+09	7,177049E+09	1,181833E+10
805	2,320728E+09	2,320706E+09	3,588550E+09	3,588488E+09	4,641434E+09	7,177038E+09	1,181847E+10
806	2,320625E+09	2,320605E+09	3,588510E+09	3,588518E+09	4,641230E+09	7,177028E+09	1,181826E+10
807	2,320659E+09	2,320704E+09	3,588556E+09	3,588546E+09	4,641364E+09	7,177102E+09	1,181847E+10
808	2,320647E+09	2,320672E+09	3,588548E+09	3,588516E+09	4,641320E+09	7,177064E+09	1,181838E+10
809	2,320552E+09	2,320573E+09	3,588524E+09	3,588573E+09	4,641125E+09	7,177097E+09	1,181822E+10
810	2,320630E+09	2,320639E+09	3,588589E+09	3,588574E+09	4,641270E+09	7,177163E+09	1,181843E+10
811	2,320567E+09	2,320511E+09	3,588579E+09	3,588522E+09	4,641078E+09	7,177101E+09	1,181818E+10
812	2,320513E+09	2,320507E+09	3,588550E+09	3,588573E+09	4,641020E+09	7,177123E+09	1,181814E+10
813	2,320589E+09	2,320583E+09	3,588558E+09	3,588566E+09	4,641172E+09	7,177125E+09	1,181830E+10
814	2,320480E+09	2,320478E+09	3,588531E+09	3,588560E+09	4,640958E+09	7,177091E+09	1,181805E+10
815	2,320494E+09	2,320551E+09	3,588584E+09	3,588562E+09	4,641045E+09	7,177146E+09	1,181819E+10
816	2,320562E+09	2,320569E+09	3,588593E+09	3,588506E+09	4,641132E+09	7,177098E+09	1,181823E+10
817	2,320495E+09	2,320489E+09	3,588548E+09	3,588553E+09	4,640984E+09	7,177101E+09	1,181809E+10
818	2,320598E+09	2,320617E+09	3,588578E+09	3,588574E+09	4,641215E+09	7,177151E+09	1,181837E+10
819	2,320619E+09	2,320603E+09	3,588544E+09	3,588507E+09	4,641223E+09	7,177052E+09	1,181827E+10
820	2,320586E+09	2,320624E+09	3,588486E+09	3,588541E+09	4,641209E+09	7,177027E+09	1,181824E+10
821	2,320734E+09	2,320748E+09	3,588504E+09	3,588509E+09	4,641482E+09	7,177013E+09	1,181850E+10
822	2,320699E+09	2,320671E+09	3,588484E+09	3,588460E+09	4,641369E+09	7,176945E+09	1,181831E+10

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							
823	2,320706E+09	2,320724E+09	3,588505E+09	3,588484E+09	4,641429E+09	7,176989E+09	1,181842E+10
824	2,320796E+09	2,320791E+09	3,588498E+09	3,588448E+09	4,641586E+09	7,176946E+09	1,181853E+10
825	2,320689E+09	2,320698E+09	3,588454E+09	3,588498E+09	4,641387E+09	7,176953E+09	1,181834E+10
826	2,320720E+09	2,320772E+09	3,588508E+09	3,588526E+09	4,641492E+09	7,177034E+09	1,181853E+10
827	2,320735E+09	2,320723E+09	3,588526E+09	3,588454E+09	4,641458E+09	7,176979E+09	1,181844E+10
828	2,320629E+09	2,320630E+09	3,588497E+09	3,588508E+09	4,641258E+09	7,177006E+09	1,181826E+10
829	2,320713E+09	2,320690E+09	3,588524E+09	3,588520E+09	4,641402E+09	7,177044E+09	1,181845E+10
830	2,320646E+09	2,320594E+09	3,588514E+09	3,588493E+09	4,641240E+09	7,177006E+09	1,181825E+10
831	2,320561E+09	2,320599E+09	3,588510E+09	3,588545E+09	4,641160E+09	7,177056E+09	1,181822E+10
832	2,320647E+09	2,320672E+09	3,588519E+09	3,588507E+09	4,641320E+09	7,177026E+09	1,181835E+10
833	2,320553E+09	2,320561E+09	3,588512E+09	3,588515E+09	4,641115E+09	7,177028E+09	1,181814E+10
834	2,320575E+09	2,320613E+09	3,588561E+09	3,588535E+09	4,641187E+09	7,177097E+09	1,181828E+10
835	2,320663E+09	2,320632E+09	3,588563E+09	3,588464E+09	4,641295E+09	7,177028E+09	1,181832E+10
836	2,320577E+09	2,320585E+09	3,588492E+09	3,588521E+09	4,641162E+09	7,177013E+09	1,181818E+10
837	2,320688E+09	2,320710E+09	3,588480E+09	3,588533E+09	4,641398E+09	7,177013E+09	1,181841E+10
838	2,320719E+09	2,320705E+09	3,588473E+09	3,588458E+09	4,641424E+09	7,176931E+09	1,181835E+10
839	2,320673E+09	2,320712E+09	3,588454E+09	3,588475E+09	4,641385E+09	7,176929E+09	1,181831E+10
840	2,320829E+09	2,320827E+09	3,588458E+09	3,588422E+09	4,641656E+09	7,176880E+09	1,181854E+10
841	2,320792E+09	2,320763E+09	3,588441E+09	3,588410E+09	4,641555E+09	7,176851E+09	1,181841E+10
842	2,320778E+09	2,320811E+09	3,588456E+09	3,588464E+09	4,641589E+09	7,176920E+09	1,181851E+10
843	2,320871E+09	2,320878E+09	3,588466E+09	3,588409E+09	4,641749E+09	7,176875E+09	1,181862E+10
844	2,320750E+09	2,320783E+09	3,588435E+09	3,588456E+09	4,641533E+09	7,176891E+09	1,181842E+10
845	2,320794E+09	2,320821E+09	3,588468E+09	3,588481E+09	4,641614E+09	7,176950E+09	1,181856E+10
846	2,320823E+09	2,320776E+09	3,588491E+09	3,588424E+09	4,641599E+09	7,176915E+09	1,181851E+10
847	2,320694E+09	2,320685E+09	3,588461E+09	3,588484E+09	4,641378E+09	7,176945E+09	1,181832E+10
848	2,320774E+09	2,320765E+09	3,588452E+09	3,588479E+09	4,641539E+09	7,176932E+09	1,181847E+10
849	2,320711E+09	2,320693E+09	3,588448E+09	3,588460E+09	4,641405E+09	7,176908E+09	1,181831E+10
850	2,320624E+09	2,320674E+09	3,588472E+09	3,588506E+09	4,641298E+09	7,176978E+09	1,181828E+10
851	2,320735E+09	2,320739E+09	3,588508E+09	3,588434E+09	4,641473E+09	7,176943E+09	1,181842E+10
852	2,320635E+09	2,320633E+09	3,588493E+09	3,588453E+09	4,641268E+09	7,176945E+09	1,181821E+10
853	2,320659E+09	2,320675E+09	3,588498E+09	3,588498E+09	4,641333E+09	7,176996E+09	1,181833E+10
854	2,320752E+09	2,320726E+09	3,588495E+09	3,588445E+09	4,641478E+09	7,176940E+09	1,181842E+10
855	2,320646E+09	2,320684E+09	3,588437E+09	3,588491E+09	4,641330E+09	7,176928E+09	1,181826E+10
856	2,320773E+09	2,320804E+09	3,588421E+09	3,588464E+09	4,641577E+09	7,176885E+09	1,181846E+10
857	2,320821E+09	2,320803E+09	3,588429E+09	3,588395E+09	4,641624E+09	7,176823E+09	1,181845E+10
858	2,320770E+09	2,320788E+09	3,588424E+09	3,588425E+09	4,641558E+09	7,176849E+09	1,181841E+10
859	2,320929E+09	2,320908E+09	3,588431E+09	3,588365E+09	4,641837E+09	7,176796E+09	1,181863E+10
860	2,320862E+09	2,320867E+09	3,588402E+09	3,588374E+09	4,641729E+09	7,176776E+09	1,181851E+10
861	2,320846E+09	2,320893E+09	3,588391E+09	3,588438E+09	4,641739E+09	7,176829E+09	1,181857E+10
862	2,320949E+09	2,320953E+09	3,588425E+09	3,588379E+09	4,641903E+09	7,176804E+09	1,181871E+10
863	2,320820E+09	2,320839E+09	3,588412E+09	3,588416E+09	4,641659E+09	7,176828E+09	1,181849E+10
864	2,320876E+09	2,320870E+09	3,588411E+09	3,588422E+09	4,641746E+09	7,176833E+09	1,181858E+10
865	2,320904E+09	2,320852E+09	3,588423E+09	3,588391E+09	4,641756E+09	7,176814E+09	1,181857E+10
866	2,320760E+09	2,320767E+09	3,588403E+09	3,588459E+09	4,641527E+09	7,176862E+09	1,181839E+10
867	2,320843E+09	2,320851E+09	3,588415E+09	3,588419E+09	4,641695E+09	7,176834E+09	1,181853E+10
868	2,320769E+09	2,320785E+09	3,588439E+09	3,588396E+09	4,641554E+09	7,176836E+09	1,181839E+10
869	2,320696E+09	2,320732E+09	3,588445E+09	3,588454E+09	4,641427E+09	7,176899E+09	1,181833E+10
870	2,320814E+09	2,320797E+09	3,588487E+09	3,588404E+09	4,641611E+09	7,176891E+09	1,181850E+10
871	2,320700E+09	2,320700E+09	3,588461E+09	3,588440E+09	4,641400E+09	7,176901E+09	1,181830E+10

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							
872	2,320732E+09	2,320753E+09	3,588414E+09	3,588467E+09	4,641485E+09	7,176881E+09	1,181837E+10
873	2,320840E+09	2,320829E+09	3,588411E+09	3,588413E+09	4,641669E+09	7,176824E+09	1,181849E+10
874	2,320742E+09	2,320770E+09	3,588383E+09	3,588433E+09	4,641512E+09	7,176817E+09	1,181833E+10
875	2,320887E+09	2,320886E+09	3,588388E+09	3,588369E+09	4,641773E+09	7,176757E+09	1,181853E+10
876	2,320920E+09	2,320902E+09	3,588402E+09	3,588313E+09	4,641822E+09	7,176715E+09	1,181854E+10
877	2,320860E+09	2,320874E+09	3,588367E+09	3,588381E+09	4,641734E+09	7,176749E+09	1,181848E+10
878	2,321004E+09	2,321011E+09	3,588388E+09	3,588346E+09	4,642015E+09	7,176734E+09	1,181875E+10
879	2,320918E+09	2,320960E+09	3,588378E+09	3,588359E+09	4,641877E+09	7,176737E+09	1,181861E+10
880	2,320912E+09	2,320962E+09	3,588350E+09	3,588397E+09	4,641874E+09	7,176747E+09	1,181862E+10
881	2,321037E+09	2,321022E+09	3,588380E+09	3,588348E+09	4,642058E+09	7,176729E+09	1,181879E+10
882	2,320907E+09	2,320887E+09	3,588370E+09	3,588385E+09	4,641794E+09	7,176754E+09	1,181855E+10
883	2,320965E+09	2,320935E+09	3,588358E+09	3,588369E+09	4,641900E+09	7,176727E+09	1,181863E+10
884	2,320969E+09	2,320950E+09	3,588366E+09	3,588336E+09	4,641919E+09	7,176702E+09	1,181862E+10
885	2,320820E+09	2,320844E+09	3,588343E+09	3,588410E+09	4,641664E+09	7,176753E+09	1,181842E+10
886	2,320908E+09	2,320923E+09	3,588400E+09	3,588364E+09	4,641832E+09	7,176763E+09	1,181860E+10
887	2,320827E+09	2,320840E+09	3,588439E+09	3,588350E+09	4,641668E+09	7,176788E+09	1,181846E+10
888	2,320765E+09	2,320780E+09	3,588402E+09	3,588409E+09	4,641545E+09	7,176811E+09	1,181836E+10
889	2,320894E+09	2,320875E+09	3,588416E+09	3,588391E+09	4,641769E+09	7,176806E+09	1,181857E+10
890	2,320778E+09	2,320784E+09	3,588393E+09	3,588422E+09	4,641562E+09	7,176815E+09	1,181838E+10
891	2,320828E+09	2,320848E+09	3,588356E+09	3,588405E+09	4,641676E+09	7,176760E+09	1,181844E+10
892	2,320932E+09	2,320936E+09	3,588378E+09	3,588333E+09	4,641868E+09	7,176712E+09	1,181858E+10
893	2,320845E+09	2,320852E+09	3,588343E+09	3,588365E+09	4,641697E+09	7,176709E+09	1,181841E+10
894	2,320986E+09	2,320972E+09	3,588365E+09	3,588317E+09	4,641958E+09	7,176682E+09	1,181864E+10
895	2,320990E+09	2,320998E+09	3,588377E+09	3,588291E+09	4,641988E+09	7,176667E+09	1,181866E+10
896	2,320927E+09	2,320968E+09	3,588300E+09	3,588356E+09	4,641895E+09	7,176656E+09	1,181855E+10
897	2,321079E+09	2,321109E+09	3,588323E+09	3,588331E+09	4,642188E+09	7,176653E+09	1,181884E+10
898	2,321006E+09	2,321026E+09	3,588341E+09	3,588324E+09	4,642031E+09	7,176666E+09	1,181870E+10
899	2,321020E+09	2,321015E+09	3,588306E+09	3,588321E+09	4,642035E+09	7,176627E+09	1,181866E+10
900	2,321127E+09	2,321096E+09	3,588335E+09	3,588277E+09	4,642223E+09	7,176613E+09	1,181884E+10
901	2,320989E+09	2,320961E+09	3,588296E+09	3,588334E+09	4,641950E+09	7,176631E+09	1,181858E+10
902	2,321028E+09	2,321025E+09	3,588314E+09	3,588323E+09	4,642053E+09	7,176637E+09	1,181869E+10
903	2,321010E+09	2,321037E+09	3,588357E+09	3,588297E+09	4,642047E+09	7,176654E+09	1,181870E+10
904	2,320871E+09	2,320904E+09	3,588321E+09	3,588360E+09	4,641775E+09	7,176681E+09	1,181846E+10
905	2,320974E+09	2,320984E+09	3,588373E+09	3,588342E+09	4,641958E+09	7,176715E+09	1,181867E+10
906	2,320901E+09	2,320885E+09	3,588411E+09	3,588339E+09	4,641786E+09	7,176750E+09	1,181854E+10
907	2,320850E+09	2,320844E+09	3,588340E+09	3,588376E+09	4,641695E+09	7,176716E+09	1,181841E+10
908	2,320971E+09	2,320975E+09	3,588347E+09	3,588347E+09	4,641946E+09	7,176693E+09	1,181864E+10
909	2,320869E+09	2,320872E+09	3,588316E+09	3,588366E+09	4,641741E+09	7,176682E+09	1,181842E+10
910	2,320928E+09	2,320937E+09	3,588322E+09	3,588326E+09	4,641865E+09	7,176649E+09	1,181851E+10
911	2,321020E+09	2,321024E+09	3,588362E+09	3,588264E+09	4,642044E+09	7,176626E+09	1,181867E+10
912	2,320930E+09	2,320935E+09	3,588296E+09	3,588308E+09	4,641865E+09	7,176603E+09	1,181847E+10
913	2,321065E+09	2,321081E+09	3,588305E+09	3,588300E+09	4,642146E+09	7,176605E+09	1,181875E+10
914	2,321065E+09	2,321090E+09	3,588332E+09	3,588278E+09	4,642155E+09	7,176610E+09	1,181876E+10
915	2,321016E+09	2,321055E+09	3,588258E+09	3,588308E+09	4,642071E+09	7,176566E+09	1,181864E+10
916	2,321170E+09	2,321194E+09	3,588291E+09	3,588265E+09	4,642364E+09	7,176555E+09	1,181892E+10
917	2,321107E+09	2,321081E+09	3,588288E+09	3,588271E+09	4,642188E+09	7,176559E+09	1,181875E+10
918	2,321115E+09	2,321081E+09	3,588266E+09	3,588271E+09	4,642196E+09	7,176537E+09	1,181873E+10
919	2,321189E+09	2,321177E+09	3,588291E+09	3,588244E+09	4,642366E+09	7,176535E+09	1,181890E+10
920	2,321041E+09	2,321045E+09	3,588229E+09	3,588292E+09	4,642086E+09	7,176521E+09	1,181861E+10

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							
921	2,321083E+09	2,321113E+09	3,588264E+09	3,588290E+09	4,642196E+09	7,176554E+09	1,181875E+10
922	2,321074E+09	2,321091E+09	3,588345E+09	3,588257E+09	4,642165E+09	7,176602E+09	1,181877E+10
923	2,320955E+09	2,320953E+09	3,588294E+09	3,588301E+09	4,641908E+09	7,176596E+09	1,181850E+10
924	2,321049E+09	2,321053E+09	3,588334E+09	3,588296E+09	4,642102E+09	7,176630E+09	1,181873E+10
925	2,320981E+09	2,320956E+09	3,588336E+09	3,588315E+09	4,641937E+09	7,176651E+09	1,181859E+10
926	2,320930E+09	2,320936E+09	3,588284E+09	3,588335E+09	4,641866E+09	7,176620E+09	1,181849E+10
927	2,321040E+09	2,321070E+09	3,588319E+09	3,588298E+09	4,642110E+09	7,176616E+09	1,181873E+10
928	2,320953E+09	2,320956E+09	3,588274E+09	3,588295E+09	4,641908E+09	7,176570E+09	1,181848E+10
929	2,321019E+09	2,321027E+09	3,588283E+09	3,588280E+09	4,642046E+09	7,176563E+09	1,181861E+10
930	2,321110E+09	2,321101E+09	3,588336E+09	3,588237E+09	4,642211E+09	7,176574E+09	1,181878E+10
931	2,321022E+09	2,321026E+09	3,588237E+09	3,588267E+09	4,642048E+09	7,176505E+09	1,181855E+10
932	2,321141E+09	2,321189E+09	3,588250E+09	3,588258E+09	4,642330E+09	7,176507E+09	1,181884E+10
933	2,321158E+09	2,321171E+09	3,588269E+09	3,588235E+09	4,642329E+09	7,176504E+09	1,181883E+10
934	2,321121E+09	2,321123E+09	3,588223E+09	3,588241E+09	4,642244E+09	7,176464E+09	1,181871E+10
935	2,321260E+09	2,321263E+09	3,588261E+09	3,588207E+09	4,642523E+09	7,176469E+09	1,181899E+10
936	2,321191E+09	2,321154E+09	3,588215E+09	3,588214E+09	4,642345E+09	7,176429E+09	1,181877E+10
937	2,321185E+09	2,321182E+09	3,588190E+09	3,588244E+09	4,642367E+09	7,176434E+09	1,181880E+10
938	2,321246E+09	2,321264E+09	3,588255E+09	3,588219E+09	4,642510E+09	7,176474E+09	1,181898E+10
939	2,321106E+09	2,321123E+09	3,588205E+09	3,588238E+09	4,642229E+09	7,176443E+09	1,181867E+10
940	2,321144E+09	2,321186E+09	3,588260E+09	3,588234E+09	4,642330E+09	7,176494E+09	1,181882E+10
941	2,321151E+09	2,321133E+09	3,588315E+09	3,588229E+09	4,642284E+09	7,176544E+09	1,181883E+10
942	2,321034E+09	2,321005E+09	3,588264E+09	3,588274E+09	4,642039E+09	7,176538E+09	1,181858E+10
943	2,321109E+09	2,321127E+09	3,588284E+09	3,588279E+09	4,642237E+09	7,176563E+09	1,181880E+10
944	2,321046E+09	2,321038E+09	3,588252E+09	3,588275E+09	4,642084E+09	7,176527E+09	1,181861E+10
945	2,321012E+09	2,321032E+09	3,588218E+09	3,588289E+09	4,642044E+09	7,176507E+09	1,181855E+10
946	2,321132E+09	2,321138E+09	3,588290E+09	3,588234E+09	4,642270E+09	7,176525E+09	1,181880E+10
947	2,321055E+09	2,321034E+09	3,588235E+09	3,588216E+09	4,642090E+09	7,176451E+09	1,181854E+10
948	2,321107E+09	2,321128E+09	3,588241E+09	3,588216E+09	4,642234E+09	7,176457E+09	1,181869E+10
949	2,321193E+09	2,321195E+09	3,588270E+09	3,588208E+09	4,642387E+09	7,176479E+09	1,181887E+10
950	2,321107E+09	2,321125E+09	3,588200E+09	3,588229E+09	4,642232E+09	7,176430E+09	1,181866E+10
951	2,321217E+09	2,321278E+09	3,588226E+09	3,588219E+09	4,642495E+09	7,176445E+09	1,181894E+10
952	2,321248E+09	2,321243E+09	3,588216E+09	3,588182E+09	4,642491E+09	7,176398E+09	1,181889E+10
953	2,321220E+09	2,321206E+09	3,588160E+09	3,588206E+09	4,642426E+09	7,176366E+09	1,181879E+10
954	2,321347E+09	2,321333E+09	3,588214E+09	3,588179E+09	4,642680E+09	7,176393E+09	1,181907E+10
955	2,321271E+09	2,321250E+09	3,588146E+09	3,588164E+09	4,642521E+09	7,176310E+09	1,181883E+10
956	2,321247E+09	2,321287E+09	3,588147E+09	3,588185E+09	4,642534E+09	7,176332E+09	1,181887E+10
957	2,321316E+09	2,321332E+09	3,588222E+09	3,588171E+09	4,642648E+09	7,176393E+09	1,181904E+10
958	2,321186E+09	2,321175E+09	3,588204E+09	3,588179E+09	4,642361E+09	7,176383E+09	1,181874E+10
959	2,321206E+09	2,321236E+09	3,588251E+09	3,588201E+09	4,642441E+09	7,176452E+09	1,181889E+10
960	2,321215E+09	2,321188E+09	3,588249E+09	3,588203E+09	4,642403E+09	7,176452E+09	1,181886E+10
961	2,321100E+09	2,321091E+09	3,588179E+09	3,588263E+09	4,642191E+09	7,176442E+09	1,181863E+10
962	2,321179E+09	2,321203E+09	3,588236E+09	3,588253E+09	4,642381E+09	7,176489E+09	1,181887E+10
963	2,321133E+09	2,321122E+09	3,588202E+09	3,588201E+09	4,642256E+09	7,176402E+09	1,181866E+10
964	2,321097E+09	2,321120E+09	3,588195E+09	3,588206E+09	4,642218E+09	7,176401E+09	1,181862E+10
965	2,321225E+09	2,321209E+09	3,588254E+09	3,588185E+09	4,642434E+09	7,176439E+09	1,181887E+10
966	2,321145E+09	2,321115E+09	3,588207E+09	3,588173E+09	4,642260E+09	7,176381E+09	1,181864E+10
967	2,321168E+09	2,321227E+09	3,588202E+09	3,588198E+09	4,642396E+09	7,176399E+09	1,181880E+10
968	2,321263E+09	2,321287E+09	3,588195E+09	3,588175E+09	4,642550E+09	7,176370E+09	1,181892E+10
969	2,321200E+09	2,321219E+09	3,588135E+09	3,588192E+09	4,642419E+09	7,176327E+09	1,181875E+10

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							
970	2,321322E+09	2,321341E+09	3,588190E+09	3,588171E+09	4,642663E+09	7,176361E+09	1,181902E+10
971	2,321359E+09	2,321323E+09	3,588152E+09	3,588111E+09	4,642682E+09	7,176263E+09	1,181894E+10
972	2,321311E+09	2,321310E+09	3,588103E+09	3,588140E+09	4,642622E+09	7,176244E+09	1,181887E+10
973	2,321425E+09	2,321427E+09	3,588151E+09	3,588140E+09	4,642852E+09	7,176291E+09	1,181914E+10
974	2,321342E+09	2,321342E+09	3,588132E+09	3,588110E+09	4,642683E+09	7,176243E+09	1,181893E+10
975	2,321299E+09	2,321364E+09	3,588155E+09	3,588143E+09	4,642663E+09	7,176298E+09	1,181896E+10
976	2,321375E+09	2,321381E+09	3,588196E+09	3,588135E+09	4,642756E+09	7,176331E+09	1,181909E+10
977	2,321260E+09	2,321231E+09	3,588160E+09	3,588173E+09	4,642491E+09	7,176333E+09	1,181882E+10
978	2,321276E+09	2,321277E+09	3,588202E+09	3,588199E+09	4,642552E+09	7,176401E+09	1,181895E+10
979	2,321286E+09	2,321264E+09	3,588163E+09	3,588167E+09	4,642550E+09	7,176330E+09	1,181888E+10
980	2,321174E+09	2,321188E+09	3,588114E+09	3,588195E+09	4,642362E+09	7,176309E+09	1,181867E+10
981	2,321265E+09	2,321271E+09	3,588183E+09	3,588185E+09	4,642536E+09	7,176368E+09	1,181890E+10
982	2,321230E+09	2,321195E+09	3,588189E+09	3,588115E+09	4,642426E+09	7,176304E+09	1,181873E+10
983	2,321172E+09	2,321203E+09	3,588181E+09	3,588150E+09	4,642375E+09	7,176331E+09	1,181871E+10
984	2,321290E+09	2,321295E+09	3,588193E+09	3,588151E+09	4,642585E+09	7,176344E+09	1,181893E+10
985	2,321216E+09	2,321225E+09	3,588140E+09	3,588165E+09	4,642442E+09	7,176305E+09	1,181875E+10
986	2,321244E+09	2,321308E+09	3,588168E+09	3,588182E+09	4,642553E+09	7,176350E+09	1,181890E+10
987	2,321359E+09	2,321373E+09	3,588146E+09	3,588118E+09	4,642733E+09	7,176264E+09	1,181900E+10
988	2,321308E+09	2,321309E+09	3,588096E+09	3,588120E+09	4,642617E+09	7,176216E+09	1,181883E+10
989	2,321432E+09	2,321412E+09	3,588134E+09	3,588124E+09	4,642844E+09	7,176259E+09	1,181910E+10
990	2,321459E+09	2,321413E+09	3,588108E+09	3,588055E+09	4,642872E+09	7,176163E+09	1,181904E+10
991	2,321374E+09	2,321416E+09	3,588066E+09	3,588102E+09	4,642790E+09	7,176168E+09	1,181896E+10
992	2,321482E+09	2,321513E+09	3,588099E+09	3,588095E+09	4,642995E+09	7,176194E+09	1,181919E+10
993	2,321415E+09	2,321416E+09	3,588098E+09	3,588075E+09	4,642830E+09	7,176173E+09	1,181900E+10
994	2,321373E+09	2,321402E+09	3,588144E+09	3,588117E+09	4,642775E+09	7,176261E+09	1,181904E+10
995	2,321453E+09	2,321435E+09	3,588135E+09	3,588092E+09	4,642889E+09	7,176227E+09	1,181912E+10
996	2,321330E+09	2,321310E+09	3,588094E+09	3,588130E+09	4,642640E+09	7,176223E+09	1,181886E+10
997	2,321346E+09	2,321349E+09	3,588127E+09	3,588171E+09	4,642696E+09	7,176298E+09	1,181899E+10
998	2,321363E+09	2,321344E+09	3,588130E+09	3,588101E+09	4,642707E+09	7,176231E+09	1,181894E+10
999	2,321238E+09	2,321272E+09	3,588108E+09	3,588130E+09	4,642510E+09	7,176239E+09	1,181875E+10
1000	2,321333E+09	2,321338E+09	3,588150E+09	3,588124E+09	4,642671E+09	7,176274E+09	1,181894E+10
1001	2,321308E+09	2,321277E+09	3,588150E+09	3,588090E+09	4,642585E+09	7,176240E+09	1,181883E+10
1002	2,321240E+09	2,321273E+09	3,588148E+09	3,588146E+09	4,642513E+09	7,176294E+09	1,181881E+10
1003	2,321360E+09	2,321390E+09	3,588119E+09	3,588121E+09	4,642750E+09	7,176240E+09	1,181899E+10
1004	2,321303E+09	2,321326E+09	3,588087E+09	3,588110E+09	4,642629E+09	7,176198E+09	1,181883E+10
1005	2,321355E+09	2,321374E+09	3,588114E+09	3,588128E+09	4,642729E+09	7,176242E+09	1,181897E+10
1006	2,321481E+09	2,321446E+09	3,588114E+09	3,588037E+09	4,642927E+09	7,176151E+09	1,181908E+10
1007	2,321406E+09	2,321405E+09	3,588057E+09	3,588058E+09	4,642811E+09	7,176115E+09	1,181893E+10
1008	2,321510E+09	2,321509E+09	3,588057E+09	3,588075E+09	4,643019E+09	7,176131E+09	1,181915E+10
1009	2,321534E+09	2,321531E+09	3,588049E+09	3,588027E+09	4,643065E+09	7,176077E+09	1,181914E+10
1010	2,321440E+09	2,321494E+09	3,588051E+09	3,588075E+09	4,642934E+09	7,176126E+09	1,181906E+10
1011	2,321549E+09	2,321585E+09	3,588068E+09	3,588045E+09	4,643134E+09	7,176113E+09	1,181925E+10
1012	2,321495E+09	2,321484E+09	3,588074E+09	3,588029E+09	4,642979E+09	7,176103E+09	1,181908E+10
1013	2,321455E+09	2,321441E+09	3,588092E+09	3,588099E+09	4,642897E+09	7,176191E+09	1,181909E+10
1014	2,321533E+09	2,321500E+09	3,588083E+09	3,588055E+09	4,643032E+09	7,176138E+09	1,181917E+10
1015	2,321389E+09	2,321400E+09	3,588040E+09	3,588087E+09	4,642788E+09	7,176127E+09	1,181892E+10
1016	2,321407E+09	2,321424E+09	3,588061E+09	3,588108E+09	4,642831E+09	7,176169E+09	1,181900E+10
1017	2,321443E+09	2,321423E+09	3,588093E+09	3,588042E+09	4,642866E+09	7,176135E+09	1,181900E+10
1018	2,321315E+09	2,321325E+09	3,588102E+09	3,588087E+09	4,642640E+09	7,176189E+09	1,181883E+10

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							
1019	2,321402E+09	2,321415E+09	3,588103E+09	3,588076E+09	4,642817E+09	7,176179E+09	1,181900E+10
1020	2,321380E+09	2,321376E+09	3,588102E+09	3,588054E+09	4,642756E+09	7,176157E+09	1,181891E+10
1021	2,321317E+09	2,321353E+09	3,588092E+09	3,588130E+09	4,642670E+09	7,176222E+09	1,181889E+10
1022	2,321455E+09	2,321473E+09	3,588091E+09	3,588066E+09	4,642928E+09	7,176157E+09	1,181908E+10
1023	2,321396E+09	2,321415E+09	3,588066E+09	3,588053E+09	4,642811E+09	7,176119E+09	1,181893E+10
1024	2,321456E+09	2,321450E+09	3,588053E+09	3,588072E+09	4,642906E+09	7,176125E+09	1,181903E+10
1025	2,321586E+09	2,321541E+09	3,588047E+09	3,588000E+09	4,643127E+09	7,176047E+09	1,181917E+10
1026	2,321487E+09	2,321496E+09	3,588009E+09	3,588035E+09	4,642984E+09	7,176043E+09	1,181903E+10
1027	2,321578E+09	2,321620E+09	3,587983E+09	3,588021E+09	4,643197E+09	7,176004E+09	1,181920E+10
1028	2,321611E+09	2,321630E+09	3,588014E+09	3,587963E+09	4,643241E+09	7,175977E+09	1,181922E+10
1029	2,321528E+09	2,321548E+09	3,588024E+09	3,588031E+09	4,643076E+09	7,176055E+09	1,181913E+10
1030	2,321643E+09	2,321636E+09	3,588047E+09	3,587986E+09	4,643280E+09	7,176032E+09	1,181931E+10
1031	2,321567E+09	2,321555E+09	3,588037E+09	3,587992E+09	4,643123E+09	7,176029E+09	1,181915E+10
1032	2,321517E+09	2,321513E+09	3,588007E+09	3,588068E+09	4,643030E+09	7,176074E+09	1,181910E+10
1033	2,321599E+09	2,321588E+09	3,588019E+09	3,588025E+09	4,643187E+09	7,176044E+09	1,181923E+10
1034	2,321452E+09	2,321466E+09	3,588025E+09	3,588046E+09	4,642918E+09	7,176071E+09	1,181899E+10
1035	2,321472E+09	2,321496E+09	3,588029E+09	3,588038E+09	4,642968E+09	7,176067E+09	1,181903E+10
1036	2,321522E+09	2,321498E+09	3,588076E+09	3,587986E+09	4,643020E+09	7,176062E+09	1,181908E+10
1037	2,321393E+09	2,321380E+09	3,588064E+09	3,588072E+09	4,642773E+09	7,176136E+09	1,181891E+10
1038	2,321475E+09	2,321493E+09	3,588061E+09	3,588046E+09	4,642969E+09	7,176107E+09	1,181908E+10
1039	2,321447E+09	2,321475E+09	3,588058E+09	3,588023E+09	4,642922E+09	7,176081E+09	1,181900E+10
1040	2,321400E+09	2,321427E+09	3,588020E+09	3,588077E+09	4,642827E+09	7,176098E+09	1,181892E+10
1041	2,321565E+09	2,321555E+09	3,588038E+09	3,588010E+09	4,643120E+09	7,176047E+09	1,181917E+10
1042	2,321504E+09	2,321488E+09	3,588024E+09	3,587999E+09	4,642992E+09	7,176023E+09	1,181901E+10
1043	2,321546E+09	2,321552E+09	3,587971E+09	3,588005E+09	4,643098E+09	7,175976E+09	1,181907E+10
1044	2,321672E+09	2,321667E+09	3,587985E+09	3,587944E+09	4,643338E+09	7,175929E+09	1,181927E+10
1045	2,321567E+09	2,321591E+09	3,587965E+09	3,588000E+09	4,643158E+09	7,175965E+09	1,181912E+10
1046	2,321660E+09	2,321704E+09	3,587978E+09	3,587957E+09	4,643364E+09	7,175936E+09	1,181930E+10
1047	2,321688E+09	2,321709E+09	3,588013E+09	3,587914E+09	4,643397E+09	7,175927E+09	1,181932E+10
1048	2,321608E+09	2,321598E+09	3,587976E+09	3,587998E+09	4,643206E+09	7,175974E+09	1,181918E+10
1049	2,321727E+09	2,321703E+09	3,587988E+09	3,587972E+09	4,643430E+09	7,175960E+09	1,181939E+10
1050	2,321633E+09	2,321622E+09	3,587980E+09	3,587982E+09	4,643255E+09	7,175962E+09	1,181922E+10
1051	2,321575E+09	2,321600E+09	3,587925E+09	3,588015E+09	4,643175E+09	7,175940E+09	1,181912E+10
1052	2,321675E+09	2,321671E+09	3,587980E+09	3,587953E+09	4,643346E+09	7,175933E+09	1,181928E+10
1053	2,321535E+09	2,321517E+09	3,588002E+09	3,587992E+09	4,643052E+09	7,175995E+09	1,181905E+10
1054	2,321555E+09	2,321557E+09	3,588015E+09	3,587972E+09	4,643112E+09	7,175987E+09	1,181910E+10
1055	2,321584E+09	2,321584E+09	3,588050E+09	3,587952E+09	4,643167E+09	7,176001E+09	1,181917E+10
1056	2,321452E+09	2,321462E+09	3,587995E+09	3,588053E+09	4,642914E+09	7,176048E+09	1,181896E+10
1057	2,321550E+09	2,321580E+09	3,588005E+09	3,588024E+09	4,643131E+09	7,176028E+09	1,181916E+10
1058	2,321527E+09	2,321544E+09	3,588031E+09	3,587992E+09	4,643071E+09	7,176023E+09	1,181909E+10
1059	2,321492E+09	2,321510E+09	3,587957E+09	3,588009E+09	4,643002E+09	7,175966E+09	1,181897E+10
1060	2,321672E+09	2,321644E+09	3,587985E+09	3,587945E+09	4,643316E+09	7,175931E+09	1,181925E+10
1061	2,321604E+09	2,321572E+09	3,587966E+09	3,587962E+09	4,643177E+09	7,175927E+09	1,181910E+10
1062	2,321635E+09	2,321660E+09	3,587920E+09	3,587943E+09	4,643294E+09	7,175863E+09	1,181916E+10
1063	2,321744E+09	2,321782E+09	3,587955E+09	3,587888E+09	4,643525E+09	7,175843E+09	1,181937E+10
1064	2,321648E+09	2,321667E+09	3,587922E+09	3,587945E+09	4,643315E+09	7,175867E+09	1,181918E+10
1065	2,321753E+09	2,321772E+09	3,587950E+09	3,587915E+09	4,643525E+09	7,175866E+09	1,181939E+10
1066	2,321773E+09	2,321764E+09	3,587984E+09	3,587895E+09	4,643537E+09	7,175879E+09	1,181942E+10
1067	2,321680E+09	2,321678E+09	3,587890E+09	3,587961E+09	4,643359E+09	7,175851E+09	1,181921E+10

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							
1068	2,321802E+09	2,321798E+09	3,587917E+09	3,587934E+09	4,643600E+09	7,175851E+09	1,181945E+10
1069	2,321707E+09	2,321696E+09	3,587931E+09	3,587945E+09	4,643404E+09	7,175876E+09	1,181928E+10
1070	2,321652E+09	2,321674E+09	3,587911E+09	3,587939E+09	4,643326E+09	7,175851E+09	1,181918E+10
1071	2,321744E+09	2,321750E+09	3,587980E+09	3,587894E+09	4,643493E+09	7,175873E+09	1,181937E+10
1072	2,321603E+09	2,321570E+09	3,587963E+09	3,587957E+09	4,643173E+09	7,175920E+09	1,181909E+10
1073	2,321619E+09	2,321629E+09	3,587973E+09	3,587962E+09	4,643249E+09	7,175935E+09	1,181918E+10
1074	2,321638E+09	2,321657E+09	3,588002E+09	3,587949E+09	4,643295E+09	7,175951E+09	1,181925E+10
1075	2,321513E+09	2,321544E+09	3,587914E+09	3,588005E+09	4,643057E+09	7,175919E+09	1,181898E+10
1076	2,321646E+09	2,321658E+09	3,587955E+09	3,587958E+09	4,643304E+09	7,175913E+09	1,181922E+10
1077	2,321637E+09	2,321604E+09	3,587982E+09	3,587933E+09	4,643241E+09	7,175916E+09	1,181916E+10
1078	2,321603E+09	2,321595E+09	3,587911E+09	3,587927E+09	4,643198E+09	7,175839E+09	1,181904E+10
1079	2,321759E+09	2,321760E+09	3,587939E+09	3,587885E+09	4,643519E+09	7,175823E+09	1,181934E+10
1080	2,321680E+09	2,321680E+09	3,587900E+09	3,587916E+09	4,643359E+09	7,175816E+09	1,181918E+10
1081	2,321713E+09	2,321764E+09	3,587893E+09	3,587904E+09	4,643477E+09	7,175797E+09	1,181927E+10
1082	2,321818E+09	2,321858E+09	3,587952E+09	3,587862E+09	4,643675E+09	7,175814E+09	1,181949E+10
1083	2,321729E+09	2,321741E+09	3,587876E+09	3,587903E+09	4,643469E+09	7,175779E+09	1,181925E+10
1084	2,321851E+09	2,321840E+09	3,587900E+09	3,587887E+09	4,643691E+09	7,175788E+09	1,181948E+10
1085	2,321861E+09	2,321829E+09	3,587915E+09	3,587886E+09	4,643690E+09	7,175801E+09	1,181949E+10
1086	2,321764E+09	2,321769E+09	3,587820E+09	3,587908E+09	4,643533E+09	7,175728E+09	1,181926E+10
1087	2,321871E+09	2,321892E+09	3,587875E+09	3,587868E+09	4,643763E+09	7,175743E+09	1,181951E+10
1088	2,321782E+09	2,321762E+09	3,587890E+09	3,587875E+09	4,643545E+09	7,175765E+09	1,181931E+10
1089	2,321732E+09	2,321735E+09	3,587894E+09	3,587879E+09	4,643468E+09	7,175773E+09	1,181924E+10
1090	2,321800E+09	2,321805E+09	3,587964E+09	3,587870E+09	4,643605E+09	7,175834E+09	1,181944E+10
1091	2,321651E+09	2,321650E+09	3,587895E+09	3,587930E+09	4,643301E+09	7,175824E+09	1,181913E+10
1092	2,321681E+09	2,321710E+09	3,587916E+09	3,587940E+09	4,643391E+09	7,175855E+09	1,181925E+10
1093	2,321711E+09	2,321719E+09	3,587961E+09	3,587926E+09	4,643430E+09	7,175886E+09	1,181932E+10
1094	2,321608E+09	2,321617E+09	3,587879E+09	3,587930E+09	4,643226E+09	7,175810E+09	1,181904E+10
1095	2,321742E+09	2,321742E+09	3,587926E+09	3,587889E+09	4,643484E+09	7,175816E+09	1,181930E+10
1096	2,321734E+09	2,321683E+09	3,587918E+09	3,587881E+09	4,643417E+09	7,175800E+09	1,181922E+10
1097	2,321692E+09	2,321698E+09	3,587859E+09	3,587888E+09	4,643389E+09	7,175747E+09	1,181914E+10
1098	2,321823E+09	2,321865E+09	3,587898E+09	3,587862E+09	4,643689E+09	7,175760E+09	1,181945E+10
1099	2,321749E+09	2,321782E+09	3,587841E+09	3,587862E+09	4,643531E+09	7,175704E+09	1,181923E+10
1100	2,321808E+09	2,321846E+09	3,587862E+09	3,587854E+09	4,643654E+09	7,175716E+09	1,181937E+10
1101	2,321921E+09	2,321916E+09	3,587914E+09	3,587832E+09	4,643837E+09	7,175746E+09	1,181958E+10
1102	2,321834E+09	2,321819E+09	3,587820E+09	3,587850E+09	4,643653E+09	7,175670E+09	1,181932E+10
1103	2,321936E+09	2,321942E+09	3,587841E+09	3,587844E+09	4,643878E+09	7,175685E+09	1,181956E+10
1104	2,321938E+09	2,321917E+09	3,587835E+09	3,587839E+09	4,643855E+09	7,175674E+09	1,181953E+10
1105	2,321839E+09	2,321856E+09	3,587792E+09	3,587849E+09	4,643695E+09	7,175641E+09	1,181934E+10
1106	2,321931E+09	2,321959E+09	3,587873E+09	3,587821E+09	4,643890E+09	7,175695E+09	1,181958E+10
1107	2,321839E+09	2,321825E+09	3,587856E+09	3,587821E+09	4,643664E+09	7,175678E+09	1,181934E+10
1108	2,321799E+09	2,321795E+09	3,587864E+09	3,587858E+09	4,643595E+09	7,175722E+09	1,181932E+10
1109	2,321858E+09	2,321861E+09	3,587912E+09	3,587874E+09	4,643719E+09	7,175787E+09	1,181951E+10
1110	2,321719E+09	2,321727E+09	3,587835E+09	3,587890E+09	4,643446E+09	7,175726E+09	1,181917E+10
1111	2,321756E+09	2,321788E+09	3,587875E+09	3,587882E+09	4,643544E+09	7,175757E+09	1,181930E+10
1112	2,321804E+09	2,321776E+09	3,587904E+09	3,587860E+09	4,643580E+09	7,175763E+09	1,181934E+10
1113	2,321713E+09	2,321692E+09	3,587843E+09	3,587862E+09	4,643405E+09	7,175705E+09	1,181911E+10
1114	2,321822E+09	2,321828E+09	3,587887E+09	3,587850E+09	4,643650E+09	7,175737E+09	1,181939E+10
1115	2,321800E+09	2,321797E+09	3,587843E+09	3,587832E+09	4,643597E+09	7,175675E+09	1,181927E+10
1116	2,321769E+09	2,321809E+09	3,587813E+09	3,587853E+09	4,643578E+09	7,175665E+09	1,181924E+10

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	2,321900E+09	2,321948E+09	3,587875E+09	3,587837E+09	4,643848E+09	7,175712E+09	1,181956E+10
1118	2,321849E+09	2,321866E+09	3,587820E+09	3,587804E+09	4,643715E+09	7,175624E+09	1,181934E+10
1119	2,321909E+09	2,321922E+09	3,587835E+09	3,587806E+09	4,643831E+09	7,175641E+09	1,181947E+10
1120	2,322020E+09	2,321984E+09	3,587843E+09	3,587800E+09	4,644004E+09	7,175643E+09	1,181965E+10
1121	2,321928E+09	2,321912E+09	3,587750E+09	3,587808E+09	4,643840E+09	7,175558E+09	1,181940E+10
1122	2,322000E+09	2,322032E+09	3,587785E+09	3,587807E+09	4,644032E+09	7,175591E+09	1,181962E+10
1123	2,322002E+09	2,322005E+09	3,587775E+09	3,587764E+09	4,644006E+09	7,175539E+09	1,181955E+10
1124	2,321921E+09	2,321922E+09	3,587767E+09	3,587786E+09	4,643844E+09	7,175553E+09	1,181940E+10
1125	2,322002E+09	2,322006E+09	3,587854E+09	3,587789E+09	4,644008E+09	7,175643E+09	1,181965E+10
1126	2,321912E+09	2,321895E+09	3,587817E+09	3,587777E+09	4,643807E+09	7,175594E+09	1,181940E+10
1127	2,321856E+09	2,321878E+09	3,587822E+09	3,587830E+09	4,643735E+09	7,175653E+09	1,181939E+10
1128	2,321919E+09	2,321929E+09	3,587850E+09	3,587848E+09	4,643848E+09	7,175698E+09	1,181955E+10
1129	2,321798E+09	2,321798E+09	3,587806E+09	3,587841E+09	4,643596E+09	7,175647E+09	1,181924E+10
1130	2,321830E+09	2,321853E+09	3,587852E+09	3,587843E+09	4,643683E+09	7,175695E+09	1,181938E+10
1131	2,321884E+09	2,321852E+09	3,587844E+09	3,587800E+09	4,643736E+09	7,175644E+09	1,181938E+10
1132	2,321803E+09	2,321781E+09	3,587791E+09	3,587826E+09	4,643584E+09	7,175618E+09	1,181920E+10
1133	2,321894E+09	2,321921E+09	3,587833E+09	3,587830E+09	4,643815E+09	7,175663E+09	1,181948E+10
1134	2,321882E+09	2,321904E+09	3,587794E+09	3,587773E+09	4,643787E+09	7,175568E+09	1,181935E+10
1135	2,321857E+09	2,321904E+09	3,587793E+09	3,587790E+09	4,643761E+09	7,175583E+09	1,181934E+10
1136	2,322002E+09	2,322011E+09	3,587828E+09	3,587780E+09	4,644013E+09	7,175608E+09	1,181962E+10
1137	2,321961E+09	2,321939E+09	3,587782E+09	3,587751E+09	4,643900E+09	7,175532E+09	1,181943E+10
1138	2,321995E+09	2,322008E+09	3,587778E+09	3,587781E+09	4,644003E+09	7,175559E+09	1,181956E+10
1139	2,322092E+09	2,322086E+09	3,587750E+09	3,587750E+09	4,644178E+09	7,175500E+09	1,181968E+10
1140	2,322011E+09	2,322012E+09	3,587695E+09	3,587761E+09	4,644023E+09	7,175456E+09	1,181948E+10
1141	2,322073E+09	2,322106E+09	3,587760E+09	3,587761E+09	4,644179E+09	7,175521E+09	1,181970E+10
1142	2,322086E+09	2,322081E+09	3,587759E+09	3,587693E+09	4,644167E+09	7,175452E+09	1,181962E+10
1143	2,321997E+09	2,321990E+09	3,587759E+09	3,587741E+09	4,643987E+09	7,175500E+09	1,181949E+10
1144	2,322065E+09	2,322061E+09	3,587802E+09	3,587775E+09	4,644126E+09	7,175577E+09	1,181970E+10
1145	2,321977E+09	2,321969E+09	3,587772E+09	3,587759E+09	4,643946E+09	7,175531E+09	1,181948E+10
1146	2,321907E+09	2,321948E+09	3,587776E+09	3,587813E+09	4,643855E+09	7,175590E+09	1,181944E+10
1147	2,321984E+09	2,321993E+09	3,587788E+09	3,587785E+09	4,643976E+09	7,175574E+09	1,181955E+10
1148	2,321895E+09	2,321863E+09	3,587762E+09	3,587780E+09	4,643757E+09	7,175543E+09	1,181930E+10
1149	2,321917E+09	2,321916E+09	3,587809E+09	3,587800E+09	4,643832E+09	7,175610E+09	1,181944E+10
1150	2,321973E+09	2,321953E+09	3,587788E+09	3,587738E+09	4,643926E+09	7,175525E+09	1,181945E+10
1151	2,321878E+09	2,321890E+09	3,587752E+09	3,587774E+09	4,643768E+09	7,175525E+09	1,181929E+10
1152	2,321965E+09	2,322010E+09	3,587788E+09	3,587788E+09	4,643975E+09	7,175576E+09	1,181955E+10
1153	2,321974E+09	2,321989E+09	3,587783E+09	3,587717E+09	4,643963E+09	7,175500E+09	1,181946E+10
1154	2,321940E+09	2,321974E+09	3,587774E+09	3,587758E+09	4,643914E+09	7,175532E+09	1,181945E+10
1155	2,322091E+09	2,322084E+09	3,587763E+09	3,587736E+09	4,644175E+09	7,175498E+09	1,181967E+10
1156	2,322064E+09	2,322028E+09	3,587704E+09	3,587725E+09	4,644092E+09	7,175429E+09	1,181952E+10
1157	2,322079E+09	2,322101E+09	3,587699E+09	3,587758E+09	4,644180E+09	7,175458E+09	1,181964E+10
1158	2,322183E+09	2,322193E+09	3,587684E+09	3,587674E+09	4,644376E+09	7,175358E+09	1,181973E+10
1159	2,322099E+09	2,322104E+09	3,587676E+09	3,587677E+09	4,644203E+09	7,175353E+09	1,181956E+10
1160	2,322156E+09	2,322168E+09	3,587731E+09	3,587698E+09	4,644324E+09	7,175428E+09	1,181975E+10
1161	2,322169E+09	2,322149E+09	3,587744E+09	3,587646E+09	4,644318E+09	7,175391E+09	1,181971E+10
1162	2,322047E+09	2,322064E+09	3,587727E+09	3,587735E+09	4,644111E+09	7,175462E+09	1,181957E+10
1163	2,322108E+09	2,322137E+09	3,587732E+09	3,587749E+09	4,644246E+09	7,175481E+09	1,181973E+10
1164	2,322045E+09	2,322041E+09	3,587724E+09	3,587736E+09	4,644086E+09	7,175461E+09	1,181955E+10
1165	2,321979E+09	2,322002E+09	3,587743E+09	3,587782E+09	4,643982E+09	7,175525E+09	1,181951E+10

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							
1166	2,322077E+09	2,322058E+09	3,587748E+09	3,587714E+09	4,644135E+09	7,175462E+09	1,181960E+10
1167	2,321986E+09	2,321940E+09	3,587736E+09	3,587719E+09	4,643927E+09	7,175455E+09	1,181938E+10
1168	2,321994E+09	2,321994E+09	3,587744E+09	3,587758E+09	4,643988E+09	7,175502E+09	1,181949E+10
1169	2,322048E+09	2,322051E+09	3,587745E+09	3,587692E+09	4,644099E+09	7,175437E+09	1,181954E+10
1170	2,321938E+09	2,321983E+09	3,587722E+09	3,587742E+09	4,643921E+09	7,175464E+09	1,181938E+10
1171	2,322037E+09	2,322082E+09	3,587739E+09	3,587726E+09	4,644118E+09	7,175465E+09	1,181958E+10
1172	2,322080E+09	2,322061E+09	3,587738E+09	3,587677E+09	4,644141E+09	7,175415E+09	1,181956E+10
1173	2,322041E+09	2,322046E+09	3,587712E+09	3,587733E+09	4,644086E+09	7,175445E+09	1,181953E+10
1174	2,322194E+09	2,322190E+09	3,587680E+09	3,587679E+09	4,644384E+09	7,175359E+09	1,181974E+10
1175	2,322158E+09	2,322147E+09	3,587647E+09	3,587662E+09	4,644305E+09	7,175309E+09	1,181961E+10
1176	2,322163E+09	2,322196E+09	3,587647E+09	3,587697E+09	4,644359E+09	7,175343E+09	1,181970E+10
1177	2,322274E+09	2,322281E+09	3,587680E+09	3,587604E+09	4,644555E+09	7,175284E+09	1,181984E+10
1178	2,322168E+09	2,322176E+09	3,587675E+09	3,587644E+09	4,644344E+09	7,175319E+09	1,181966E+10
1179	2,322214E+09	2,322229E+09	3,587690E+09	3,587665E+09	4,644443E+09	7,175356E+09	1,181980E+10
1180	2,322239E+09	2,322220E+09	3,587690E+09	3,587647E+09	4,644459E+09	7,175337E+09	1,181980E+10
1181	2,322104E+09	2,322128E+09	3,587666E+09	3,587737E+09	4,644231E+09	7,175403E+09	1,181963E+10
1182	2,322186E+09	2,322209E+09	3,587671E+09	3,587692E+09	4,644395E+09	7,175363E+09	1,181976E+10
1183	2,322137E+09	2,322104E+09	3,587689E+09	3,587656E+09	4,644241E+09	7,175345E+09	1,181959E+10
1184	2,322069E+09	2,322056E+09	3,587689E+09	3,587714E+09	4,644125E+09	7,175403E+09	1,181953E+10
1185	2,322168E+09	2,322136E+09	3,587712E+09	3,587648E+09	4,644304E+09	7,175360E+09	1,181966E+10
1186	2,322041E+09	2,322036E+09	3,587695E+09	3,587688E+09	4,644077E+09	7,175383E+09	1,181946E+10
1187	2,322038E+09	2,322090E+09	3,587689E+09	3,587713E+09	4,644128E+09	7,175401E+09	1,181953E+10
1188	2,322120E+09	2,322140E+09	3,587711E+09	3,587664E+09	4,644261E+09	7,175375E+09	1,181964E+10
1189	2,322017E+09	2,322050E+09	3,587698E+09	3,587719E+09	4,644067E+09	7,175417E+09	1,181948E+10
1190	2,322142E+09	2,322157E+09	3,587691E+09	3,587672E+09	4,644298E+09	7,175363E+09	1,181966E+10
1191	2,322189E+09	2,322148E+09	3,587689E+09	3,587628E+09	4,644337E+09	7,175317E+09	1,181965E+10
1192	2,322139E+09	2,322141E+09	3,587624E+09	3,587695E+09	4,644279E+09	7,175319E+09	1,181960E+10
1193	2,322292E+09	2,322299E+09	3,587623E+09	3,587617E+09	4,644592E+09	7,175240E+09	1,181983E+10
1194	2,322233E+09	2,322251E+09	3,587618E+09	3,587603E+09	4,644485E+09	7,175221E+09	1,181971E+10
1195	2,322238E+09	2,322274E+09	3,587611E+09	3,587616E+09	4,644512E+09	7,175228E+09	1,181974E+10
1196	2,322364E+09	2,322353E+09	3,587652E+09	3,587568E+09	4,644717E+09	7,175220E+09	1,181994E+10
1197	2,322241E+09	2,322241E+09	3,587639E+09	3,587639E+09	4,644482E+09	7,175278E+09	1,181976E+10
1198	2,322285E+09	2,322309E+09	3,587625E+09	3,587635E+09	4,644594E+09	7,175260E+09	1,181985E+10
1199	2,322309E+09	2,322304E+09	3,587645E+09	3,587610E+09	4,644613E+09	7,175255E+09	1,181987E+10
1200	2,322178E+09	2,322189E+09	3,587607E+09	3,587689E+09	4,644368E+09	7,175297E+09	1,181966E+10
1201	2,322274E+09	2,322266E+09	3,587648E+09	3,587623E+09	4,644540E+09	7,175271E+09	1,181981E+10
1202	2,322206E+09	2,322172E+09	3,587667E+09	3,587611E+09	4,644378E+09	7,175279E+09	1,181966E+10
1203	2,322127E+09	2,322124E+09	3,587633E+09	3,587662E+09	4,644251E+09	7,175295E+09	1,181955E+10
1204	2,322232E+09	2,322227E+09	3,587654E+09	3,587632E+09	4,644459E+09	7,175286E+09	1,181974E+10
1205	2,322096E+09	2,322121E+09	3,587648E+09	3,587677E+09	4,644217E+09	7,175325E+09	1,181954E+10
1206	2,322113E+09	2,322170E+09	3,587646E+09	3,587653E+09	4,644283E+09	7,175299E+09	1,181958E+10
1207	2,322216E+09	2,322213E+09	3,587690E+09	3,587597E+09	4,644429E+09	7,175287E+09	1,181972E+10
1208	2,322122E+09	2,322114E+09	3,587638E+09	3,587669E+09	4,644235E+09	7,175307E+09	1,181954E+10
1209	2,322254E+09	2,322242E+09	3,587639E+09	3,587618E+09	4,644496E+09	7,175257E+09	1,181975E+10
1210	2,322271E+09	2,322261E+09	3,587628E+09	3,587592E+09	4,644532E+09	7,175219E+09	1,181975E+10
1211	2,322211E+09	2,322248E+09	3,587556E+09	3,587631E+09	4,644459E+09	7,175187E+09	1,181965E+10
1212	2,322382E+09	2,322401E+09	3,587588E+09	3,587569E+09	4,644783E+09	7,175157E+09	1,181994E+10
1213	2,322316E+09	2,322327E+09	3,587605E+09	3,587570E+09	4,644643E+09	7,175174E+09	1,181982E+10
1214	2,322329E+09	2,322349E+09	3,587582E+09	3,587567E+09	4,644678E+09	7,175150E+09	1,181983E+10

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	2,322449E+09	2,322429E+09	3,587615E+09	3,587535E+09	4,644879E+09	7,175150E+09	1,182003E+10
1216	2,322314E+09	2,322314E+09	3,587559E+09	3,587626E+09	4,644628E+09	7,175185E+09	1,181981E+10
1217	2,322365E+09	2,322385E+09	3,587571E+09	3,587591E+09	4,644750E+09	7,175162E+09	1,181991E+10
1218	2,322374E+09	2,322374E+09	3,587606E+09	3,587559E+09	4,644749E+09	7,175165E+09	1,181991E+10
1219	2,322249E+09	2,322246E+09	3,587557E+09	3,587609E+09	4,644494E+09	7,175166E+09	1,181966E+10
1220	2,322358E+09	2,322334E+09	3,587600E+09	3,587578E+09	4,644692E+09	7,175178E+09	1,181987E+10
1221	2,322267E+09	2,322248E+09	3,587626E+09	3,587589E+09	4,644515E+09	7,175215E+09	1,181973E+10
1222	2,322187E+09	2,322219E+09	3,587580E+09	3,587616E+09	4,644406E+09	7,175196E+09	1,181960E+10
1223	2,322293E+09	2,322319E+09	3,587632E+09	3,587586E+09	4,644611E+09	7,175217E+09	1,181983E+10
1224	2,322169E+09	2,322189E+09	3,587617E+09	3,587640E+09	4,644359E+09	7,175257E+09	1,181962E+10
1225	2,322211E+09	2,322230E+09	3,587634E+09	3,587600E+09	4,644440E+09	7,175234E+09	1,181967E+10
1226	2,322302E+09	2,322285E+09	3,587660E+09	3,587567E+09	4,644587E+09	7,175228E+09	1,181981E+10
1227	2,322207E+09	2,322195E+09	3,587559E+09	3,587623E+09	4,644402E+09	7,175182E+09	1,181958E+10
1228	2,322347E+09	2,322349E+09	3,587554E+09	3,587595E+09	4,644697E+09	7,175149E+09	1,181985E+10
1229	2,322353E+09	2,322367E+09	3,587570E+09	3,587557E+09	4,644721E+09	7,175127E+09	1,181985E+10
1230	2,322307E+09	2,322343E+09	3,587510E+09	3,587546E+09	4,644650E+09	7,175056E+09	1,181971E+10
1231	2,322480E+09	2,322486E+09	3,587572E+09	3,587492E+09	4,644966E+09	7,175064E+09	1,182003E+10
1232	2,322411E+09	2,322400E+09	3,587557E+09	3,587527E+09	4,644811E+09	7,175084E+09	1,181989E+10
1233	2,322417E+09	2,322426E+09	3,587542E+09	3,587529E+09	4,644843E+09	7,175071E+09	1,181991E+10
1234	2,322506E+09	2,322524E+09	3,587567E+09	3,587518E+09	4,645030E+09	7,175085E+09	1,182012E+10
1235	2,322373E+09	2,322389E+09	3,587494E+09	3,587577E+09	4,644762E+09	7,175071E+09	1,181983E+10
1236	2,322444E+09	2,322454E+09	3,587526E+09	3,587554E+09	4,644899E+09	7,175080E+09	1,181998E+10
1237	2,322448E+09	2,322432E+09	3,587579E+09	3,587522E+09	4,644880E+09	7,175101E+09	1,181998E+10
1238	2,322327E+09	2,322310E+09	3,587517E+09	3,587547E+09	4,644638E+09	7,175064E+09	1,181970E+10
1239	2,322426E+09	2,322413E+09	3,587568E+09	3,587532E+09	4,644840E+09	7,175100E+09	1,181994E+10
1240	2,322327E+09	2,322328E+09	3,587568E+09	3,587565E+09	4,644655E+09	7,175133E+09	1,181979E+10
1241	2,322258E+09	2,322293E+09	3,587557E+09	3,587569E+09	4,644550E+09	7,175126E+09	1,181968E+10
1242	2,322355E+09	2,322388E+09	3,587616E+09	3,587542E+09	4,644744E+09	7,175158E+09	1,181990E+10
1243	2,322249E+09	2,322244E+09	3,587568E+09	3,587580E+09	4,644493E+09	7,175148E+09	1,181964E+10
1244	2,322314E+09	2,322302E+09	3,587568E+09	3,587574E+09	4,644616E+09	7,175143E+09	1,181976E+10
1245	2,322389E+09	2,322373E+09	3,587590E+09	3,587548E+09	4,644762E+09	7,175139E+09	1,181990E+10
1246	2,322297E+09	2,322311E+09	3,587482E+09	3,587561E+09	4,644608E+09	7,175043E+09	1,181965E+10
1247	2,322438E+09	2,322463E+09	3,587512E+09	3,587519E+09	4,644901E+09	7,175031E+09	1,181993E+10
1248	2,322445E+09	2,322459E+09	3,587533E+09	3,587495E+09	4,644904E+09	7,175028E+09	1,181993E+10
1249	2,322411E+09	2,322423E+09	3,587505E+09	3,587481E+09	4,644833E+09	7,174986E+09	1,181982E+10
1250	2,322555E+09	2,322568E+09	3,587552E+09	3,587463E+09	4,645122E+09	7,175015E+09	1,182014E+10
1251	2,322481E+09	2,322477E+09	3,587492E+09	3,587499E+09	4,644958E+09	7,174992E+09	1,181995E+10
1252	2,322496E+09	2,322514E+09	3,587465E+09	3,587523E+09	4,645010E+09	7,174989E+09	1,182000E+10
1253	2,322576E+09	2,322598E+09	3,587514E+09	3,587494E+09	4,645173E+09	7,175008E+09	1,182018E+10
1254	2,322460E+09	2,322458E+09	3,587445E+09	3,587494E+09	4,644918E+09	7,174939E+09	1,181986E+10
1255	2,322535E+09	2,322518E+09	3,587496E+09	3,587474E+09	4,645054E+09	7,174971E+09	1,182002E+10
1256	2,322529E+09	2,322498E+09	3,587529E+09	3,587475E+09	4,645027E+09	7,175004E+09	1,182003E+10
1257	2,322402E+09	2,322388E+09	3,587487E+09	3,587501E+09	4,644790E+09	7,174989E+09	1,181978E+10
1258	2,322464E+09	2,322506E+09	3,587545E+09	3,587506E+09	4,644970E+09	7,175051E+09	1,182002E+10
1259	2,322376E+09	2,322398E+09	3,587533E+09	3,587523E+09	4,644774E+09	7,175056E+09	1,181983E+10
1260	2,322332E+09	2,322354E+09	3,587527E+09	3,587551E+09	4,644687E+09	7,175078E+09	1,181976E+10
1261	2,322435E+09	2,322442E+09	3,587588E+09	3,587528E+09	4,644876E+09	7,175116E+09	1,181999E+10
1262	2,322345E+09	2,322313E+09	3,587501E+09	3,587528E+09	4,644659E+09	7,175028E+09	1,181969E+10
1263	2,322408E+09	2,322398E+09	3,587496E+09	3,587527E+09	4,644805E+09	7,175023E+09	1,181983E+10

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	2,322479E+09	2,322480E+09	3,587503E+09	3,587502E+09	4,644959E+09	7,175005E+09	1,181996E+10
1265	2,322397E+09	2,322409E+09	3,587447E+09	3,587477E+09	4,644805E+09	7,174924E+09	1,181973E+10
1266	2,322517E+09	2,322559E+09	3,587503E+09	3,587444E+09	4,645075E+09	7,174946E+09	1,182002E+10
1267	2,322532E+09	2,322533E+09	3,587496E+09	3,587425E+09	4,645065E+09	7,174922E+09	1,181999E+10
1268	2,322504E+09	2,322505E+09	3,587456E+09	3,587464E+09	4,645010E+09	7,174920E+09	1,181993E+10
1269	2,322625E+09	2,322654E+09	3,587498E+09	3,587461E+09	4,645279E+09	7,174959E+09	1,182024E+10
1270	2,322559E+09	2,322571E+09	3,587422E+09	3,587456E+09	4,645130E+09	7,174878E+09	1,182001E+10
1271	2,322582E+09	2,322599E+09	3,587422E+09	3,587467E+09	4,645181E+09	7,174889E+09	1,182007E+10
1272	2,322666E+09	2,322663E+09	3,587470E+09	3,587441E+09	4,645329E+09	7,174910E+09	1,182024E+10
1273	2,322559E+09	2,322519E+09	3,587430E+09	3,587424E+09	4,645078E+09	7,174854E+09	1,181993E+10
1274	2,322597E+09	2,322595E+09	3,587475E+09	3,587432E+09	4,645192E+09	7,174907E+09	1,182010E+10
1275	2,322581E+09	2,322574E+09	3,587472E+09	3,587442E+09	4,645155E+09	7,174914E+09	1,182007E+10
1276	2,322461E+09	2,322474E+09	3,587434E+09	3,587497E+09	4,644935E+09	7,174931E+09	1,181987E+10
1277	2,322514E+09	2,322568E+09	3,587515E+09	3,587489E+09	4,645082E+09	7,175004E+09	1,182009E+10
1278	2,322454E+09	2,322455E+09	3,587493E+09	3,587460E+09	4,644909E+09	7,174953E+09	1,181986E+10
1279	2,322429E+09	2,322415E+09	3,587480E+09	3,587490E+09	4,644844E+09	7,174969E+09	1,181981E+10
1280	2,322528E+09	2,322510E+09	3,587512E+09	3,587488E+09	4,645038E+09	7,175000E+09	1,182004E+10
1281	2,322443E+09	2,322412E+09	3,587444E+09	3,587465E+09	4,644855E+09	7,174909E+09	1,181976E+10
1282	2,322476E+09	2,322514E+09	3,587453E+09	3,587466E+09	4,644990E+09	7,174919E+09	1,181991E+10
1283	2,322554E+09	2,322576E+09	3,587463E+09	3,587429E+09	4,645131E+09	7,174892E+09	1,182002E+10
1284	2,322490E+09	2,322498E+09	3,587425E+09	3,587436E+09	4,644988E+09	7,174861E+09	1,181985E+10
1285	2,322594E+09	2,322630E+09	3,587490E+09	3,587423E+09	4,645225E+09	7,174912E+09	1,182014E+10
1286	2,322621E+09	2,322613E+09	3,587447E+09	3,587389E+09	4,645234E+09	7,174836E+09	1,182007E+10
1287	2,322594E+09	2,322598E+09	3,587389E+09	3,587441E+09	4,645191E+09	7,174829E+09	1,182002E+10
1288	2,322713E+09	2,322741E+09	3,587418E+09	3,587436E+09	4,645454E+09	7,174854E+09	1,182031E+10
1289	2,322665E+09	2,322649E+09	3,587380E+09	3,587381E+09	4,645314E+09	7,174761E+09	1,182007E+10
1290	2,322665E+09	2,322679E+09	3,587395E+09	3,587391E+09	4,645344E+09	7,174786E+09	1,182013E+10
1291	2,322749E+09	2,322729E+09	3,587420E+09	3,587370E+09	4,645478E+09	7,174790E+09	1,182027E+10
1292	2,322636E+09	2,322600E+09	3,587382E+09	3,587400E+09	4,645236E+09	7,174782E+09	1,182002E+10
1293	2,322639E+09	2,322680E+09	3,587441E+09	3,587424E+09	4,645319E+09	7,174866E+09	1,182018E+10
1294	2,322632E+09	2,322655E+09	3,587426E+09	3,587399E+09	4,645287E+09	7,174825E+09	1,182011E+10
1295	2,322525E+09	2,322541E+09	3,587408E+09	3,587455E+09	4,645065E+09	7,174863E+09	1,181993E+10
1296	2,322592E+09	2,322617E+09	3,587477E+09	3,587456E+09	4,645208E+09	7,174933E+09	1,182014E+10
1297	2,322554E+09	2,322505E+09	3,587462E+09	3,587403E+09	4,645059E+09	7,174865E+09	1,181992E+10
1298	2,322505E+09	2,322496E+09	3,587432E+09	3,587446E+09	4,645001E+09	7,174878E+09	1,181988E+10
1299	2,322605E+09	2,322600E+09	3,587428E+09	3,587438E+09	4,645204E+09	7,174865E+09	1,182007E+10
1300	2,322528E+09	2,322518E+09	3,587381E+09	3,587425E+09	4,645046E+09	7,174806E+09	1,181985E+10
1301	2,322547E+09	2,322604E+09	3,587430E+09	3,587414E+09	4,645150E+09	7,174844E+09	1,181999E+10
1302	2,322644E+09	2,322657E+09	3,587431E+09	3,587350E+09	4,645301E+09	7,174781E+09	1,182008E+10
1303	2,322590E+09	2,322581E+09	3,587389E+09	3,587389E+09	4,645171E+09	7,174778E+09	1,181995E+10
1304	2,322687E+09	2,322713E+09	3,587425E+09	3,587406E+09	4,645399E+09	7,174830E+09	1,182023E+10
1305	2,322720E+09	2,322711E+09	3,587392E+09	3,587350E+09	4,645431E+09	7,174741E+09	1,182017E+10
1306	2,322672E+09	2,322706E+09	3,587341E+09	3,587393E+09	4,645378E+09	7,174734E+09	1,182011E+10
1307	2,322800E+09	2,322821E+09	3,587364E+09	3,587372E+09	4,645621E+09	7,174736E+09	1,182036E+10
1308	2,322765E+09	2,322732E+09	3,587344E+09	3,587335E+09	4,645497E+09	7,174679E+09	1,182018E+10
1309	2,322738E+09	2,322746E+09	3,587370E+09	3,587355E+09	4,645484E+09	7,174726E+09	1,182021E+10
1310	2,322816E+09	2,322806E+09	3,587370E+09	3,587324E+09	4,645622E+09	7,174694E+09	1,182032E+10
1311	2,322698E+09	2,322689E+09	3,587329E+09	3,587373E+09	4,645387E+09	7,174702E+09	1,182009E+10
1312	2,322693E+09	2,322746E+09	3,587391E+09	3,587402E+09	4,645440E+09	7,174792E+09	1,182023E+10

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							
1313	2,322711E+09	2,322709E+09	3,587409E+09	3,587337E+09	4,645420E+09	7,174746E+09	1,182017E+10
1314	2,322598E+09	2,322598E+09	3,587385E+09	3,587393E+09	4,645195E+09	7,174778E+09	1,181997E+10
1315	2,322676E+09	2,322665E+09	3,587414E+09	3,587402E+09	4,645341E+09	7,174816E+09	1,182016E+10
1316	2,322642E+09	2,322590E+09	3,587391E+09	3,587376E+09	4,645232E+09	7,174768E+09	1,182000E+10
1317	2,322564E+09	2,322594E+09	3,587378E+09	3,587418E+09	4,645158E+09	7,174796E+09	1,181995E+10
1318	2,322673E+09	2,322701E+09	3,587377E+09	3,587371E+09	4,645374E+09	7,174748E+09	1,182012E+10
1319	2,322611E+09	2,322614E+09	3,587357E+09	3,587368E+09	4,645225E+09	7,174725E+09	1,181995E+10
1320	2,322633E+09	2,322676E+09	3,587406E+09	3,587377E+09	4,645309E+09	7,174783E+09	1,182009E+10
1321	2,322749E+09	2,322730E+09	3,587409E+09	3,587304E+09	4,645478E+09	7,174713E+09	1,182019E+10
1322	2,322672E+09	2,322677E+09	3,587343E+09	3,587361E+09	4,645350E+09	7,174705E+09	1,182005E+10
1323	2,322774E+09	2,322805E+09	3,587338E+09	3,587376E+09	4,645579E+09	7,174713E+09	1,182029E+10
1324	2,322819E+09	2,322810E+09	3,587320E+09	3,587315E+09	4,645629E+09	7,174635E+09	1,182026E+10
1325	2,322758E+09	2,322789E+09	3,587304E+09	3,587338E+09	4,645546E+09	7,174642E+09	1,182019E+10
1326	2,322895E+09	2,322894E+09	3,587313E+09	3,587282E+09	4,645789E+09	7,174595E+09	1,182038E+10
1327	2,322854E+09	2,322813E+09	3,587297E+09	3,587276E+09	4,645668E+09	7,174573E+09	1,182024E+10
1328	2,322806E+09	2,322826E+09	3,587320E+09	3,587328E+09	4,645632E+09	7,174648E+09	1,182028E+10
1329	2,322883E+09	2,322889E+09	3,587336E+09	3,587280E+09	4,645772E+09	7,174616E+09	1,182039E+10
1330	2,322747E+09	2,322772E+09	3,587313E+09	3,587333E+09	4,645520E+09	7,174646E+09	1,182017E+10
1331	2,322759E+09	2,322794E+09	3,587355E+09	3,587359E+09	4,645553E+09	7,174714E+09	1,182027E+10
1332	2,322795E+09	2,322761E+09	3,587377E+09	3,587312E+09	4,645556E+09	7,174689E+09	1,182024E+10
1333	2,322666E+09	2,322653E+09	3,587347E+09	3,587372E+09	4,645319E+09	7,174719E+09	1,182004E+10
1334	2,322748E+09	2,322740E+09	3,587337E+09	3,587358E+09	4,645488E+09	7,174695E+09	1,182018E+10
1335	2,322717E+09	2,322694E+09	3,587317E+09	3,587338E+09	4,645412E+09	7,174656E+09	1,182007E+10
1336	2,322638E+09	2,322684E+09	3,587328E+09	3,587371E+09	4,645322E+09	7,174698E+09	1,182002E+10
1337	2,322767E+09	2,322781E+09	3,587363E+09	3,587289E+09	4,645548E+09	7,174653E+09	1,182020E+10
1338	2,322698E+09	2,322700E+09	3,587345E+09	3,587301E+09	4,645398E+09	7,174646E+09	1,182004E+10
1339	2,322723E+09	2,322746E+09	3,587352E+09	3,587338E+09	4,645469E+09	7,174690E+09	1,182016E+10
1340	2,322843E+09	2,322829E+09	3,587347E+09	3,587292E+09	4,645672E+09	7,174639E+09	1,182031E+10
1341	2,322747E+09	2,322778E+09	3,587284E+09	3,587339E+09	4,645525E+09	7,174623E+09	1,182015E+10
1342	2,322861E+09	2,322896E+09	3,587273E+09	3,587312E+09	4,645757E+09	7,174584E+09	1,182034E+10
1343	2,322921E+09	2,322904E+09	3,587272E+09	3,587251E+09	4,645825E+09	7,174523E+09	1,182035E+10
1344	2,322853E+09	2,322859E+09	3,587266E+09	3,587284E+09	4,645712E+09	7,174550E+09	1,182026E+10
1345	2,322990E+09	2,322967E+09	3,587288E+09	3,587220E+09	4,645958E+09	7,174509E+09	1,182047E+10
1346	2,322919E+09	2,322909E+09	3,587263E+09	3,587237E+09	4,645828E+09	7,174500E+09	1,182033E+10
1347	2,322864E+09	2,322903E+09	3,587260E+09	3,587302E+09	4,645767E+09	7,174562E+09	1,182033E+10
1348	2,322950E+09	2,322963E+09	3,587299E+09	3,587256E+09	4,645913E+09	7,174555E+09	1,182047E+10
1349	2,322808E+09	2,322823E+09	3,587292E+09	3,587299E+09	4,645631E+09	7,174591E+09	1,182022E+10
1350	2,322836E+09	2,322838E+09	3,587303E+09	3,587301E+09	4,645673E+09	7,174604E+09	1,182028E+10
1351	2,322879E+09	2,322830E+09	3,587310E+09	3,587276E+09	4,645709E+09	7,174586E+09	1,182030E+10
1352	2,322737E+09	2,322735E+09	3,587279E+09	3,587344E+09	4,645472E+09	7,174623E+09	1,182009E+10
1353	2,322825E+09	2,322835E+09	3,587292E+09	3,587295E+09	4,645660E+09	7,174587E+09	1,182025E+10
1354	2,322782E+09	2,322797E+09	3,587303E+09	3,587272E+09	4,645579E+09	7,174575E+09	1,182015E+10
1355	2,322717E+09	2,322755E+09	3,587305E+09	3,587315E+09	4,645471E+09	7,174620E+09	1,182009E+10
1356	2,322857E+09	2,322851E+09	3,587344E+09	3,587257E+09	4,645708E+09	7,174601E+09	1,182031E+10
1357	2,322772E+09	2,322772E+09	3,587316E+09	3,587289E+09	4,645544E+09	7,174605E+09	1,182015E+10
1358	2,322805E+09	2,322829E+09	3,587269E+09	3,587305E+09	4,645634E+09	7,174574E+09	1,182021E+10
1359	2,322933E+09	2,322932E+09	3,587259E+09	3,587261E+09	4,645865E+09	7,174520E+09	1,182038E+10
1360	2,322845E+09	2,322867E+09	3,587221E+09	3,587285E+09	4,645712E+09	7,174506E+09	1,182022E+10
1361	2,322977E+09	2,322976E+09	3,587234E+09	3,587215E+09	4,645953E+09	7,174448E+09	1,182040E+10

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	2,323018E+09	2,322999E+09	3,587243E+09	3,587167E+09	4,646017E+09	7,174410E+09	1,182043E+10
1363	2,322941E+09	2,322940E+09	3,587210E+09	3,587233E+09	4,645882E+09	7,174444E+09	1,182033E+10
1364	2,323061E+09	2,323066E+09	3,587245E+09	3,587198E+09	4,646127E+09	7,174443E+09	1,182057E+10
1365	2,322964E+09	2,322999E+09	3,587240E+09	3,587223E+09	4,645964E+09	7,174463E+09	1,182043E+10
1366	2,322920E+09	2,322967E+09	3,587223E+09	3,587260E+09	4,645887E+09	7,174483E+09	1,182037E+10
1367	2,323025E+09	2,323025E+09	3,587261E+09	3,587228E+09	4,646050E+09	7,174489E+09	1,182054E+10
1368	2,322890E+09	2,322869E+09	3,587252E+09	3,587272E+09	4,645758E+09	7,174523E+09	1,182028E+10
1369	2,322925E+09	2,322896E+09	3,587254E+09	3,587251E+09	4,645822E+09	7,174504E+09	1,182033E+10
1370	2,322948E+09	2,322927E+09	3,587256E+09	3,587226E+09	4,645875E+09	7,174482E+09	1,182036E+10
1371	2,322806E+09	2,322818E+09	3,587216E+09	3,587295E+09	4,645624E+09	7,174510E+09	1,182013E+10
1372	2,322899E+09	2,322920E+09	3,587271E+09	3,587239E+09	4,645819E+09	7,174511E+09	1,182033E+10
1373	2,322850E+09	2,322866E+09	3,587297E+09	3,587218E+09	4,645716E+09	7,174516E+09	1,182023E+10
1374	2,322794E+09	2,322812E+09	3,587261E+09	3,587260E+09	4,645606E+09	7,174522E+09	1,182013E+10
1375	2,322942E+09	2,322937E+09	3,587276E+09	3,587238E+09	4,645879E+09	7,174514E+09	1,182039E+10
1376	2,322855E+09	2,322861E+09	3,587243E+09	3,587272E+09	4,645716E+09	7,174514E+09	1,182023E+10
1377	2,322905E+09	2,322926E+09	3,587209E+09	3,587247E+09	4,645831E+09	7,174455E+09	1,182029E+10
1378	2,323028E+09	2,323040E+09	3,587222E+09	3,587184E+09	4,646068E+09	7,174406E+09	1,182047E+10
1379	2,322950E+09	2,322949E+09	3,587177E+09	3,587215E+09	4,645899E+09	7,174391E+09	1,182029E+10
1380	2,323077E+09	2,323063E+09	3,587208E+09	3,587161E+09	4,646140E+09	7,174369E+09	1,182051E+10
1381	2,323088E+09	2,323088E+09	3,587218E+09	3,587140E+09	4,646176E+09	7,174358E+09	1,182053E+10
1382	2,323002E+09	2,323029E+09	3,587148E+09	3,587205E+09	4,646031E+09	7,174353E+09	1,182038E+10
1383	2,323124E+09	2,323159E+09	3,587184E+09	3,587184E+09	4,646284E+09	7,174368E+09	1,182065E+10
1384	2,323037E+09	2,323060E+09	3,587206E+09	3,587193E+09	4,646097E+09	7,174400E+09	1,182050E+10
1385	2,323016E+09	2,323014E+09	3,587191E+09	3,587192E+09	4,646030E+09	7,174383E+09	1,182041E+10
1386	2,323110E+09	2,323088E+09	3,587224E+09	3,587165E+09	4,646198E+09	7,174389E+09	1,182059E+10
1387	2,322973E+09	2,322935E+09	3,587182E+09	3,587227E+09	4,645908E+09	7,174409E+09	1,182032E+10
1388	2,322997E+09	2,322986E+09	3,587198E+09	3,587208E+09	4,645983E+09	7,174406E+09	1,182039E+10
1389	2,322996E+09	2,323019E+09	3,587232E+09	3,587185E+09	4,646015E+09	7,174417E+09	1,182043E+10
1390	2,322865E+09	2,322891E+09	3,587185E+09	3,587233E+09	4,645756E+09	7,174418E+09	1,182017E+10
1391	2,322969E+09	2,322991E+09	3,587242E+09	3,587205E+09	4,645959E+09	7,174446E+09	1,182041E+10
1392	2,322929E+09	2,322922E+09	3,587271E+09	3,587200E+09	4,645851E+09	7,174471E+09	1,182032E+10
1393	2,322888E+09	2,322881E+09	3,587205E+09	3,587224E+09	4,645769E+09	7,174429E+09	1,182020E+10
1394	2,323026E+09	2,323041E+09	3,587208E+09	3,587198E+09	4,646067E+09	7,174406E+09	1,182047E+10
1395	2,322953E+09	2,322957E+09	3,587159E+09	3,587220E+09	4,645910E+09	7,174379E+09	1,182029E+10
1396	2,323012E+09	2,323021E+09	3,587165E+09	3,587172E+09	4,646034E+09	7,174337E+09	1,182037E+10
1397	2,323121E+09	2,323130E+09	3,587200E+09	3,587112E+09	4,646251E+09	7,174313E+09	1,182056E+10
1398	2,323040E+09	2,323032E+09	3,587127E+09	3,587145E+09	4,646072E+09	7,174272E+09	1,182034E+10
1399	2,323155E+09	2,323168E+09	3,587150E+09	3,587135E+09	4,646323E+09	7,174285E+09	1,182061E+10
1400	2,323157E+09	2,323182E+09	3,587175E+09	3,587127E+09	4,646339E+09	7,174302E+09	1,182064E+10
1401	2,323081E+09	2,323111E+09	3,587115E+09	3,587161E+09	4,646192E+09	7,174276E+09	1,182047E+10
1402	2,323201E+09	2,323238E+09	3,587166E+09	3,587131E+09	4,646440E+09	7,174296E+09	1,182074E+10
1403	2,323130E+09	2,323106E+09	3,587162E+09	3,587150E+09	4,646237E+09	7,174312E+09	1,182055E+10
1404	2,323108E+09	2,323070E+09	3,587153E+09	3,587152E+09	4,646178E+09	7,174306E+09	1,182048E+10
1405	2,323173E+09	2,323160E+09	3,587176E+09	3,587134E+09	4,646333E+09	7,174310E+09	1,182064E+10
1406	2,323027E+09	2,323015E+09	3,587105E+09	3,587180E+09	4,646042E+09	7,174285E+09	1,182033E+10
1407	2,323053E+09	2,323081E+09	3,587140E+09	3,587170E+09	4,646133E+09	7,174310E+09	1,182044E+10
1408	2,323062E+09	2,323082E+09	3,587212E+09	3,587138E+09	4,646144E+09	7,174350E+09	1,182049E+10
1409	2,322952E+09	2,322947E+09	3,587164E+09	3,587167E+09	4,645899E+09	7,174331E+09	1,182023E+10
1410	2,323048E+09	2,323065E+09	3,587208E+09	3,587154E+09	4,646114E+09	7,174362E+09	1,182048E+10

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	2,323015E+09	2,322998E+09	3,587199E+09	3,587174E+09	4,646013E+09	7,174373E+09	1,182039E+10
1412	2,322975E+09	2,322980E+09	3,587144E+09	3,587188E+09	4,645955E+09	7,174333E+09	1,182029E+10
1413	2,323102E+09	2,323140E+09	3,587170E+09	3,587151E+09	4,646242E+09	7,174321E+09	1,182056E+10
1414	2,323042E+09	2,323046E+09	3,587111E+09	3,587144E+09	4,646088E+09	7,174255E+09	1,182034E+10
1415	2,323110E+09	2,323117E+09	3,587118E+09	3,587121E+09	4,646227E+09	7,174239E+09	1,182047E+10
1416	2,323214E+09	2,323209E+09	3,587171E+09	3,587079E+09	4,646424E+09	7,174250E+09	1,182067E+10
1417	2,323134E+09	2,323123E+09	3,587080E+09	3,587104E+09	4,646257E+09	7,174183E+09	1,182044E+10
1418	2,323226E+09	2,323274E+09	3,587103E+09	3,587098E+09	4,646500E+09	7,174201E+09	1,182070E+10
1419	2,323242E+09	2,323261E+09	3,587121E+09	3,587093E+09	4,646503E+09	7,174213E+09	1,182072E+10
1420	2,323178E+09	2,323174E+09	3,587083E+09	3,587103E+09	4,646352E+09	7,174186E+09	1,182054E+10
1421	2,323282E+09	2,323294E+09	3,587137E+09	3,587079E+09	4,646576E+09	7,174215E+09	1,182079E+10
1422	2,323209E+09	2,323169E+09	3,587088E+09	3,587092E+09	4,646378E+09	7,174180E+09	1,182056E+10
1423	2,323175E+09	2,323162E+09	3,587068E+09	3,587124E+09	4,646337E+09	7,174192E+09	1,182053E+10
1424	2,323230E+09	2,323246E+09	3,587130E+09	3,587105E+09	4,646476E+09	7,174235E+09	1,182071E+10
1425	2,323094E+09	2,323097E+09	3,587078E+09	3,587118E+09	4,646191E+09	7,174195E+09	1,182039E+10
1426	2,323114E+09	2,323160E+09	3,587138E+09	3,587106E+09	4,646274E+09	7,174244E+09	1,182052E+10
1427	2,323142E+09	2,323135E+09	3,587187E+09	3,587102E+09	4,646277E+09	7,174288E+09	1,182056E+10
1428	2,323037E+09	2,323006E+09	3,587136E+09	3,587138E+09	4,646042E+09	7,174275E+09	1,182032E+10
1429	2,323114E+09	2,323143E+09	3,587162E+09	3,587138E+09	4,646257E+09	7,174301E+09	1,182056E+10
1430	2,323088E+09	2,323086E+09	3,587110E+09	3,587135E+09	4,646174E+09	7,174245E+09	1,182042E+10
1431	2,323063E+09	2,323083E+09	3,587069E+09	3,587144E+09	4,646146E+09	7,174212E+09	1,182036E+10
1432	2,323202E+09	2,323218E+09	3,587136E+09	3,587088E+09	4,646421E+09	7,174224E+09	1,182064E+10
1433	2,323154E+09	2,323129E+09	3,587073E+09	3,587060E+09	4,646283E+09	7,174134E+09	1,182042E+10
1434	2,323204E+09	2,323221E+09	3,587083E+09	3,587055E+09	4,646425E+09	7,174138E+09	1,182056E+10
1435	2,323303E+09	2,323305E+09	3,587107E+09	3,587048E+09	4,646608E+09	7,174155E+09	1,182076E+10
1436	2,323216E+09	2,323224E+09	3,587043E+09	3,587071E+09	4,646440E+09	7,174114E+09	1,182055E+10
1437	2,323294E+09	2,323361E+09	3,587081E+09	3,587062E+09	4,646655E+09	7,174143E+09	1,182080E+10
1438	2,323320E+09	2,323324E+09	3,587070E+09	3,587041E+09	4,646644E+09	7,174112E+09	1,182076E+10
1439	2,323266E+09	2,323246E+09	3,587023E+09	3,587074E+09	4,646512E+09	7,174096E+09	1,182061E+10
1440	2,323364E+09	2,323351E+09	3,587087E+09	3,587054E+09	4,646715E+09	7,174141E+09	1,182086E+10
1441	2,323287E+09	2,323252E+09	3,587020E+09	3,587043E+09	4,646539E+09	7,174063E+09	1,182060E+10
1442	2,323235E+09	2,323264E+09	3,587020E+09	3,587064E+09	4,646498E+09	7,174084E+09	1,182058E+10
1443	2,323298E+09	2,323317E+09	3,587093E+09	3,587053E+09	4,646615E+09	7,174145E+09	1,182076E+10
1444	2,323172E+09	2,323156E+09	3,587077E+09	3,587055E+09	4,646328E+09	7,174132E+09	1,182046E+10
1445	2,323176E+09	2,323213E+09	3,587131E+09	3,587067E+09	4,646388E+09	7,174198E+09	1,182059E+10
1446	2,323206E+09	2,323193E+09	3,587125E+09	3,587070E+09	4,646399E+09	7,174196E+09	1,182059E+10
1447	2,323108E+09	2,323098E+09	3,587050E+09	3,587129E+09	4,646206E+09	7,174179E+09	1,182038E+10
1448	2,323190E+09	2,323224E+09	3,587106E+09	3,587116E+09	4,646415E+09	7,174223E+09	1,182064E+10
1449	2,323186E+09	2,323179E+09	3,587059E+09	3,587065E+09	4,646364E+09	7,174124E+09	1,182049E+10
1450	2,323161E+09	2,323181E+09	3,587041E+09	3,587061E+09	4,646341E+09	7,174102E+09	1,182044E+10
1451	2,323308E+09	2,323298E+09	3,587097E+09	3,587034E+09	4,646606E+09	7,174130E+09	1,182074E+10
1452	2,323255E+09	2,323218E+09	3,587042E+09	3,587010E+09	4,646473E+09	7,174052E+09	1,182053E+10
1453	2,323269E+09	2,323323E+09	3,587042E+09	3,587030E+09	4,646592E+09	7,174073E+09	1,182066E+10
1454	2,323369E+09	2,323403E+09	3,587033E+09	3,587013E+09	4,646771E+09	7,174046E+09	1,182082E+10
1455	2,323301E+09	2,323316E+09	3,586977E+09	3,587039E+09	4,646617E+09	7,174016E+09	1,182063E+10
1456	2,323389E+09	2,323417E+09	3,587050E+09	3,587019E+09	4,646806E+09	7,174069E+09	1,182087E+10
1457	2,323425E+09	2,323390E+09	3,587012E+09	3,586973E+09	4,646816E+09	7,173985E+09	1,182080E+10
1458	2,323352E+09	2,323337E+09	3,586967E+09	3,587010E+09	4,646689E+09	7,173976E+09	1,182066E+10
1459	2,323440E+09	2,323437E+09	3,587020E+09	3,587014E+09	4,646877E+09	7,174034E+09	1,182091E+10

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	2,323355E+09	2,323341E+09	3,586998E+09	3,586988E+09	4,646696E+09	7,173986E+09	1,182068E+10
1461	2,323281E+09	2,323340E+09	3,587027E+09	3,587018E+09	4,646622E+09	7,174045E+09	1,182067E+10
1462	2,323352E+09	2,323370E+09	3,587069E+09	3,587008E+09	4,646722E+09	7,174077E+09	1,182080E+10
1463	2,323242E+09	2,323215E+09	3,587038E+09	3,587047E+09	4,646457E+09	7,174086E+09	1,182054E+10
1464	2,323246E+09	2,323257E+09	3,587092E+09	3,587068E+09	4,646504E+09	7,174161E+09	1,182066E+10
1465	2,323284E+09	2,323269E+09	3,587046E+09	3,587042E+09	4,646553E+09	7,174088E+09	1,182064E+10
1466	2,323189E+09	2,323202E+09	3,586984E+09	3,587072E+09	4,646391E+09	7,174055E+09	1,182045E+10
1467	2,323291E+09	2,323302E+09	3,587043E+09	3,587050E+09	4,646593E+09	7,174093E+09	1,182069E+10
1468	2,323295E+09	2,323260E+09	3,587036E+09	3,586975E+09	4,646555E+09	7,174010E+09	1,182056E+10
1469	2,323246E+09	2,323271E+09	3,587019E+09	3,586994E+09	4,646518E+09	7,174013E+09	1,182053E+10
1470	2,323379E+09	2,323389E+09	3,587031E+09	3,586986E+09	4,646768E+09	7,174017E+09	1,182078E+10
1471	2,323328E+09	2,323334E+09	3,586974E+09	3,586998E+09	4,646662E+09	7,173973E+09	1,182063E+10
1472	2,323343E+09	2,323407E+09	3,587008E+09	3,587015E+09	4,646750E+09	7,174023E+09	1,182077E+10
1473	2,323460E+09	2,323485E+09	3,586991E+09	3,586960E+09	4,646945E+09	7,173950E+09	1,182090E+10
1474	2,323402E+09	2,323400E+09	3,586942E+09	3,586973E+09	4,646802E+09	7,173915E+09	1,182072E+10
1475	2,323495E+09	2,323476E+09	3,586994E+09	3,586976E+09	4,646971E+09	7,173970E+09	1,182094E+10
1476	2,323522E+09	2,323469E+09	3,586969E+09	3,586920E+09	4,646990E+09	7,173888E+09	1,182088E+10
1477	2,323411E+09	2,323433E+09	3,586924E+09	3,586970E+09	4,646844E+09	7,173894E+09	1,182074E+10
1478	2,323488E+09	2,323520E+09	3,586963E+09	3,586965E+09	4,647008E+09	7,173928E+09	1,182094E+10
1479	2,323419E+09	2,323420E+09	3,586964E+09	3,586951E+09	4,646839E+09	7,173915E+09	1,182075E+10
1480	2,323349E+09	2,323379E+09	3,587023E+09	3,586990E+09	4,646728E+09	7,174012E+09	1,182074E+10
1481	2,323428E+09	2,323424E+09	3,587023E+09	3,586969E+09	4,646852E+09	7,173992E+09	1,182084E+10
1482	2,323316E+09	2,323294E+09	3,586977E+09	3,587010E+09	4,646610E+09	7,173987E+09	1,182060E+10
1483	2,323325E+09	2,323333E+09	3,587014E+09	3,587046E+09	4,646659E+09	7,174059E+09	1,182072E+10
1484	2,323372E+09	2,323357E+09	3,587002E+09	3,586977E+09	4,646729E+09	7,173979E+09	1,182071E+10
1485	2,323263E+09	2,323292E+09	3,586965E+09	3,587001E+09	4,646554E+09	7,173966E+09	1,182052E+10
1486	2,323369E+09	2,323380E+09	3,587002E+09	3,586979E+09	4,646749E+09	7,173981E+09	1,182073E+10
1487	2,323382E+09	2,323352E+09	3,586990E+09	3,586940E+09	4,646734E+09	7,173930E+09	1,182066E+10
1488	2,323323E+09	2,323348E+09	3,586989E+09	3,586981E+09	4,646671E+09	7,173970E+09	1,182064E+10
1489	2,323455E+09	2,323491E+09	3,586962E+09	3,586952E+09	4,646945E+09	7,173915E+09	1,182086E+10
1490	2,323414E+09	2,323440E+09	3,586924E+09	3,586948E+09	4,646854E+09	7,173872E+09	1,182073E+10
1491	2,323450E+09	2,323475E+09	3,586958E+09	3,586966E+09	4,646925E+09	7,173924E+09	1,182085E+10
1492	2,323578E+09	2,323552E+09	3,586960E+09	3,586884E+09	4,647130E+09	7,173844E+09	1,182097E+10
1493	2,323494E+09	2,323485E+09	3,586903E+09	3,586913E+09	4,646979E+09	7,173817E+09	1,182080E+10
1494	2,323569E+09	2,323564E+09	3,586913E+09	3,586926E+09	4,647133E+09	7,173839E+09	1,182097E+10
1495	2,323588E+09	2,323580E+09	3,586903E+09	3,586894E+09	4,647168E+09	7,173797E+09	1,182097E+10
1496	2,323469E+09	2,323509E+09	3,586912E+09	3,586944E+09	4,646978E+09	7,173857E+09	1,182083E+10
1497	2,323550E+09	2,323588E+09	3,586942E+09	3,586915E+09	4,647138E+09	7,173857E+09	1,182100E+10
1498	2,323494E+09	2,323486E+09	3,586952E+09	3,586908E+09	4,646979E+09	7,173859E+09	1,182084E+10
1499	2,323432E+09	2,323416E+09	3,586976E+09	3,586974E+09	4,646848E+09	7,173950E+09	1,182080E+10
1500	2,323508E+09	2,323483E+09	3,586973E+09	3,586935E+09	4,646991E+09	7,173908E+09	1,182090E+10
1501	2,323377E+09	2,323384E+09	3,586918E+09	3,586971E+09	4,646761E+09	7,173888E+09	1,182065E+10
1502	2,323391E+09	2,323411E+09	3,586935E+09	3,586982E+09	4,646802E+09	7,173917E+09	1,182072E+10
1503	2,323458E+09	2,323444E+09	3,586955E+09	3,586916E+09	4,646902E+09	7,173870E+09	1,182077E+10
1504	2,323351E+09	2,323353E+09	3,586952E+09	3,586946E+09	4,646704E+09	7,173898E+09	1,182060E+10
1505	2,323450E+09	2,323464E+09	3,586954E+09	3,586918E+09	4,646914E+09	7,173872E+09	1,182079E+10
1506	2,323462E+09	2,323461E+09	3,586942E+09	3,586896E+09	4,646923E+09	7,173837E+09	1,182076E+10
1507	2,323406E+09	2,323438E+09	3,586930E+09	3,586962E+09	4,646844E+09	7,173893E+09	1,182074E+10
1508	2,323550E+09	2,323580E+09	3,586935E+09	3,586900E+09	4,647129E+09	7,173835E+09	1,182096E+10

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							
1509	2,323506E+09	2,323529E+09	3,586902E+09	3,586893E+09	4,647035E+09	7,173795E+09	1,182083E+10
1510	2,323547E+09	2,323547E+09	3,586897E+09	3,586913E+09	4,647093E+09	7,173810E+09	1,182090E+10
1511	2,323680E+09	2,323642E+09	3,586895E+09	3,586853E+09	4,647321E+09	7,173748E+09	1,182107E+10
1512	2,323574E+09	2,323567E+09	3,586857E+09	3,586892E+09	4,647142E+09	7,173749E+09	1,182089E+10
1513	2,323636E+09	2,323669E+09	3,586843E+09	3,586877E+09	4,647305E+09	7,173721E+09	1,182103E+10
1514	2,323661E+09	2,323677E+09	3,586867E+09	3,586831E+09	4,647339E+09	7,173698E+09	1,182104E+10
1515	2,323551E+09	2,323561E+09	3,586889E+09	3,586899E+09	4,647113E+09	7,173788E+09	1,182090E+10
1516	2,323637E+09	2,323637E+09	3,586927E+09	3,586853E+09	4,647274E+09	7,173780E+09	1,182105E+10
1517	2,323558E+09	2,323549E+09	3,586919E+09	3,586869E+09	4,647107E+09	7,173788E+09	1,182089E+10
1518	2,323488E+09	2,323484E+09	3,586893E+09	3,586944E+09	4,646972E+09	7,173837E+09	1,182081E+10
1519	2,323575E+09	2,323571E+09	3,586901E+09	3,586910E+09	4,647146E+09	7,173811E+09	1,182096E+10
1520	2,323445E+09	2,323454E+09	3,586895E+09	3,586929E+09	4,646899E+09	7,173824E+09	1,182072E+10
1521	2,323466E+09	2,323491E+09	3,586895E+09	3,586908E+09	4,646957E+09	7,173804E+09	1,182076E+10
1522	2,323547E+09	2,323529E+09	3,586931E+09	3,586851E+09	4,647076E+09	7,173782E+09	1,182086E+10
1523	2,323441E+09	2,323420E+09	3,586914E+09	3,586921E+09	4,646860E+09	7,173835E+09	1,182070E+10
1524	2,323532E+09	2,323550E+09	3,586914E+09	3,586882E+09	4,647082E+09	7,173795E+09	1,182088E+10
1525	2,323531E+09	2,323568E+09	3,586898E+09	3,586864E+09	4,647099E+09	7,173762E+09	1,182086E+10
1526	2,323489E+09	2,323520E+09	3,586860E+09	3,586913E+09	4,647010E+09	7,173774E+09	1,182078E+10
1527	2,323657E+09	2,323664E+09	3,586882E+09	3,586852E+09	4,647321E+09	7,173734E+09	1,182105E+10
1528	2,323614E+09	2,323599E+09	3,586867E+09	3,586846E+09	4,647213E+09	7,173713E+09	1,182093E+10
1529	2,323642E+09	2,323640E+09	3,586817E+09	3,586851E+09	4,647283E+09	7,173668E+09	1,182095E+10
1530	2,323767E+09	2,323760E+09	3,586831E+09	3,586799E+09	4,647527E+09	7,173630E+09	1,182116E+10
1531	2,323655E+09	2,323660E+09	3,586806E+09	3,586854E+09	4,647314E+09	7,173659E+09	1,182097E+10
1532	2,323710E+09	2,323749E+09	3,586836E+09	3,586809E+09	4,647458E+09	7,173645E+09	1,182110E+10
1533	2,323727E+09	2,323753E+09	3,586871E+09	3,586779E+09	4,647480E+09	7,173650E+09	1,182113E+10
1534	2,323619E+09	2,323605E+09	3,586846E+09	3,586865E+09	4,647224E+09	7,173711E+09	1,182093E+10
1535	2,323710E+09	2,323695E+09	3,586874E+09	3,586845E+09	4,647405E+09	7,173719E+09	1,182112E+10
1536	2,323621E+09	2,323608E+09	3,586865E+09	3,586864E+09	4,647229E+09	7,173729E+09	1,182096E+10
1537	2,323549E+09	2,323568E+09	3,586806E+09	3,586896E+09	4,647117E+09	7,173702E+09	1,182082E+10
1538	2,323655E+09	2,323659E+09	3,586854E+09	3,586838E+09	4,647314E+09	7,173691E+09	1,182101E+10
1539	2,323538E+09	2,323513E+09	3,586863E+09	3,586867E+09	4,647051E+09	7,173730E+09	1,182078E+10
1540	2,323559E+09	2,323561E+09	3,586878E+09	3,586830E+09	4,647120E+09	7,173709E+09	1,182083E+10
1541	2,323618E+09	2,323625E+09	3,586902E+09	3,586805E+09	4,647243E+09	7,173707E+09	1,182095E+10
1542	2,323504E+09	2,323512E+09	3,586844E+09	3,586895E+09	4,647016E+09	7,173739E+09	1,182075E+10
1543	2,323608E+09	2,323652E+09	3,586860E+09	3,586864E+09	4,647260E+09	7,173724E+09	1,182098E+10
1544	2,323614E+09	2,323644E+09	3,586877E+09	3,586838E+09	4,647259E+09	7,173716E+09	1,182097E+10
1545	2,323588E+09	2,323606E+09	3,586803E+09	3,586854E+09	4,647194E+09	7,173657E+09	1,182085E+10
1546	2,323772E+09	2,323752E+09	3,586829E+09	3,586790E+09	4,647524E+09	7,173619E+09	1,182114E+10
1547	2,323721E+09	2,323679E+09	3,586804E+09	3,586807E+09	4,647401E+09	7,173612E+09	1,182101E+10
1548	2,323735E+09	2,323744E+09	3,586761E+09	3,586785E+09	4,647479E+09	7,173546E+09	1,182103E+10
1549	2,323834E+09	2,323872E+09	3,586794E+09	3,586740E+09	4,647705E+09	7,173533E+09	1,182124E+10
1550	2,323724E+09	2,323734E+09	3,586765E+09	3,586797E+09	4,647458E+09	7,173563E+09	1,182102E+10
1551	2,323791E+09	2,323812E+09	3,586813E+09	3,586769E+09	4,647602E+09	7,173582E+09	1,182118E+10
1552	2,323800E+09	2,323797E+09	3,586853E+09	3,586761E+09	4,647597E+09	7,173614E+09	1,182121E+10
1553	2,323685E+09	2,323674E+09	3,586766E+09	3,586832E+09	4,647359E+09	7,173599E+09	1,182096E+10
1554	2,323781E+09	2,323781E+09	3,586802E+09	3,586812E+09	4,647562E+09	7,173613E+09	1,182118E+10
1555	2,323696E+09	2,323680E+09	3,586809E+09	3,586830E+09	4,647376E+09	7,173639E+09	1,182101E+10
1556	2,323630E+09	2,323643E+09	3,586784E+09	3,586817E+09	4,647273E+09	7,173601E+09	1,182087E+10
1557	2,323727E+09	2,323742E+09	3,586848E+09	3,586771E+09	4,647468E+09	7,173619E+09	1,182109E+10

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							
1558	2,323611E+09	2,323577E+09	3,586824E+09	3,586824E+09	4,647188E+09	7,173647E+09	1,182084E+10
1559	2,323629E+09	2,323641E+09	3,586839E+09	3,586816E+09	4,647270E+09	7,173655E+09	1,182093E+10
1560	2,323679E+09	2,323708E+09	3,586863E+09	3,586804E+09	4,647386E+09	7,173667E+09	1,182105E+10
1561	2,323574E+09	2,323604E+09	3,586765E+09	3,586854E+09	4,647178E+09	7,173618E+09	1,182080E+10
1562	2,323710E+09	2,323737E+09	3,586811E+09	3,586803E+09	4,647447E+09	7,173614E+09	1,182106E+10
1563	2,323734E+09	2,323709E+09	3,586824E+09	3,586779E+09	4,647443E+09	7,173603E+09	1,182105E+10
1564	2,323705E+09	2,323688E+09	3,586750E+09	3,586769E+09	4,647393E+09	7,173519E+09	1,182091E+10
1565	2,323861E+09	2,323866E+09	3,586777E+09	3,586725E+09	4,647728E+09	7,173502E+09	1,182123E+10
1566	2,323797E+09	2,323786E+09	3,586729E+09	3,586756E+09	4,647583E+09	7,173486E+09	1,182107E+10
1567	2,323808E+09	2,323850E+09	3,586729E+09	3,586744E+09	4,647658E+09	7,173473E+09	1,182113E+10
1568	2,323901E+09	2,323946E+09	3,586794E+09	3,586710E+09	4,647847E+09	7,173505E+09	1,182135E+10
1569	2,323796E+09	2,323802E+09	3,586727E+09	3,586756E+09	4,647598E+09	7,173483E+09	1,182108E+10
1570	2,323876E+09	2,323873E+09	3,586773E+09	3,586743E+09	4,647749E+09	7,173516E+09	1,182127E+10
1571	2,323881E+09	2,323850E+09	3,586789E+09	3,586755E+09	4,647732E+09	7,173545E+09	1,182128E+10
1572	2,323762E+09	2,323755E+09	3,586697E+09	3,586785E+09	4,647517E+09	7,173482E+09	1,182100E+10
1573	2,323847E+09	2,323874E+09	3,586753E+09	3,586750E+09	4,647721E+09	7,173503E+09	1,182122E+10
1574	2,323768E+09	2,323748E+09	3,586762E+09	3,586758E+09	4,647517E+09	7,173521E+09	1,182104E+10
1575	2,323713E+09	2,323712E+09	3,586767E+09	3,586756E+09	4,647425E+09	7,173523E+09	1,182095E+10
1576	2,323792E+09	2,323802E+09	3,586836E+09	3,586742E+09	4,647594E+09	7,173578E+09	1,182117E+10
1577	2,323669E+09	2,323664E+09	3,586761E+09	3,586794E+09	4,647334E+09	7,173554E+09	1,182089E+10
1578	2,323699E+09	2,323733E+09	3,586780E+09	3,586791E+09	4,647432E+09	7,173571E+09	1,182100E+10
1579	2,323758E+09	2,323779E+09	3,586817E+09	3,586780E+09	4,647537E+09	7,173597E+09	1,182113E+10
1580	2,323676E+09	2,323685E+09	3,586728E+09	3,586780E+09	4,647360E+09	7,173508E+09	1,182087E+10
1581	2,323812E+09	2,323823E+09	3,586776E+09	3,586735E+09	4,647635E+09	7,173511E+09	1,182115E+10
1582	2,323836E+09	2,323789E+09	3,586757E+09	3,586725E+09	4,647625E+09	7,173483E+09	1,182111E+10
1583	2,323801E+09	2,323792E+09	3,586691E+09	3,586728E+09	4,647592E+09	7,173419E+09	1,182101E+10
1584	2,323930E+09	2,323970E+09	3,586733E+09	3,586699E+09	4,647899E+09	7,173432E+09	1,182133E+10
1585	2,323864E+09	2,323891E+09	3,586670E+09	3,586701E+09	4,647756E+09	7,173371E+09	1,182113E+10
1586	2,323896E+09	2,323931E+09	3,586702E+09	3,586691E+09	4,647827E+09	7,173393E+09	1,182122E+10
1587	2,323994E+09	2,323998E+09	3,586766E+09	3,586679E+09	4,647992E+09	7,173445E+09	1,182144E+10
1588	2,323891E+09	2,323868E+09	3,586679E+09	3,586705E+09	4,647760E+09	7,173384E+09	1,182114E+10
1589	2,323949E+09	2,323960E+09	3,586717E+09	3,586705E+09	4,647909E+09	7,173423E+09	1,182133E+10
1590	2,323949E+09	2,323931E+09	3,586710E+09	3,586718E+09	4,647879E+09	7,173428E+09	1,182131E+10
1591	2,323833E+09	2,323838E+09	3,586664E+09	3,586735E+09	4,647671E+09	7,173399E+09	1,182107E+10
1592	2,323908E+09	2,323939E+09	3,586752E+09	3,586707E+09	4,647848E+09	7,173459E+09	1,182131E+10
1593	2,323833E+09	2,323814E+09	3,586725E+09	3,586701E+09	4,647647E+09	7,173426E+09	1,182107E+10
1594	2,323786E+09	2,323778E+09	3,586737E+09	3,586726E+09	4,647564E+09	7,173463E+09	1,182103E+10
1595	2,323858E+09	2,323865E+09	3,586785E+09	3,586736E+09	4,647723E+09	7,173521E+09	1,182124E+10
1596	2,323742E+09	2,323748E+09	3,586698E+09	3,586751E+09	4,647490E+09	7,173449E+09	1,182094E+10
1597	2,323776E+09	2,323820E+09	3,586738E+09	3,586736E+09	4,647596E+09	7,173474E+09	1,182107E+10
1598	2,323856E+09	2,323844E+09	3,586756E+09	3,586715E+09	4,647700E+09	7,173471E+09	1,182117E+10
1599	2,323787E+09	2,323765E+09	3,586685E+09	3,586713E+09	4,647552E+09	7,173397E+09	1,182095E+10
1600	2,323903E+09	2,323912E+09	3,586730E+09	3,586692E+09	4,647815E+09	7,173422E+09	1,182124E+10
1601	2,323912E+09	2,323906E+09	3,586673E+09	3,586670E+09	4,647819E+09	7,173343E+09	1,182116E+10
1602	2,323882E+09	2,323910E+09	3,586640E+09	3,586685E+09	4,647792E+09	7,173325E+09	1,182112E+10
1603	2,324008E+09	2,324056E+09	3,586709E+09	3,586667E+09	4,648064E+09	7,173376E+09	1,182144E+10
1604	2,323958E+09	2,323974E+09	3,586656E+09	3,586640E+09	4,647932E+09	7,173296E+09	1,182123E+10
1605	2,323986E+09	2,324004E+09	3,586686E+09	3,586647E+09	4,647990E+09	7,173333E+09	1,182132E+10
1606	2,324080E+09	2,324056E+09	3,586704E+09	3,586656E+09	4,648136E+09	7,173360E+09	1,182150E+10

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							
1607	2,323976E+09	2,323950E+09	3,586617E+09	3,586679E+09	4,647926E+09	7,173296E+09	1,182122E+10
1608	2,324010E+09	2,324038E+09	3,586662E+09	3,586681E+09	4,648048E+09	7,173343E+09	1,182139E+10
1609	2,324011E+09	2,324013E+09	3,586646E+09	3,586650E+09	4,648024E+09	7,173296E+09	1,182132E+10
1610	2,323916E+09	2,323905E+09	3,586634E+09	3,586665E+09	4,647821E+09	7,173299E+09	1,182112E+10
1611	2,323982E+09	2,323986E+09	3,586729E+09	3,586663E+09	4,647968E+09	7,173392E+09	1,182136E+10
1612	2,323908E+09	2,323887E+09	3,586688E+09	3,586648E+09	4,647795E+09	7,173335E+09	1,182113E+10
1613	2,323844E+09	2,323865E+09	3,586694E+09	3,586693E+09	4,647709E+09	7,173388E+09	1,182110E+10
1614	2,323918E+09	2,323941E+09	3,586722E+09	3,586711E+09	4,647859E+09	7,173433E+09	1,182129E+10
1615	2,323824E+09	2,323828E+09	3,586666E+09	3,586706E+09	4,647652E+09	7,173373E+09	1,182102E+10
1616	2,323857E+09	2,323889E+09	3,586714E+09	3,586698E+09	4,647746E+09	7,173412E+09	1,182116E+10
1617	2,323946E+09	2,323925E+09	3,586692E+09	3,586655E+09	4,647870E+09	7,173348E+09	1,182122E+10
1618	2,323889E+09	2,323857E+09	3,586628E+09	3,586669E+09	4,647746E+09	7,173297E+09	1,182104E+10
1619	2,323987E+09	2,324008E+09	3,586670E+09	3,586665E+09	4,647994E+09	7,173335E+09	1,182133E+10
1620	2,324000E+09	2,324021E+09	3,586619E+09	3,586606E+09	4,648021E+09	7,173225E+09	1,182125E+10
1621	2,323967E+09	2,324011E+09	3,586621E+09	3,586620E+09	4,647977E+09	7,173241E+09	1,182122E+10
1622	2,324101E+09	2,324123E+09	3,586673E+09	3,586613E+09	4,648224E+09	7,173285E+09	1,182151E+10
1623	2,324062E+09	2,324041E+09	3,586628E+09	3,586596E+09	4,648104E+09	7,173224E+09	1,182133E+10
1624	2,324066E+09	2,324076E+09	3,586640E+09	3,586632E+09	4,648142E+09	7,173272E+09	1,182141E+10
1625	2,324149E+09	2,324146E+09	3,586609E+09	3,586614E+09	4,648294E+09	7,173224E+09	1,182152E+10
1626	2,324053E+09	2,324042E+09	3,586555E+09	3,586634E+09	4,648095E+09	7,173189E+09	1,182128E+10
1627	2,324082E+09	2,324108E+09	3,586628E+09	3,586633E+09	4,648190E+09	7,173261E+09	1,182145E+10
1628	2,324092E+09	2,324085E+09	3,586623E+09	3,586572E+09	4,648177E+09	7,173196E+09	1,182137E+10
1629	2,323988E+09	2,323974E+09	3,586628E+09	3,586613E+09	4,647961E+09	7,173241E+09	1,182120E+10
1630	2,324043E+09	2,324043E+09	3,586681E+09	3,586642E+09	4,648086E+09	7,173322E+09	1,182141E+10
1631	2,323973E+09	2,323965E+09	3,586645E+09	3,586629E+09	4,647938E+09	7,173274E+09	1,182121E+10
1632	2,323897E+09	2,323940E+09	3,586650E+09	3,586680E+09	4,647837E+09	7,173329E+09	1,182117E+10
1633	2,323987E+09	2,324012E+09	3,586657E+09	3,586651E+09	4,647999E+09	7,173308E+09	1,182131E+10
1634	2,323928E+09	2,323899E+09	3,586621E+09	3,586644E+09	4,647827E+09	7,173264E+09	1,182109E+10
1635	2,323958E+09	2,323956E+09	3,586663E+09	3,586650E+09	4,647914E+09	7,173314E+09	1,182123E+10
1636	2,324046E+09	2,324028E+09	3,586630E+09	3,586586E+09	4,648074E+09	7,173215E+09	1,182129E+10
1637	2,323972E+09	2,323977E+09	3,586584E+09	3,586611E+09	4,647949E+09	7,173195E+09	1,182114E+10
1638	2,324061E+09	2,324106E+09	3,586624E+09	3,586619E+09	4,648167E+09	7,173243E+09	1,182141E+10
1639	2,324093E+09	2,324114E+09	3,586614E+09	3,586555E+09	4,648207E+09	7,173168E+09	1,182138E+10
1640	2,324050E+09	2,324081E+09	3,586610E+09	3,586594E+09	4,648131E+09	7,173204E+09	1,182133E+10
1641	2,324186E+09	2,324192E+09	3,586614E+09	3,586575E+09	4,648378E+09	7,173189E+09	1,182157E+10
1642	2,324161E+09	2,324122E+09	3,586554E+09	3,586574E+09	4,648283E+09	7,173129E+09	1,182141E+10
1643	2,324145E+09	2,324154E+09	3,586558E+09	3,586614E+09	4,648299E+09	7,173172E+09	1,182147E+10
1644	2,324232E+09	2,324242E+09	3,586540E+09	3,586543E+09	4,648475E+09	7,173083E+09	1,182156E+10
1645	2,324134E+09	2,324127E+09	3,586530E+09	3,586549E+09	4,648261E+09	7,173079E+09	1,182134E+10
1646	2,324159E+09	2,324165E+09	3,586598E+09	3,586564E+09	4,648324E+09	7,173162E+09	1,182149E+10
1647	2,324172E+09	2,324152E+09	3,586610E+09	3,586520E+09	4,648324E+09	7,173130E+09	1,182145E+10
1648	2,324036E+09	2,324044E+09	3,586599E+09	3,586605E+09	4,648080E+09	7,173204E+09	1,182128E+10
1649	2,324083E+09	2,324122E+09	3,586612E+09	3,586617E+09	4,648205E+09	7,173229E+09	1,182143E+10
1650	2,324040E+09	2,324041E+09	3,586597E+09	3,586606E+09	4,648081E+09	7,173203E+09	1,182128E+10
1651	2,323973E+09	2,323998E+09	3,586614E+09	3,586649E+09	4,647970E+09	7,173263E+09	1,182123E+10
1652	2,324089E+09	2,324083E+09	3,586614E+09	3,586578E+09	4,648171E+09	7,173192E+09	1,182136E+10
1653	2,324027E+09	2,323983E+09	3,586589E+09	3,586578E+09	4,648011E+09	7,173167E+09	1,182118E+10
1654	2,324047E+09	2,324043E+09	3,586597E+09	3,586606E+09	4,648090E+09	7,173203E+09	1,182129E+10
1655	2,324133E+09	2,324137E+09	3,586583E+09	3,586539E+09	4,648270E+09	7,173122E+09	1,182139E+10

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							
1656	2,324041E+09	2,324080E+09	3,586554E+09	3,586580E+09	4,648121E+09	7,173134E+09	1,182125E+10
1657	2,324137E+09	2,324189E+09	3,586573E+09	3,586554E+09	4,648326E+09	7,173128E+09	1,182145E+10
1658	2,324196E+09	2,324189E+09	3,586572E+09	3,586511E+09	4,648385E+09	7,173083E+09	1,182147E+10
1659	2,324149E+09	2,324150E+09	3,586553E+09	3,586569E+09	4,648299E+09	7,173122E+09	1,182142E+10
1660	2,324285E+09	2,324287E+09	3,586531E+09	3,586521E+09	4,648571E+09	7,173052E+09	1,182162E+10
1661	2,324247E+09	2,324232E+09	3,586495E+09	3,586515E+09	4,648480E+09	7,173011E+09	1,182149E+10
1662	2,324223E+09	2,324243E+09	3,586499E+09	3,586555E+09	4,648466E+09	7,173054E+09	1,182152E+10
1663	2,324318E+09	2,324324E+09	3,586532E+09	3,586473E+09	4,648642E+09	7,173005E+09	1,182165E+10
1664	2,324198E+09	2,324195E+09	3,586531E+09	3,586512E+09	4,648393E+09	7,173044E+09	1,182144E+10
1665	2,324210E+09	2,324224E+09	3,586561E+09	3,586526E+09	4,648434E+09	7,173087E+09	1,182152E+10
1666	2,324236E+09	2,324221E+09	3,586563E+09	3,586516E+09	4,648456E+09	7,173079E+09	1,182154E+10
1667	2,324091E+09	2,324107E+09	3,586541E+09	3,586607E+09	4,648199E+09	7,173147E+09	1,182135E+10
1668	2,324157E+09	2,324193E+09	3,586552E+09	3,586564E+09	4,648351E+09	7,173117E+09	1,182147E+10
1669	2,324131E+09	2,324110E+09	3,586566E+09	3,586533E+09	4,648241E+09	7,173098E+09	1,182134E+10
1670	2,324070E+09	2,324055E+09	3,586559E+09	3,586585E+09	4,648125E+09	7,173144E+09	1,182127E+10
1671	2,324192E+09	2,324166E+09	3,586576E+09	3,586516E+09	4,648357E+09	7,173092E+09	1,182145E+10
1672	2,324098E+09	2,324086E+09	3,586541E+09	3,586543E+09	4,648184E+09	7,173084E+09	1,182127E+10
1673	2,324102E+09	2,324150E+09	3,586531E+09	3,586553E+09	4,648252E+09	7,173085E+09	1,182134E+10
1674	2,324213E+09	2,324240E+09	3,586544E+09	3,586501E+09	4,648452E+09	7,173045E+09	1,182150E+10
1675	2,324123E+09	2,324153E+09	3,586529E+09	3,586551E+09	4,648275E+09	7,173080E+09	1,182136E+10
1676	2,324240E+09	2,324266E+09	3,586533E+09	3,586500E+09	4,648506E+09	7,173033E+09	1,182154E+10
1677	2,324303E+09	2,324272E+09	3,586528E+09	3,586464E+09	4,648574E+09	7,172993E+09	1,182157E+10
1678	2,324245E+09	2,324234E+09	3,586466E+09	3,586537E+09	4,648479E+09	7,173003E+09	1,182148E+10
1679	2,324381E+09	2,324388E+09	3,586469E+09	3,586466E+09	4,648769E+09	7,172935E+09	1,182170E+10
1680	2,324319E+09	2,324329E+09	3,586459E+09	3,586460E+09	4,648648E+09	7,172919E+09	1,182157E+10
1681	2,324291E+09	2,324317E+09	3,586461E+09	3,586472E+09	4,648608E+09	7,172932E+09	1,182154E+10
1682	2,324401E+09	2,324391E+09	3,586506E+09	3,586428E+09	4,648792E+09	7,172934E+09	1,182173E+10
1683	2,324263E+09	2,324253E+09	3,586500E+09	3,586502E+09	4,648516E+09	7,173001E+09	1,182152E+10
1684	2,324274E+09	2,324300E+09	3,586502E+09	3,586496E+09	4,648574E+09	7,172998E+09	1,182157E+10
1685	2,324297E+09	2,324303E+09	3,586524E+09	3,586483E+09	4,648600E+09	7,173007E+09	1,182161E+10
1686	2,324163E+09	2,324171E+09	3,586487E+09	3,586569E+09	4,648334E+09	7,173057E+09	1,182139E+10
1687	2,324251E+09	2,324253E+09	3,586529E+09	3,586503E+09	4,648504E+09	7,173032E+09	1,182154E+10
1688	2,324210E+09	2,324182E+09	3,586540E+09	3,586491E+09	4,648392E+09	7,173031E+09	1,182142E+10
1689	2,324142E+09	2,324132E+09	3,586492E+09	3,586527E+09	4,648273E+09	7,173019E+09	1,182129E+10
1690	2,324268E+09	2,324263E+09	3,586509E+09	3,586488E+09	4,648531E+09	7,172997E+09	1,182153E+10
1691	2,324163E+09	2,324184E+09	3,586487E+09	3,586522E+09	4,648347E+09	7,173010E+09	1,182136E+10
1692	2,324184E+09	2,324243E+09	3,586485E+09	3,586486E+09	4,648426E+09	7,172971E+09	1,182140E+10
1693	2,324309E+09	2,324322E+09	3,586528E+09	3,586430E+09	4,648631E+09	7,172958E+09	1,182159E+10
1694	2,324230E+09	2,324220E+09	3,586475E+09	3,586502E+09	4,648451E+09	7,172977E+09	1,182143E+10
1695	2,324353E+09	2,324348E+09	3,586484E+09	3,586450E+09	4,648701E+09	7,172934E+09	1,182164E+10
1696	2,324384E+09	2,324379E+09	3,586467E+09	3,586434E+09	4,648764E+09	7,172901E+09	1,182166E+10
1697	2,324315E+09	2,324338E+09	3,586389E+09	3,586476E+09	4,648653E+09	7,172865E+09	1,182152E+10
1698	2,324465E+09	2,324485E+09	3,586429E+09	3,586417E+09	4,648950E+09	7,172847E+09	1,182180E+10
1699	2,324396E+09	2,324401E+09	3,586444E+09	3,586422E+09	4,648797E+09	7,172866E+09	1,182166E+10
1700	2,324372E+09	2,324386E+09	3,586436E+09	3,586418E+09	4,648758E+09	7,172854E+09	1,182161E+10
1701	2,324475E+09	2,324462E+09	3,586484E+09	3,586396E+09	4,648938E+09	7,172880E+09	1,182182E+10
1702	2,324329E+09	2,324318E+09	3,586433E+09	3,586496E+09	4,648647E+09	7,172929E+09	1,182158E+10
1703	2,324348E+09	2,324371E+09	3,586457E+09	3,586465E+09	4,648720E+09	7,172922E+09	1,182164E+10
1704	2,324361E+09	2,324370E+09	3,586485E+09	3,586441E+09	4,648731E+09	7,172926E+09	1,182166E+10

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							
1705	2,324234E+09	2,324226E+09	3,586430E+09	3,586491E+09	4,648461E+09	7,172921E+09	1,182138E+10
1706	2,324343E+09	2,324323E+09	3,586474E+09	3,586452E+09	4,648666E+09	7,172926E+09	1,182159E+10
1707	2,324283E+09	2,324259E+09	3,586486E+09	3,586459E+09	4,648542E+09	7,172945E+09	1,182149E+10
1708	2,324211E+09	2,324234E+09	3,586433E+09	3,586471E+09	4,648445E+09	7,172903E+09	1,182135E+10
1709	2,324336E+09	2,324367E+09	3,586481E+09	3,586432E+09	4,648704E+09	7,172913E+09	1,182162E+10
1710	2,324242E+09	2,324263E+09	3,586456E+09	3,586480E+09	4,648505E+09	7,172936E+09	1,182144E+10
1711	2,324286E+09	2,324312E+09	3,586476E+09	3,586433E+09	4,648597E+09	7,172909E+09	1,182151E+10
1712	2,324398E+09	2,324398E+09	3,586500E+09	3,586402E+09	4,648796E+09	7,172903E+09	1,182170E+10
1713	2,324318E+09	2,324302E+09	3,586396E+09	3,586459E+09	4,648620E+09	7,172855E+09	1,182147E+10
1714	2,324451E+09	2,324451E+09	3,586395E+09	3,586428E+09	4,648902E+09	7,172823E+09	1,182173E+10
1715	2,324467E+09	2,324481E+09	3,586400E+09	3,586402E+09	4,648947E+09	7,172802E+09	1,182175E+10
1716	2,324408E+09	2,324434E+09	3,586341E+09	3,586391E+09	4,648842E+09	7,172732E+09	1,182157E+10
1717	2,324558E+09	2,324566E+09	3,586418E+09	3,586338E+09	4,649124E+09	7,172756E+09	1,182188E+10
1718	2,324486E+09	2,324469E+09	3,586407E+09	3,586381E+09	4,648955E+09	7,172788E+09	1,182174E+10
1719	2,324456E+09	2,324456E+09	3,586404E+09	3,586383E+09	4,648913E+09	7,172787E+09	1,182170E+10
1720	2,324524E+09	2,324550E+09	3,586441E+09	3,586385E+09	4,649074E+09	7,172826E+09	1,182190E+10
1721	2,324380E+09	2,324391E+09	3,586365E+09	3,586451E+09	4,648771E+09	7,172817E+09	1,182159E+10
1722	2,324422E+09	2,324434E+09	3,586408E+09	3,586430E+09	4,648856E+09	7,172839E+09	1,182169E+10
1723	2,324435E+09	2,324424E+09	3,586454E+09	3,586406E+09	4,648859E+09	7,172861E+09	1,182172E+10
1724	2,324319E+09	2,324292E+09	3,586383E+09	3,586425E+09	4,648611E+09	7,172808E+09	1,182142E+10
1725	2,324419E+09	2,324405E+09	3,586439E+09	3,586398E+09	4,648824E+09	7,172837E+09	1,182166E+10
1726	2,324353E+09	2,324349E+09	3,586423E+09	3,586428E+09	4,648702E+09	7,172851E+09	1,182155E+10
1727	2,324289E+09	2,324321E+09	3,586406E+09	3,586419E+09	4,648610E+09	7,172825E+09	1,182143E+10
1728	2,324402E+09	2,324450E+09	3,586467E+09	3,586387E+09	4,648852E+09	7,172853E+09	1,182171E+10
1729	2,324325E+09	2,324326E+09	3,586408E+09	3,586418E+09	4,648652E+09	7,172827E+09	1,182148E+10
1730	2,324391E+09	2,324387E+09	3,586414E+09	3,586407E+09	4,648778E+09	7,172822E+09	1,182160E+10
1731	2,324490E+09	2,324486E+09	3,586429E+09	3,586386E+09	4,648975E+09	7,172816E+09	1,182179E+10
1732	2,324411E+09	2,324416E+09	3,586314E+09	3,586399E+09	4,648827E+09	7,172713E+09	1,182154E+10
1733	2,324543E+09	2,324565E+09	3,586353E+09	3,586357E+09	4,649108E+09	7,172710E+09	1,182182E+10
1734	2,324561E+09	2,324570E+09	3,586363E+09	3,586342E+09	4,649131E+09	7,172705E+09	1,182184E+10
1735	2,324510E+09	2,324511E+09	3,586340E+09	3,586328E+09	4,649021E+09	7,172668E+09	1,182169E+10
1736	2,324628E+09	2,324643E+09	3,586403E+09	3,586307E+09	4,649270E+09	7,172710E+09	1,182198E+10
1737	2,324545E+09	2,324537E+09	3,586346E+09	3,586352E+09	4,649082E+09	7,172699E+09	1,182178E+10
1738	2,324524E+09	2,324536E+09	3,586333E+09	3,586380E+09	4,649060E+09	7,172713E+09	1,182177E+10
1739	2,324583E+09	2,324614E+09	3,586385E+09	3,586367E+09	4,649197E+09	7,172752E+09	1,182195E+10
1740	2,324460E+09	2,324453E+09	3,586316E+09	3,586373E+09	4,648913E+09	7,172689E+09	1,182160E+10
1741	2,324513E+09	2,324494E+09	3,586376E+09	3,586351E+09	4,649007E+09	7,172727E+09	1,182173E+10
1742	2,324521E+09	2,324488E+09	3,586400E+09	3,586355E+09	4,649009E+09	7,172755E+09	1,182176E+10
1743	2,324401E+09	2,324375E+09	3,586349E+09	3,586371E+09	4,648776E+09	7,172720E+09	1,182150E+10
1744	2,324464E+09	2,324507E+09	3,586408E+09	3,586365E+09	4,648970E+09	7,172773E+09	1,182174E+10
1745	2,324405E+09	2,324433E+09	3,586383E+09	3,586378E+09	4,648838E+09	7,172761E+09	1,182160E+10
1746	2,324369E+09	2,324395E+09	3,586376E+09	3,586395E+09	4,648764E+09	7,172770E+09	1,182153E+10
1747	2,324484E+09	2,324511E+09	3,586440E+09	3,586372E+09	4,648995E+09	7,172811E+09	1,182181E+10
1748	2,324427E+09	2,324404E+09	3,586347E+09	3,586371E+09	4,648831E+09	7,172717E+09	1,182155E+10
1749	2,324493E+09	2,324483E+09	3,586347E+09	3,586365E+09	4,648976E+09	7,172712E+09	1,182169E+10
1750	2,324589E+09	2,324593E+09	3,586343E+09	3,586348E+09	4,649182E+09	7,172690E+09	1,182187E+10
1751	2,324519E+09	2,324518E+09	3,586271E+09	3,586317E+09	4,649037E+09	7,172588E+09	1,182163E+10
1752	2,324624E+09	2,324663E+09	3,586338E+09	3,586279E+09	4,649287E+09	7,172617E+09	1,182190E+10
1753	2,324646E+09	2,324647E+09	3,586325E+09	3,586264E+09	4,649293E+09	7,172589E+09	1,182188E+10

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							
1754	2,324597E+09	2,324587E+09	3,586294E+09	3,586305E+09	4,649184E+09	7,172599E+09	1,182178E+10
1755	2,324687E+09	2,324720E+09	3,586355E+09	3,586307E+09	4,649407E+09	7,172663E+09	1,182207E+10
1756	2,324612E+09	2,324621E+09	3,586280E+09	3,586314E+09	4,649233E+09	7,172594E+09	1,182183E+10
1757	2,324599E+09	2,324611E+09	3,586294E+09	3,586331E+09	4,649209E+09	7,172625E+09	1,182183E+10
1758	2,324668E+09	2,324671E+09	3,586341E+09	3,586320E+09	4,649339E+09	7,172661E+09	1,182200E+10
1759	2,324557E+09	2,324509E+09	3,586298E+09	3,586304E+09	4,649067E+09	7,172602E+09	1,182167E+10
1760	2,324576E+09	2,324570E+09	3,586352E+09	3,586306E+09	4,649146E+09	7,172657E+09	1,182180E+10
1761	2,324577E+09	2,324566E+09	3,586337E+09	3,586313E+09	4,649143E+09	7,172651E+09	1,182179E+10
1762	2,324463E+09	2,324467E+09	3,586292E+09	3,586361E+09	4,648929E+09	7,172653E+09	1,182158E+10
1763	2,324516E+09	2,324580E+09	3,586378E+09	3,586345E+09	4,649096E+09	7,172723E+09	1,182182E+10
1764	2,324485E+09	2,324499E+09	3,586348E+09	3,586315E+09	4,648985E+09	7,172663E+09	1,182165E+10
1765	2,324471E+09	2,324462E+09	3,586340E+09	3,586338E+09	4,648933E+09	7,172678E+09	1,182161E+10
1766	2,324590E+09	2,324582E+09	3,586366E+09	3,586337E+09	4,649172E+09	7,172703E+09	1,182187E+10
1767	2,324537E+09	2,324504E+09	3,586286E+09	3,586312E+09	4,649041E+09	7,172598E+09	1,182164E+10
1768	2,324573E+09	2,324604E+09	3,586290E+09	3,586305E+09	4,649177E+09	7,172594E+09	1,182177E+10
1769	2,324668E+09	2,324692E+09	3,586289E+09	3,586268E+09	4,649361E+09	7,172557E+09	1,182192E+10
1770	2,324614E+09	2,324612E+09	3,586245E+09	3,586269E+09	4,649226E+09	7,172514E+09	1,182174E+10
1771	2,324699E+09	2,324734E+09	3,586323E+09	3,586252E+09	4,649434E+09	7,172575E+09	1,182201E+10
1772	2,324728E+09	2,324723E+09	3,586283E+09	3,586225E+09	4,649451E+09	7,172508E+09	1,182196E+10
1773	2,324678E+09	2,324671E+09	3,586238E+09	3,586282E+09	4,649350E+09	7,172520E+09	1,182187E+10
1774	2,324764E+09	2,324797E+09	3,586278E+09	3,586290E+09	4,649562E+09	7,172569E+09	1,182213E+10
1775	2,324707E+09	2,324692E+09	3,586240E+09	3,586248E+09	4,649400E+09	7,172488E+09	1,182189E+10
1776	2,324675E+09	2,324681E+09	3,586264E+09	3,586261E+09	4,649356E+09	7,172524E+09	1,182188E+10
1777	2,324746E+09	2,324730E+09	3,586288E+09	3,586247E+09	4,649476E+09	7,172535E+09	1,182201E+10
1778	2,324636E+09	2,324589E+09	3,586245E+09	3,586273E+09	4,649225E+09	7,172519E+09	1,182174E+10
1779	2,324619E+09	2,324655E+09	3,586313E+09	3,586291E+09	4,649275E+09	7,172604E+09	1,182188E+10
1780	2,324629E+09	2,324658E+09	3,586294E+09	3,586267E+09	4,649287E+09	7,172561E+09	1,182185E+10
1781	2,324530E+09	2,324543E+09	3,586274E+09	3,586319E+09	4,649073E+09	7,172593E+09	1,182167E+10
1782	2,324599E+09	2,324637E+09	3,586348E+09	3,586316E+09	4,649236E+09	7,172664E+09	1,182190E+10
1783	2,324595E+09	2,324557E+09	3,586319E+09	3,586260E+09	4,649151E+09	7,172579E+09	1,182173E+10
1784	2,324556E+09	2,324546E+09	3,586289E+09	3,586296E+09	4,649102E+09	7,172585E+09	1,182169E+10
1785	2,324676E+09	2,324676E+09	3,586275E+09	3,586284E+09	4,649352E+09	7,172559E+09	1,182191E+10
1786	2,324629E+09	2,324616E+09	3,586210E+09	3,586269E+09	4,649245E+09	7,172478E+09	1,182172E+10
1787	2,324649E+09	2,324699E+09	3,586257E+09	3,586250E+09	4,649348E+09	7,172507E+09	1,182186E+10
1788	2,324762E+09	2,324779E+09	3,586254E+09	3,586183E+09	4,649540E+09	7,172437E+09	1,182198E+10
1789	2,324713E+09	2,324695E+09	3,586217E+09	3,586215E+09	4,649407E+09	7,172432E+09	1,182184E+10
1790	2,324788E+09	2,324813E+09	3,586266E+09	3,586234E+09	4,649601E+09	7,172500E+09	1,182210E+10
1791	2,324819E+09	2,324813E+09	3,586234E+09	3,586188E+09	4,649632E+09	7,172422E+09	1,182205E+10
1792	2,324745E+09	2,324770E+09	3,586193E+09	3,586244E+09	4,649515E+09	7,172437E+09	1,182195E+10
1793	2,324840E+09	2,324866E+09	3,586224E+09	3,586231E+09	4,649707E+09	7,172454E+09	1,182216E+10
1794	2,324797E+09	2,324764E+09	3,586202E+09	3,586207E+09	4,649561E+09	7,172408E+09	1,182197E+10
1795	2,324743E+09	2,324742E+09	3,586238E+09	3,586228E+09	4,649485E+09	7,172466E+09	1,182195E+10
1796	2,324812E+09	2,324802E+09	3,586239E+09	3,586200E+09	4,649614E+09	7,172440E+09	1,182205E+10
1797	2,324699E+09	2,324678E+09	3,586200E+09	3,586246E+09	4,649377E+09	7,172446E+09	1,182182E+10
1798	2,324678E+09	2,324728E+09	3,586261E+09	3,586268E+09	4,649406E+09	7,172530E+09	1,182194E+10
1799	2,324711E+09	2,324720E+09	3,586278E+09	3,586204E+09	4,649431E+09	7,172482E+09	1,182191E+10
1800	2,324607E+09	2,324608E+09	3,586250E+09	3,586256E+09	4,649215E+09	7,172506E+09	1,182172E+10
1801	2,324687E+09	2,324688E+09	3,586282E+09	3,586259E+09	4,649375E+09	7,172541E+09	1,182192E+10
1802	2,324690E+09	2,324645E+09	3,586244E+09	3,586233E+09	4,649336E+09	7,172477E+09	1,182181E+10

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							
1803	2,324626E+09	2,324648E+09	3,586221E+09	3,586267E+09	4,649274E+09	7,172488E+09	1,182176E+10
1804	2,324754E+09	2,324785E+09	3,586213E+09	3,586214E+09	4,649539E+09	7,172427E+09	1,182197E+10
1805	2,324722E+09	2,324721E+09	3,586181E+09	3,586201E+09	4,649442E+09	7,172383E+09	1,182183E+10
1806	2,324742E+09	2,324781E+09	3,586231E+09	3,586204E+09	4,649522E+09	7,172435E+09	1,182196E+10
1807	2,324867E+09	2,324857E+09	3,586238E+09	3,586130E+09	4,649724E+09	7,172369E+09	1,182209E+10
1808	2,324792E+09	2,324789E+09	3,586178E+09	3,586188E+09	4,649581E+09	7,172366E+09	1,182195E+10
1809	2,324865E+09	2,324899E+09	3,586185E+09	3,586208E+09	4,649763E+09	7,172393E+09	1,182216E+10
1810	2,324908E+09	2,324907E+09	3,586165E+09	3,586164E+09	4,649815E+09	7,172329E+09	1,182214E+10
1811	2,324819E+09	2,324843E+09	3,586155E+09	3,586198E+09	4,649662E+09	7,172353E+09	1,182202E+10
1812	2,324929E+09	2,324931E+09	3,586178E+09	3,586149E+09	4,649860E+09	7,172327E+09	1,182219E+10
1813	2,324886E+09	2,324836E+09	3,586160E+09	3,586149E+09	4,649722E+09	7,172309E+09	1,182203E+10
1814	2,324812E+09	2,324818E+09	3,586187E+09	3,586200E+09	4,649630E+09	7,172388E+09	1,182202E+10
1815	2,324881E+09	2,324886E+09	3,586203E+09	3,586151E+09	4,649767E+09	7,172354E+09	1,182212E+10
1816	2,324746E+09	2,324764E+09	3,586181E+09	3,586203E+09	4,649509E+09	7,172384E+09	1,182189E+10
1817	2,324739E+09	2,324782E+09	3,586228E+09	3,586222E+09	4,649521E+09	7,172450E+09	1,182197E+10
1818	2,324794E+09	2,324776E+09	3,586246E+09	3,586179E+09	4,649570E+09	7,172425E+09	1,182199E+10
1819	2,324678E+09	2,324665E+09	3,586212E+09	3,586237E+09	4,649344E+09	7,172450E+09	1,182179E+10
1820	2,324769E+09	2,324765E+09	3,586203E+09	3,586214E+09	4,649534E+09	7,172417E+09	1,182195E+10
1821	2,324777E+09	2,324753E+09	3,586166E+09	3,586193E+09	4,649530E+09	7,172358E+09	1,182189E+10
1822	2,324712E+09	2,324748E+09	3,586160E+09	3,586217E+09	4,649460E+09	7,172377E+09	1,182184E+10
1823	2,324858E+09	2,324874E+09	3,586193E+09	3,586124E+09	4,649732E+09	7,172317E+09	1,182205E+10
1824	2,324812E+09	2,324814E+09	3,586170E+09	3,586128E+09	4,649626E+09	7,172298E+09	1,182192E+10
1825	2,324833E+09	2,324855E+09	3,586181E+09	3,586157E+09	4,649687E+09	7,172338E+09	1,182203E+10
1826	2,324956E+09	2,324955E+09	3,586181E+09	3,586119E+09	4,649911E+09	7,172300E+09	1,182221E+10
1827	2,324860E+09	2,324886E+09	3,586124E+09	3,586177E+09	4,649746E+09	7,172301E+09	1,182205E+10
1828	2,324944E+09	2,324982E+09	3,586125E+09	3,586154E+09	4,649927E+09	7,172280E+09	1,182221E+10
1829	2,325004E+09	2,324990E+09	3,586124E+09	3,586111E+09	4,649995E+09	7,172235E+09	1,182223E+10
1830	2,324914E+09	2,324905E+09	3,586113E+09	3,586149E+09	4,649819E+09	7,172262E+09	1,182208E+10
1831	2,325023E+09	2,324996E+09	3,586150E+09	3,586085E+09	4,650019E+09	7,172235E+09	1,182225E+10
1832	2,324947E+09	2,324928E+09	3,586123E+09	3,586104E+09	4,649875E+09	7,172227E+09	1,182210E+10
1833	2,324864E+09	2,324892E+09	3,586124E+09	3,586166E+09	4,649756E+09	7,172291E+09	1,182205E+10
1834	2,324940E+09	2,324963E+09	3,586166E+09	3,586126E+09	4,649903E+09	7,172292E+09	1,182220E+10
1835	2,324802E+09	2,324818E+09	3,586161E+09	3,586170E+09	4,649619E+09	7,172332E+09	1,182195E+10
1836	2,324816E+09	2,324827E+09	3,586180E+09	3,586165E+09	4,649643E+09	7,172345E+09	1,182199E+10
1837	2,324884E+09	2,324846E+09	3,586182E+09	3,586143E+09	4,649731E+09	7,172325E+09	1,182206E+10
1838	2,324761E+09	2,324751E+09	3,586136E+09	3,586207E+09	4,649512E+09	7,172343E+09	1,182185E+10
1839	2,324859E+09	2,324868E+09	3,586149E+09	3,586147E+09	4,649727E+09	7,172296E+09	1,182202E+10
1840	2,324852E+09	2,324867E+09	3,586140E+09	3,586119E+09	4,649719E+09	7,172259E+09	1,182198E+10
1841	2,324796E+09	2,324829E+09	3,586133E+09	3,586151E+09	4,649626E+09	7,172283E+09	1,182191E+10
1842	2,324951E+09	2,324957E+09	3,586176E+09	3,586087E+09	4,649909E+09	7,172262E+09	1,182217E+10
1843	2,324887E+09	2,324891E+09	3,586148E+09	3,586116E+09	4,649779E+09	7,172264E+09	1,182204E+10
1844	2,324915E+09	2,324938E+09	3,586112E+09	3,586131E+09	4,649853E+09	7,172243E+09	1,182210E+10
1845	2,325046E+09	2,325054E+09	3,586100E+09	3,586099E+09	4,650101E+09	7,172198E+09	1,182230E+10
1846	2,324955E+09	2,324971E+09	3,586059E+09	3,586135E+09	4,649926E+09	7,172194E+09	1,182212E+10
1847	2,325059E+09	2,325055E+09	3,586083E+09	3,586062E+09	4,650113E+09	7,172145E+09	1,182226E+10
1848	2,325095E+09	2,325073E+09	3,586090E+09	3,586026E+09	4,650168E+09	7,172116E+09	1,182228E+10
1849	2,324995E+09	2,324978E+09	3,586056E+09	3,586092E+09	4,649973E+09	7,172149E+09	1,182212E+10
1850	2,325087E+09	2,325088E+09	3,586103E+09	3,586058E+09	4,650175E+09	7,172161E+09	1,182234E+10
1851	2,324985E+09	2,325014E+09	3,586100E+09	3,586088E+09	4,649999E+09	7,172188E+09	1,182219E+10

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							
1852	2,324913E+09	2,324956E+09	3,586091E+09	3,586124E+09	4,649869E+09	7,172215E+09	1,182208E+10
1853	2,325010E+09	2,325023E+09	3,586136E+09	3,586098E+09	4,650032E+09	7,172234E+09	1,182227E+10
1854	2,324883E+09	2,324864E+09	3,586122E+09	3,586147E+09	4,649746E+09	7,172269E+09	1,182202E+10
1855	2,324912E+09	2,324883E+09	3,586131E+09	3,586116E+09	4,649795E+09	7,172246E+09	1,182204E+10
1856	2,324960E+09	2,324943E+09	3,586123E+09	3,586094E+09	4,649902E+09	7,172217E+09	1,182212E+10
1857	2,324839E+09	2,324843E+09	3,586061E+09	3,586153E+09	4,649682E+09	7,172214E+09	1,182190E+10
1858	2,324941E+09	2,324964E+09	3,586116E+09	3,586087E+09	4,649906E+09	7,172204E+09	1,182211E+10
1859	2,324927E+09	2,324949E+09	3,586134E+09	3,586062E+09	4,649876E+09	7,172196E+09	1,182207E+10
1860	2,324882E+09	2,324896E+09	3,586096E+09	3,586092E+09	4,649779E+09	7,172187E+09	1,182197E+10
1861	2,325042E+09	2,325048E+09	3,586118E+09	3,586068E+09	4,650090E+09	7,172186E+09	1,182228E+10
1862	2,324977E+09	2,324984E+09	3,586073E+09	3,586103E+09	4,649960E+09	7,172176E+09	1,182214E+10
1863	2,325015E+09	2,325033E+09	3,586048E+09	3,586078E+09	4,650048E+09	7,172126E+09	1,182217E+10
1864	2,325138E+09	2,325159E+09	3,586059E+09	3,586026E+09	4,650297E+09	7,172085E+09	1,182238E+10
1865	2,325056E+09	2,325046E+09	3,586008E+09	3,586063E+09	4,650102E+09	7,172070E+09	1,182217E+10
1866	2,325154E+09	2,325135E+09	3,586053E+09	3,586008E+09	4,650290E+09	7,172061E+09	1,182235E+10
1867	2,325161E+09	2,325154E+09	3,586063E+09	3,585996E+09	4,650315E+09	7,172060E+09	1,182238E+10
1868	2,325051E+09	2,325059E+09	3,585999E+09	3,586059E+09	4,650109E+09	7,172058E+09	1,182217E+10
1869	2,325142E+09	2,325178E+09	3,586048E+09	3,586042E+09	4,650320E+09	7,172091E+09	1,182241E+10
1870	2,325049E+09	2,325073E+09	3,586069E+09	3,586060E+09	4,650122E+09	7,172129E+09	1,182225E+10
1871	2,325003E+09	2,324999E+09	3,586067E+09	3,586057E+09	4,650002E+09	7,172125E+09	1,182213E+10
1872	2,325092E+09	2,325082E+09	3,586103E+09	3,586037E+09	4,650174E+09	7,172140E+09	1,182231E+10
1873	2,324967E+09	2,324927E+09	3,586051E+09	3,586102E+09	4,649894E+09	7,172153E+09	1,182205E+10
1874	2,324989E+09	2,324978E+09	3,586068E+09	3,586077E+09	4,649968E+09	7,172146E+09	1,182211E+10
1875	2,325016E+09	2,325042E+09	3,586091E+09	3,586054E+09	4,650057E+09	7,172145E+09	1,182220E+10
1876	2,324908E+09	2,324927E+09	3,586031E+09	3,586088E+09	4,649835E+09	7,172119E+09	1,182195E+10
1877	2,325022E+09	2,325047E+09	3,586087E+09	3,586046E+09	4,650069E+09	7,172134E+09	1,182220E+10
1878	2,325016E+09	2,325016E+09	3,586107E+09	3,586039E+09	4,650032E+09	7,172146E+09	1,182218E+10
1879	2,324984E+09	2,324972E+09	3,586044E+09	3,586051E+09	4,649956E+09	7,172095E+09	1,182205E+10
1880	2,325126E+09	2,325152E+09	3,586050E+09	3,586029E+09	4,650278E+09	7,172079E+09	1,182236E+10
1881	2,325072E+09	2,325079E+09	3,585989E+09	3,586056E+09	4,650152E+09	7,172044E+09	1,182220E+10
1882	2,325121E+09	2,325126E+09	3,585997E+09	3,586011E+09	4,650247E+09	7,172008E+09	1,182225E+10
1883	2,325228E+09	2,325241E+09	3,586034E+09	3,585957E+09	4,650469E+09	7,171991E+09	1,182246E+10
1884	2,325145E+09	2,325122E+09	3,585958E+09	3,585989E+09	4,650267E+09	7,171946E+09	1,182221E+10
1885	2,325229E+09	2,325231E+09	3,585996E+09	3,585976E+09	4,650460E+09	7,171972E+09	1,182243E+10
1886	2,325223E+09	2,325244E+09	3,586020E+09	3,585980E+09	4,650467E+09	7,171999E+09	1,182247E+10
1887	2,325121E+09	2,325136E+09	3,585969E+09	3,586014E+09	4,650257E+09	7,171983E+09	1,182224E+10
1888	2,325205E+09	2,325250E+09	3,586036E+09	3,585991E+09	4,650455E+09	7,172027E+09	1,182248E+10
1889	2,325132E+09	2,325117E+09	3,586031E+09	3,586020E+09	4,650249E+09	7,172050E+09	1,182230E+10
1890	2,325090E+09	2,325052E+09	3,586031E+09	3,586025E+09	4,650141E+09	7,172056E+09	1,182220E+10
1891	2,325157E+09	2,325150E+09	3,586059E+09	3,586014E+09	4,650308E+09	7,172073E+09	1,182238E+10
1892	2,325030E+09	2,325010E+09	3,585971E+09	3,586056E+09	4,650040E+09	7,172027E+09	1,182207E+10
1893	2,325058E+09	2,325081E+09	3,586003E+09	3,586038E+09	4,650139E+09	7,172041E+09	1,182218E+10
1894	2,325095E+09	2,325120E+09	3,586058E+09	3,585999E+09	4,650215E+09	7,172057E+09	1,182227E+10
1895	2,325005E+09	2,324994E+09	3,586006E+09	3,586011E+09	4,649999E+09	7,172018E+09	1,182202E+10
1896	2,325107E+09	2,325132E+09	3,586057E+09	3,585987E+09	4,650239E+09	7,172044E+09	1,182228E+10
1897	2,325105E+09	2,325099E+09	3,586035E+09	3,586007E+09	4,650204E+09	7,172042E+09	1,182225E+10
1898	2,325074E+09	2,325076E+09	3,585983E+09	3,586019E+09	4,650150E+09	7,172002E+09	1,182215E+10
1899	2,325205E+09	2,325252E+09	3,586009E+09	3,585986E+09	4,650457E+09	7,171996E+09	1,182245E+10
1900	2,325164E+09	2,325167E+09	3,585938E+09	3,585982E+09	4,650330E+09	7,171920E+09	1,182225E+10

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	2,325220E+09	2,325219E+09	3,585949E+09	3,585959E+09	4,650439E+09	7,171908E+09	1,182235E+10
1902	2,325322E+09	2,325316E+09	3,586001E+09	3,585920E+09	4,650638E+09	7,171921E+09	1,182256E+10
1903	2,325234E+09	2,325207E+09	3,585915E+09	3,585942E+09	4,650441E+09	7,171857E+09	1,182230E+10
1904	2,325291E+09	2,325333E+09	3,585954E+09	3,585936E+09	4,650625E+09	7,171890E+09	1,182251E+10
1905	2,325294E+09	2,325319E+09	3,585970E+09	3,585947E+09	4,650612E+09	7,171917E+09	1,182253E+10
1906	2,325204E+09	2,325196E+09	3,585947E+09	3,585966E+09	4,650400E+09	7,171913E+09	1,182231E+10
1907	2,325276E+09	2,325297E+09	3,586017E+09	3,585951E+09	4,650573E+09	7,171968E+09	1,182254E+10
1908	2,325208E+09	2,325171E+09	3,585966E+09	3,585971E+09	4,650379E+09	7,171937E+09	1,182232E+10
1909	2,325163E+09	2,325138E+09	3,585943E+09	3,586000E+09	4,650301E+09	7,171943E+09	1,182224E+10
1910	2,325221E+09	2,325237E+09	3,586000E+09	3,585984E+09	4,650458E+09	7,171983E+09	1,182244E+10
1911	2,325107E+09	2,325099E+09	3,585934E+09	3,585984E+09	4,650206E+09	7,171918E+09	1,182212E+10
1912	2,325124E+09	2,325168E+09	3,585993E+09	3,585962E+09	4,650292E+09	7,171955E+09	1,182225E+10
1913	2,325179E+09	2,325183E+09	3,586033E+09	3,585952E+09	4,650362E+09	7,171986E+09	1,182235E+10
1914	2,325095E+09	2,325063E+09	3,585981E+09	3,585979E+09	4,650157E+09	7,171960E+09	1,182212E+10
1915	2,325176E+09	2,325213E+09	3,586015E+09	3,585973E+09	4,650389E+09	7,171988E+09	1,182238E+10
1916	2,325183E+09	2,325191E+09	3,585948E+09	3,585970E+09	4,650375E+09	7,171919E+09	1,182229E+10
1917	2,325167E+09	2,325182E+09	3,585900E+09	3,585979E+09	4,650349E+09	7,171880E+09	1,182223E+10
1918	2,325309E+09	2,325332E+09	3,585968E+09	3,585925E+09	4,650641E+09	7,171893E+09	1,182253E+10
1919	2,325281E+09	2,325248E+09	3,585896E+09	3,585891E+09	4,650529E+09	7,171788E+09	1,182232E+10
1920	2,325312E+09	2,325320E+09	3,585911E+09	3,585887E+09	4,650632E+09	7,171798E+09	1,182243E+10
1921	2,325406E+09	2,325411E+09	3,585939E+09	3,585885E+09	4,650817E+09	7,171824E+09	1,182264E+10
1922	2,325308E+09	2,325305E+09	3,585882E+09	3,585913E+09	4,650613E+09	7,171794E+09	1,182241E+10
1923	2,325346E+09	2,325415E+09	3,585942E+09	3,585910E+09	4,650762E+09	7,171852E+09	1,182261E+10
1924	2,325362E+09	2,325375E+09	3,585930E+09	3,585902E+09	4,650736E+09	7,171832E+09	1,182257E+10
1925	2,325285E+09	2,325260E+09	3,585892E+09	3,585945E+09	4,650545E+09	7,171837E+09	1,182238E+10
1926	2,325357E+09	2,325347E+09	3,585965E+09	3,585928E+09	4,650704E+09	7,171893E+09	1,182260E+10
1927	2,325288E+09	2,325244E+09	3,585894E+09	3,585919E+09	4,650533E+09	7,171813E+09	1,182235E+10
1928	2,325224E+09	2,325241E+09	3,585887E+09	3,585938E+09	4,650465E+09	7,171825E+09	1,182229E+10
1929	2,325293E+09	2,325316E+09	3,585952E+09	3,585924E+09	4,650609E+09	7,171876E+09	1,182248E+10
1930	2,325189E+09	2,325169E+09	3,585931E+09	3,585915E+09	4,650358E+09	7,171846E+09	1,182220E+10
1931	2,325191E+09	2,325231E+09	3,585990E+09	3,585915E+09	4,650421E+09	7,171905E+09	1,182233E+10
1932	2,325249E+09	2,325249E+09	3,585977E+09	3,585915E+09	4,650497E+09	7,171892E+09	1,182239E+10
1933	2,325172E+09	2,325161E+09	3,585897E+09	3,585971E+09	4,650333E+09	7,171868E+09	1,182220E+10
1934	2,325260E+09	2,325300E+09	3,585953E+09	3,585954E+09	4,650559E+09	7,171907E+09	1,182247E+10
1935	2,325286E+09	2,325286E+09	3,585894E+09	3,585902E+09	4,650572E+09	7,171796E+09	1,182237E+10
1936	2,325269E+09	2,325284E+09	3,585867E+09	3,585896E+09	4,650553E+09	7,171763E+09	1,182232E+10
1937	2,325418E+09	2,325413E+09	3,585924E+09	3,585867E+09	4,650831E+09	7,171791E+09	1,182262E+10
1938	2,325382E+09	2,325339E+09	3,585870E+09	3,585842E+09	4,650722E+09	7,171712E+09	1,182243E+10
1939	2,325377E+09	2,325417E+09	3,585879E+09	3,585864E+09	4,650793E+09	7,171743E+09	1,182254E+10
1940	2,325467E+09	2,325505E+09	3,585874E+09	3,585855E+09	4,650971E+09	7,171729E+09	1,182270E+10
1941	2,325385E+09	2,325393E+09	3,585819E+09	3,585888E+09	4,650778E+09	7,171707E+09	1,182248E+10
1942	2,325430E+09	2,325461E+09	3,585913E+09	3,585872E+09	4,650891E+09	7,171785E+09	1,182268E+10
1943	2,325459E+09	2,325429E+09	3,585877E+09	3,585836E+09	4,650888E+09	7,171714E+09	1,182260E+10
1944	2,325364E+09	2,325337E+09	3,585833E+09	3,585882E+09	4,650702E+09	7,171714E+09	1,182242E+10
1945	2,325431E+09	2,325425E+09	3,585891E+09	3,585889E+09	4,650856E+09	7,171780E+09	1,182264E+10
1946	2,325357E+09	2,325335E+09	3,585862E+09	3,585862E+09	4,650693E+09	7,171724E+09	1,182242E+10
1947	2,325272E+09	2,325321E+09	3,585889E+09	3,585886E+09	4,650594E+09	7,171775E+09	1,182237E+10
1948	2,325350E+09	2,325377E+09	3,585929E+09	3,585870E+09	4,650727E+09	7,171799E+09	1,182253E+10
1949	2,325263E+09	2,325237E+09	3,585892E+09	3,585902E+09	4,650500E+09	7,171794E+09	1,182229E+10

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 ^o	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
1950	2,325266E+09	2,325282E+09	3,585954E+09	3,585914E+09	4,650548E+09	7,171868E+09	1,182242E+10
1951	2,325334E+09	2,325330E+09	3,585900E+09	3,585885E+09	4,650665E+09	7,171785E+09	1,182245E+10
1952	2,325257E+09	2,325271E+09	3,585825E+09	3,585917E+09	4,650528E+09	7,171742E+09	1,182227E+10
1953	2,325367E+09	2,325386E+09	3,585886E+09	3,585892E+09	4,650753E+09	7,171777E+09	1,182253E+10
1954	2,325403E+09	2,325374E+09	3,585866E+09	3,585815E+09	4,650776E+09	7,171682E+09	1,182246E+10
1955	2,325363E+09	2,325377E+09	3,585847E+09	3,585830E+09	4,650740E+09	7,171677E+09	1,182242E+10
1956	2,325497E+09	2,325506E+09	3,585860E+09	3,585813E+09	4,651003E+09	7,171673E+09	1,182268E+10
1957	2,325457E+09	2,325456E+09	3,585802E+09	3,585828E+09	4,650913E+09	7,171630E+09	1,182254E+10
1958	2,325446E+09	2,325503E+09	3,585844E+09	3,585846E+09	4,650949E+09	7,171690E+09	1,182264E+10
1959	2,325547E+09	2,325580E+09	3,585835E+09	3,585801E+09	4,651127E+09	7,171636E+09	1,182276E+10
1960	2,325471E+09	2,325468E+09	3,585791E+09	3,585828E+09	4,650939E+09	7,171619E+09	1,182256E+10
1961	2,325527E+09	2,325508E+09	3,585859E+09	3,585835E+09	4,651035E+09	7,171694E+09	1,182273E+10
1962	2,325549E+09	2,325494E+09	3,585835E+09	3,585790E+09	4,651044E+09	7,171625E+09	1,182267E+10
1963	2,325421E+09	2,325425E+09	3,585788E+09	3,585844E+09	4,650846E+09	7,171632E+09	1,182248E+10
1964	2,325479E+09	2,325508E+09	3,585828E+09	3,585837E+09	4,650987E+09	7,171665E+09	1,182265E+10
1965	2,325421E+09	2,325420E+09	3,585823E+09	3,585823E+09	4,650841E+09	7,171646E+09	1,182249E+10
1966	2,325342E+09	2,325366E+09	3,585883E+09	3,585850E+09	4,650708E+09	7,171733E+09	1,182244E+10
1967	2,325428E+09	2,325434E+09	3,585889E+09	3,585823E+09	4,650862E+09	7,171713E+09	1,182257E+10
1968	2,325339E+09	2,325322E+09	3,585836E+09	3,585864E+09	4,650661E+09	7,171701E+09	1,182236E+10
1969	2,325349E+09	2,325363E+09	3,585875E+09	3,585895E+09	4,650712E+09	7,171770E+09	1,182248E+10
1970	2,325429E+09	2,325425E+09	3,585856E+09	3,585830E+09	4,650854E+09	7,171686E+09	1,182254E+10
1971	2,325342E+09	2,325366E+09	3,585802E+09	3,585851E+09	4,650707E+09	7,171653E+09	1,182236E+10
1972	2,325457E+09	2,325470E+09	3,585838E+09	3,585820E+09	4,650927E+09	7,171658E+09	1,182258E+10
1973	2,325502E+09	2,325472E+09	3,585812E+09	3,585774E+09	4,650974E+09	7,171586E+09	1,182256E+10
1974	2,325445E+09	2,325456E+09	3,585812E+09	3,585807E+09	4,650901E+09	7,171619E+09	1,182252E+10
1975	2,325573E+09	2,325608E+09	3,585795E+09	3,585773E+09	4,651181E+09	7,171568E+09	1,182275E+10
1976	2,325536E+09	2,325561E+09	3,585752E+09	3,585777E+09	4,651096E+09	7,171529E+09	1,182263E+10
1977	2,325543E+09	2,325566E+09	3,585799E+09	3,585801E+09	4,651109E+09	7,171600E+09	1,182271E+10
1978	2,325655E+09	2,325638E+09	3,585810E+09	3,585732E+09	4,651293E+09	7,171542E+09	1,182284E+10
1979	2,325556E+09	2,325538E+09	3,585755E+09	3,585773E+09	4,651094E+09	7,171528E+09	1,182262E+10
1980	2,325596E+09	2,325585E+09	3,585776E+09	3,585788E+09	4,651181E+09	7,171564E+09	1,182275E+10
1981	2,325613E+09	2,325599E+09	3,585760E+09	3,585765E+09	4,651211E+09	7,171525E+09	1,182274E+10
1982	2,325477E+09	2,325500E+09	3,585769E+09	3,585813E+09	4,650977E+09	7,171582E+09	1,182256E+10
1983	2,325540E+09	2,325579E+09	3,585807E+09	3,585777E+09	4,651119E+09	7,171584E+09	1,182270E+10
1984	2,325491E+09	2,325491E+09	3,585814E+09	3,585772E+09	4,650982E+09	7,171586E+09	1,182257E+10
1985	2,325424E+09	2,325411E+09	3,585846E+09	3,585834E+09	4,650835E+09	7,171680E+09	1,182252E+10
1986	2,325511E+09	2,325497E+09	3,585849E+09	3,585796E+09	4,651008E+09	7,171645E+09	1,182265E+10
1987	2,325407E+09	2,325416E+09	3,585781E+09	3,585835E+09	4,650823E+09	7,171617E+09	1,182244E+10
1988	2,325427E+09	2,325448E+09	3,585789E+09	3,585837E+09	4,650875E+09	7,171626E+09	1,182250E+10
1989	2,325526E+09	2,325519E+09	3,585797E+09	3,585769E+09	4,651045E+09	7,171566E+09	1,182261E+10
1990	2,325442E+09	2,325437E+09	3,585780E+09	3,585785E+09	4,650879E+09	7,171565E+09	1,182244E+10
1991	2,325549E+09	2,325558E+09	3,585785E+09	3,585746E+09	4,651106E+09	7,171531E+09	1,182264E+10
1992	2,325585E+09	2,325586E+09	3,585763E+09	3,585722E+09	4,651171E+09	7,171485E+09	1,182266E+10
1993	2,325530E+09	2,325550E+09	3,585753E+09	3,585786E+09	4,651080E+09	7,171538E+09	1,182262E+10
1994	2,325661E+09	2,325697E+09	3,585771E+09	3,585725E+09	4,651358E+09	7,171497E+09	1,182286E+10
1995	2,325618E+09	2,325646E+09	3,585737E+09	3,585730E+09	4,651264E+09	7,171467E+09	1,182273E+10
1996	2,325630E+09	2,325628E+09	3,585742E+09	3,585754E+09	4,651258E+09	7,171496E+09	1,182275E+10
1997	2,325748E+09	2,325715E+09	3,585746E+09	3,585709E+09	4,651464E+09	7,171455E+09	1,182292E+10
1998	2,325631E+09	2,325608E+09	3,585706E+09	3,585752E+09	4,651239E+09	7,171458E+09	1,182270E+10

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	2,325658E+09	2,325679E+09	3,585703E+09	3,585737E+09	4,651337E+09	7,171441E+09	1,182278E+10
2000	2,325679E+09	2,325697E+09	3,585722E+09	3,585701E+09	4,651375E+09	7,171424E+09	1,182280E+10
2001	2,325554E+09	2,325554E+09	3,585749E+09	3,585767E+09	4,651108E+09	7,171516E+09	1,182262E+10
2002	2,325623E+09	2,325629E+09	3,585804E+09	3,585718E+09	4,651252E+09	7,171522E+09	1,182277E+10
2003	2,325557E+09	2,325553E+09	3,585790E+09	3,585736E+09	4,651111E+09	7,171526E+09	1,182264E+10
2004	2,325485E+09	2,325479E+09	3,585766E+09	3,585807E+09	4,650965E+09	7,171573E+09	1,182254E+10
2005	2,325585E+09	2,325591E+09	3,585768E+09	3,585773E+09	4,651177E+09	7,171541E+09	1,182272E+10
2006	2,325483E+09	2,325490E+09	3,585745E+09	3,585792E+09	4,650973E+09	7,171537E+09	1,182251E+10
2007	2,325513E+09	2,325535E+09	3,585741E+09	3,585757E+09	4,651048E+09	7,171498E+09	1,182255E+10
2008	2,325624E+09	2,325613E+09	3,585764E+09	3,585695E+09	4,651237E+09	7,171459E+09	1,182270E+10
2009	2,325541E+09	2,325512E+09	3,585739E+09	3,585750E+09	4,651053E+09	7,171490E+09	1,182254E+10
2010	2,325638E+09	2,325651E+09	3,585747E+09	3,585702E+09	4,651289E+09	7,171450E+09	1,182274E+10
2011	2,325655E+09	2,325698E+09	3,585722E+09	3,585689E+09	4,651353E+09	7,171411E+09	1,182276E+10
2012	2,325608E+09	2,325637E+09	3,585686E+09	3,585741E+09	4,651245E+09	7,171427E+09	1,182267E+10
2013	2,325762E+09	2,325780E+09	3,585720E+09	3,585683E+09	4,651542E+09	7,171403E+09	1,182294E+10
2014	2,325719E+09	2,325706E+09	3,585705E+09	3,585687E+09	4,651425E+09	7,171392E+09	1,182282E+10
2015	2,325722E+09	2,325710E+09	3,585664E+09	3,585694E+09	4,651432E+09	7,171358E+09	1,182279E+10
2016	2,325828E+09	2,325822E+09	3,585681E+09	3,585655E+09	4,651651E+09	7,171337E+09	1,182299E+10
2017	2,325707E+09	2,325696E+09	3,585656E+09	3,585716E+09	4,651403E+09	7,171372E+09	1,182277E+10
2018	2,325728E+09	2,325756E+09	3,585699E+09	3,585671E+09	4,651485E+09	7,171370E+09	1,182285E+10
2019	2,325739E+09	2,325771E+09	3,585733E+09	3,585651E+09	4,651510E+09	7,171384E+09	1,182289E+10
2020	2,325619E+09	2,325600E+09	3,585710E+09	3,585731E+09	4,651219E+09	7,171441E+09	1,182266E+10
2021	2,325693E+09	2,325686E+09	3,585753E+09	3,585712E+09	4,651379E+09	7,171464E+09	1,182284E+10
2022	2,325621E+09	2,325612E+09	3,585739E+09	3,585731E+09	4,651234E+09	7,171470E+09	1,182270E+10
2023	2,325551E+09	2,325564E+09	3,585673E+09	3,585761E+09	4,651115E+09	7,171434E+09	1,182255E+10
2024	2,325671E+09	2,325684E+09	3,585714E+09	3,585703E+09	4,651354E+09	7,171416E+09	1,182277E+10
2025	2,325587E+09	2,325559E+09	3,585705E+09	3,585723E+09	4,651146E+09	7,171428E+09	1,182257E+10
2026	2,325617E+09	2,325612E+09	3,585720E+09	3,585672E+09	4,651229E+09	7,171391E+09	1,182262E+10
2027	2,325704E+09	2,325717E+09	3,585733E+09	3,585641E+09	4,651421E+09	7,171375E+09	1,182280E+10
2028	2,325611E+09	2,325611E+09	3,585667E+09	3,585718E+09	4,651222E+09	7,171386E+09	1,182261E+10
2029	2,325713E+09	2,325761E+09	3,585692E+09	3,585685E+09	4,651474E+09	7,171378E+09	1,182285E+10
2030	2,325736E+09	2,325777E+09	3,585703E+09	3,585663E+09	4,651513E+09	7,171366E+09	1,182288E+10
2031	2,325701E+09	2,325718E+09	3,585633E+09	3,585685E+09	4,651420E+09	7,171318E+09	1,182274E+10
2032	2,325870E+09	2,325862E+09	3,585673E+09	3,585628E+09	4,651732E+09	7,171301E+09	1,182303E+10
2033	2,325824E+09	2,325776E+09	3,585646E+09	3,585655E+09	4,651600E+09	7,171301E+09	1,182290E+10
2034	2,325813E+09	2,325803E+09	3,585612E+09	3,585637E+09	4,651616E+09	7,171249E+09	1,182287E+10
2035	2,325893E+09	2,325927E+09	3,585640E+09	3,585601E+09	4,651820E+09	7,171240E+09	1,182306E+10
2036	2,325769E+09	2,325769E+09	3,585613E+09	3,585658E+09	4,651538E+09	7,171271E+09	1,182281E+10
2037	2,325801E+09	2,325820E+09	3,585675E+09	3,585626E+09	4,651621E+09	7,171302E+09	1,182292E+10
2038	2,325804E+09	2,325810E+09	3,585718E+09	3,585626E+09	4,651614E+09	7,171344E+09	1,182296E+10
2039	2,325681E+09	2,325664E+09	3,585637E+09	3,585698E+09	4,651344E+09	7,171335E+09	1,182268E+10
2040	2,325762E+09	2,325770E+09	3,585679E+09	3,585680E+09	4,651533E+09	7,171359E+09	1,182289E+10
2041	2,325700E+09	2,325687E+09	3,585677E+09	3,585700E+09	4,651387E+09	7,171377E+09	1,182276E+10
2042	2,325640E+09	2,325646E+09	3,585643E+09	3,585682E+09	4,651286E+09	7,171326E+09	1,182261E+10
2043	2,325752E+09	2,325774E+09	3,585700E+09	3,585631E+09	4,651526E+09	7,171331E+09	1,182286E+10
2044	2,325669E+09	2,325635E+09	3,585661E+09	3,585669E+09	4,651304E+09	7,171331E+09	1,182263E+10
2045	2,325697E+09	2,325703E+09	3,585676E+09	3,585647E+09	4,651400E+09	7,171323E+09	1,182272E+10
2046	2,325770E+09	2,325806E+09	3,585696E+09	3,585632E+09	4,651576E+09	7,171329E+09	1,182291E+10
2047	2,325684E+09	2,325713E+09	3,585592E+09	3,585678E+09	4,651397E+09	7,171271E+09	1,182267E+10

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							
2048	2,325811E+09	2,325851E+09	3,585648E+09	3,585630E+09	4,651662E+09	7,171278E+09	1,182294E+10
2049	2,325855E+09	2,325842E+09	3,585660E+09	3,585614E+09	4,651697E+09	7,171274E+09	1,182297E+10
2050	2,325822E+09	2,325793E+09	3,585586E+09	3,585609E+09	4,651614E+09	7,171194E+09	1,182281E+10
2051	2,325961E+09	2,325966E+09	3,585620E+09	3,585571E+09	4,651927E+09	7,171191E+09	1,182312E+10
2052	2,325898E+09	2,325878E+09	3,585563E+09	3,585603E+09	4,651776E+09	7,171166E+09	1,182294E+10
2053	2,325879E+09	2,325904E+09	3,585569E+09	3,585594E+09	4,651783E+09	7,171163E+09	1,182295E+10
2054	2,325951E+09	2,325998E+09	3,585642E+09	3,585566E+09	4,651948E+09	7,171207E+09	1,182316E+10
2055	2,325831E+09	2,325831E+09	3,585579E+09	3,585613E+09	4,651662E+09	7,171192E+09	1,182285E+10
2056	2,325875E+09	2,325876E+09	3,585646E+09	3,585600E+09	4,651750E+09	7,171246E+09	1,182300E+10
2057	2,325881E+09	2,325856E+09	3,585664E+09	3,585623E+09	4,651737E+09	7,171287E+09	1,182302E+10
2058	2,325757E+09	2,325738E+09	3,585571E+09	3,585657E+09	4,651495E+09	7,171228E+09	1,182272E+10
2059	2,325830E+09	2,325863E+09	3,585626E+09	3,585625E+09	4,651693E+09	7,171251E+09	1,182294E+10
2060	2,325778E+09	2,325760E+09	3,585619E+09	3,585628E+09	4,651538E+09	7,171247E+09	1,182278E+10
2061	2,325730E+09	2,325723E+09	3,585616E+09	3,585615E+09	4,651453E+09	7,171231E+09	1,182268E+10
2062	2,325828E+09	2,325843E+09	3,585684E+09	3,585589E+09	4,651670E+09	7,171272E+09	1,182294E+10
2063	2,325735E+09	2,325729E+09	3,585597E+09	3,585629E+09	4,651464E+09	7,171226E+09	1,182269E+10
2064	2,325771E+09	2,325807E+09	3,585623E+09	3,585619E+09	4,651577E+09	7,171242E+09	1,182282E+10
2065	2,325855E+09	2,325887E+09	3,585654E+09	3,585613E+09	4,651742E+09	7,171266E+09	1,182301E+10
2066	2,325790E+09	2,325798E+09	3,585563E+09	3,585615E+09	4,651588E+09	7,171177E+09	1,182276E+10
2067	2,325918E+09	2,325937E+09	3,585613E+09	3,585568E+09	4,651854E+09	7,171181E+09	1,182304E+10
2068	2,325959E+09	2,325918E+09	3,585589E+09	3,585562E+09	4,651877E+09	7,171151E+09	1,182303E+10
2069	2,325918E+09	2,325893E+09	3,585519E+09	3,585568E+09	4,651811E+09	7,171087E+09	1,182290E+10
2070	2,326027E+09	2,326061E+09	3,585569E+09	3,585540E+09	4,652089E+09	7,171109E+09	1,182320E+10
2071	2,325959E+09	2,325980E+09	3,585500E+09	3,585546E+09	4,651939E+09	7,171046E+09	1,182298E+10
2072	2,325956E+09	2,325983E+09	3,585546E+09	3,585537E+09	4,651940E+09	7,171082E+09	1,182302E+10
2073	2,326034E+09	2,326044E+09	3,585622E+09	3,585532E+09	4,652078E+09	7,171154E+09	1,182323E+10
2074	2,325918E+09	2,325888E+09	3,585543E+09	3,585564E+09	4,651807E+09	7,171107E+09	1,182291E+10
2075	2,325941E+09	2,325952E+09	3,585595E+09	3,585568E+09	4,651893E+09	7,171163E+09	1,182306E+10
2076	2,325943E+09	2,325932E+09	3,585584E+09	3,585590E+09	4,651875E+09	7,171174E+09	1,182305E+10
2077	2,325828E+09	2,325822E+09	3,585526E+09	3,585609E+09	4,651650E+09	7,171136E+09	1,182279E+10
2078	2,325895E+09	2,325929E+09	3,585617E+09	3,585578E+09	4,651825E+09	7,171195E+09	1,182302E+10
2079	2,325849E+09	2,325835E+09	3,585579E+09	3,585565E+09	4,651685E+09	7,171144E+09	1,182283E+10
2080	2,325810E+09	2,325798E+09	3,585588E+09	3,585578E+09	4,651608E+09	7,171167E+09	1,182277E+10
2081	2,325904E+09	2,325915E+09	3,585641E+09	3,585581E+09	4,651819E+09	7,171222E+09	1,182304E+10
2082	2,325818E+09	2,325821E+09	3,585540E+09	3,585589E+09	4,651640E+09	7,171129E+09	1,182277E+10
2083	2,325853E+09	2,325903E+09	3,585580E+09	3,585571E+09	4,651756E+09	7,171152E+09	1,182291E+10
2084	2,325955E+09	2,325960E+09	3,585590E+09	3,585550E+09	4,651916E+09	7,171140E+09	1,182306E+10
2085	2,325903E+09	2,325878E+09	3,585512E+09	3,585549E+09	4,651781E+09	7,171061E+09	1,182284E+10
2086	2,326013E+09	2,326019E+09	3,585565E+09	3,585524E+09	4,652032E+09	7,171089E+09	1,182312E+10
2087	2,326038E+09	2,326029E+09	3,585498E+09	3,585505E+09	4,652066E+09	7,171003E+09	1,182307E+10
2088	2,325997E+09	2,326008E+09	3,585464E+09	3,585521E+09	4,652005E+09	7,170984E+09	1,182299E+10
2089	2,326102E+09	2,326146E+09	3,585545E+09	3,585503E+09	4,652247E+09	7,171048E+09	1,182330E+10
2090	2,326045E+09	2,326056E+09	3,585493E+09	3,585482E+09	4,652100E+09	7,170975E+09	1,182308E+10
2091	2,326033E+09	2,326050E+09	3,585539E+09	3,585494E+09	4,652084E+09	7,171033E+09	1,182312E+10
2092	2,326108E+09	2,326092E+09	3,585567E+09	3,585511E+09	4,652201E+09	7,171078E+09	1,182328E+10
2093	2,325993E+09	2,325959E+09	3,585484E+09	3,585546E+09	4,651952E+09	7,171030E+09	1,182298E+10
2094	2,325998E+09	2,326023E+09	3,585538E+09	3,585550E+09	4,652021E+09	7,171088E+09	1,182311E+10
2095	2,326004E+09	2,326012E+09	3,585514E+09	3,585528E+09	4,652015E+09	7,171041E+09	1,182306E+10
2096	2,325913E+09	2,325895E+09	3,585496E+09	3,585540E+09	4,651808E+09	7,171037E+09	1,182284E+10

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							
2097	2,325979E+09	2,325982E+09	3,585593E+09	3,585529E+09	4,651961E+09	7,171123E+09	1,182308E+10
2098	2,325937E+09	2,325915E+09	3,585543E+09	3,585507E+09	4,651851E+09	7,171050E+09	1,182290E+10
2099	2,325879E+09	2,325896E+09	3,585543E+09	3,585539E+09	4,651775E+09	7,171082E+09	1,182286E+10
2100	2,325968E+09	2,326002E+09	3,585572E+09	3,585551E+09	4,651970E+09	7,171123E+09	1,182309E+10
2101	2,325904E+09	2,325914E+09	3,585503E+09	3,585545E+09	4,651818E+09	7,171049E+09	1,182287E+10
2102	2,325938E+09	2,325975E+09	3,585554E+09	3,585533E+09	4,651913E+09	7,171087E+09	1,182300E+10
2103	2,326049E+09	2,326043E+09	3,585526E+09	3,585491E+09	4,652092E+09	7,171017E+09	1,182311E+10
2104	2,326010E+09	2,325971E+09	3,585453E+09	3,585502E+09	4,651981E+09	7,170955E+09	1,182294E+10
2105	2,326103E+09	2,326112E+09	3,585503E+09	3,585494E+09	4,652215E+09	7,170996E+09	1,182321E+10
2106	2,326127E+09	2,326142E+09	3,585441E+09	3,585439E+09	4,652270E+09	7,170881E+09	1,182315E+10
2107	2,326077E+09	2,326109E+09	3,585443E+09	3,585455E+09	4,652185E+09	7,170898E+09	1,182308E+10
2108	2,326183E+09	2,326210E+09	3,585515E+09	3,585448E+09	4,652393E+09	7,170962E+09	1,182336E+10
2109	2,326136E+09	2,326118E+09	3,585472E+09	3,585439E+09	4,652254E+09	7,170911E+09	1,182317E+10
2110	2,326101E+09	2,326107E+09	3,585502E+09	3,585483E+09	4,652208E+09	7,170985E+09	1,182319E+10
2111	2,326166E+09	2,326172E+09	3,585479E+09	3,585481E+09	4,652338E+09	7,170960E+09	1,182330E+10
2112	2,326063E+09	2,326044E+09	3,585422E+09	3,585511E+09	4,652107E+09	7,170933E+09	1,182304E+10
2113	2,326071E+09	2,326089E+09	3,585503E+09	3,585511E+09	4,652161E+09	7,171014E+09	1,182317E+10
2114	2,326092E+09	2,326084E+09	3,585487E+09	3,585449E+09	4,652176E+09	7,170936E+09	1,182311E+10
2115	2,325990E+09	2,325968E+09	3,585486E+09	3,585482E+09	4,651959E+09	7,170968E+09	1,182293E+10
2116	2,326046E+09	2,326047E+09	3,585544E+09	3,585496E+09	4,652093E+09	7,171040E+09	1,182313E+10
2117	2,326005E+09	2,325999E+09	3,585497E+09	3,585482E+09	4,652004E+09	7,170979E+09	1,182298E+10
2118	2,325934E+09	2,325978E+09	3,585499E+09	3,585525E+09	4,651912E+09	7,171024E+09	1,182294E+10
2119	2,326040E+09	2,326082E+09	3,585504E+09	3,585494E+09	4,652121E+09	7,170998E+09	1,182312E+10
2120	2,326010E+09	2,325991E+09	3,585458E+09	3,585484E+09	4,652001E+09	7,170941E+09	1,182294E+10
2121	2,326049E+09	2,326043E+09	3,585502E+09	3,585484E+09	4,652092E+09	7,170986E+09	1,182308E+10
2122	2,326159E+09	2,326143E+09	3,585460E+09	3,585418E+09	4,652302E+09	7,170878E+09	1,182318E+10
2123	2,326098E+09	2,326092E+09	3,585403E+09	3,585439E+09	4,652191E+09	7,170843E+09	1,182303E+10
2124	2,326178E+09	2,326214E+09	3,585448E+09	3,585441E+09	4,652392E+09	7,170889E+09	1,182328E+10
2125	2,326213E+09	2,326238E+09	3,585433E+09	3,585385E+09	4,652451E+09	7,170818E+09	1,182327E+10
2126	2,326150E+09	2,326178E+09	3,585441E+09	3,585428E+09	4,652328E+09	7,170869E+09	1,182320E+10
2127	2,326254E+09	2,326273E+09	3,585465E+09	3,585416E+09	4,652527E+09	7,170881E+09	1,182341E+10
2128	2,326224E+09	2,326188E+09	3,585415E+09	3,585428E+09	4,652412E+09	7,170843E+09	1,182325E+10
2129	2,326176E+09	2,326172E+09	3,585426E+09	3,585476E+09	4,652349E+09	7,170903E+09	1,182325E+10
2130	2,326248E+09	2,326259E+09	3,585408E+09	3,585420E+09	4,652507E+09	7,170828E+09	1,182334E+10
2131	2,326143E+09	2,326129E+09	3,585388E+09	3,585426E+09	4,652273E+09	7,170814E+09	1,182309E+10
2132	2,326148E+09	2,326148E+09	3,585464E+09	3,585434E+09	4,652295E+09	7,170898E+09	1,182319E+10
2133	2,326173E+09	2,326155E+09	3,585470E+09	3,585387E+09	4,652329E+09	7,170857E+09	1,182319E+10
2134	2,326043E+09	2,326041E+09	3,585457E+09	3,585463E+09	4,652084E+09	7,170920E+09	1,182300E+10
2135	2,326088E+09	2,326133E+09	3,585477E+09	3,585467E+09	4,652220E+09	7,170943E+09	1,182316E+10
2136	2,326074E+09	2,326086E+09	3,585450E+09	3,585457E+09	4,652160E+09	7,170907E+09	1,182307E+10
2137	2,326017E+09	2,326041E+09	3,585464E+09	3,585496E+09	4,652058E+09	7,170960E+09	1,182302E+10
2138	2,326149E+09	2,326157E+09	3,585462E+09	3,585424E+09	4,652306E+09	7,170885E+09	1,182319E+10
2139	2,326119E+09	2,326079E+09	3,585421E+09	3,585417E+09	4,652198E+09	7,170838E+09	1,182304E+10
2140	2,326146E+09	2,326132E+09	3,585430E+09	3,585437E+09	4,652278E+09	7,170866E+09	1,182314E+10
2141	2,326252E+09	2,326256E+09	3,585406E+09	3,585368E+09	4,652509E+09	7,170774E+09	1,182328E+10
2142	2,326167E+09	2,326198E+09	3,585370E+09	3,585406E+09	4,652365E+09	7,170776E+09	1,182314E+10
2143	2,326247E+09	2,326303E+09	3,585404E+09	3,585379E+09	4,652550E+09	7,170784E+09	1,182333E+10
2144	2,326309E+09	2,326311E+09	3,585405E+09	3,585345E+09	4,652620E+09	7,170750E+09	1,182337E+10
2145	2,326244E+09	2,326236E+09	3,585398E+09	3,585412E+09	4,652480E+09	7,170810E+09	1,182329E+10

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							
2146	2,326349E+09	2,326352E+09	3,585388E+09	3,585369E+09	4,652702E+09	7,170758E+09	1,182346E+10
2147	2,326302E+09	2,326285E+09	3,585352E+09	3,585376E+09	4,652587E+09	7,170729E+09	1,182332E+10
2148	2,326248E+09	2,326254E+09	3,585359E+09	3,585420E+09	4,652503E+09	7,170779E+09	1,182328E+10
2149	2,326327E+09	2,326334E+09	3,585391E+09	3,585348E+09	4,652661E+09	7,170739E+09	1,182340E+10
2150	2,326204E+09	2,326194E+09	3,585388E+09	3,585383E+09	4,652398E+09	7,170771E+09	1,182317E+10
2151	2,326199E+09	2,326208E+09	3,585426E+09	3,585388E+09	4,652407E+09	7,170814E+09	1,182322E+10
2152	2,326238E+09	2,326227E+09	3,585429E+09	3,585376E+09	4,652464E+09	7,170805E+09	1,182327E+10
2153	2,326102E+09	2,326109E+09	3,585402E+09	3,585464E+09	4,652211E+09	7,170866E+09	1,182308E+10
2154	2,326166E+09	2,326210E+09	3,585416E+09	3,585417E+09	4,652376E+09	7,170833E+09	1,182321E+10
2155	2,326167E+09	2,326164E+09	3,585419E+09	3,585386E+09	4,652331E+09	7,170804E+09	1,182314E+10
2156	2,326122E+09	2,326106E+09	3,585404E+09	3,585430E+09	4,652227E+09	7,170833E+09	1,182306E+10
2157	2,326261E+09	2,326242E+09	3,585417E+09	3,585358E+09	4,652503E+09	7,170774E+09	1,182328E+10
2158	2,326199E+09	2,326187E+09	3,585369E+09	3,585379E+09	4,652386E+09	7,170747E+09	1,182313E+10
2159	2,326209E+09	2,326248E+09	3,585356E+09	3,585382E+09	4,652456E+09	7,170738E+09	1,182319E+10
2160	2,326336E+09	2,326368E+09	3,585369E+09	3,585330E+09	4,652704E+09	7,170699E+09	1,182340E+10
2161	2,326253E+09	2,326275E+09	3,585350E+09	3,585377E+09	4,652528E+09	7,170728E+09	1,182326E+10
2162	2,326347E+09	2,326378E+09	3,585372E+09	3,585327E+09	4,652725E+09	7,170699E+09	1,182342E+10
2163	2,326408E+09	2,326389E+09	3,585369E+09	3,585299E+09	4,652797E+09	7,170668E+09	1,182347E+10
2164	2,326331E+09	2,326306E+09	3,585314E+09	3,585383E+09	4,652638E+09	7,170697E+09	1,182333E+10
2165	2,326436E+09	2,326442E+09	3,585327E+09	3,585322E+09	4,652877E+09	7,170649E+09	1,182353E+10
2166	2,326366E+09	2,326372E+09	3,585309E+09	3,585327E+09	4,652737E+09	7,170636E+09	1,182337E+10
2167	2,326309E+09	2,326324E+09	3,585316E+09	3,585338E+09	4,652633E+09	7,170654E+09	1,182329E+10
2168	2,326407E+09	2,326399E+09	3,585366E+09	3,585296E+09	4,652807E+09	7,170662E+09	1,182347E+10
2169	2,326270E+09	2,326249E+09	3,585360E+09	3,585365E+09	4,652519E+09	7,170725E+09	1,182324E+10
2170	2,326262E+09	2,326285E+09	3,585372E+09	3,585353E+09	4,652547E+09	7,170725E+09	1,182327E+10
2171	2,326297E+09	2,326314E+09	3,585389E+09	3,585341E+09	4,652611E+09	7,170730E+09	1,182334E+10
2172	2,326173E+09	2,326179E+09	3,585347E+09	3,585429E+09	4,652351E+09	7,170776E+09	1,182313E+10
2173	2,326262E+09	2,326277E+09	3,585392E+09	3,585359E+09	4,652539E+09	7,170751E+09	1,182329E+10
2174	2,326253E+09	2,326238E+09	3,585391E+09	3,585347E+09	4,652491E+09	7,170737E+09	1,182323E+10
2175	2,326203E+09	2,326189E+09	3,585336E+09	3,585374E+09	4,652391E+09	7,170711E+09	1,182310E+10
2176	2,326351E+09	2,326344E+09	3,585349E+09	3,585329E+09	4,652695E+09	7,170678E+09	1,182337E+10
2177	2,326277E+09	2,326291E+09	3,585312E+09	3,585356E+09	4,652568E+09	7,170668E+09	1,182324E+10
2178	2,326298E+09	2,326350E+09	3,585305E+09	3,585310E+09	4,652648E+09	7,170615E+09	1,182326E+10
2179	2,326430E+09	2,326456E+09	3,585353E+09	3,585254E+09	4,652886E+09	7,170607E+09	1,182349E+10
2180	2,326356E+09	2,326343E+09	3,585303E+09	3,585326E+09	4,652699E+09	7,170629E+09	1,182333E+10
2181	2,326454E+09	2,326450E+09	3,585327E+09	3,585279E+09	4,652904E+09	7,170606E+09	1,182351E+10
2182	2,326482E+09	2,326482E+09	3,585311E+09	3,585276E+09	4,652964E+09	7,170587E+09	1,182355E+10
2183	2,326393E+09	2,326401E+09	3,585231E+09	3,585329E+09	4,652794E+09	7,170560E+09	1,182335E+10
2184	2,326514E+09	2,326529E+09	3,585281E+09	3,585277E+09	4,653043E+09	7,170557E+09	1,182360E+10
2185	2,326439E+09	2,326438E+09	3,585292E+09	3,585286E+09	4,652877E+09	7,170578E+09	1,182346E+10
2186	2,326388E+09	2,326389E+09	3,585290E+09	3,585278E+09	4,652777E+09	7,170568E+09	1,182335E+10
2187	2,326476E+09	2,326469E+09	3,585349E+09	3,585256E+09	4,652945E+09	7,170606E+09	1,182355E+10
2188	2,326333E+09	2,326314E+09	3,585298E+09	3,585355E+09	4,652648E+09	7,170653E+09	1,182330E+10
2189	2,326331E+09	2,326359E+09	3,585328E+09	3,585325E+09	4,652690E+09	7,170653E+09	1,182334E+10
2190	2,326358E+09	2,326387E+09	3,585355E+09	3,585308E+09	4,652746E+09	7,170663E+09	1,182341E+10
2191	2,326247E+09	2,326241E+09	3,585290E+09	3,585358E+09	4,652488E+09	7,170648E+09	1,182314E+10
2192	2,326365E+09	2,326351E+09	3,585340E+09	3,585311E+09	4,652716E+09	7,170651E+09	1,182337E+10
2193	2,326344E+09	2,326319E+09	3,585331E+09	3,585311E+09	4,652663E+09	7,170642E+09	1,182330E+10
2194	2,326287E+09	2,326298E+09	3,585267E+09	3,585311E+09	4,652585E+09	7,170578E+09	1,182316E+10

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	2,326428E+09	2,326461E+09	3,585312E+09	3,585262E+09	4,652890E+09	7,170575E+09	1,182346E+10
2196	2,326360E+09	2,326379E+09	3,585275E+09	3,585305E+09	4,652739E+09	7,170580E+09	1,182332E+10
2197	2,326398E+09	2,326426E+09	3,585301E+09	3,585254E+09	4,652823E+09	7,170555E+09	1,182338E+10
2198	2,326515E+09	2,326531E+09	3,585331E+09	3,585228E+09	4,653046E+09	7,170559E+09	1,182361E+10
2199	2,326438E+09	2,326418E+09	3,585230E+09	3,585290E+09	4,652855E+09	7,170520E+09	1,182337E+10
2200	2,326546E+09	2,326542E+09	3,585244E+09	3,585264E+09	4,653089E+09	7,170508E+09	1,182360E+10
2201	2,326560E+09	2,326572E+09	3,585240E+09	3,585252E+09	4,653132E+09	7,170492E+09	1,182362E+10
2202	2,326480E+09	2,326490E+09	3,585177E+09	3,585247E+09	4,652969E+09	7,170425E+09	1,182339E+10
2203	2,326599E+09	2,326605E+09	3,585268E+09	3,585192E+09	4,653204E+09	7,170459E+09	1,182366E+10
2204	2,326520E+09	2,326499E+09	3,585257E+09	3,585238E+09	4,653020E+09	7,170495E+09	1,182351E+10
2205	2,326464E+09	2,326456E+09	3,585267E+09	3,585239E+09	4,652920E+09	7,170506E+09	1,182343E+10
2206	2,326517E+09	2,326552E+09	3,585313E+09	3,585249E+09	4,653069E+09	7,170562E+09	1,182363E+10
2207	2,326378E+09	2,326390E+09	3,585237E+09	3,585320E+09	4,652767E+09	7,170557E+09	1,182332E+10
2208	2,326407E+09	2,326422E+09	3,585284E+09	3,585299E+09	4,652829E+09	7,170582E+09	1,182341E+10
2209	2,326440E+09	2,326442E+09	3,585323E+09	3,585279E+09	4,652882E+09	7,170602E+09	1,182348E+10
2210	2,326343E+09	2,326312E+09	3,585235E+09	3,585288E+09	4,652656E+09	7,170522E+09	1,182318E+10
2211	2,326453E+09	2,326436E+09	3,585294E+09	3,585249E+09	4,652889E+09	7,170543E+09	1,182343E+10
2212	2,326425E+09	2,326417E+09	3,585260E+09	3,585271E+09	4,652842E+09	7,170531E+09	1,182337E+10
2213	2,326373E+09	2,326396E+09	3,585231E+09	3,585251E+09	4,652769E+09	7,170482E+09	1,182325E+10
2214	2,326496E+09	2,326554E+09	3,585297E+09	3,585213E+09	4,653051E+09	7,170510E+09	1,182356E+10
2215	2,326443E+09	2,326452E+09	3,585232E+09	3,585241E+09	4,652895E+09	7,170473E+09	1,182337E+10
2216	2,326503E+09	2,326500E+09	3,585247E+09	3,585229E+09	4,653004E+09	7,170476E+09	1,182348E+10
2217	2,326606E+09	2,326613E+09	3,585264E+09	3,585217E+09	4,653220E+09	7,170481E+09	1,182370E+10
2218	2,326529E+09	2,326525E+09	3,585142E+09	3,585235E+09	4,653054E+09	7,170377E+09	1,182343E+10
2219	2,326633E+09	2,326650E+09	3,585195E+09	3,585196E+09	4,653284E+09	7,170390E+09	1,182367E+10
2220	2,326649E+09	2,326658E+09	3,585198E+09	3,585190E+09	4,653307E+09	7,170389E+09	1,182370E+10
2221	2,326573E+09	2,326562E+09	3,585178E+09	3,585180E+09	4,653135E+09	7,170358E+09	1,182349E+10
2222	2,326660E+09	2,326677E+09	3,585264E+09	3,585161E+09	4,653337E+09	7,170425E+09	1,182376E+10
2223	2,326573E+09	2,326562E+09	3,585209E+09	3,585212E+09	4,653134E+09	7,170420E+09	1,182355E+10
2224	2,326527E+09	2,326530E+09	3,585206E+09	3,585245E+09	4,653058E+09	7,170451E+09	1,182351E+10
2225	2,326575E+09	2,326615E+09	3,585257E+09	3,585239E+09	4,653190E+09	7,170496E+09	1,182369E+10
2226	2,326457E+09	2,326452E+09	3,585182E+09	3,585248E+09	4,652909E+09	7,170430E+09	1,182334E+10
2227	2,326500E+09	2,326485E+09	3,585249E+09	3,585217E+09	4,652986E+09	7,170467E+09	1,182345E+10
2228	2,326535E+09	2,326505E+09	3,585261E+09	3,585222E+09	4,653039E+09	7,170483E+09	1,182352E+10
2229	2,326435E+09	2,326399E+09	3,585195E+09	3,585226E+09	4,652834E+09	7,170421E+09	1,182326E+10
2230	2,326507E+09	2,326547E+09	3,585254E+09	3,585209E+09	4,653054E+09	7,170463E+09	1,182352E+10
2231	2,326483E+09	2,326514E+09	3,585213E+09	3,585215E+09	4,652997E+09	7,170428E+09	1,182342E+10
2232	2,326458E+09	2,326482E+09	3,585204E+09	3,585223E+09	4,652940E+09	7,170426E+09	1,182337E+10
2233	2,326581E+09	2,326622E+09	3,585273E+09	3,585197E+09	4,653202E+09	7,170470E+09	1,182367E+10
2234	2,326545E+09	2,326531E+09	3,585176E+09	3,585195E+09	4,653076E+09	7,170371E+09	1,182345E+10
2235	2,326606E+09	2,326591E+09	3,585184E+09	3,585189E+09	4,653197E+09	7,170372E+09	1,182357E+10
2236	2,326703E+09	2,326711E+09	3,585176E+09	3,585183E+09	4,653415E+09	7,170359E+09	1,182377E+10
2237	2,326633E+09	2,326624E+09	3,585096E+09	3,585160E+09	4,653257E+09	7,170256E+09	1,182351E+10
2238	2,326709E+09	2,326742E+09	3,585177E+09	3,585124E+09	4,653451E+09	7,170301E+09	1,182375E+10
2239	2,326727E+09	2,326730E+09	3,585166E+09	3,585115E+09	4,653456E+09	7,170281E+09	1,182374E+10
2240	2,326657E+09	2,326630E+09	3,585140E+09	3,585155E+09	4,653287E+09	7,170295E+09	1,182358E+10
2241	2,326713E+09	2,326745E+09	3,585221E+09	3,585162E+09	4,653458E+09	7,170383E+09	1,182384E+10
2242	2,326632E+09	2,326643E+09	3,585143E+09	3,585174E+09	4,653275E+09	7,170317E+09	1,182359E+10
2243	2,326593E+09	2,326600E+09	3,585165E+09	3,585196E+09	4,653193E+09	7,170361E+09	1,182355E+10

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	2,326655E+09	2,326669E+09	3,585213E+09	3,585194E+09	4,653324E+09	7,170407E+09	1,182373E+10
2245	2,326556E+09	2,326509E+09	3,585159E+09	3,585178E+09	4,653065E+09	7,170337E+09	1,182340E+10
2246	2,326571E+09	2,326562E+09	3,585219E+09	3,585171E+09	4,653133E+09	7,170390E+09	1,182352E+10
2247	2,326600E+09	2,326590E+09	3,585193E+09	3,585173E+09	4,653190E+09	7,170366E+09	1,182356E+10
2248	2,326507E+09	2,326500E+09	3,585133E+09	3,585209E+09	4,653007E+09	7,170341E+09	1,182335E+10
2249	2,326566E+09	2,326634E+09	3,585220E+09	3,585184E+09	4,653200E+09	7,170404E+09	1,182360E+10
2250	2,326567E+09	2,326594E+09	3,585177E+09	3,585145E+09	4,653162E+09	7,170322E+09	1,182348E+10
2251	2,326561E+09	2,326556E+09	3,585175E+09	3,585161E+09	4,653116E+09	7,170336E+09	1,182345E+10
2252	2,326690E+09	2,326695E+09	3,585206E+09	3,585162E+09	4,653385E+09	7,170368E+09	1,182375E+10
2253	2,326656E+09	2,326628E+09	3,585117E+09	3,585141E+09	4,653284E+09	7,170259E+09	1,182354E+10
2254	2,326686E+09	2,326710E+09	3,585126E+09	3,585141E+09	4,653395E+09	7,170267E+09	1,182366E+10
2255	2,326783E+09	2,326808E+09	3,585118E+09	3,585111E+09	4,653591E+09	7,170229E+09	1,182382E+10
2256	2,326727E+09	2,326715E+09	3,585070E+09	3,585114E+09	4,653442E+09	7,170184E+09	1,182363E+10
2257	2,326783E+09	2,326811E+09	3,585162E+09	3,585092E+09	4,653594E+09	7,170253E+09	1,182385E+10
2258	2,326802E+09	2,326799E+09	3,585126E+09	3,585070E+09	4,653601E+09	7,170196E+09	1,182380E+10
2259	2,326727E+09	2,326707E+09	3,585095E+09	3,585131E+09	4,653434E+09	7,170225E+09	1,182366E+10
2260	2,326779E+09	2,326814E+09	3,585147E+09	3,585150E+09	4,653593E+09	7,170297E+09	1,182389E+10
2261	2,326716E+09	2,326708E+09	3,585106E+09	3,585117E+09	4,653423E+09	7,170223E+09	1,182365E+10
2262	2,326663E+09	2,326666E+09	3,585135E+09	3,585133E+09	4,653329E+09	7,170268E+09	1,182360E+10
2263	2,326733E+09	2,326723E+09	3,585158E+09	3,585122E+09	4,653457E+09	7,170280E+09	1,182374E+10
2264	2,326641E+09	2,326588E+09	3,585104E+09	3,585142E+09	4,653230E+09	7,170246E+09	1,182348E+10
2265	2,326624E+09	2,326651E+09	3,585170E+09	3,585149E+09	4,653275E+09	7,170319E+09	1,182359E+10
2266	2,326659E+09	2,326692E+09	3,585141E+09	3,585118E+09	4,653351E+09	7,170259E+09	1,182361E+10
2267	2,326579E+09	2,326590E+09	3,585113E+09	3,585157E+09	4,653169E+09	7,170270E+09	1,182344E+10
2268	2,326651E+09	2,326700E+09	3,585193E+09	3,585150E+09	4,653351E+09	7,170343E+09	1,182369E+10
2269	2,326678E+09	2,326660E+09	3,585158E+09	3,585093E+09	4,653339E+09	7,170252E+09	1,182359E+10
2270	2,326651E+09	2,326640E+09	3,585130E+09	3,585129E+09	4,653291E+09	7,170260E+09	1,182355E+10
2271	2,326782E+09	2,326787E+09	3,585118E+09	3,585119E+09	4,653569E+09	7,170238E+09	1,182381E+10
2272	2,326757E+09	2,326740E+09	3,585033E+09	3,585105E+09	4,653497E+09	7,170137E+09	1,182363E+10
2273	2,326766E+09	2,326805E+09	3,585080E+09	3,585088E+09	4,653571E+09	7,170169E+09	1,182374E+10
2274	2,326876E+09	2,326897E+09	3,585078E+09	3,585019E+09	4,653772E+09	7,170096E+09	1,182387E+10
2275	2,326820E+09	2,326793E+09	3,585044E+09	3,585049E+09	4,653613E+09	7,170093E+09	1,182371E+10
2276	2,326862E+09	2,326882E+09	3,585112E+09	3,585068E+09	4,653744E+09	7,170181E+09	1,182392E+10
2277	2,326882E+09	2,326881E+09	3,585083E+09	3,585034E+09	4,653763E+09	7,170117E+09	1,182388E+10
2278	2,326781E+09	2,326797E+09	3,585052E+09	3,585101E+09	4,653578E+09	7,170153E+09	1,182373E+10
2279	2,326844E+09	2,326876E+09	3,585095E+09	3,585096E+09	4,653720E+09	7,170191E+09	1,182391E+10
2280	2,326801E+09	2,326772E+09	3,585068E+09	3,585079E+09	4,653574E+09	7,170147E+09	1,182372E+10
2281	2,326731E+09	2,326724E+09	3,585105E+09	3,585102E+09	4,653455E+09	7,170207E+09	1,182366E+10
2282	2,326805E+09	2,326795E+09	3,585105E+09	3,585068E+09	4,653600E+09	7,170172E+09	1,182377E+10
2283	2,326709E+09	2,326679E+09	3,585057E+09	3,585105E+09	4,653389E+09	7,170162E+09	1,182355E+10
2284	2,326688E+09	2,326735E+09	3,585116E+09	3,585121E+09	4,653423E+09	7,170237E+09	1,182366E+10
2285	2,326744E+09	2,326767E+09	3,585127E+09	3,585054E+09	4,653511E+09	7,170181E+09	1,182369E+10
2286	2,326659E+09	2,326665E+09	3,585100E+09	3,585101E+09	4,653324E+09	7,170200E+09	1,182352E+10
2287	2,326746E+09	2,326757E+09	3,585134E+09	3,585097E+09	4,653502E+09	7,170231E+09	1,182373E+10
2288	2,326783E+09	2,326750E+09	3,585085E+09	3,585072E+09	4,653533E+09	7,170158E+09	1,182369E+10
2289	2,326731E+09	2,326744E+09	3,585052E+09	3,585103E+09	4,653475E+09	7,170155E+09	1,182363E+10
2290	2,326865E+09	2,326897E+09	3,585042E+09	3,585047E+09	4,653762E+09	7,170089E+09	1,182385E+10
2291	2,326851E+09	2,326847E+09	3,585000E+09	3,585031E+09	4,653697E+09	7,170031E+09	1,182373E+10
2292	2,326859E+09	2,326886E+09	3,585051E+09	3,585035E+09	4,653745E+09	7,170085E+09	1,182383E+10

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							
2293	2,326976E+09	2,326971E+09	3,585068E+09	3,584961E+09	4,653948E+09	7,170029E+09	1,182398E+10
2294	2,326891E+09	2,326879E+09	3,585016E+09	3,585023E+09	4,653770E+09	7,170039E+09	1,182381E+10
2295	2,326926E+09	2,326956E+09	3,585041E+09	3,585047E+09	4,653882E+09	7,170088E+09	1,182397E+10
2296	2,326958E+09	2,326965E+09	3,585018E+09	3,585021E+09	4,653923E+09	7,170039E+09	1,182396E+10
2297	2,326845E+09	2,326860E+09	3,585012E+09	3,585064E+09	4,653706E+09	7,170075E+09	1,182378E+10
2298	2,326926E+09	2,326932E+09	3,585047E+09	3,585017E+09	4,653858E+09	7,170065E+09	1,182392E+10
2299	2,326889E+09	2,326839E+09	3,585026E+09	3,585017E+09	4,653728E+09	7,170043E+09	1,182377E+10
2300	2,326804E+09	2,326796E+09	3,585050E+09	3,585068E+09	4,653600E+09	7,170119E+09	1,182372E+10
2301	2,326877E+09	2,326884E+09	3,585069E+09	3,585016E+09	4,653761E+09	7,170085E+09	1,182385E+10
2302	2,326760E+09	2,326775E+09	3,585037E+09	3,585064E+09	4,653535E+09	7,170100E+09	1,182364E+10
2303	2,326753E+09	2,326800E+09	3,585086E+09	3,585075E+09	4,653553E+09	7,170161E+09	1,182371E+10
2304	2,326834E+09	2,326835E+09	3,585094E+09	3,585028E+09	4,653669E+09	7,170122E+09	1,182379E+10
2305	2,326738E+09	2,326729E+09	3,585058E+09	3,585082E+09	4,653467E+09	7,170140E+09	1,182361E+10
2306	2,326837E+09	2,326838E+09	3,585054E+09	3,585050E+09	4,653675E+09	7,170104E+09	1,182378E+10
2307	2,326878E+09	2,326858E+09	3,585001E+09	3,585029E+09	4,653736E+09	7,170030E+09	1,182377E+10
2308	2,326824E+09	2,326849E+09	3,584980E+09	3,585053E+09	4,653672E+09	7,170033E+09	1,182370E+10
2309	2,326973E+09	2,326991E+09	3,585016E+09	3,584953E+09	4,653964E+09	7,169969E+09	1,182393E+10
2310	2,326941E+09	2,326942E+09	3,584989E+09	3,584952E+09	4,653883E+09	7,169942E+09	1,182382E+10
2311	2,326946E+09	2,326960E+09	3,585008E+09	3,584980E+09	4,653906E+09	7,169989E+09	1,182389E+10
2312	2,327059E+09	2,327063E+09	3,585017E+09	3,584949E+09	4,654122E+09	7,169966E+09	1,182409E+10
2313	2,326948E+09	2,326968E+09	3,584966E+09	3,585018E+09	4,653916E+09	7,169985E+09	1,182390E+10
2314	2,326994E+09	2,327031E+09	3,584982E+09	3,584999E+09	4,654025E+09	7,169982E+09	1,182401E+10
2315	2,327041E+09	2,327036E+09	3,584982E+09	3,584972E+09	4,654077E+09	7,169954E+09	1,182403E+10
2316	2,326932E+09	2,326916E+09	3,584971E+09	3,585021E+09	4,653848E+09	7,169992E+09	1,182384E+10
2317	2,327019E+09	2,326990E+09	3,585021E+09	3,584957E+09	4,654008E+09	7,169978E+09	1,182399E+10
2318	2,326953E+09	2,326927E+09	3,584994E+09	3,584976E+09	4,653880E+09	7,169970E+09	1,182385E+10
2319	2,326860E+09	2,326873E+09	3,584986E+09	3,585032E+09	4,653734E+09	7,170018E+09	1,182375E+10
2320	2,326939E+09	2,326969E+09	3,585028E+09	3,584990E+09	4,653909E+09	7,170019E+09	1,182393E+10
2321	2,326819E+09	2,326840E+09	3,585015E+09	3,585028E+09	4,653658E+09	7,170043E+09	1,182370E+10
2322	2,326832E+09	2,326850E+09	3,585039E+09	3,585012E+09	4,653681E+09	7,170052E+09	1,182373E+10
2323	2,326928E+09	2,326906E+09	3,585037E+09	3,584988E+09	4,653834E+09	7,170025E+09	1,182386E+10
2324	2,326830E+09	2,326816E+09	3,584975E+09	3,585052E+09	4,653645E+09	7,170028E+09	1,182367E+10
2325	2,326937E+09	2,326942E+09	3,584991E+09	3,584984E+09	4,653879E+09	7,169976E+09	1,182385E+10
2326	2,326960E+09	2,326978E+09	3,584966E+09	3,584954E+09	4,653938E+09	7,169921E+09	1,182386E+10
2327	2,326913E+09	2,326935E+09	3,584947E+09	3,584979E+09	4,653849E+09	7,169926E+09	1,182377E+10
2328	2,327068E+09	2,327079E+09	3,584998E+09	3,584910E+09	4,654148E+09	7,169909E+09	1,182406E+10
2329	2,327015E+09	2,327019E+09	3,584970E+09	3,584936E+09	4,654034E+09	7,169906E+09	1,182394E+10
2330	2,327020E+09	2,327037E+09	3,584948E+09	3,584954E+09	4,654057E+09	7,169901E+09	1,182396E+10
2331	2,327138E+09	2,327156E+09	3,584945E+09	3,584934E+09	4,654294E+09	7,169878E+09	1,182417E+10
2332	2,327031E+09	2,327044E+09	3,584901E+09	3,584989E+09	4,654075E+09	7,169890E+09	1,182397E+10
2333	2,327099E+09	2,327094E+09	3,584948E+09	3,584920E+09	4,654192E+09	7,169868E+09	1,182406E+10
2334	2,327128E+09	2,327108E+09	3,584951E+09	3,584896E+09	4,654236E+09	7,169848E+09	1,182408E+10
2335	2,327013E+09	2,326980E+09	3,584915E+09	3,584964E+09	4,653994E+09	7,169879E+09	1,182387E+10
2336	2,327086E+09	2,327081E+09	3,584967E+09	3,584926E+09	4,654167E+09	7,169892E+09	1,182406E+10
2337	2,326989E+09	2,327016E+09	3,584960E+09	3,584954E+09	4,654005E+09	7,169914E+09	1,182392E+10
2338	2,326908E+09	2,326945E+09	3,584952E+09	3,584982E+09	4,653853E+09	7,169934E+09	1,182379E+10
2339	2,327007E+09	2,327034E+09	3,585003E+09	3,584955E+09	4,654041E+09	7,169958E+09	1,182400E+10
2340	2,326901E+09	2,326891E+09	3,584980E+09	3,585005E+09	4,653792E+09	7,169985E+09	1,182378E+10
2341	2,326935E+09	2,326908E+09	3,584995E+09	3,584964E+09	4,653843E+09	7,169959E+09	1,182380E+10

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							
2342	2,327013E+09	2,327003E+09	3,584978E+09	3,584943E+09	4,654015E+09	7,169921E+09	1,182394E+10
2343	2,326917E+09	2,326914E+09	3,584893E+09	3,584997E+09	4,653831E+09	7,169890E+09	1,182372E+10
2344	2,327029E+09	2,327049E+09	3,584944E+09	3,584923E+09	4,654078E+09	7,169867E+09	1,182395E+10
2345	2,327040E+09	2,327069E+09	3,584952E+09	3,584892E+09	4,654109E+09	7,169844E+09	1,182395E+10
2346	2,327002E+09	2,327010E+09	3,584912E+09	3,584910E+09	4,654012E+09	7,169822E+09	1,182383E+10
2347	2,327156E+09	2,327168E+09	3,584950E+09	3,584886E+09	4,654324E+09	7,169835E+09	1,182416E+10
2348	2,327099E+09	2,327109E+09	3,584905E+09	3,584930E+09	4,654207E+09	7,169835E+09	1,182404E+10
2349	2,327114E+09	2,327124E+09	3,584892E+09	3,584912E+09	4,654238E+09	7,169805E+09	1,182404E+10
2350	2,327221E+09	2,327251E+09	3,584910E+09	3,584877E+09	4,654472E+09	7,169788E+09	1,182426E+10
2351	2,327126E+09	2,327110E+09	3,584850E+09	3,584922E+09	4,654236E+09	7,169772E+09	1,182401E+10
2352	2,327190E+09	2,327165E+09	3,584911E+09	3,584871E+09	4,654355E+09	7,169782E+09	1,182414E+10
2353	2,327190E+09	2,327182E+09	3,584921E+09	3,584863E+09	4,654371E+09	7,169784E+09	1,182416E+10
2354	2,327065E+09	2,327054E+09	3,584855E+09	3,584922E+09	4,654119E+09	7,169777E+09	1,182390E+10
2355	2,327135E+09	2,327169E+09	3,584915E+09	3,584904E+09	4,654304E+09	7,169819E+09	1,182412E+10
2356	2,327050E+09	2,327079E+09	3,584927E+09	3,584924E+09	4,654129E+09	7,169851E+09	1,182398E+10
2357	2,326996E+09	2,326991E+09	3,584934E+09	3,584916E+09	4,653987E+09	7,169850E+09	1,182384E+10
2358	2,327090E+09	2,327096E+09	3,584975E+09	3,584896E+09	4,654187E+09	7,169871E+09	1,182406E+10
2359	2,326992E+09	2,326955E+09	3,584907E+09	3,584959E+09	4,653947E+09	7,169866E+09	1,182381E+10
2360	2,327022E+09	2,327008E+09	3,584923E+09	3,584929E+09	4,654030E+09	7,169852E+09	1,182388E+10
2361	2,327079E+09	2,327108E+09	3,584930E+09	3,584901E+09	4,654187E+09	7,169831E+09	1,182402E+10
2362	2,326993E+09	2,327008E+09	3,584852E+09	3,584923E+09	4,654001E+09	7,169775E+09	1,182378E+10
2363	2,327116E+09	2,327143E+09	3,584916E+09	3,584873E+09	4,654259E+09	7,169788E+09	1,182405E+10
2364	2,327133E+09	2,327145E+09	3,584927E+09	3,584865E+09	4,654278E+09	7,169792E+09	1,182407E+10
2365	2,327106E+09	2,327088E+09	3,584875E+09	3,584873E+09	4,654195E+09	7,169748E+09	1,182394E+10
2366	2,327239E+09	2,327269E+09	3,584893E+09	3,584854E+09	4,654508E+09	7,169747E+09	1,182426E+10
2367	2,327189E+09	2,327200E+09	3,584823E+09	3,584893E+09	4,654390E+09	7,169716E+09	1,182411E+10
2368	2,327213E+09	2,327214E+09	3,584836E+09	3,584854E+09	4,654427E+09	7,169691E+09	1,182412E+10
2369	2,327302E+09	2,327321E+09	3,584880E+09	3,584811E+09	4,654623E+09	7,169691E+09	1,182431E+10
2370	2,327208E+09	2,327176E+09	3,584801E+09	3,584843E+09	4,654384E+09	7,169644E+09	1,182403E+10
2371	2,327261E+09	2,327250E+09	3,584853E+09	3,584832E+09	4,654511E+09	7,169685E+09	1,182420E+10
2372	2,327248E+09	2,327266E+09	3,584874E+09	3,584843E+09	4,654513E+09	7,169717E+09	1,182423E+10
2373	2,327131E+09	2,327131E+09	3,584828E+09	3,584875E+09	4,654262E+09	7,169702E+09	1,182396E+10
2374	2,327190E+09	2,327242E+09	3,584907E+09	3,584854E+09	4,654432E+09	7,169761E+09	1,182419E+10
2375	2,327127E+09	2,327126E+09	3,584896E+09	3,584884E+09	4,654253E+09	7,169780E+09	1,182403E+10
2376	2,327083E+09	2,327046E+09	3,584898E+09	3,584887E+09	4,654130E+09	7,169784E+09	1,182391E+10
2377	2,327160E+09	2,327163E+09	3,584930E+09	3,584876E+09	4,654322E+09	7,169806E+09	1,182413E+10
2378	2,327064E+09	2,327042E+09	3,584823E+09	3,584911E+09	4,654106E+09	7,169735E+09	1,182384E+10
2379	2,327098E+09	2,327117E+09	3,584848E+09	3,584888E+09	4,654215E+09	7,169737E+09	1,182395E+10
2380	2,327166E+09	2,327198E+09	3,584893E+09	3,584846E+09	4,654365E+09	7,169739E+09	1,182410E+10
2381	2,327100E+09	2,327083E+09	3,584832E+09	3,584842E+09	4,654184E+09	7,169675E+09	1,182386E+10
2382	2,327207E+09	2,327234E+09	3,584893E+09	3,584812E+09	4,654441E+09	7,169705E+09	1,182415E+10
2383	2,327228E+09	2,327231E+09	3,584859E+09	3,584829E+09	4,654459E+09	7,169688E+09	1,182415E+10
2384	2,327195E+09	2,327191E+09	3,584811E+09	3,584845E+09	4,654387E+09	7,169656E+09	1,182404E+10
2385	2,327311E+09	2,327367E+09	3,584849E+09	3,584818E+09	4,654678E+09	7,169667E+09	1,182435E+10
2386	2,327273E+09	2,327279E+09	3,584770E+09	3,584821E+09	4,654552E+09	7,169591E+09	1,182414E+10
2387	2,327305E+09	2,327296E+09	3,584788E+09	3,584805E+09	4,654601E+09	7,169593E+09	1,182419E+10
2388	2,327392E+09	2,327387E+09	3,584843E+09	3,584774E+09	4,654778E+09	7,169617E+09	1,182440E+10
2389	2,327294E+09	2,327249E+09	3,584761E+09	3,584793E+09	4,654544E+09	7,169555E+09	1,182410E+10
2390	2,327317E+09	2,327346E+09	3,584814E+09	3,584789E+09	4,654663E+09	7,169603E+09	1,182427E+10

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							
2391	2,327310E+09	2,327340E+09	3,584823E+09	3,584808E+09	4,654650E+09	7,169631E+09	1,182428E+10
2392	2,327204E+09	2,327194E+09	3,584808E+09	3,584830E+09	4,654398E+09	7,169638E+09	1,182404E+10
2393	2,327255E+09	2,327289E+09	3,584891E+09	3,584815E+09	4,654543E+09	7,169706E+09	1,182425E+10
2394	2,327201E+09	2,327177E+09	3,584836E+09	3,584835E+09	4,654378E+09	7,169671E+09	1,182405E+10
2395	2,327160E+09	2,327133E+09	3,584812E+09	3,584865E+09	4,654294E+09	7,169677E+09	1,182397E+10
2396	2,327234E+09	2,327253E+09	3,584863E+09	3,584849E+09	4,654487E+09	7,169712E+09	1,182420E+10
2397	2,327153E+09	2,327142E+09	3,584782E+09	3,584840E+09	4,654295E+09	7,169622E+09	1,182392E+10
2398	2,327178E+09	2,327216E+09	3,584834E+09	3,584806E+09	4,654395E+09	7,169639E+09	1,182403E+10
2399	2,327260E+09	2,327275E+09	3,584864E+09	3,584790E+09	4,654535E+09	7,169655E+09	1,182419E+10
2400	2,327197E+09	2,327164E+09	3,584807E+09	3,584804E+09	4,654362E+09	7,169611E+09	1,182397E+10
2401	2,327277E+09	2,327316E+09	3,584854E+09	3,584795E+09	4,654592E+09	7,169649E+09	1,182424E+10
2402	2,327303E+09	2,327323E+09	3,584779E+09	3,584795E+09	4,654626E+09	7,169573E+09	1,182420E+10
2403	2,327286E+09	2,327295E+09	3,584728E+09	3,584813E+09	4,654580E+09	7,169540E+09	1,182412E+10
2404	2,327412E+09	2,327441E+09	3,584804E+09	3,584763E+09	4,654853E+09	7,169568E+09	1,182442E+10
2405	2,327388E+09	2,327353E+09	3,584730E+09	3,584732E+09	4,654741E+09	7,169462E+09	1,182420E+10
2406	2,327394E+09	2,327386E+09	3,584750E+09	3,584731E+09	4,654780E+09	7,169482E+09	1,182426E+10
2407	2,327470E+09	2,327473E+09	3,584782E+09	3,584736E+09	4,654943E+09	7,169517E+09	1,182446E+10
2408	2,327360E+09	2,327344E+09	3,584725E+09	3,584762E+09	4,654704E+09	7,169488E+09	1,182419E+10
2409	2,327357E+09	2,327423E+09	3,584805E+09	3,584763E+09	4,654781E+09	7,169568E+09	1,182435E+10
2410	2,327366E+09	2,327394E+09	3,584794E+09	3,584763E+09	4,654760E+09	7,169556E+09	1,182432E+10
2411	2,327277E+09	2,327252E+09	3,584762E+09	3,584814E+09	4,654529E+09	7,169576E+09	1,182411E+10
2412	2,327336E+09	2,327333E+09	3,584847E+09	3,584802E+09	4,654669E+09	7,169649E+09	1,182432E+10
2413	2,327290E+09	2,327245E+09	3,584768E+09	3,584790E+09	4,654536E+09	7,169558E+09	1,182409E+10
2414	2,327233E+09	2,327238E+09	3,584749E+09	3,584807E+09	4,654471E+09	7,169557E+09	1,182403E+10
2415	2,327318E+09	2,327343E+09	3,584800E+09	3,584784E+09	4,654660E+09	7,169584E+09	1,182424E+10
2416	2,327243E+09	2,327223E+09	3,584766E+09	3,584761E+09	4,654466E+09	7,169528E+09	1,182399E+10
2417	2,327250E+09	2,327289E+09	3,584829E+09	3,584748E+09	4,654540E+09	7,169577E+09	1,182412E+10
2418	2,327334E+09	2,327347E+09	3,584811E+09	3,584742E+09	4,654681E+09	7,169552E+09	1,182423E+10
2419	2,327277E+09	2,327266E+09	3,584728E+09	3,584796E+09	4,654543E+09	7,169524E+09	1,182407E+10
2420	2,327362E+09	2,327405E+09	3,584790E+09	3,584780E+09	4,654767E+09	7,169570E+09	1,182434E+10
2421	2,327407E+09	2,327416E+09	3,584723E+09	3,584731E+09	4,654823E+09	7,169455E+09	1,182428E+10
2422	2,327386E+09	2,327394E+09	3,584692E+09	3,584733E+09	4,654780E+09	7,169425E+09	1,182421E+10
2423	2,327520E+09	2,327517E+09	3,584755E+09	3,584704E+09	4,655037E+09	7,169459E+09	1,182450E+10
2424	2,327486E+09	2,327439E+09	3,584701E+09	3,584680E+09	4,654925E+09	7,169381E+09	1,182431E+10
2425	2,327452E+09	2,327476E+09	3,584720E+09	3,584704E+09	4,654928E+09	7,169423E+09	1,182435E+10
2426	2,327519E+09	2,327561E+09	3,584721E+09	3,584703E+09	4,655080E+09	7,169424E+09	1,182450E+10
2427	2,327423E+09	2,327430E+09	3,584673E+09	3,584745E+09	4,654852E+09	7,169419E+09	1,182427E+10
2428	2,327431E+09	2,327464E+09	3,584785E+09	3,584734E+09	4,654895E+09	7,169519E+09	1,182441E+10
2429	2,327459E+09	2,327441E+09	3,584755E+09	3,584706E+09	4,654900E+09	7,169461E+09	1,182436E+10
2430	2,327359E+09	2,327324E+09	3,584704E+09	3,584755E+09	4,654684E+09	7,169459E+09	1,182414E+10
2431	2,327415E+09	2,327409E+09	3,584766E+09	3,584763E+09	4,654824E+09	7,169529E+09	1,182435E+10
2432	2,327366E+09	2,327343E+09	3,584722E+09	3,584731E+09	4,654710E+09	7,169452E+09	1,182416E+10
2433	2,327286E+09	2,327326E+09	3,584737E+09	3,584748E+09	4,654612E+09	7,169485E+09	1,182410E+10
2434	2,327379E+09	2,327414E+09	3,584776E+09	3,584719E+09	4,654794E+09	7,169495E+09	1,182429E+10
2435	2,327323E+09	2,327303E+09	3,584728E+09	3,584741E+09	4,654626E+09	7,169469E+09	1,182409E+10
2436	2,327331E+09	2,327349E+09	3,584797E+09	3,584743E+09	4,654680E+09	7,169540E+09	1,182422E+10
2437	2,327425E+09	2,327433E+09	3,584742E+09	3,584712E+09	4,654858E+09	7,169454E+09	1,182431E+10
2438	2,327366E+09	2,327377E+09	3,584656E+09	3,584747E+09	4,654743E+09	7,169403E+09	1,182415E+10
2439	2,327470E+09	2,327493E+09	3,584719E+09	3,584724E+09	4,654963E+09	7,169443E+09	1,182441E+10

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							
2440	2,327524E+09	2,327502E+09	3,584690E+09	3,584647E+09	4,655026E+09	7,169337E+09	1,182436E+10
2441	2,327477E+09	2,327480E+09	3,584668E+09	3,584665E+09	4,654957E+09	7,169333E+09	1,182429E+10
2442	2,327596E+09	2,327605E+09	3,584694E+09	3,584646E+09	4,655200E+09	7,169340E+09	1,182454E+10
2443	2,327554E+09	2,327549E+09	3,584636E+09	3,584667E+09	4,655103E+09	7,169303E+09	1,182441E+10
2444	2,327513E+09	2,327558E+09	3,584692E+09	3,584691E+09	4,655071E+09	7,169383E+09	1,182445E+10
2445	2,327592E+09	2,327629E+09	3,584692E+09	3,584654E+09	4,655221E+09	7,169346E+09	1,182457E+10
2446	2,327499E+09	2,327496E+09	3,584653E+09	3,584692E+09	4,654996E+09	7,169345E+09	1,182434E+10
2447	2,327523E+09	2,327505E+09	3,584733E+09	3,584700E+09	4,655028E+09	7,169433E+09	1,182446E+10
2448	2,327546E+09	2,327496E+09	3,584710E+09	3,584662E+09	4,655042E+09	7,169372E+09	1,182441E+10
2449	2,327416E+09	2,327407E+09	3,584654E+09	3,584718E+09	4,654822E+09	7,169372E+09	1,182419E+10
2450	2,327468E+09	2,327494E+09	3,584691E+09	3,584707E+09	4,654963E+09	7,169398E+09	1,182436E+10
2451	2,327435E+09	2,327437E+09	3,584674E+09	3,584686E+09	4,654871E+09	7,169360E+09	1,182423E+10
2452	2,327363E+09	2,327382E+09	3,584729E+09	3,584702E+09	4,654745E+09	7,169431E+09	1,182418E+10
2453	2,327465E+09	2,327479E+09	3,584741E+09	3,584663E+09	4,654944E+09	7,169404E+09	1,182435E+10
2454	2,327404E+09	2,327395E+09	3,584678E+09	3,584699E+09	4,654800E+09	7,169377E+09	1,182418E+10
2455	2,327421E+09	2,327435E+09	3,584717E+09	3,584724E+09	4,654856E+09	7,169440E+09	1,182430E+10
2456	2,327522E+09	2,327532E+09	3,584693E+09	3,584662E+09	4,655054E+09	7,169355E+09	1,182441E+10
2457	2,327452E+09	2,327476E+09	3,584628E+09	3,584684E+09	4,654928E+09	7,169312E+09	1,182424E+10
2458	2,327561E+09	2,327577E+09	3,584669E+09	3,584652E+09	4,655138E+09	7,169321E+09	1,182446E+10
2459	2,327624E+09	2,327600E+09	3,584639E+09	3,584610E+09	4,655224E+09	7,169249E+09	1,182447E+10
2460	2,327562E+09	2,327555E+09	3,584637E+09	3,584643E+09	4,655117E+09	7,169281E+09	1,182440E+10
2461	2,327672E+09	2,327700E+09	3,584638E+09	3,584608E+09	4,655372E+09	7,169247E+09	1,182462E+10
2462	2,327627E+09	2,327651E+09	3,584588E+09	3,584619E+09	4,655278E+09	7,169207E+09	1,182448E+10
2463	2,327598E+09	2,327616E+09	3,584649E+09	3,584650E+09	4,655213E+09	7,169298E+09	1,182451E+10
2464	2,327686E+09	2,327681E+09	3,584673E+09	3,584590E+09	4,655367E+09	7,169263E+09	1,182463E+10
2465	2,327572E+09	2,327553E+09	3,584619E+09	3,584642E+09	4,655125E+09	7,169261E+09	1,182439E+10
2466	2,327586E+09	2,327570E+09	3,584651E+09	3,584657E+09	4,655155E+09	7,169308E+09	1,182446E+10
2467	2,327609E+09	2,327595E+09	3,584628E+09	3,584640E+09	4,655204E+09	7,169268E+09	1,182447E+10
2468	2,327474E+09	2,327484E+09	3,584625E+09	3,584685E+09	4,654958E+09	7,169309E+09	1,182427E+10
2469	2,327535E+09	2,327571E+09	3,584668E+09	3,584638E+09	4,655106E+09	7,169306E+09	1,182441E+10
2470	2,327510E+09	2,327516E+09	3,584664E+09	3,584626E+09	4,655026E+09	7,169290E+09	1,182432E+10
2471	2,327449E+09	2,327436E+09	3,584696E+09	3,584679E+09	4,654886E+09	7,169375E+09	1,182426E+10
2472	2,327552E+09	2,327549E+09	3,584704E+09	3,584634E+09	4,655101E+09	7,169338E+09	1,182444E+10
2473	2,327474E+09	2,327491E+09	3,584625E+09	3,584675E+09	4,654965E+09	7,169299E+09	1,182426E+10
2474	2,327501E+09	2,327527E+09	3,584631E+09	3,584674E+09	4,655027E+09	7,169305E+09	1,182433E+10
2475	2,327624E+09	2,327630E+09	3,584631E+09	3,584611E+09	4,655254E+09	7,169241E+09	1,182450E+10
2476	2,327560E+09	2,327550E+09	3,584604E+09	3,584622E+09	4,655109E+09	7,169226E+09	1,182434E+10
2477	2,327665E+09	2,327663E+09	3,584613E+09	3,584574E+09	4,655328E+09	7,169187E+09	1,182452E+10
2478	2,327711E+09	2,327712E+09	3,584587E+09	3,584552E+09	4,655423E+09	7,169139E+09	1,182456E+10
2479	2,327645E+09	2,327650E+09	3,584575E+09	3,584616E+09	4,655295E+09	7,169191E+09	1,182449E+10
2480	2,327749E+09	2,327786E+09	3,584613E+09	3,584559E+09	4,655534E+09	7,169172E+09	1,182471E+10
2481	2,327693E+09	2,327728E+09	3,584581E+09	3,584575E+09	4,655421E+09	7,169156E+09	1,182458E+10
2482	2,327672E+09	2,327667E+09	3,584598E+09	3,584606E+09	4,655339E+09	7,169203E+09	1,182454E+10
2483	2,327769E+09	2,327746E+09	3,584613E+09	3,584574E+09	4,655516E+09	7,169187E+09	1,182470E+10
2484	2,327645E+09	2,327613E+09	3,584571E+09	3,584623E+09	4,655258E+09	7,169194E+09	1,182445E+10
2485	2,327650E+09	2,327657E+09	3,584574E+09	3,584607E+09	4,655307E+09	7,169181E+09	1,182449E+10
2486	2,327675E+09	2,327696E+09	3,584584E+09	3,584574E+09	4,655370E+09	7,169158E+09	1,182453E+10
2487	2,327554E+09	2,327546E+09	3,584599E+09	3,584630E+09	4,655100E+09	7,169229E+09	1,182433E+10
2488	2,327617E+09	2,327629E+09	3,584668E+09	3,584570E+09	4,655246E+09	7,169238E+09	1,182448E+10

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	2,327577E+09	2,327587E+09	3,584646E+09	3,584586E+09	4,655164E+09	7,169233E+09	1,182440E+10
2490	2,327513E+09	2,327509E+09	3,584621E+09	3,584653E+09	4,655023E+09	7,169274E+09	1,182430E+10
2491	2,327631E+09	2,327650E+09	3,584626E+09	3,584623E+09	4,655281E+09	7,169249E+09	1,182453E+10
2492	2,327559E+09	2,327571E+09	3,584584E+09	3,584639E+09	4,655131E+09	7,169223E+09	1,182435E+10
2493	2,327600E+09	2,327616E+09	3,584579E+09	3,584599E+09	4,655216E+09	7,169178E+09	1,182439E+10
2494	2,327731E+09	2,327729E+09	3,584590E+09	3,584532E+09	4,655461E+09	7,169122E+09	1,182458E+10
2495	2,327666E+09	2,327627E+09	3,584556E+09	3,584578E+09	4,655293E+09	7,169134E+09	1,182443E+10
2496	2,327755E+09	2,327757E+09	3,584578E+09	3,584523E+09	4,655512E+09	7,169101E+09	1,182461E+10
2497	2,327776E+09	2,327822E+09	3,584547E+09	3,584517E+09	4,655597E+09	7,169064E+09	1,182466E+10
2498	2,327712E+09	2,327734E+09	3,584515E+09	3,584574E+09	4,655446E+09	7,169089E+09	1,182454E+10
2499	2,327835E+09	2,327862E+09	3,584568E+09	3,584525E+09	4,655697E+09	7,169093E+09	1,182479E+10
2500	2,327782E+09	2,327775E+09	3,584555E+09	3,584539E+09	4,655558E+09	7,169094E+09	1,182465E+10
2501	2,327757E+09	2,327734E+09	3,584525E+09	3,584552E+09	4,655491E+09	7,169077E+09	1,182457E+10
2502	2,327845E+09	2,327839E+09	3,584544E+09	3,584523E+09	4,655684E+09	7,169067E+09	1,182475E+10
2503	2,327717E+09	2,327696E+09	3,584513E+09	3,584585E+09	4,655413E+09	7,169098E+09	1,182451E+10
2504	2,327719E+09	2,327736E+09	3,584563E+09	3,584536E+09	4,655455E+09	7,169098E+09	1,182455E+10
2505	2,327732E+09	2,327772E+09	3,584593E+09	3,584518E+09	4,655504E+09	7,169111E+09	1,182461E+10
2506	2,327618E+09	2,327598E+09	3,584569E+09	3,584592E+09	4,655216E+09	7,169161E+09	1,182438E+10
2507	2,327689E+09	2,327691E+09	3,584623E+09	3,584569E+09	4,655380E+09	7,169192E+09	1,182457E+10
2508	2,327648E+09	2,327649E+09	3,584603E+09	3,584587E+09	4,655297E+09	7,169190E+09	1,182449E+10
2509	2,327592E+09	2,327599E+09	3,584526E+09	3,584611E+09	4,655191E+09	7,169136E+09	1,182433E+10
2510	2,327724E+09	2,327749E+09	3,584562E+09	3,584553E+09	4,655473E+09	7,169115E+09	1,182459E+10
2511	2,327673E+09	2,327650E+09	3,584535E+09	3,584565E+09	4,655323E+09	7,169100E+09	1,182442E+10
2512	2,327712E+09	2,327698E+09	3,584548E+09	3,584505E+09	4,655410E+09	7,169053E+09	1,182446E+10
2513	2,327816E+09	2,327834E+09	3,584557E+09	3,584470E+09	4,655651E+09	7,169028E+09	1,182468E+10
2514	2,327737E+09	2,327730E+09	3,584484E+09	3,584538E+09	4,655468E+09	7,169022E+09	1,182449E+10
2515	2,327826E+09	2,327870E+09	3,584523E+09	3,584506E+09	4,655696E+09	7,169029E+09	1,182472E+10
2516	2,327849E+09	2,327900E+09	3,584534E+09	3,584492E+09	4,655750E+09	7,169026E+09	1,182478E+10
2517	2,327797E+09	2,327807E+09	3,584470E+09	3,584522E+09	4,655604E+09	7,168992E+09	1,182460E+10
2518	2,327932E+09	2,327933E+09	3,584528E+09	3,584475E+09	4,655865E+09	7,169004E+09	1,182487E+10
2519	2,327881E+09	2,327833E+09	3,584498E+09	3,584510E+09	4,655713E+09	7,169008E+09	1,182472E+10
2520	2,327840E+09	2,327813E+09	3,584472E+09	3,584499E+09	4,655653E+09	7,168971E+09	1,182462E+10
2521	2,327903E+09	2,327938E+09	3,584501E+09	3,584473E+09	4,655842E+09	7,168974E+09	1,182482E+10
2522	2,327775E+09	2,327769E+09	3,584468E+09	3,584528E+09	4,655544E+09	7,168996E+09	1,182454E+10
2523	2,327788E+09	2,327805E+09	3,584545E+09	3,584494E+09	4,655593E+09	7,169038E+09	1,182463E+10
2524	2,327800E+09	2,327814E+09	3,584585E+09	3,584490E+09	4,655614E+09	7,169075E+09	1,182469E+10
2525	2,327684E+09	2,327663E+09	3,584503E+09	3,584559E+09	4,655347E+09	7,169062E+09	1,182441E+10
2526	2,327763E+09	2,327779E+09	3,584550E+09	3,584536E+09	4,655542E+09	7,169086E+09	1,182463E+10
2527	2,327731E+09	2,327728E+09	3,584532E+09	3,584556E+09	4,655459E+09	7,169088E+09	1,182455E+10
2528	2,327686E+09	2,327686E+09	3,584489E+09	3,584533E+09	4,655373E+09	7,169022E+09	1,182439E+10
2529	2,327814E+09	2,327843E+09	3,584540E+09	3,584478E+09	4,655657E+09	7,169018E+09	1,182467E+10
2530	2,327763E+09	2,327732E+09	3,584486E+09	3,584504E+09	4,655495E+09	7,168990E+09	1,182448E+10
2531	2,327800E+09	2,327795E+09	3,584502E+09	3,584474E+09	4,655595E+09	7,168976E+09	1,182457E+10
2532	2,327888E+09	2,327926E+09	3,584521E+09	3,584456E+09	4,655813E+09	7,168977E+09	1,182479E+10
2533	2,327810E+09	2,327834E+09	3,584413E+09	3,584500E+09	4,655644E+09	7,168913E+09	1,182456E+10
2534	2,327916E+09	2,327960E+09	3,584482E+09	3,584453E+09	4,655876E+09	7,168935E+09	1,182481E+10
2535	2,327958E+09	2,327958E+09	3,584497E+09	3,584446E+09	4,655916E+09	7,168943E+09	1,182486E+10
2536	2,327908E+09	2,327871E+09	3,584428E+09	3,584451E+09	4,655779E+09	7,168880E+09	1,182466E+10
2537	2,328014E+09	2,328020E+09	3,584477E+09	3,584425E+09	4,656034E+09	7,168902E+09	1,182494E+10

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							
2538	2,327948E+09	2,327924E+09	3,584416E+09	3,584465E+09	4,655872E+09	7,168882E+09	1,182475E+10
2539	2,327903E+09	2,327910E+09	3,584423E+09	3,584462E+09	4,655813E+09	7,168886E+09	1,182470E+10
2540	2,327959E+09	2,328007E+09	3,584503E+09	3,584437E+09	4,655966E+09	7,168940E+09	1,182491E+10
2541	2,327837E+09	2,327834E+09	3,584436E+09	3,584476E+09	4,655671E+09	7,168912E+09	1,182458E+10
2542	2,327858E+09	2,327862E+09	3,584517E+09	3,584461E+09	4,655720E+09	7,168978E+09	1,182470E+10
2543	2,327876E+09	2,327863E+09	3,584537E+09	3,584482E+09	4,655739E+09	7,169019E+09	1,182476E+10
2544	2,327763E+09	2,327737E+09	3,584437E+09	3,584519E+09	4,655500E+09	7,168956E+09	1,182446E+10
2545	2,327834E+09	2,327873E+09	3,584494E+09	3,584487E+09	4,655708E+09	7,168980E+09	1,182469E+10
2546	2,327816E+09	2,327808E+09	3,584467E+09	3,584485E+09	4,655624E+09	7,168952E+09	1,182458E+10
2547	2,327785E+09	2,327772E+09	3,584452E+09	3,584464E+09	4,655557E+09	7,168917E+09	1,182447E+10
2548	2,327901E+09	2,327918E+09	3,584520E+09	3,584427E+09	4,655820E+09	7,168947E+09	1,182477E+10
2549	2,327840E+09	2,327832E+09	3,584419E+09	3,584453E+09	4,655672E+09	7,168872E+09	1,182454E+10
2550	2,327876E+09	2,327907E+09	3,584449E+09	3,584439E+09	4,655783E+09	7,168888E+09	1,182467E+10
2551	2,327972E+09	2,328014E+09	3,584479E+09	3,584433E+09	4,655986E+09	7,168912E+09	1,182490E+10
2552	2,327909E+09	2,327916E+09	3,584390E+09	3,584440E+09	4,655825E+09	7,168830E+09	1,182466E+10
2553	2,328013E+09	2,328039E+09	3,584458E+09	3,584402E+09	4,656053E+09	7,168860E+09	1,182491E+10
2554	2,328055E+09	2,328024E+09	3,584432E+09	3,584407E+09	4,656078E+09	7,168839E+09	1,182492E+10
2555	2,328001E+09	2,327959E+09	3,584365E+09	3,584424E+09	4,655960E+09	7,168789E+09	1,182475E+10
2556	2,328081E+09	2,328104E+09	3,584423E+09	3,584399E+09	4,656185E+09	7,168822E+09	1,182501E+10
2557	2,328006E+09	2,328020E+09	3,584348E+09	3,584408E+09	4,656026E+09	7,168756E+09	1,182478E+10
2558	2,327973E+09	2,327989E+09	3,584398E+09	3,584397E+09	4,655963E+09	7,168796E+09	1,182476E+10
2559	2,328035E+09	2,328050E+09	3,584484E+09	3,584395E+09	4,656084E+09	7,168879E+09	1,182496E+10
2560	2,327918E+09	2,327886E+09	3,584409E+09	3,584425E+09	4,655804E+09	7,168834E+09	1,182464E+10
2561	2,327921E+09	2,327934E+09	3,584471E+09	3,584430E+09	4,655855E+09	7,168901E+09	1,182476E+10
2562	2,327937E+09	2,327938E+09	3,584456E+09	3,584454E+09	4,655875E+09	7,168910E+09	1,182479E+10
2563	2,327837E+09	2,327827E+09	3,584384E+09	3,584477E+09	4,655665E+09	7,168861E+09	1,182453E+10
2564	2,327909E+09	2,327943E+09	3,584476E+09	3,584438E+09	4,655852E+09	7,168913E+09	1,182477E+10
2565	2,327898E+09	2,327891E+09	3,584420E+09	3,584416E+09	4,655789E+09	7,168836E+09	1,182462E+10
2566	2,327876E+09	2,327856E+09	3,584418E+09	3,584415E+09	4,655732E+09	7,168833E+09	1,182456E+10
2567	2,327986E+09	2,327997E+09	3,584476E+09	3,584408E+09	4,655983E+09	7,168884E+09	1,182487E+10
2568	2,327928E+09	2,327933E+09	3,584367E+09	3,584410E+09	4,655861E+09	7,168777E+09	1,182464E+10
2569	2,327956E+09	2,328009E+09	3,584410E+09	3,584396E+09	4,655965E+09	7,168806E+09	1,182477E+10
2570	2,328067E+09	2,328091E+09	3,584425E+09	3,584380E+09	4,656158E+09	7,168805E+09	1,182496E+10
2571	2,328021E+09	2,327994E+09	3,584343E+09	3,584386E+09	4,656015E+09	7,168729E+09	1,182474E+10
2572	2,328108E+09	2,328111E+09	3,584413E+09	3,584365E+09	4,656219E+09	7,168778E+09	1,182500E+10
2573	2,328134E+09	2,328125E+09	3,584336E+09	3,584351E+09	4,656259E+09	7,168687E+09	1,182495E+10
2574	2,328073E+09	2,328066E+09	3,584300E+09	3,584372E+09	4,656140E+09	7,168673E+09	1,182481E+10
2575	2,328149E+09	2,328185E+09	3,584395E+09	3,584356E+09	4,656334E+09	7,168751E+09	1,182509E+10
2576	2,328083E+09	2,328091E+09	3,584343E+09	3,584338E+09	4,656174E+09	7,168681E+09	1,182485E+10
2577	2,328040E+09	2,328051E+09	3,584400E+09	3,584353E+09	4,656091E+09	7,168753E+09	1,182484E+10
2578	2,328100E+09	2,328095E+09	3,584439E+09	3,584374E+09	4,656195E+09	7,168813E+09	1,182501E+10
2579	2,327987E+09	2,327952E+09	3,584355E+09	3,584414E+09	4,655940E+09	7,168769E+09	1,182471E+10
2580	2,327978E+09	2,328001E+09	3,584416E+09	3,584420E+09	4,655979E+09	7,168835E+09	1,182481E+10
2581	2,328002E+09	2,328019E+09	3,584378E+09	3,584396E+09	4,656022E+09	7,168774E+09	1,182480E+10
2582	2,327927E+09	2,327906E+09	3,584346E+09	3,584404E+09	4,655833E+09	7,168750E+09	1,182458E+10
2583	2,328004E+09	2,328005E+09	3,584445E+09	3,584380E+09	4,656009E+09	7,168825E+09	1,182483E+10
2584	2,327994E+09	2,327976E+09	3,584382E+09	3,584349E+09	4,655970E+09	7,168731E+09	1,182470E+10
2585	2,327951E+09	2,327962E+09	3,584378E+09	3,584373E+09	4,655913E+09	7,168752E+09	1,182466E+10
2586	2,328054E+09	2,328093E+09	3,584410E+09	3,584380E+09	4,656148E+09	7,168790E+09	1,182494E+10

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							
2587	2,328015E+09	2,328033E+09	3,584333E+09	3,584375E+09	4,656049E+09	7,168709E+09	1,182476E+10
2588	2,328046E+09	2,328081E+09	3,584386E+09	3,584362E+09	4,656127E+09	7,168748E+09	1,182488E+10
2589	2,328161E+09	2,328168E+09	3,584360E+09	3,584325E+09	4,656329E+09	7,168685E+09	1,182501E+10
2590	2,328126E+09	2,328082E+09	3,584283E+09	3,584339E+09	4,656207E+09	7,168622E+09	1,182483E+10
2591	2,328198E+09	2,328192E+09	3,584344E+09	3,584333E+09	4,656390E+09	7,168678E+09	1,182507E+10
2592	2,328219E+09	2,328228E+09	3,584278E+09	3,584286E+09	4,656447E+09	7,168564E+09	1,182501E+10
2593	2,328145E+09	2,328162E+09	3,584278E+09	3,584305E+09	4,656307E+09	7,168583E+09	1,182489E+10
2594	2,328219E+09	2,328245E+09	3,584369E+09	3,584297E+09	4,656464E+09	7,168666E+09	1,182513E+10
2595	2,328164E+09	2,328150E+09	3,584328E+09	3,584295E+09	4,656314E+09	7,168624E+09	1,182494E+10
2596	2,328100E+09	2,328099E+09	3,584370E+09	3,584343E+09	4,656199E+09	7,168713E+09	1,182491E+10
2597	2,328151E+09	2,328168E+09	3,584355E+09	3,584348E+09	4,656319E+09	7,168703E+09	1,182502E+10
2598	2,328055E+09	2,328037E+09	3,584288E+09	3,584381E+09	4,656092E+09	7,168669E+09	1,182476E+10
2599	2,328053E+09	2,328068E+09	3,584372E+09	3,584381E+09	4,656121E+09	7,168753E+09	1,182487E+10
2600	2,328096E+09	2,328096E+09	3,584350E+09	3,584317E+09	4,656192E+09	7,168667E+09	1,182486E+10
2601	2,328012E+09	2,327988E+09	3,584333E+09	3,584341E+09	4,656000E+09	7,168674E+09	1,182467E+10
2602	2,328081E+09	2,328080E+09	3,584399E+09	3,584343E+09	4,656161E+09	7,168742E+09	1,182490E+10
2603	2,328074E+09	2,328072E+09	3,584335E+09	3,584321E+09	4,656146E+09	7,168657E+09	1,182480E+10
2604	2,328014E+09	2,328053E+09	3,584335E+09	3,584359E+09	4,656068E+09	7,168694E+09	1,182476E+10
2605	2,328129E+09	2,328184E+09	3,584340E+09	3,584324E+09	4,656313E+09	7,168664E+09	1,182498E+10
2606	2,328121E+09	2,328113E+09	3,584287E+09	3,584313E+09	4,656233E+09	7,168600E+09	1,182483E+10
2607	2,328158E+09	2,328146E+09	3,584336E+09	3,584315E+09	4,656304E+09	7,168651E+09	1,182496E+10
2608	2,328273E+09	2,328259E+09	3,584293E+09	3,584253E+09	4,656532E+09	7,168547E+09	1,182508E+10
2609	2,328212E+09	2,328196E+09	3,584229E+09	3,584277E+09	4,656408E+09	7,168506E+09	1,182491E+10
2610	2,328269E+09	2,328292E+09	3,584284E+09	3,584280E+09	4,656561E+09	7,168564E+09	1,182512E+10
2611	2,328296E+09	2,328321E+09	3,584266E+09	3,584231E+09	4,656617E+09	7,168497E+09	1,182511E+10
2612	2,328208E+09	2,328225E+09	3,584282E+09	3,584278E+09	4,656433E+09	7,168560E+09	1,182499E+10
2613	2,328278E+09	2,328301E+09	3,584326E+09	3,584266E+09	4,656579E+09	7,168592E+09	1,182517E+10
2614	2,328238E+09	2,328210E+09	3,584281E+09	3,584285E+09	4,656447E+09	7,168567E+09	1,182501E+10
2615	2,328169E+09	2,328156E+09	3,584302E+09	3,584341E+09	4,656326E+09	7,168643E+09	1,182497E+10
2616	2,328230E+09	2,328246E+09	3,584285E+09	3,584297E+09	4,656476E+09	7,168581E+09	1,182506E+10
2617	2,328135E+09	2,328122E+09	3,584254E+09	3,584305E+09	4,656257E+09	7,168560E+09	1,182482E+10
2618	2,328138E+09	2,328130E+09	3,584329E+09	3,584306E+09	4,656268E+09	7,168635E+09	1,182490E+10
2619	2,328188E+09	2,328174E+09	3,584328E+09	3,584253E+09	4,656362E+09	7,168581E+09	1,182494E+10
2620	2,328078E+09	2,328068E+09	3,584300E+09	3,584313E+09	4,656146E+09	7,168613E+09	1,182476E+10
2621	2,328129E+09	2,328174E+09	3,584326E+09	3,584305E+09	4,656303E+09	7,168631E+09	1,182493E+10
2622	2,328146E+09	2,328171E+09	3,584288E+09	3,584290E+09	4,656317E+09	7,168579E+09	1,182490E+10
2623	2,328100E+09	2,328123E+09	3,584299E+09	3,584328E+09	4,656223E+09	7,168627E+09	1,182485E+10
2624	2,328240E+09	2,328259E+09	3,584302E+09	3,584256E+09	4,656500E+09	7,168558E+09	1,182506E+10
2625	2,328232E+09	2,328201E+09	3,584249E+09	3,584249E+09	4,656432E+09	7,168499E+09	1,182493E+10
2626	2,328258E+09	2,328231E+09	3,584260E+09	3,584270E+09	4,656489E+09	7,168530E+09	1,182502E+10
2627	2,328367E+09	2,328370E+09	3,584234E+09	3,584205E+09	4,656737E+09	7,168439E+09	1,182518E+10
2628	2,328279E+09	2,328299E+09	3,584190E+09	3,584241E+09	4,656578E+09	7,168431E+09	1,182501E+10
2629	2,328329E+09	2,328379E+09	3,584240E+09	3,584214E+09	4,656709E+09	7,168455E+09	1,182516E+10
2630	2,328381E+09	2,328392E+09	3,584245E+09	3,584185E+09	4,656773E+09	7,168430E+09	1,182520E+10
2631	2,328289E+09	2,328273E+09	3,584249E+09	3,584261E+09	4,656562E+09	7,168510E+09	1,182507E+10
2632	2,328361E+09	2,328369E+09	3,584264E+09	3,584228E+09	4,656730E+09	7,168492E+09	1,182522E+10
2633	2,328307E+09	2,328297E+09	3,584225E+09	3,584246E+09	4,656605E+09	7,168471E+09	1,182508E+10
2634	2,328239E+09	2,328234E+09	3,584234E+09	3,584297E+09	4,656473E+09	7,168531E+09	1,182500E+10
2635	2,328314E+09	2,328322E+09	3,584260E+09	3,584228E+09	4,656636E+09	7,168488E+09	1,182512E+10

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							
2636	2,328202E+09	2,328189E+09	3,584248E+09	3,584257E+09	4,656391E+09	7,168504E+09	1,182490E+10
2637	2,328196E+09	2,328200E+09	3,584284E+09	3,584249E+09	4,656396E+09	7,168533E+09	1,182493E+10
2638	2,328258E+09	2,328252E+09	3,584283E+09	3,584229E+09	4,656510E+09	7,168512E+09	1,182502E+10
2639	2,328142E+09	2,328144E+09	3,584248E+09	3,584309E+09	4,656286E+09	7,168557E+09	1,182484E+10
2640	2,328211E+09	2,328260E+09	3,584267E+09	3,584256E+09	4,656471E+09	7,168523E+09	1,182499E+10
2641	2,328240E+09	2,328256E+09	3,584259E+09	3,584223E+09	4,656496E+09	7,168482E+09	1,182498E+10
2642	2,328209E+09	2,328191E+09	3,584240E+09	3,584265E+09	4,656401E+09	7,168505E+09	1,182491E+10
2643	2,328358E+09	2,328344E+09	3,584253E+09	3,584192E+09	4,656702E+09	7,168446E+09	1,182515E+10
2644	2,328317E+09	2,328305E+09	3,584194E+09	3,584211E+09	4,656621E+09	7,168404E+09	1,182503E+10
2645	2,328323E+09	2,328347E+09	3,584177E+09	3,584212E+09	4,656670E+09	7,168389E+09	1,182506E+10
2646	2,328445E+09	2,328480E+09	3,584193E+09	3,584162E+09	4,656926E+09	7,168355E+09	1,182528E+10
2647	2,328358E+09	2,328374E+09	3,584176E+09	3,584210E+09	4,656733E+09	7,168387E+09	1,182512E+10
2648	2,328418E+09	2,328447E+09	3,584220E+09	3,584164E+09	4,656865E+09	7,168384E+09	1,182525E+10
2649	2,328467E+09	2,328461E+09	3,584225E+09	3,584149E+09	4,656928E+09	7,168375E+09	1,182530E+10
2650	2,328369E+09	2,328331E+09	3,584176E+09	3,584243E+09	4,656700E+09	7,168419E+09	1,182512E+10
2651	2,328442E+09	2,328447E+09	3,584203E+09	3,584194E+09	4,656889E+09	7,168396E+09	1,182529E+10
2652	2,328369E+09	2,328377E+09	3,584175E+09	3,584202E+09	4,656747E+09	7,168377E+09	1,182512E+10
2653	2,328298E+09	2,328301E+09	3,584178E+09	3,584214E+09	4,656599E+09	7,168392E+09	1,182499E+10
2654	2,328395E+09	2,328389E+09	3,584232E+09	3,584167E+09	4,656784E+09	7,168399E+09	1,182518E+10
2655	2,328274E+09	2,328247E+09	3,584215E+09	3,584227E+09	4,656521E+09	7,168442E+09	1,182496E+10
2656	2,328264E+09	2,328281E+09	3,584232E+09	3,584205E+09	4,656545E+09	7,168438E+09	1,182498E+10
2657	2,328321E+09	2,328350E+09	3,584244E+09	3,584189E+09	4,656671E+09	7,168433E+09	1,182510E+10
2658	2,328216E+09	2,328223E+09	3,584193E+09	3,584273E+09	4,656439E+09	7,168466E+09	1,182491E+10
2659	2,328311E+09	2,328336E+09	3,584243E+09	3,584200E+09	4,656646E+09	7,168444E+09	1,182509E+10
2660	2,328332E+09	2,328333E+09	3,584228E+09	3,584185E+09	4,656666E+09	7,168413E+09	1,182508E+10
2661	2,328296E+09	2,328278E+09	3,584167E+09	3,584209E+09	4,656574E+09	7,168376E+09	1,182495E+10
2662	2,328454E+09	2,328448E+09	3,584182E+09	3,584159E+09	4,656902E+09	7,168342E+09	1,182524E+10
2663	2,328399E+09	2,328409E+09	3,584133E+09	3,584185E+09	4,656807E+09	7,168318E+09	1,182512E+10
2664	2,328411E+09	2,328452E+09	3,584130E+09	3,584141E+09	4,656863E+09	7,168271E+09	1,182513E+10
2665	2,328536E+09	2,328568E+09	3,584185E+09	3,584088E+09	4,657104E+09	7,168273E+09	1,182538E+10
2666	2,328455E+09	2,328437E+09	3,584141E+09	3,584165E+09	4,656892E+09	7,168306E+09	1,182520E+10
2667	2,328517E+09	2,328511E+09	3,584182E+09	3,584121E+09	4,657028E+09	7,168304E+09	1,182533E+10
2668	2,328530E+09	2,328539E+09	3,584170E+09	3,584133E+09	4,657069E+09	7,168303E+09	1,182537E+10
2669	2,328420E+09	2,328418E+09	3,584089E+09	3,584195E+09	4,656838E+09	7,168284E+09	1,182512E+10
2670	2,328513E+09	2,328525E+09	3,584149E+09	3,584150E+09	4,657038E+09	7,168299E+09	1,182534E+10
2671	2,328440E+09	2,328437E+09	3,584154E+09	3,584160E+09	4,656877E+09	7,168314E+09	1,182519E+10
2672	2,328377E+09	2,328366E+09	3,584150E+09	3,584148E+09	4,656743E+09	7,168298E+09	1,182504E+10
2673	2,328465E+09	2,328461E+09	3,584216E+09	3,584120E+09	4,656926E+09	7,168336E+09	1,182526E+10
2674	2,328341E+09	2,328318E+09	3,584158E+09	3,584211E+09	4,656658E+09	7,168369E+09	1,182503E+10
2675	2,328336E+09	2,328361E+09	3,584189E+09	3,584177E+09	4,656697E+09	7,168365E+09	1,182506E+10
2676	2,328382E+09	2,328430E+09	3,584210E+09	3,584160E+09	4,656813E+09	7,168370E+09	1,182518E+10
2677	2,328293E+09	2,328293E+09	3,584132E+09	3,584204E+09	4,656587E+09	7,168336E+09	1,182492E+10
2678	2,328419E+09	2,328410E+09	3,584189E+09	3,584153E+09	4,656828E+09	7,168342E+09	1,182517E+10
2679	2,328432E+09	2,328416E+09	3,584168E+09	3,584150E+09	4,656848E+09	7,168318E+09	1,182517E+10
2680	2,328391E+09	2,328387E+09	3,584093E+09	3,584146E+09	4,656778E+09	7,168238E+09	1,182502E+10
2681	2,328538E+09	2,328570E+09	3,584145E+09	3,584094E+09	4,657108E+09	7,168238E+09	1,182535E+10
2682	2,328487E+09	2,328503E+09	3,584094E+09	3,584131E+09	4,656989E+09	7,168225E+09	1,182521E+10
2683	2,328509E+09	2,328529E+09	3,584128E+09	3,584084E+09	4,657038E+09	7,168212E+09	1,182525E+10
2684	2,328613E+09	2,328641E+09	3,584169E+09	3,584061E+09	4,657254E+09	7,168230E+09	1,182548E+10

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							
2685	2,328524E+09	2,328502E+09	3,584071E+09	3,584132E+09	4,657027E+09	7,168203E+09	1,182523E+10
2686	2,328598E+09	2,328588E+09	3,584106E+09	3,584113E+09	4,657186E+09	7,168219E+09	1,182540E+10
2687	2,328601E+09	2,328615E+09	3,584097E+09	3,584116E+09	4,657216E+09	7,168213E+09	1,182543E+10
2688	2,328501E+09	2,328498E+09	3,584031E+09	3,584118E+09	4,656999E+09	7,168149E+09	1,182515E+10
2689	2,328595E+09	2,328598E+09	3,584133E+09	3,584063E+09	4,657193E+09	7,168196E+09	1,182539E+10
2690	2,328522E+09	2,328497E+09	3,584118E+09	3,584105E+09	4,657019E+09	7,168222E+09	1,182524E+10
2691	2,328454E+09	2,328435E+09	3,584128E+09	3,584102E+09	4,656889E+09	7,168230E+09	1,182512E+10
2692	2,328506E+09	2,328547E+09	3,584180E+09	3,584107E+09	4,657053E+09	7,168287E+09	1,182534E+10
2693	2,328383E+09	2,328400E+09	3,584096E+09	3,584176E+09	4,656783E+09	7,168271E+09	1,182505E+10
2694	2,328412E+09	2,328433E+09	3,584148E+09	3,584151E+09	4,656845E+09	7,168299E+09	1,182514E+10
2695	2,328468E+09	2,328488E+09	3,584181E+09	3,584134E+09	4,656956E+09	7,168315E+09	1,182527E+10
2696	2,328398E+09	2,328369E+09	3,584080E+09	3,584140E+09	4,656767E+09	7,168220E+09	1,182499E+10
2697	2,328520E+09	2,328499E+09	3,584142E+09	3,584093E+09	4,657019E+09	7,168235E+09	1,182525E+10
2698	2,328527E+09	2,328518E+09	3,584092E+09	3,584110E+09	4,657045E+09	7,168203E+09	1,182525E+10
2699	2,328487E+09	2,328495E+09	3,584048E+09	3,584082E+09	4,656982E+09	7,168130E+09	1,182511E+10
2700	2,328607E+09	2,328667E+09	3,584124E+09	3,584040E+09	4,657274E+09	7,168164E+09	1,182544E+10
2701	2,328564E+09	2,328580E+09	3,584056E+09	3,584063E+09	4,657144E+09	7,168118E+09	1,182526E+10
2702	2,328606E+09	2,328598E+09	3,584082E+09	3,584058E+09	4,657204E+09	7,168139E+09	1,182534E+10
2703	2,328695E+09	2,328710E+09	3,584110E+09	3,584056E+09	4,657405E+09	7,168166E+09	1,182557E+10
2704	2,328608E+09	2,328596E+09	3,583986E+09	3,584085E+09	4,657204E+09	7,168071E+09	1,182527E+10
2705	2,328676E+09	2,328684E+09	3,584054E+09	3,584052E+09	4,657360E+09	7,168106E+09	1,182547E+10
2706	2,328684E+09	2,328691E+09	3,584053E+09	3,584057E+09	4,657375E+09	7,168110E+09	1,182549E+10
2707	2,328590E+09	2,328563E+09	3,584028E+09	3,584047E+09	4,657154E+09	7,168075E+09	1,182523E+10
2708	2,328650E+09	2,328666E+09	3,584129E+09	3,584027E+09	4,657316E+09	7,168157E+09	1,182547E+10
2709	2,328569E+09	2,328562E+09	3,584071E+09	3,584072E+09	4,657131E+09	7,168142E+09	1,182527E+10
2710	2,328513E+09	2,328508E+09	3,584073E+09	3,584105E+09	4,657021E+09	7,168178E+09	1,182520E+10
2711	2,328561E+09	2,328614E+09	3,584130E+09	3,584104E+09	4,657175E+09	7,168234E+09	1,182541E+10
2712	2,328464E+09	2,328467E+09	3,584044E+09	3,584113E+09	4,656932E+09	7,168157E+09	1,182509E+10
2713	2,328513E+09	2,328500E+09	3,584117E+09	3,584077E+09	4,657013E+09	7,168195E+09	1,182521E+10
2714	2,328578E+09	2,328555E+09	3,584114E+09	3,584077E+09	4,657133E+09	7,168191E+09	1,182532E+10
2715	2,328503E+09	2,328461E+09	3,584029E+09	3,584074E+09	4,656964E+09	7,168103E+09	1,182507E+10
2716	2,328586E+09	2,328619E+09	3,584089E+09	3,584046E+09	4,657204E+09	7,168135E+09	1,182534E+10
2717	2,328588E+09	2,328625E+09	3,584032E+09	3,584044E+09	4,657213E+09	7,168077E+09	1,182529E+10
2718	2,328571E+09	2,328588E+09	3,584022E+09	3,584047E+09	4,657159E+09	7,168068E+09	1,182523E+10
2719	2,328689E+09	2,328738E+09	3,584104E+09	3,584020E+09	4,657427E+09	7,168124E+09	1,182555E+10
2720	2,328661E+09	2,328655E+09	3,584008E+09	3,584020E+09	4,657316E+09	7,168028E+09	1,182534E+10
2721	2,328702E+09	2,328680E+09	3,584029E+09	3,584022E+09	4,657382E+09	7,168051E+09	1,182543E+10
2722	2,328787E+09	2,328796E+09	3,584024E+09	3,584029E+09	4,657582E+09	7,168054E+09	1,182564E+10
2723	2,328703E+09	2,328687E+09	3,583937E+09	3,584017E+09	4,657390E+09	7,167954E+09	1,182534E+10
2724	2,328745E+09	2,328768E+09	3,584030E+09	3,583983E+09	4,657513E+09	7,168013E+09	1,182553E+10
2725	2,328752E+09	2,328757E+09	3,584018E+09	3,583978E+09	4,657509E+09	7,167996E+09	1,182551E+10
2726	2,328667E+09	2,328629E+09	3,583996E+09	3,584019E+09	4,657296E+09	7,168015E+09	1,182531E+10
2727	2,328699E+09	2,328729E+09	3,584094E+09	3,584027E+09	4,657428E+09	7,168121E+09	1,182555E+10
2728	2,328625E+09	2,328643E+09	3,584014E+09	3,584040E+09	4,657268E+09	7,168054E+09	1,182532E+10
2729	2,328579E+09	2,328581E+09	3,584037E+09	3,584063E+09	4,657160E+09	7,168100E+09	1,182526E+10
2730	2,328646E+09	2,328670E+09	3,584087E+09	3,584065E+09	4,657316E+09	7,168152E+09	1,182547E+10
2731	2,328570E+09	2,328530E+09	3,584016E+09	3,584043E+09	4,657101E+09	7,168059E+09	1,182516E+10
2732	2,328592E+09	2,328579E+09	3,584076E+09	3,584030E+09	4,657170E+09	7,168106E+09	1,182528E+10
2733	2,328651E+09	2,328645E+09	3,584040E+09	3,584022E+09	4,657296E+09	7,168063E+09	1,182536E+10

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							
2734	2,328585E+09	2,328568E+09	3,583960E+09	3,584047E+09	4,657153E+09	7,168007E+09	1,182516E+10
2735	2,328651E+09	2,328714E+09	3,584050E+09	3,584015E+09	4,657365E+09	7,168066E+09	1,182543E+10
2736	2,328677E+09	2,328714E+09	3,583998E+09	3,583970E+09	4,657391E+09	7,167968E+09	1,182536E+10
2737	2,328673E+09	2,328665E+09	3,584000E+09	3,583984E+09	4,657338E+09	7,167984E+09	1,182532E+10
2738	2,328795E+09	2,328808E+09	3,584045E+09	3,583989E+09	4,657603E+09	7,168033E+09	1,182564E+10
2739	2,328768E+09	2,328744E+09	3,583951E+09	3,583972E+09	4,657512E+09	7,167923E+09	1,182543E+10
2740	2,328774E+09	2,328788E+09	3,583968E+09	3,583982E+09	4,657562E+09	7,167951E+09	1,182551E+10
2741	2,328857E+09	2,328885E+09	3,583961E+09	3,583961E+09	4,657742E+09	7,167922E+09	1,182566E+10
2742	2,328788E+09	2,328768E+09	3,583909E+09	3,583970E+09	4,657557E+09	7,167879E+09	1,182544E+10
2743	2,328812E+09	2,328830E+09	3,584019E+09	3,583952E+09	4,657642E+09	7,167971E+09	1,182561E+10
2744	2,328823E+09	2,328822E+09	3,583983E+09	3,583934E+09	4,657645E+09	7,167917E+09	1,182556E+10
2745	2,328734E+09	2,328701E+09	3,583962E+09	3,583995E+09	4,657435E+09	7,167957E+09	1,182539E+10
2746	2,328763E+09	2,328798E+09	3,584022E+09	3,584016E+09	4,657561E+09	7,168038E+09	1,182560E+10
2747	2,328705E+09	2,328709E+09	3,583976E+09	3,583986E+09	4,657414E+09	7,167962E+09	1,182538E+10
2748	2,328648E+09	2,328651E+09	3,584006E+09	3,584003E+09	4,657299E+09	7,168008E+09	1,182531E+10
2749	2,328727E+09	2,328726E+09	3,584027E+09	3,583990E+09	4,657452E+09	7,168017E+09	1,182547E+10
2750	2,328664E+09	2,328612E+09	3,583957E+09	3,584003E+09	4,657276E+09	7,167960E+09	1,182524E+10
2751	2,328658E+09	2,328673E+09	3,584018E+09	3,584001E+09	4,657331E+09	7,168019E+09	1,182535E+10
2752	2,328721E+09	2,328756E+09	3,583979E+09	3,583960E+09	4,657478E+09	7,167939E+09	1,182542E+10
2753	2,328664E+09	2,328670E+09	3,583941E+09	3,583987E+09	4,657335E+09	7,167927E+09	1,182526E+10
2754	2,328740E+09	2,328789E+09	3,584025E+09	3,583975E+09	4,657529E+09	7,168000E+09	1,182553E+10
2755	2,328786E+09	2,328786E+09	3,583986E+09	3,583917E+09	4,657572E+09	7,167904E+09	1,182548E+10
2756	2,328761E+09	2,328748E+09	3,583961E+09	3,583956E+09	4,657509E+09	7,167917E+09	1,182543E+10
2757	2,328880E+09	2,328891E+09	3,583961E+09	3,583951E+09	4,657771E+09	7,167912E+09	1,182568E+10
2758	2,328864E+09	2,328849E+09	3,583869E+09	3,583947E+09	4,657712E+09	7,167815E+09	1,182553E+10
2759	2,328850E+09	2,328875E+09	3,583919E+09	3,583941E+09	4,657726E+09	7,167859E+09	1,182559E+10
2760	2,328946E+09	2,328966E+09	3,583924E+09	3,583876E+09	4,657912E+09	7,167799E+09	1,182571E+10
2761	2,328879E+09	2,328840E+09	3,583888E+09	3,583902E+09	4,657718E+09	7,167790E+09	1,182551E+10
2762	2,328887E+09	2,328894E+09	3,583973E+09	3,583925E+09	4,657781E+09	7,167898E+09	1,182568E+10
2763	2,328896E+09	2,328900E+09	3,583944E+09	3,583894E+09	4,657796E+09	7,167838E+09	1,182563E+10
2764	2,328777E+09	2,328786E+09	3,583919E+09	3,583967E+09	4,657563E+09	7,167886E+09	1,182545E+10
2765	2,328818E+09	2,328857E+09	3,583973E+09	3,583967E+09	4,657675E+09	7,167939E+09	1,182561E+10
2766	2,328789E+09	2,328771E+09	3,583938E+09	3,583952E+09	4,657559E+09	7,167889E+09	1,182545E+10
2767	2,328720E+09	2,328707E+09	3,583971E+09	3,583974E+09	4,657427E+09	7,167945E+09	1,182537E+10
2768	2,328808E+09	2,328800E+09	3,583969E+09	3,583933E+09	4,657608E+09	7,167902E+09	1,182551E+10
2769	2,328743E+09	2,328708E+09	3,583905E+09	3,583957E+09	4,657451E+09	7,167862E+09	1,182531E+10
2770	2,328732E+09	2,328767E+09	3,583958E+09	3,583966E+09	4,657500E+09	7,167923E+09	1,182542E+10
2771	2,328813E+09	2,328844E+09	3,583959E+09	3,583889E+09	4,657657E+09	7,167847E+09	1,182550E+10
2772	2,328745E+09	2,328755E+09	3,583929E+09	3,583928E+09	4,657500E+09	7,167856E+09	1,182536E+10
2773	2,328833E+09	2,328852E+09	3,583974E+09	3,583921E+09	4,657685E+09	7,167894E+09	1,182558E+10
2774	2,328890E+09	2,328873E+09	3,583920E+09	3,583901E+09	4,657763E+09	7,167821E+09	1,182558E+10
2775	2,328842E+09	2,328847E+09	3,583887E+09	3,583942E+09	4,657689E+09	7,167828E+09	1,182552E+10
2776	2,328966E+09	2,328996E+09	3,583881E+09	3,583888E+09	4,657962E+09	7,167770E+09	1,182573E+10
2777	2,328957E+09	2,328951E+09	3,583833E+09	3,583875E+09	4,657908E+09	7,167709E+09	1,182562E+10
2778	2,328943E+09	2,328954E+09	3,583883E+09	3,583882E+09	4,657897E+09	7,167766E+09	1,182566E+10
2779	2,329040E+09	2,329035E+09	3,583912E+09	3,583811E+09	4,658075E+09	7,167723E+09	1,182580E+10
2780	2,328939E+09	2,328920E+09	3,583867E+09	3,583873E+09	4,657860E+09	7,167741E+09	1,182560E+10
2781	2,328938E+09	2,328960E+09	3,583909E+09	3,583901E+09	4,657898E+09	7,167810E+09	1,182571E+10
2782	2,328960E+09	2,328978E+09	3,583886E+09	3,583886E+09	4,657937E+09	7,167772E+09	1,182571E+10

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							
2783	2,328835E+09	2,328845E+09	3,583879E+09	3,583938E+09	4,657680E+09	7,167817E+09	1,182550E+10
2784	2,328899E+09	2,328908E+09	3,583926E+09	3,583892E+09	4,657807E+09	7,167818E+09	1,182562E+10
2785	2,328880E+09	2,328836E+09	3,583897E+09	3,583888E+09	4,657717E+09	7,167785E+09	1,182550E+10
2786	2,328803E+09	2,328781E+09	3,583907E+09	3,583936E+09	4,657584E+09	7,167843E+09	1,182543E+10
2787	2,328889E+09	2,328895E+09	3,583926E+09	3,583874E+09	4,657784E+09	7,167800E+09	1,182558E+10
2788	2,328800E+09	2,328816E+09	3,583878E+09	3,583909E+09	4,657616E+09	7,167787E+09	1,182540E+10
2789	2,328798E+09	2,328843E+09	3,583927E+09	3,583912E+09	4,657641E+09	7,167839E+09	1,182548E+10
2790	2,328904E+09	2,328923E+09	3,583935E+09	3,583864E+09	4,657826E+09	7,167799E+09	1,182563E+10
2791	2,328828E+09	2,328822E+09	3,583894E+09	3,583917E+09	4,657650E+09	7,167811E+09	1,182546E+10
2792	2,328930E+09	2,328932E+09	3,583902E+09	3,583883E+09	4,657862E+09	7,167786E+09	1,182565E+10
2793	2,328992E+09	2,328978E+09	3,583837E+09	3,583862E+09	4,657969E+09	7,167700E+09	1,182567E+10
2794	2,328938E+09	2,328948E+09	3,583804E+09	3,583896E+09	4,657886E+09	7,167700E+09	1,182559E+10
2795	2,329074E+09	2,329089E+09	3,583848E+09	3,583793E+09	4,658162E+09	7,167641E+09	1,182580E+10
2796	2,329041E+09	2,329040E+09	3,583818E+09	3,583792E+09	4,658081E+09	7,167611E+09	1,182569E+10
2797	2,329020E+09	2,329019E+09	3,583846E+09	3,583822E+09	4,658040E+09	7,167667E+09	1,182571E+10
2798	2,329113E+09	2,329118E+09	3,583866E+09	3,583797E+09	4,658231E+09	7,167663E+09	1,182589E+10
2799	2,328985E+09	2,328999E+09	3,583822E+09	3,583873E+09	4,657984E+09	7,167695E+09	1,182568E+10
2800	2,328995E+09	2,329028E+09	3,583854E+09	3,583860E+09	4,658023E+09	7,167714E+09	1,182574E+10
2801	2,329034E+09	2,329040E+09	3,583854E+09	3,583841E+09	4,658075E+09	7,167696E+09	1,182577E+10
2802	2,328919E+09	2,328896E+09	3,583837E+09	3,583899E+09	4,657815E+09	7,167736E+09	1,182555E+10
2803	2,328995E+09	2,328965E+09	3,583893E+09	3,583830E+09	4,657960E+09	7,167724E+09	1,182568E+10
2804	2,328948E+09	2,328924E+09	3,583859E+09	3,583843E+09	4,657871E+09	7,167702E+09	1,182557E+10
2805	2,328864E+09	2,328866E+09	3,583841E+09	3,583893E+09	4,657731E+09	7,167734E+09	1,182546E+10
2806	2,328957E+09	2,328992E+09	3,583882E+09	3,583846E+09	4,657948E+09	7,167728E+09	1,182568E+10
2807	2,328864E+09	2,328893E+09	3,583860E+09	3,583876E+09	4,657757E+09	7,167736E+09	1,182549E+10
2808	2,328884E+09	2,328904E+09	3,583886E+09	3,583850E+09	4,657788E+09	7,167735E+09	1,182552E+10
2809	2,329004E+09	2,329000E+09	3,583884E+09	3,583824E+09	4,658004E+09	7,167709E+09	1,182571E+10
2810	2,328928E+09	2,328913E+09	3,583808E+09	3,583887E+09	4,657841E+09	7,167696E+09	1,182554E+10
2811	2,329034E+09	2,329035E+09	3,583831E+09	3,583819E+09	4,658069E+09	7,167649E+09	1,182572E+10
2812	2,329074E+09	2,329097E+09	3,583796E+09	3,583790E+09	4,658171E+09	7,167585E+09	1,182576E+10
2813	2,329026E+09	2,329034E+09	3,583765E+09	3,583817E+09	4,658060E+09	7,167582E+09	1,182564E+10
2814	2,329165E+09	2,329174E+09	3,583830E+09	3,583747E+09	4,658339E+09	7,167578E+09	1,182592E+10
2815	2,329109E+09	2,329113E+09	3,583803E+09	3,583774E+09	4,658222E+09	7,167577E+09	1,182580E+10
2816	2,329086E+09	2,329088E+09	3,583795E+09	3,583794E+09	4,658174E+09	7,167589E+09	1,182576E+10
2817	2,329179E+09	2,329202E+09	3,583806E+09	3,583785E+09	4,658381E+09	7,167591E+09	1,182597E+10
2818	2,329057E+09	2,329067E+09	3,583758E+09	3,583852E+09	4,658124E+09	7,167610E+09	1,182573E+10
2819	2,329089E+09	2,329081E+09	3,583822E+09	3,583788E+09	4,658170E+09	7,167610E+09	1,182578E+10
2820	2,329116E+09	2,329105E+09	3,583826E+09	3,583771E+09	4,658220E+09	7,167597E+09	1,182582E+10
2821	2,328998E+09	2,328955E+09	3,583778E+09	3,583841E+09	4,657953E+09	7,167619E+09	1,182557E+10
2822	2,329066E+09	2,329056E+09	3,583838E+09	3,583801E+09	4,658123E+09	7,167639E+09	1,182576E+10
2823	2,328992E+09	2,329018E+09	3,583819E+09	3,583822E+09	4,658010E+09	7,167641E+09	1,182565E+10
2824	2,328920E+09	2,328949E+09	3,583805E+09	3,583840E+09	4,657868E+09	7,167646E+09	1,182551E+10
2825	2,329031E+09	2,329068E+09	3,583858E+09	3,583803E+09	4,658099E+09	7,167661E+09	1,182576E+10
2826	2,328952E+09	2,328952E+09	3,583824E+09	3,583849E+09	4,657904E+09	7,167673E+09	1,182558E+10
2827	2,328993E+09	2,328968E+09	3,583844E+09	3,583801E+09	4,657960E+09	7,167645E+09	1,182561E+10
2828	2,329093E+09	2,329094E+09	3,583824E+09	3,583781E+09	4,658187E+09	7,167605E+09	1,182579E+10
2829	2,329019E+09	2,329011E+09	3,583721E+09	3,583834E+09	4,658030E+09	7,167555E+09	1,182558E+10
2830	2,329132E+09	2,329144E+09	3,583772E+09	3,583761E+09	4,658276E+09	7,167533E+09	1,182581E+10
2831	2,329156E+09	2,329188E+09	3,583775E+09	3,583726E+09	4,658344E+09	7,167501E+09	1,182584E+10

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	2,329114E+09	2,329109E+09	3,583732E+09	3,583741E+09	4,658223E+09	7,167473E+09	1,182570E+10
2833	2,329248E+09	2,329258E+09	3,583789E+09	3,583715E+09	4,658506E+09	7,167504E+09	1,182601E+10
2834	2,329183E+09	2,329196E+09	3,583744E+09	3,583767E+09	4,658379E+09	7,167511E+09	1,182589E+10
2835	2,329167E+09	2,329169E+09	3,583744E+09	3,583756E+09	4,658335E+09	7,167500E+09	1,182584E+10
2836	2,329246E+09	2,329286E+09	3,583775E+09	3,583737E+09	4,658532E+09	7,167512E+09	1,182604E+10
2837	2,329139E+09	2,329124E+09	3,583713E+09	3,583794E+09	4,658263E+09	7,167507E+09	1,182577E+10
2838	2,329176E+09	2,329145E+09	3,583786E+09	3,583748E+09	4,658322E+09	7,167534E+09	1,182586E+10
2839	2,329179E+09	2,329173E+09	3,583797E+09	3,583744E+09	4,658352E+09	7,167541E+09	1,182589E+10
2840	2,329058E+09	2,329029E+09	3,583718E+09	3,583794E+09	4,658087E+09	7,167512E+09	1,182560E+10
2841	2,329122E+09	2,329149E+09	3,583784E+09	3,583771E+09	4,658271E+09	7,167556E+09	1,182583E+10
2842	2,329058E+09	2,329094E+09	3,583780E+09	3,583785E+09	4,658152E+09	7,167565E+09	1,182572E+10
2843	2,329009E+09	2,329003E+09	3,583787E+09	3,583768E+09	4,658012E+09	7,167555E+09	1,182557E+10
2844	2,329115E+09	2,329135E+09	3,583837E+09	3,583743E+09	4,658250E+09	7,167580E+09	1,182583E+10
2845	2,329046E+09	2,329020E+09	3,583752E+09	3,583804E+09	4,658066E+09	7,167556E+09	1,182562E+10
2846	2,329087E+09	2,329068E+09	3,583768E+09	3,583771E+09	4,658155E+09	7,167540E+09	1,182569E+10
2847	2,329166E+09	2,329202E+09	3,583767E+09	3,583743E+09	4,658369E+09	7,167510E+09	1,182588E+10
2848	2,329102E+09	2,329108E+09	3,583671E+09	3,583757E+09	4,658210E+09	7,167428E+09	1,182564E+10
2849	2,329222E+09	2,329241E+09	3,583743E+09	3,583703E+09	4,658463E+09	7,167445E+09	1,182591E+10
2850	2,329250E+09	2,329266E+09	3,583746E+09	3,583692E+09	4,658516E+09	7,167439E+09	1,182595E+10
2851	2,329213E+09	2,329183E+09	3,583703E+09	3,583700E+09	4,658395E+09	7,167404E+09	1,182580E+10
2852	2,329320E+09	2,329352E+09	3,583745E+09	3,583688E+09	4,658672E+09	7,167433E+09	1,182610E+10
2853	2,329260E+09	2,329276E+09	3,583671E+09	3,583740E+09	4,658536E+09	7,167411E+09	1,182595E+10
2854	2,329254E+09	2,329248E+09	3,583695E+09	3,583716E+09	4,658501E+09	7,167412E+09	1,182591E+10
2855	2,329321E+09	2,329343E+09	3,583747E+09	3,583685E+09	4,658664E+09	7,167432E+09	1,182610E+10
2856	2,329219E+09	2,329181E+09	3,583664E+09	3,583719E+09	4,658400E+09	7,167383E+09	1,182578E+10
2857	2,329250E+09	2,329225E+09	3,583723E+09	3,583704E+09	4,658476E+09	7,167427E+09	1,182590E+10
2858	2,329239E+09	2,329255E+09	3,583739E+09	3,583716E+09	4,658494E+09	7,167455E+09	1,182595E+10
2859	2,329124E+09	2,329111E+09	3,583687E+09	3,583739E+09	4,658235E+09	7,167426E+09	1,182566E+10
2860	2,329175E+09	2,329228E+09	3,583775E+09	3,583715E+09	4,658403E+09	7,167490E+09	1,182589E+10
2861	2,329133E+09	2,329147E+09	3,583754E+09	3,583741E+09	4,658281E+09	7,167494E+09	1,182577E+10
2862	2,329100E+09	2,329065E+09	3,583753E+09	3,583741E+09	4,658166E+09	7,167493E+09	1,182566E+10
2863	2,329190E+09	2,329204E+09	3,583791E+09	3,583727E+09	4,658394E+09	7,167518E+09	1,182591E+10
2864	2,329127E+09	2,329111E+09	3,583667E+09	3,583756E+09	4,658238E+09	7,167423E+09	1,182566E+10
2865	2,329174E+09	2,329183E+09	3,583684E+09	3,583730E+09	4,658356E+09	7,167414E+09	1,182577E+10
2866	2,329261E+09	2,329299E+09	3,583719E+09	3,583685E+09	4,658560E+09	7,167404E+09	1,182596E+10
2867	2,329213E+09	2,329192E+09	3,583650E+09	3,583667E+09	4,658405E+09	7,167317E+09	1,182572E+10
2868	2,329310E+09	2,329333E+09	3,583725E+09	3,583635E+09	4,658644E+09	7,167360E+09	1,182600E+10
2869	2,329339E+09	2,329351E+09	3,583691E+09	3,583657E+09	4,658691E+09	7,167348E+09	1,182604E+10
2870	2,329296E+09	2,329281E+09	3,583648E+09	3,583683E+09	4,658577E+09	7,167330E+09	1,182591E+10
2871	2,329383E+09	2,329441E+09	3,583707E+09	3,583666E+09	4,658824E+09	7,167374E+09	1,182620E+10
2872	2,329336E+09	2,329347E+09	3,583620E+09	3,583676E+09	4,658684E+09	7,167296E+09	1,182598E+10
2873	2,329338E+09	2,329318E+09	3,583647E+09	3,583671E+09	4,658656E+09	7,167319E+09	1,182597E+10
2874	2,329405E+09	2,329401E+09	3,583706E+09	3,583648E+09	4,658806E+09	7,167353E+09	1,182616E+10
2875	2,329302E+09	2,329245E+09	3,583622E+09	3,583662E+09	4,658547E+09	7,167285E+09	1,182583E+10
2876	2,329302E+09	2,329316E+09	3,583685E+09	3,583657E+09	4,658619E+09	7,167343E+09	1,182596E+10
2877	2,329299E+09	2,329333E+09	3,583685E+09	3,583676E+09	4,658631E+09	7,167362E+09	1,182599E+10
2878	2,329195E+09	2,329181E+09	3,583667E+09	3,583696E+09	4,658376E+09	7,167363E+09	1,182574E+10
2879	2,329237E+09	2,329280E+09	3,583765E+09	3,583676E+09	4,658517E+09	7,167442E+09	1,182596E+10
2880	2,329210E+09	2,329201E+09	3,583699E+09	3,583690E+09	4,658411E+09	7,167389E+09	1,182580E+10

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							
2881	2,329183E+09	2,329153E+09	3,583669E+09	3,583720E+09	4,658336E+09	7,167389E+09	1,182573E+10
2882	2,329274E+09	2,329297E+09	3,583714E+09	3,583700E+09	4,658572E+09	7,167414E+09	1,182599E+10
2883	2,329224E+09	2,329214E+09	3,583616E+09	3,583681E+09	4,658438E+09	7,167297E+09	1,182573E+10
2884	2,329260E+09	2,329290E+09	3,583665E+09	3,583644E+09	4,658550E+09	7,167309E+09	1,182586E+10
2885	2,329359E+09	2,329381E+09	3,583690E+09	3,583624E+09	4,658740E+09	7,167314E+09	1,182605E+10
2886	2,329313E+09	2,329278E+09	3,583632E+09	3,583631E+09	4,658591E+09	7,167263E+09	1,182585E+10
2887	2,329381E+09	2,329414E+09	3,583693E+09	3,583621E+09	4,658795E+09	7,167315E+09	1,182611E+10
2888	2,329410E+09	2,329439E+09	3,583618E+09	3,583627E+09	4,658849E+09	7,167245E+09	1,182609E+10
2889	2,329379E+09	2,329379E+09	3,583565E+09	3,583656E+09	4,658758E+09	7,167222E+09	1,182598E+10
2890	2,329473E+09	2,329504E+09	3,583657E+09	3,583617E+09	4,658977E+09	7,167274E+09	1,182625E+10
2891	2,329443E+09	2,329408E+09	3,583583E+09	3,583589E+09	4,658851E+09	7,167171E+09	1,182602E+10
2892	2,329421E+09	2,329396E+09	3,583607E+09	3,583597E+09	4,658817E+09	7,167203E+09	1,182602E+10
2893	2,329478E+09	2,329479E+09	3,583642E+09	3,583605E+09	4,658957E+09	7,167248E+09	1,182620E+10
2894	2,329364E+09	2,329340E+09	3,583582E+09	3,583629E+09	4,658704E+09	7,167211E+09	1,182591E+10
2895	2,329338E+09	2,329395E+09	3,583673E+09	3,583629E+09	4,658733E+09	7,167302E+09	1,182603E+10
2896	2,329349E+09	2,329392E+09	3,583661E+09	3,583626E+09	4,658741E+09	7,167288E+09	1,182603E+10
2897	2,329267E+09	2,329243E+09	3,583626E+09	3,583677E+09	4,658510E+09	7,167303E+09	1,182581E+10
2898	2,329320E+09	2,329326E+09	3,583723E+09	3,583664E+09	4,658646E+09	7,167387E+09	1,182603E+10
2899	2,329306E+09	2,329271E+09	3,583635E+09	3,583646E+09	4,658578E+09	7,167281E+09	1,182586E+10
2900	2,329263E+09	2,329260E+09	3,583602E+09	3,583665E+09	4,658523E+09	7,167267E+09	1,182579E+10
2901	2,329367E+09	2,329395E+09	3,583646E+09	3,583639E+09	4,658762E+09	7,167286E+09	1,182605E+10
2902	2,329325E+09	2,329307E+09	3,583594E+09	3,583604E+09	4,658632E+09	7,167198E+09	1,182583E+10
2903	2,329341E+09	2,329371E+09	3,583661E+09	3,583583E+09	4,658712E+09	7,167244E+09	1,182596E+10
2904	2,329440E+09	2,329461E+09	3,583639E+09	3,583567E+09	4,658902E+09	7,167206E+09	1,182611E+10
2905	2,329393E+09	2,329379E+09	3,583557E+09	3,583621E+09	4,658772E+09	7,167178E+09	1,182595E+10
2906	2,329460E+09	2,329502E+09	3,583631E+09	3,583610E+09	4,658962E+09	7,167241E+09	1,182620E+10
2907	2,329506E+09	2,329523E+09	3,583564E+09	3,583568E+09	4,659029E+09	7,167133E+09	1,182616E+10
2908	2,329468E+09	2,329467E+09	3,583532E+09	3,583584E+09	4,658935E+09	7,167117E+09	1,182605E+10
2909	2,329574E+09	2,329569E+09	3,583607E+09	3,583561E+09	4,659143E+09	7,167168E+09	1,182631E+10
2910	2,329535E+09	2,329484E+09	3,583551E+09	3,583540E+09	4,659019E+09	7,167091E+09	1,182611E+10
2911	2,329474E+09	2,329477E+09	3,583578E+09	3,583567E+09	4,658951E+09	7,167145E+09	1,182610E+10
2912	2,329522E+09	2,329560E+09	3,583583E+09	3,583568E+09	4,659083E+09	7,167151E+09	1,182623E+10
2913	2,329419E+09	2,329424E+09	3,583533E+09	3,583611E+09	4,658843E+09	7,167144E+09	1,182599E+10
2914	2,329404E+09	2,329438E+09	3,583655E+09	3,583599E+09	4,658843E+09	7,167254E+09	1,182610E+10
2915	2,329437E+09	2,329435E+09	3,583632E+09	3,583569E+09	4,658872E+09	7,167200E+09	1,182607E+10
2916	2,329348E+09	2,329314E+09	3,583576E+09	3,583624E+09	4,658663E+09	7,167200E+09	1,182586E+10
2917	2,329407E+09	2,329401E+09	3,583640E+09	3,583631E+09	4,658808E+09	7,167271E+09	1,182608E+10
2918	2,329394E+09	2,329375E+09	3,583581E+09	3,583595E+09	4,658768E+09	7,167176E+09	1,182594E+10
2919	2,329330E+09	2,329357E+09	3,583577E+09	3,583603E+09	4,658687E+09	7,167181E+09	1,182587E+10
2920	2,329440E+09	2,329477E+09	3,583614E+09	3,583564E+09	4,658916E+09	7,167179E+09	1,182610E+10
2921	2,329412E+09	2,329399E+09	3,583554E+09	3,583571E+09	4,658812E+09	7,167125E+09	1,182594E+10
2922	2,329424E+09	2,329437E+09	3,583626E+09	3,583569E+09	4,658861E+09	7,167195E+09	1,182606E+10
2923	2,329531E+09	2,329547E+09	3,583580E+09	3,583534E+09	4,659078E+09	7,167115E+09	1,182619E+10
2924	2,329478E+09	2,329488E+09	3,583487E+09	3,583578E+09	4,658966E+09	7,167065E+09	1,182603E+10
2925	2,329562E+09	2,329585E+09	3,583561E+09	3,583562E+09	4,659147E+09	7,167123E+09	1,182627E+10
2926	2,329617E+09	2,329604E+09	3,583531E+09	3,583492E+09	4,659220E+09	7,167023E+09	1,182624E+10
2927	2,329553E+09	2,329542E+09	3,583507E+09	3,583518E+09	4,659096E+09	7,167025E+09	1,182612E+10
2928	2,329644E+09	2,329647E+09	3,583547E+09	3,583500E+09	4,659291E+09	7,167047E+09	1,182634E+10
2929	2,329597E+09	2,329587E+09	3,583484E+09	3,583521E+09	4,659184E+09	7,167006E+09	1,182619E+10

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							
2930	2,329525E+09	2,329554E+09	3,583548E+09	3,583551E+09	4,659079E+09	7,167099E+09	1,182618E+10
2931	2,329586E+09	2,329628E+09	3,583562E+09	3,583517E+09	4,659213E+09	7,167079E+09	1,182629E+10
2932	2,329486E+09	2,329487E+09	3,583523E+09	3,583562E+09	4,658973E+09	7,167084E+09	1,182606E+10
2933	2,329491E+09	2,329477E+09	3,583615E+09	3,583575E+09	4,658969E+09	7,167189E+09	1,182616E+10
2934	2,329528E+09	2,329489E+09	3,583590E+09	3,583536E+09	4,659017E+09	7,167127E+09	1,182614E+10
2935	2,329413E+09	2,329396E+09	3,583523E+09	3,583594E+09	4,658809E+09	7,167117E+09	1,182593E+10
2936	2,329472E+09	2,329493E+09	3,583554E+09	3,583573E+09	4,658965E+09	7,167127E+09	1,182609E+10
2937	2,329470E+09	2,329477E+09	3,583519E+09	3,583545E+09	4,658948E+09	7,167063E+09	1,182601E+10
2938	2,329413E+09	2,329426E+09	3,583564E+09	3,583547E+09	4,658839E+09	7,167110E+09	1,182595E+10
2939	2,329533E+09	2,329548E+09	3,583582E+09	3,583495E+09	4,659081E+09	7,167077E+09	1,182616E+10
2940	2,329497E+09	2,329495E+09	3,583510E+09	3,583525E+09	4,658992E+09	7,167035E+09	1,182603E+10
2941	2,329516E+09	2,329526E+09	3,583550E+09	3,583551E+09	4,659042E+09	7,167101E+09	1,182614E+10
2942	2,329625E+09	2,329647E+09	3,583531E+09	3,583492E+09	4,659272E+09	7,167023E+09	1,182629E+10
2943	2,329559E+09	2,329583E+09	3,583459E+09	3,583523E+09	4,659143E+09	7,166982E+09	1,182612E+10
2944	2,329650E+09	2,329661E+09	3,583509E+09	3,583492E+09	4,659311E+09	7,167001E+09	1,182631E+10
2945	2,329711E+09	2,329692E+09	3,583478E+09	3,583457E+09	4,659403E+09	7,166935E+09	1,182634E+10
2946	2,329634E+09	2,329609E+09	3,583474E+09	3,583493E+09	4,659243E+09	7,166967E+09	1,182621E+10
2947	2,329714E+09	2,329730E+09	3,583496E+09	3,583459E+09	4,659444E+09	7,166954E+09	1,182640E+10
2948	2,329658E+09	2,329684E+09	3,583445E+09	3,583477E+09	4,659342E+09	7,166922E+09	1,182626E+10
2949	2,329600E+09	2,329610E+09	3,583511E+09	3,583516E+09	4,659210E+09	7,167027E+09	1,182624E+10
2950	2,329672E+09	2,329677E+09	3,583552E+09	3,583463E+09	4,659349E+09	7,167015E+09	1,182636E+10
2951	2,329556E+09	2,329541E+09	3,583493E+09	3,583517E+09	4,659097E+09	7,167010E+09	1,182611E+10
2952	2,329556E+09	2,329537E+09	3,583532E+09	3,583532E+09	4,659093E+09	7,167064E+09	1,182616E+10
2953	2,329597E+09	2,329589E+09	3,583501E+09	3,583515E+09	4,659185E+09	7,167015E+09	1,182620E+10
2954	2,329477E+09	2,329479E+09	3,583477E+09	3,583554E+09	4,658956E+09	7,167031E+09	1,182599E+10
2955	2,329547E+09	2,329578E+09	3,583524E+09	3,583495E+09	4,659125E+09	7,167019E+09	1,182614E+10
2956	2,329553E+09	2,329569E+09	3,583505E+09	3,583473E+09	4,659121E+09	7,166978E+09	1,182610E+10
2957	2,329507E+09	2,329491E+09	3,583531E+09	3,583516E+09	4,658998E+09	7,167047E+09	1,182604E+10
2958	2,329624E+09	2,329627E+09	3,583552E+09	3,583463E+09	4,659251E+09	7,167016E+09	1,182627E+10
2959	2,329569E+09	2,329593E+09	3,583462E+09	3,583503E+09	4,659161E+09	7,166965E+09	1,182613E+10
2960	2,329595E+09	2,329619E+09	3,583466E+09	3,583508E+09	4,659213E+09	7,166974E+09	1,182619E+10
2961	2,329725E+09	2,329744E+09	3,583464E+09	3,583448E+09	4,659469E+09	7,166912E+09	1,182638E+10
2962	2,329663E+09	2,329651E+09	3,583431E+09	3,583462E+09	4,659314E+09	7,166893E+09	1,182621E+10
2963	2,329753E+09	2,329740E+09	3,583457E+09	3,583415E+09	4,659493E+09	7,166872E+09	1,182636E+10
2964	2,329794E+09	2,329795E+09	3,583429E+09	3,583400E+09	4,659589E+09	7,166829E+09	1,182642E+10
2965	2,329711E+09	2,329699E+09	3,583418E+09	3,583470E+09	4,659410E+09	7,166888E+09	1,182630E+10
2966	2,329783E+09	2,329813E+09	3,583473E+09	3,583414E+09	4,659596E+09	7,166887E+09	1,182648E+10
2967	2,329713E+09	2,329755E+09	3,583443E+09	3,583438E+09	4,659468E+09	7,166881E+09	1,182635E+10
2968	2,329665E+09	2,329657E+09	3,583466E+09	3,583473E+09	4,659321E+09	7,166939E+09	1,182626E+10
2969	2,329747E+09	2,329734E+09	3,583492E+09	3,583450E+09	4,659480E+09	7,166942E+09	1,182642E+10
2970	2,329626E+09	2,329593E+09	3,583446E+09	3,583500E+09	4,659219E+09	7,166946E+09	1,182616E+10
2971	2,329626E+09	2,329619E+09	3,583450E+09	3,583482E+09	4,659245E+09	7,166932E+09	1,182618E+10
2972	2,329667E+09	2,329691E+09	3,583448E+09	3,583448E+09	4,659358E+09	7,166896E+09	1,182625E+10
2973	2,329566E+09	2,329551E+09	3,583444E+09	3,583492E+09	4,659116E+09	7,166937E+09	1,182605E+10
2974	2,329637E+09	2,329645E+09	3,583522E+09	3,583419E+09	4,659282E+09	7,166940E+09	1,182622E+10
2975	2,329625E+09	2,329648E+09	3,583491E+09	3,583426E+09	4,659273E+09	7,166917E+09	1,182619E+10
2976	2,329576E+09	2,329570E+09	3,583459E+09	3,583485E+09	4,659146E+09	7,166944E+09	1,182609E+10
2977	2,329702E+09	2,329732E+09	3,583473E+09	3,583456E+09	4,659434E+09	7,166929E+09	1,182636E+10
2978	2,329654E+09	2,329678E+09	3,583418E+09	3,583472E+09	4,659332E+09	7,166891E+09	1,182622E+10

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	2,329695E+09	2,329705E+09	3,583414E+09	3,583437E+09	4,659400E+09	7,166851E+09	1,182625E+10
2980	2,329832E+09	2,329839E+09	3,583428E+09	3,583375E+09	4,659671E+09	7,166802E+09	1,182647E+10
2981	2,329773E+09	2,329726E+09	3,583382E+09	3,583420E+09	4,659499E+09	7,166802E+09	1,182630E+10
2982	2,329844E+09	2,329830E+09	3,583424E+09	3,583365E+09	4,659674E+09	7,166788E+09	1,182646E+10
2983	2,329856E+09	2,329901E+09	3,583388E+09	3,583363E+09	4,659756E+09	7,166751E+09	1,182651E+10
2984	2,329766E+09	2,329779E+09	3,583357E+09	3,583427E+09	4,659546E+09	7,166785E+09	1,182633E+10
2985	2,329853E+09	2,329886E+09	3,583434E+09	3,583383E+09	4,659739E+09	7,166817E+09	1,182656E+10
2986	2,329789E+09	2,329792E+09	3,583423E+09	3,583403E+09	4,659582E+09	7,166826E+09	1,182641E+10
2987	2,329743E+09	2,329711E+09	3,583402E+09	3,583422E+09	4,659454E+09	7,166824E+09	1,182628E+10
2988	2,329820E+09	2,329818E+09	3,583425E+09	3,583401E+09	4,659638E+09	7,166826E+09	1,182646E+10
2989	2,329702E+09	2,329675E+09	3,583380E+09	3,583462E+09	4,659377E+09	7,166841E+09	1,182622E+10
2990	2,329700E+09	2,329705E+09	3,583430E+09	3,583409E+09	4,659405E+09	7,166838E+09	1,182624E+10
2991	2,329729E+09	2,329775E+09	3,583451E+09	3,583384E+09	4,659504E+09	7,166835E+09	1,182634E+10
2992	2,329632E+09	2,329614E+09	3,583415E+09	3,583446E+09	4,659246E+09	7,166861E+09	1,182611E+10
2993	2,329711E+09	2,329718E+09	3,583479E+09	3,583412E+09	4,659430E+09	7,166891E+09	1,182632E+10
2994	2,329697E+09	2,329714E+09	3,583453E+09	3,583426E+09	4,659411E+09	7,166878E+09	1,182629E+10
2995	2,329658E+09	2,329663E+09	3,583373E+09	3,583450E+09	4,659322E+09	7,166823E+09	1,182614E+10
2996	2,329800E+09	2,329834E+09	3,583409E+09	3,583397E+09	4,659634E+09	7,166806E+09	1,182644E+10
2997	2,329774E+09	2,329759E+09	3,583369E+09	3,583408E+09	4,659533E+09	7,166776E+09	1,182631E+10
2998	2,329815E+09	2,329787E+09	3,583379E+09	3,583345E+09	4,659603E+09	7,166724E+09	1,182633E+10
2999	2,329920E+09	2,329939E+09	3,583391E+09	3,583311E+09	4,659859E+09	7,166702E+09	1,182656E+10