

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-3000	1,375394E+22	1,375302E+22	5,147707E+20	5,149076E+20	2,750696E+22	1,029678E+21	2,853664E+22
-2999	1,375270E+22	1,375338E+22	5,149408E+20	5,148296E+20	2,750607E+22	1,029770E+21	2,853584E+22
-2998	1,375258E+22	1,375277E+22	5,149310E+20	5,149981E+20	2,750535E+22	1,029929E+21	2,853528E+22
-2997	1,375262E+22	1,375183E+22	5,148577E+20	5,149203E+20	2,750445E+22	1,029778E+21	2,853423E+22
-2996	1,375130E+22	1,375194E+22	5,150446E+20	5,149080E+20	2,750323E+22	1,029953E+21	2,853319E+22
-2995	1,375158E+22	1,375104E+22	5,149159E+20	5,150563E+20	2,750262E+22	1,029972E+21	2,853259E+22
-2994	1,375115E+22	1,375086E+22	5,149432E+20	5,149340E+20	2,750201E+22	1,029877E+21	2,853189E+22
-2993	1,375049E+22	1,375113E+22	5,150585E+20	5,150085E+20	2,750162E+22	1,030067E+21	2,853168E+22
-2992	1,375134E+22	1,375045E+22	5,148877E+20	5,150481E+20	2,750179E+22	1,029936E+21	2,853172E+22
-2991	1,375074E+22	1,375109E+22	5,150082E+20	5,148953E+20	2,750183E+22	1,029903E+21	2,853174E+22
-2990	1,375101E+22	1,375140E+22	5,150196E+20	5,150152E+20	2,750241E+22	1,030035E+21	2,853244E+22
-2989	1,375183E+22	1,375113E+22	5,148718E+20	5,149498E+20	2,750297E+22	1,029822E+21	2,853279E+22
-2988	1,375116E+22	1,375206E+22	5,150068E+20	5,148735E+20	2,750322E+22	1,029880E+21	2,853310E+22
-2987	1,375206E+22	1,375199E+22	5,148962E+20	5,150226E+20	2,750405E+22	1,029919E+21	2,853396E+22
-2986	1,375259E+22	1,375216E+22	5,148432E+20	5,148784E+20	2,750475E+22	1,029722E+21	2,853447E+22
-2985	1,375233E+22	1,375292E+22	5,149782E+20	5,148854E+20	2,750525E+22	1,029864E+21	2,853512E+22
-2984	1,375333E+22	1,375248E+22	5,148170E+20	5,149561E+20	2,750581E+22	1,029773E+21	2,853558E+22
-2983	1,375281E+22	1,375284E+22	5,148899E+20	5,148195E+20	2,750565E+22	1,029709E+21	2,853536E+22
-2982	1,375239E+22	1,375303E+22	5,149770E+20	5,149428E+20	2,750542E+22	1,029920E+21	2,853534E+22
-2981	1,375284E+22	1,375212E+22	5,148236E+20	5,149579E+20	2,750496E+22	1,029782E+21	2,853475E+22
-2980	1,375168E+22	1,375220E+22	5,149861E+20	5,148744E+20	2,750388E+22	1,029861E+21	2,853374E+22
-2979	1,375161E+22	1,375160E+22	5,149670E+20	5,150362E+20	2,750321E+22	1,030003E+21	2,853321E+22
-2978	1,375163E+22	1,375080E+22	5,148953E+20	5,149659E+20	2,750243E+22	1,029861E+21	2,853229E+22
-2977	1,375040E+22	1,375098E+22	5,150731E+20	5,149554E+20	2,750138E+22	1,030028E+21	2,853141E+22
-2976	1,375070E+22	1,375017E+22	5,149438E+20	5,150972E+20	2,750087E+22	1,030041E+21	2,853091E+22
-2975	1,375021E+22	1,374997E+22	5,149837E+20	5,149771E+20	2,750018E+22	1,029961E+21	2,853014E+22
-2974	1,374962E+22	1,375038E+22	5,151043E+20	5,150331E+20	2,750001E+22	1,030137E+21	2,853015E+22
-2973	1,375052E+22	1,374972E+22	5,149408E+20	5,150749E+20	2,750024E+22	1,030016E+21	2,853026E+22
-2972	1,374993E+22	1,375019E+22	5,150445E+20	5,149258E+20	2,750013E+22	1,029970E+21	2,853010E+22
-2971	1,375014E+22	1,375056E+22	5,150390E+20	5,150537E+20	2,750070E+22	1,030093E+21	2,853079E+22
-2970	1,375101E+22	1,375039E+22	5,148917E+20	5,149986E+20	2,750140E+22	1,029890E+21	2,853129E+22
-2969	1,375058E+22	1,375129E+22	5,150245E+20	5,149100E+20	2,750187E+22	1,029934E+21	2,853181E+22
-2968	1,375154E+22	1,375131E+22	5,149220E+20	5,150349E+20	2,750285E+22	1,029957E+21	2,853281E+22
-2967	1,375196E+22	1,375144E+22	5,148840E+20	5,148930E+20	2,750340E+22	1,029777E+21	2,853318E+22
-2966	1,375155E+22	1,375232E+22	5,150224E+20	5,148993E+20	2,750388E+22	1,029922E+21	2,853380E+22
-2965	1,375239E+22	1,375183E+22	5,148646E+20	5,149947E+20	2,750422E+22	1,029859E+21	2,853408E+22
-2964	1,375182E+22	1,375187E+22	5,149257E+20	5,148733E+20	2,750368E+22	1,029799E+21	2,853348E+22
-2963	1,375138E+22	1,375199E+22	5,150065E+20	5,149942E+20	2,750337E+22	1,030001E+21	2,853337E+22
-2962	1,375189E+22	1,375110E+22	5,148619E+20	5,150078E+20	2,750298E+22	1,029870E+21	2,853285E+22
-2961	1,375089E+22	1,375112E+22	5,150238E+20	5,149137E+20	2,750201E+22	1,029938E+21	2,853194E+22
-2960	1,375072E+22	1,375062E+22	5,150035E+20	5,150655E+20	2,750134E+22	1,030069E+21	2,853141E+22
-2959	1,375053E+22	1,374980E+22	5,149398E+20	5,150136E+20	2,750033E+22	1,029953E+21	2,853029E+22
-2958	1,374932E+22	1,375011E+22	5,151167E+20	5,149983E+20	2,749944E+22	1,030115E+21	2,852955E+22
-2957	1,374971E+22	1,374931E+22	5,149962E+20	5,151430E+20	2,749902E+22	1,030139E+21	2,852916E+22
-2956	1,374935E+22	1,374896E+22	5,150258E+20	5,150133E+20	2,749830E+22	1,030039E+21	2,852834E+22
-2955	1,374883E+22	1,374946E+22	5,151353E+20	5,150588E+20	2,749829E+22	1,030194E+21	2,852849E+22
-2954	1,374969E+22	1,374896E+22	5,149712E+20	5,151072E+20	2,749865E+22	1,030078E+21	2,852873E+22
-2953	1,374923E+22	1,374945E+22	5,150630E+20	5,149638E+20	2,749868E+22	1,030027E+21	2,852871E+22
-2952	1,374944E+22	1,374987E+22	5,150570E+20	5,150799E+20	2,749931E+22	1,030137E+21	2,852945E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2951	1,375025E+22	1,374967E+22	5,149245E+20	5,150306E+20	2,749992E+22	1,029955E+21	2,852987E+22
-2950	1,374993E+22	1,375068E+22	5,150621E+20	5,149256E+20	2,750061E+22	1,029988E+21	2,853059E+22
-2949	1,375089E+22	1,375066E+22	5,149728E+20	5,150563E+20	2,750155E+22	1,030029E+21	2,853158E+22
-2948	1,375119E+22	1,375060E+22	5,149200E+20	5,149269E+20	2,750179E+22	1,029847E+21	2,853164E+22
-2947	1,375064E+22	1,375147E+22	5,150467E+20	5,149433E+20	2,750211E+22	1,029990E+21	2,853210E+22
-2946	1,375143E+22	1,375098E+22	5,148944E+20	5,150493E+20	2,750240E+22	1,029944E+21	2,853235E+22
-2945	1,375103E+22	1,375090E+22	5,149535E+20	5,149236E+20	2,750193E+22	1,029877E+21	2,853181E+22
-2944	1,375059E+22	1,375103E+22	5,150407E+20	5,150185E+20	2,750162E+22	1,030059E+21	2,853168E+22
-2943	1,375094E+22	1,375010E+22	5,149112E+20	5,150410E+20	2,750104E+22	1,029952E+21	2,853099E+22
-2942	1,374986E+22	1,375023E+22	5,150707E+20	5,149437E+20	2,750009E+22	1,030014E+21	2,853011E+22
-2941	1,374964E+22	1,374971E+22	5,150560E+20	5,151145E+20	2,749935E+22	1,030170E+21	2,852952E+22
-2940	1,374947E+22	1,374870E+22	5,149808E+20	5,150704E+20	2,749817E+22	1,030051E+21	2,852822E+22
-2939	1,374833E+22	1,374908E+22	5,151499E+20	5,150448E+20	2,749741E+22	1,030195E+21	2,852760E+22
-2938	1,374884E+22	1,374840E+22	5,150399E+20	5,151817E+20	2,749724E+22	1,030222E+21	2,852746E+22
-2937	1,374866E+22	1,374805E+22	5,150621E+20	5,150428E+20	2,749670E+22	1,030105E+21	2,852681E+22
-2936	1,374802E+22	1,374869E+22	5,151651E+20	5,150747E+20	2,749671E+22	1,030240E+21	2,852695E+22
-2935	1,374872E+22	1,374819E+22	5,150067E+20	5,151435E+20	2,749691E+22	1,030150E+21	2,852706E+22
-2934	1,374833E+22	1,374876E+22	5,150968E+20	5,149929E+20	2,749709E+22	1,030090E+21	2,852718E+22
-2933	1,374868E+22	1,374917E+22	5,151010E+20	5,151119E+20	2,749786E+22	1,030213E+21	2,852807E+22
-2932	1,374959E+22	1,374881E+22	5,149593E+20	5,150583E+20	2,749841E+22	1,030018E+21	2,852842E+22
-2931	1,374929E+22	1,374990E+22	5,150846E+20	5,149520E+20	2,749919E+22	1,030037E+21	2,852923E+22
-2930	1,375017E+22	1,375000E+22	5,149988E+20	5,150932E+20	2,750017E+22	1,030092E+21	2,853026E+22
-2929	1,375052E+22	1,374985E+22	5,149358E+20	5,149753E+20	2,750038E+22	1,029911E+21	2,853029E+22
-2928	1,374989E+22	1,375070E+22	5,150674E+20	5,149769E+20	2,750059E+22	1,030044E+21	2,853064E+22
-2927	1,375051E+22	1,375013E+22	5,149352E+20	5,150883E+20	2,750064E+22	1,030024E+21	2,853067E+22
-2926	1,375016E+22	1,375006E+22	5,150051E+20	5,149477E+20	2,750022E+22	1,029953E+21	2,853017E+22
-2925	1,374967E+22	1,375012E+22	5,151033E+20	5,150499E+20	2,749978E+22	1,030153E+21	2,852993E+22
-2924	1,374987E+22	1,374899E+22	5,149588E+20	5,150886E+20	2,749886E+22	1,030047E+21	2,852891E+22
-2923	1,374875E+22	1,374913E+22	5,151020E+20	5,150002E+20	2,749788E+22	1,030102E+21	2,852798E+22
-2922	1,374857E+22	1,374868E+22	5,150942E+20	5,151715E+20	2,749726E+22	1,030266E+21	2,852752E+22
-2921	1,374865E+22	1,374767E+22	5,150150E+20	5,151185E+20	2,749632E+22	1,030133E+21	2,852646E+22
-2920	1,374755E+22	1,374815E+22	5,151859E+20	5,150618E+20	2,749571E+22	1,030248E+21	2,852596E+22
-2919	1,374789E+22	1,374755E+22	5,150893E+20	5,152059E+20	2,749544E+22	1,030295E+21	2,852573E+22
-2918	1,374767E+22	1,374735E+22	5,151046E+20	5,150671E+20	2,749502E+22	1,030172E+21	2,852519E+22
-2917	1,374705E+22	1,374794E+22	5,152082E+20	5,151152E+20	2,749499E+22	1,030323E+21	2,852531E+22
-2916	1,374779E+22	1,374726E+22	5,150362E+20	5,151917E+20	2,749506E+22	1,030228E+21	2,852528E+22
-2915	1,374759E+22	1,374788E+22	5,151148E+20	5,150330E+20	2,749547E+22	1,030148E+21	2,852561E+22
-2914	1,374809E+22	1,374841E+22	5,151306E+20	5,151443E+20	2,749650E+22	1,030275E+21	2,852678E+22
-2913	1,374914E+22	1,374808E+22	5,149824E+20	5,150888E+20	2,749723E+22	1,030071E+21	2,852730E+22
-2912	1,374868E+22	1,374926E+22	5,151031E+20	5,149715E+20	2,749794E+22	1,030075E+21	2,852801E+22
-2911	1,374929E+22	1,374934E+22	5,150329E+20	5,151287E+20	2,749863E+22	1,030162E+21	2,852880E+22
-2910	1,374964E+22	1,374919E+22	5,149758E+20	5,150048E+20	2,749883E+22	1,029981E+21	2,852881E+22
-2909	1,374903E+22	1,374992E+22	5,151228E+20	5,150081E+20	2,749894E+22	1,030131E+21	2,852907E+22
-2908	1,374960E+22	1,374910E+22	5,149847E+20	5,151205E+20	2,749870E+22	1,030105E+21	2,852880E+22
-2907	1,374919E+22	1,374902E+22	5,150424E+20	5,149850E+20	2,749821E+22	1,030027E+21	2,852824E+22
-2906	1,374865E+22	1,374914E+22	5,151417E+20	5,151003E+20	2,749779E+22	1,030242E+21	2,852803E+22
-2905	1,374895E+22	1,374794E+22	5,149870E+20	5,151491E+20	2,749689E+22	1,030136E+21	2,852703E+22
-2904	1,374782E+22	1,374814E+22	5,151291E+20	5,150422E+20	2,749596E+22	1,030171E+21	2,852613E+22
-2903	1,374757E+22	1,374774E+22	5,151409E+20	5,152126E+20	2,749532E+22	1,030353E+21	2,852567E+22

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Longitude $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2902	1,374772E+22	1,374683E+22	5,150711E+20	5,151416E+20	2,749454E+22	1,030213E+21	2,852476E+22
-2901	1,374659E+22	1,374731E+22	5,152467E+20	5,150911E+20	2,749390E+22	1,030338E+21	2,852424E+22
-2900	1,374677E+22	1,374656E+22	5,151319E+20	5,152479E+20	2,749333E+22	1,030380E+21	2,852371E+22
-2899	1,374661E+22	1,374635E+22	5,151284E+20	5,151186E+20	2,749297E+22	1,030247E+21	2,852321E+22
-2898	1,374618E+22	1,374703E+22	5,152339E+20	5,151655E+20	2,749322E+22	1,030399E+21	2,852361E+22
-2897	1,374724E+22	1,374639E+22	5,150560E+20	5,152316E+20	2,749364E+22	1,030288E+21	2,852392E+22
-2896	1,374713E+22	1,374717E+22	5,151319E+20	5,150446E+20	2,749431E+22	1,030176E+21	2,852448E+22
-2895	1,374747E+22	1,374784E+22	5,151635E+20	5,151625E+20	2,749530E+22	1,030326E+21	2,852563E+22
-2894	1,374842E+22	1,374763E+22	5,150180E+20	5,151058E+20	2,749605E+22	1,030124E+21	2,852617E+22
-2893	1,374787E+22	1,374869E+22	5,151466E+20	5,150050E+20	2,749656E+22	1,030152E+21	2,852672E+22
-2892	1,374834E+22	1,374851E+22	5,150714E+20	5,151672E+20	2,749685E+22	1,030239E+21	2,852709E+22
-2891	1,374876E+22	1,374826E+22	5,150086E+20	5,150463E+20	2,749702E+22	1,030055E+21	2,852708E+22
-2890	1,374821E+22	1,374893E+22	5,151657E+20	5,150471E+20	2,749714E+22	1,030213E+21	2,852735E+22
-2889	1,374882E+22	1,374808E+22	5,150174E+20	5,151672E+20	2,749690E+22	1,030185E+21	2,852708E+22
-2888	1,374830E+22	1,374804E+22	5,150645E+20	5,150252E+20	2,749634E+22	1,030090E+21	2,852643E+22
-2887	1,374757E+22	1,374817E+22	5,151782E+20	5,151522E+20	2,749574E+22	1,030330E+21	2,852607E+22
-2886	1,374793E+22	1,374708E+22	5,150349E+20	5,151883E+20	2,749501E+22	1,030223E+21	2,852523E+22
-2885	1,374687E+22	1,374723E+22	5,151899E+20	5,150783E+20	2,749410E+22	1,030268E+21	2,852437E+22
-2884	1,374653E+22	1,374669E+22	5,151960E+20	5,152440E+20	2,749322E+22	1,030440E+21	2,852366E+22
-2883	1,374666E+22	1,374580E+22	5,151107E+20	5,151822E+20	2,749246E+22	1,030293E+21	2,852275E+22
-2882	1,374554E+22	1,374633E+22	5,152812E+20	5,151425E+20	2,749187E+22	1,030424E+21	2,852229E+22
-2881	1,374590E+22	1,374555E+22	5,151522E+20	5,153045E+20	2,749145E+22	1,030457E+21	2,852191E+22
-2880	1,374586E+22	1,374546E+22	5,151423E+20	5,151531E+20	2,749132E+22	1,030295E+21	2,852161E+22
-2879	1,374548E+22	1,374627E+22	5,152667E+20	5,151938E+20	2,749176E+22	1,030460E+21	2,852222E+22
-2878	1,374665E+22	1,374582E+22	5,151029E+20	5,152397E+20	2,749248E+22	1,030343E+21	2,852282E+22
-2877	1,374649E+22	1,374664E+22	5,151812E+20	5,150628E+20	2,749313E+22	1,030244E+21	2,852337E+22
-2876	1,374657E+22	1,374714E+22	5,152004E+20	5,151923E+20	2,749371E+22	1,030393E+21	2,852410E+22
-2875	1,374748E+22	1,374685E+22	5,150432E+20	5,151477E+20	2,749432E+22	1,030191E+21	2,852451E+22
-2874	1,374702E+22	1,374784E+22	5,151785E+20	5,150521E+20	2,749486E+22	1,030231E+21	2,852509E+22
-2873	1,374766E+22	1,374756E+22	5,150980E+20	5,152069E+20	2,749522E+22	1,030305E+21	2,852552E+22
-2872	1,374807E+22	1,374734E+22	5,150313E+20	5,150708E+20	2,749542E+22	1,030102E+21	2,852552E+22
-2871	1,374736E+22	1,374809E+22	5,151981E+20	5,150845E+20	2,749544E+22	1,030283E+21	2,852572E+22
-2870	1,374790E+22	1,374732E+22	5,150578E+20	5,152030E+20	2,749522E+22	1,030261E+21	2,852548E+22
-2869	1,374735E+22	1,374720E+22	5,151111E+20	5,150737E+20	2,749455E+22	1,030185E+21	2,852474E+22
-2868	1,374648E+22	1,374715E+22	5,152230E+20	5,151973E+20	2,749364E+22	1,030420E+21	2,852406E+22
-2867	1,374690E+22	1,374602E+22	5,150807E+20	5,152317E+20	2,749293E+22	1,030312E+21	2,852324E+22
-2866	1,374591E+22	1,374617E+22	5,152440E+20	5,151226E+20	2,749207E+22	1,030367E+21	2,852244E+22
-2865	1,374557E+22	1,374561E+22	5,152335E+20	5,152904E+20	2,749118E+22	1,030524E+21	2,852170E+22
-2864	1,374564E+22	1,374479E+22	5,151342E+20	5,152244E+20	2,749043E+22	1,030359E+21	2,852079E+22
-2863	1,374451E+22	1,374536E+22	5,153112E+20	5,151902E+20	2,748988E+22	1,030501E+21	2,852038E+22
-2862	1,374506E+22	1,374477E+22	5,151940E+20	5,153320E+20	2,748983E+22	1,030526E+21	2,852036E+22
-2861	1,374519E+22	1,374474E+22	5,151908E+20	5,151747E+20	2,748994E+22	1,030365E+21	2,852030E+22
-2860	1,374472E+22	1,374551E+22	5,153086E+20	5,152108E+20	2,749023E+22	1,030519E+21	2,852075E+22
-2859	1,374586E+22	1,374515E+22	5,151347E+20	5,152679E+20	2,749100E+22	1,030403E+21	2,852141E+22
-2858	1,374568E+22	1,374593E+22	5,152092E+20	5,151073E+20	2,749160E+22	1,030317E+21	2,852192E+22
-2857	1,374581E+22	1,374633E+22	5,152161E+20	5,152392E+20	2,749214E+22	1,030455E+21	2,852259E+22
-2856	1,374677E+22	1,374602E+22	5,150535E+20	5,151819E+20	2,749279E+22	1,030235E+21	2,852303E+22
-2855	1,374631E+22	1,374701E+22	5,152083E+20	5,150849E+20	2,749332E+22	1,030293E+21	2,852361E+22
-2854	1,374699E+22	1,374684E+22	5,151442E+20	5,152246E+20	2,749382E+22	1,030369E+21	2,852419E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2853	1,374730E+22	1,374660E+22	5,150801E+20	5,151025E+20	2,749390E+22	1,030183E+21	2,852408E+22
-2852	1,374630E+22	1,374716E+22	5,152370E+20	5,151266E+20	2,749346E+22	1,030364E+21	2,852383E+22
-2851	1,374684E+22	1,374634E+22	5,150957E+20	5,152533E+20	2,749317E+22	1,030349E+21	2,852352E+22
-2850	1,374637E+22	1,374616E+22	5,151574E+20	5,151277E+20	2,749253E+22	1,030285E+21	2,852282E+22
-2849	1,374560E+22	1,374606E+22	5,152640E+20	5,152384E+20	2,749166E+22	1,030502E+21	2,852216E+22
-2848	1,374598E+22	1,374499E+22	5,151164E+20	5,152619E+20	2,749097E+22	1,030378E+21	2,852134E+22
-2847	1,374484E+22	1,374520E+22	5,152858E+20	5,151654E+20	2,749004E+22	1,030451E+21	2,852049E+22
-2846	1,374451E+22	1,374475E+22	5,152788E+20	5,153262E+20	2,748925E+22	1,030605E+21	2,851986E+22
-2845	1,374465E+22	1,374391E+22	5,151802E+20	5,152697E+20	2,748856E+22	1,030450E+21	2,851901E+22
-2844	1,374352E+22	1,374439E+22	5,153485E+20	5,152288E+20	2,748791E+22	1,030577E+21	2,851849E+22
-2843	1,374424E+22	1,374386E+22	5,152349E+20	5,153629E+20	2,748810E+22	1,030598E+21	2,851870E+22
-2842	1,374448E+22	1,374393E+22	5,152332E+20	5,152105E+20	2,748841E+22	1,030444E+21	2,851886E+22
-2841	1,374402E+22	1,374471E+22	5,153314E+20	5,152467E+20	2,748873E+22	1,030578E+21	2,851931E+22
-2840	1,374507E+22	1,374440E+22	5,151464E+20	5,153001E+20	2,748947E+22	1,030447E+21	2,851991E+22
-2839	1,374488E+22	1,374519E+22	5,152293E+20	5,151487E+20	2,749007E+22	1,030378E+21	2,852045E+22
-2838	1,374513E+22	1,374567E+22	5,152522E+20	5,152575E+20	2,749080E+22	1,030510E+21	2,852131E+22
-2837	1,374615E+22	1,374535E+22	5,150985E+20	5,152009E+20	2,749150E+22	1,030299E+21	2,852180E+22
-2836	1,374552E+22	1,374619E+22	5,152465E+20	5,151072E+20	2,749171E+22	1,030354E+21	2,852206E+22
-2835	1,374610E+22	1,374603E+22	5,151808E+20	5,152597E+20	2,749213E+22	1,030440E+21	2,852257E+22
-2834	1,374639E+22	1,374572E+22	5,151170E+20	5,151584E+20	2,749211E+22	1,030275E+21	2,852239E+22
-2833	1,374541E+22	1,374616E+22	5,152630E+20	5,151806E+20	2,749157E+22	1,030444E+21	2,852202E+22
-2832	1,374594E+22	1,374534E+22	5,151240E+20	5,152932E+20	2,749128E+22	1,030417E+21	2,852170E+22
-2831	1,374546E+22	1,374517E+22	5,152038E+20	5,151694E+20	2,749063E+22	1,030373E+21	2,852100E+22
-2830	1,374466E+22	1,374517E+22	5,153225E+20	5,152631E+20	2,748983E+22	1,030586E+21	2,852042E+22
-2829	1,374493E+22	1,374408E+22	5,151719E+20	5,153030E+20	2,748900E+22	1,030475E+21	2,851948E+22
-2828	1,374358E+22	1,374409E+22	5,153278E+20	5,152137E+20	2,748767E+22	1,030542E+21	2,851821E+22
-2827	1,374337E+22	1,374366E+22	5,153191E+20	5,153752E+20	2,748702E+22	1,030694E+21	2,851772E+22
-2826	1,374374E+22	1,374286E+22	5,152238E+20	5,153187E+20	2,748659E+22	1,030543E+21	2,851713E+22
-2825	1,374279E+22	1,374339E+22	5,153776E+20	5,152630E+20	2,748619E+22	1,030641E+21	2,851683E+22
-2824	1,374354E+22	1,374305E+22	5,152580E+20	5,153868E+20	2,748659E+22	1,030645E+21	2,851724E+22
-2823	1,374371E+22	1,374325E+22	5,152584E+20	5,152456E+20	2,748696E+22	1,030504E+21	2,851746E+22
-2822	1,374326E+22	1,374415E+22	5,153632E+20	5,152689E+20	2,748741E+22	1,030632E+21	2,851804E+22
-2821	1,374433E+22	1,374380E+22	5,151821E+20	5,153274E+20	2,748812E+22	1,030510E+21	2,851863E+22
-2820	1,374404E+22	1,374440E+22	5,152638E+20	5,151740E+20	2,748844E+22	1,030438E+21	2,851887E+22
-2819	1,374438E+22	1,374487E+22	5,152960E+20	5,152790E+20	2,748924E+22	1,030575E+21	2,851982E+22
-2818	1,374542E+22	1,374453E+22	5,151445E+20	5,152395E+20	2,748995E+22	1,030384E+21	2,852034E+22
-2817	1,374473E+22	1,374530E+22	5,152697E+20	5,151526E+20	2,749003E+22	1,030422E+21	2,852046E+22
-2816	1,374522E+22	1,374513E+22	5,151986E+20	5,153039E+20	2,749035E+22	1,030502E+21	2,852085E+22
-2815	1,374549E+22	1,374483E+22	5,151467E+20	5,152101E+20	2,749032E+22	1,030357E+21	2,852068E+22
-2814	1,374459E+22	1,374533E+22	5,153114E+20	5,152061E+20	2,748992E+22	1,030518E+21	2,852044E+22
-2813	1,374508E+22	1,374449E+22	5,151823E+20	5,153187E+20	2,748958E+22	1,030501E+21	2,852008E+22
-2812	1,374435E+22	1,374416E+22	5,152561E+20	5,152052E+20	2,748852E+22	1,030461E+21	2,851898E+22
-2811	1,374347E+22	1,374413E+22	5,153709E+20	5,153060E+20	2,748760E+22	1,030677E+21	2,851828E+22
-2810	1,374377E+22	1,374298E+22	5,152168E+20	5,153675E+20	2,748675E+22	1,030584E+21	2,851734E+22
-2809	1,374258E+22	1,374292E+22	5,153510E+20	5,152717E+20	2,748549E+22	1,030623E+21	2,851612E+22
-2808	1,374250E+22	1,374258E+22	5,153437E+20	5,154136E+20	2,748508E+22	1,030757E+21	2,851584E+22
-2807	1,374299E+22	1,374196E+22	5,152623E+20	5,153541E+20	2,748495E+22	1,030616E+21	2,851557E+22
-2806	1,374210E+22	1,374272E+22	5,154231E+20	5,152785E+20	2,748482E+22	1,030702E+21	2,851552E+22
-2805	1,374274E+22	1,374245E+22	5,153020E+20	5,154113E+20	2,748519E+22	1,030713E+21	2,851591E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2804	1,374270E+22	1,374249E+22	5,152918E+20	5,152792E+20	2,748519E+22	1,030571E+21	2,851577E+22
-2803	1,374234E+22	1,374336E+22	5,153990E+20	5,152990E+20	2,748570E+22	1,030698E+21	2,851640E+22
-2802	1,374355E+22	1,374298E+22	5,152227E+20	5,153645E+20	2,748653E+22	1,030587E+21	2,851712E+22
-2801	1,374339E+22	1,374351E+22	5,152871E+20	5,152053E+20	2,748690E+22	1,030492E+21	2,851739E+22
-2800	1,374371E+22	1,374405E+22	5,153155E+20	5,153084E+20	2,748777E+22	1,030624E+21	2,851839E+22
-2799	1,374467E+22	1,374381E+22	5,151681E+20	5,152855E+20	2,748847E+22	1,030454E+21	2,851893E+22
-2798	1,374400E+22	1,374462E+22	5,153002E+20	5,151885E+20	2,748862E+22	1,030489E+21	2,851911E+22
-2797	1,374444E+22	1,374441E+22	5,152379E+20	5,153390E+20	2,748885E+22	1,030577E+21	2,851943E+22
-2796	1,374451E+22	1,374390E+22	5,151924E+20	5,152441E+20	2,748842E+22	1,030437E+21	2,851885E+22
-2795	1,374361E+22	1,374436E+22	5,153708E+20	5,152345E+20	2,748797E+22	1,030605E+21	2,851858E+22
-2794	1,374403E+22	1,374347E+22	5,152421E+20	5,153663E+20	2,748749E+22	1,030608E+21	2,851810E+22
-2793	1,374320E+22	1,374299E+22	5,152909E+20	5,152616E+20	2,748619E+22	1,030553E+21	2,851675E+22
-2792	1,374235E+22	1,374294E+22	5,153963E+20	5,153597E+20	2,748529E+22	1,030756E+21	2,851604E+22
-2791	1,374276E+22	1,374188E+22	5,152514E+20	5,154216E+20	2,748464E+22	1,030673E+21	2,851532E+22
-2790	1,374179E+22	1,374200E+22	5,153945E+20	5,152973E+20	2,748379E+22	1,030692E+21	2,851448E+22
-2789	1,374176E+22	1,374181E+22	5,153943E+20	5,154323E+20	2,748357E+22	1,030827E+21	2,851439E+22
-2788	1,374201E+22	1,374118E+22	5,153085E+20	5,153803E+20	2,748319E+22	1,030689E+21	2,851388E+22
-2787	1,374110E+22	1,374197E+22	5,154666E+20	5,153091E+20	2,748307E+22	1,030776E+21	2,851385E+22
-2786	1,374177E+22	1,374166E+22	5,153427E+20	5,154596E+20	2,748343E+22	1,030802E+21	2,851423E+22
-2785	1,374184E+22	1,374157E+22	5,153104E+20	5,153249E+20	2,748341E+22	1,030635E+21	2,851405E+22
-2784	1,374164E+22	1,374244E+22	5,154165E+20	5,153311E+20	2,748408E+22	1,030748E+21	2,851483E+22
-2783	1,374294E+22	1,374220E+22	5,152517E+20	5,153995E+20	2,748514E+22	1,030651E+21	2,851580E+22
-2782	1,374284E+22	1,374288E+22	5,153179E+20	5,152294E+20	2,748572E+22	1,030547E+21	2,851627E+22
-2781	1,374302E+22	1,374346E+22	5,153476E+20	5,153379E+20	2,748648E+22	1,030686E+21	2,851717E+22
-2780	1,374374E+22	1,374305E+22	5,152020E+20	5,153235E+20	2,748679E+22	1,030526E+21	2,851732E+22
-2779	1,374310E+22	1,374379E+22	5,153454E+20	5,152182E+20	2,748690E+22	1,030564E+21	2,851746E+22
-2778	1,374355E+22	1,374352E+22	5,152938E+20	5,153744E+20	2,748707E+22	1,030668E+21	2,851774E+22
-2777	1,374360E+22	1,374287E+22	5,152304E+20	5,152837E+20	2,748647E+22	1,030514E+21	2,851698E+22
-2776	1,374261E+22	1,374329E+22	5,154028E+20	5,152771E+20	2,748589E+22	1,030680E+21	2,851657E+22
-2775	1,374294E+22	1,374245E+22	5,152757E+20	5,154244E+20	2,748540E+22	1,030700E+21	2,851610E+22
-2774	1,374224E+22	1,374199E+22	5,153269E+20	5,153086E+20	2,748424E+22	1,030636E+21	2,851487E+22
-2773	1,374143E+22	1,374199E+22	5,154370E+20	5,153978E+20	2,748341E+22	1,030835E+21	2,851425E+22
-2772	1,374175E+22	1,374088E+22	5,153024E+20	5,154560E+20	2,748262E+22	1,030758E+21	2,851338E+22
-2771	1,374085E+22	1,374108E+22	5,154532E+20	5,153242E+20	2,748193E+22	1,030777E+21	2,851271E+22
-2770	1,374076E+22	1,374096E+22	5,154502E+20	5,154762E+20	2,748173E+22	1,030926E+21	2,851265E+22
-2769	1,374096E+22	1,374023E+22	5,153359E+20	5,154317E+20	2,748119E+22	1,030768E+21	2,851195E+22
-2768	1,374014E+22	1,374099E+22	5,154839E+20	5,153561E+20	2,748113E+22	1,030840E+21	2,851197E+22
-2767	1,374095E+22	1,374078E+22	5,153667E+20	5,155013E+20	2,748173E+22	1,030868E+21	2,851260E+22
-2766	1,374128E+22	1,374082E+22	5,153402E+20	5,153451E+20	2,748210E+22	1,030685E+21	2,851278E+22
-2765	1,374112E+22	1,374181E+22	5,154493E+20	5,153464E+20	2,748293E+22	1,030796E+21	2,851373E+22
-2764	1,374216E+22	1,374155E+22	5,152877E+20	5,154237E+20	2,748371E+22	1,030711E+21	2,851442E+22
-2763	1,374203E+22	1,374224E+22	5,153552E+20	5,152584E+20	2,748427E+22	1,030614E+21	2,851489E+22
-2762	1,374219E+22	1,374274E+22	5,153881E+20	5,153811E+20	2,748493E+22	1,030769E+21	2,851570E+22
-2761	1,374287E+22	1,374214E+22	5,152295E+20	5,153642E+20	2,748501E+22	1,030594E+21	2,851561E+22
-2760	1,374228E+22	1,374280E+22	5,153778E+20	5,152532E+20	2,748509E+22	1,030631E+21	2,851572E+22
-2759	1,374268E+22	1,374259E+22	5,153373E+20	5,154122E+20	2,748526E+22	1,030749E+21	2,851601E+22
-2758	1,374271E+22	1,374197E+22	5,152729E+20	5,153236E+20	2,748468E+22	1,030597E+21	2,851528E+22
-2757	1,374160E+22	1,374235E+22	5,154404E+20	5,153218E+20	2,748395E+22	1,030762E+21	2,851471E+22
-2756	1,374174E+22	1,374137E+22	5,153182E+20	5,154749E+20	2,748312E+22	1,030793E+21	2,851391E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2755	1,374119E+22	1,374094E+22	5,153782E+20	5,153470E+20	2,748213E+22	1,030725E+21	2,851285E+22
-2754	1,374046E+22	1,374097E+22	5,154940E+20	5,154392E+20	2,748144E+22	1,030933E+21	2,851237E+22
-2753	1,374077E+22	1,373984E+22	5,153442E+20	5,154977E+20	2,748062E+22	1,030842E+21	2,851146E+22
-2752	1,373987E+22	1,374009E+22	5,154834E+20	5,153701E+20	2,747996E+22	1,030853E+21	2,851082E+22
-2751	1,373978E+22	1,374009E+22	5,154791E+20	5,155269E+20	2,747987E+22	1,031006E+21	2,851087E+22
-2750	1,374015E+22	1,373941E+22	5,153621E+20	5,154729E+20	2,747956E+22	1,030835E+21	2,851039E+22
-2749	1,373941E+22	1,374020E+22	5,155112E+20	5,153815E+20	2,747961E+22	1,030893E+21	2,851051E+22
-2748	1,374016E+22	1,373998E+22	5,154077E+20	5,155215E+20	2,748014E+22	1,030929E+21	2,851107E+22
-2747	1,374059E+22	1,374011E+22	5,153884E+20	5,153596E+20	2,748070E+22	1,030748E+21	2,851145E+22
-2746	1,374035E+22	1,374115E+22	5,154934E+20	5,153813E+20	2,748151E+22	1,030875E+21	2,851238E+22
-2745	1,374130E+22	1,374077E+22	5,153118E+20	5,154666E+20	2,748207E+22	1,030778E+21	2,851285E+22
-2744	1,374123E+22	1,374136E+22	5,153725E+20	5,153023E+20	2,748259E+22	1,030675E+21	2,851326E+22
-2743	1,374142E+22	1,374193E+22	5,154160E+20	5,154168E+20	2,748335E+22	1,030833E+21	2,851418E+22
-2742	1,374222E+22	1,374135E+22	5,152647E+20	5,153895E+20	2,748357E+22	1,030654E+21	2,851423E+22
-2741	1,374153E+22	1,374200E+22	5,154160E+20	5,152794E+20	2,748353E+22	1,030695E+21	2,851423E+22
-2740	1,374159E+22	1,374170E+22	5,153816E+20	5,154515E+20	2,748329E+22	1,030833E+21	2,851412E+22
-2739	1,374161E+22	1,374102E+22	5,153208E+20	5,153700E+20	2,748263E+22	1,030691E+21	2,851332E+22
-2738	1,374053E+22	1,374132E+22	5,154863E+20	5,153807E+20	2,748184E+22	1,030867E+21	2,851271E+22
-2737	1,374069E+22	1,374021E+22	5,153550E+20	5,155263E+20	2,748090E+22	1,030881E+21	2,851178E+22
-2736	1,374028E+22	1,373977E+22	5,154164E+20	5,153924E+20	2,748005E+22	1,030809E+21	2,851086E+22
-2735	1,373955E+22	1,373999E+22	5,155378E+20	5,154804E+20	2,747954E+22	1,031018E+21	2,851056E+22
-2734	1,373986E+22	1,373898E+22	5,153857E+20	5,155388E+20	2,747884E+22	1,030925E+21	2,850976E+22
-2733	1,373892E+22	1,373924E+22	5,155179E+20	5,154091E+20	2,747816E+22	1,030927E+21	2,850908E+22
-2732	1,373868E+22	1,373916E+22	5,155210E+20	5,155590E+20	2,747784E+22	1,031080E+21	2,850892E+22
-2731	1,373923E+22	1,373855E+22	5,154118E+20	5,154928E+20	2,747778E+22	1,030905E+21	2,850868E+22
-2730	1,373865E+22	1,373938E+22	5,155581E+20	5,154088E+20	2,747803E+22	1,030967E+21	2,850900E+22
-2729	1,373936E+22	1,373914E+22	5,154404E+20	5,155510E+20	2,747850E+22	1,030991E+21	2,850949E+22
-2728	1,373984E+22	1,373931E+22	5,154071E+20	5,154003E+20	2,747915E+22	1,030807E+21	2,850996E+22
-2727	1,373962E+22	1,374045E+22	5,155115E+20	5,154249E+20	2,748007E+22	1,030936E+21	2,851101E+22
-2726	1,374067E+22	1,374009E+22	5,153328E+20	5,155028E+20	2,748076E+22	1,030836E+21	2,851160E+22
-2725	1,374061E+22	1,374064E+22	5,153974E+20	5,153286E+20	2,748125E+22	1,030726E+21	2,851198E+22
-2724	1,374058E+22	1,374112E+22	5,154610E+20	5,154380E+20	2,748170E+22	1,030899E+21	2,851260E+22
-2723	1,374134E+22	1,374056E+22	5,153194E+20	5,154155E+20	2,748190E+22	1,030735E+21	2,851264E+22
-2722	1,374053E+22	1,374112E+22	5,154649E+20	5,153305E+20	2,748164E+22	1,030795E+21	2,851244E+22
-2721	1,374046E+22	1,374060E+22	5,154161E+20	5,155078E+20	2,748106E+22	1,030924E+21	2,851199E+22
-2720	1,374061E+22	1,373982E+22	5,153499E+20	5,154271E+20	2,748043E+22	1,030777E+21	2,851120E+22
-2719	1,373962E+22	1,374024E+22	5,155214E+20	5,154251E+20	2,747986E+22	1,030947E+21	2,851080E+22
-2718	1,373993E+22	1,373925E+22	5,153986E+20	5,155608E+20	2,747917E+22	1,030959E+21	2,851013E+22
-2717	1,373942E+22	1,373889E+22	5,154585E+20	5,154234E+20	2,747830E+22	1,030882E+21	2,850918E+22
-2716	1,373838E+22	1,373912E+22	5,155871E+20	5,155155E+20	2,747750E+22	1,031103E+21	2,850860E+22
-2715	1,373874E+22	1,373810E+22	5,154392E+20	5,155753E+20	2,747683E+22	1,031015E+21	2,850785E+22
-2714	1,373785E+22	1,373829E+22	5,155656E+20	5,154558E+20	2,747614E+22	1,031021E+21	2,850716E+22
-2713	1,373767E+22	1,373810E+22	5,155571E+20	5,155955E+20	2,747577E+22	1,031153E+21	2,850693E+22
-2712	1,373845E+22	1,373751E+22	5,154430E+20	5,155297E+20	2,747596E+22	1,030973E+21	2,850693E+22
-2711	1,373794E+22	1,373858E+22	5,155834E+20	5,154463E+20	2,747651E+22	1,031030E+21	2,850754E+22
-2710	1,373872E+22	1,373847E+22	5,154628E+20	5,155910E+20	2,747718E+22	1,031054E+21	2,850824E+22
-2709	1,373918E+22	1,373865E+22	5,154229E+20	5,154352E+20	2,747783E+22	1,030858E+21	2,850869E+22
-2708	1,373880E+22	1,373975E+22	5,155430E+20	5,154496E+20	2,747855E+22	1,030993E+21	2,850954E+22
-2707	1,373993E+22	1,373941E+22	5,153808E+20	5,155150E+20	2,747934E+22	1,030896E+21	2,851024E+22

1	14	15	16	17	18	19	20
	Astronomical season (northern hemisphere)				Summer half year (northern hemisphere)	Winter half year (northern hemisphere)	Tropical year
	Spring	Summer	Autumn	Winter			
Longitude $\odot$	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
Years							
-2706	1,373986E+22	1,373990E+22	5,154476E+20	5,153578E+20	2,747976E+22	1,030805E+21	2,851056E+22
-2705	1,373963E+22	1,374022E+22	5,155008E+20	5,154719E+20	2,747985E+22	1,030973E+21	2,851082E+22
-2704	1,374038E+22	1,373956E+22	5,153488E+20	5,154694E+20	2,747994E+22	1,030818E+21	2,851076E+22
-2703	1,373959E+22	1,374013E+22	5,154897E+20	5,153870E+20	2,747972E+22	1,030877E+21	2,851059E+22
-2702	1,373963E+22	1,373962E+22	5,154470E+20	5,155549E+20	2,747924E+22	1,031002E+21	2,851024E+22
-2701	1,373981E+22	1,373885E+22	5,153861E+20	5,154607E+20	2,747866E+22	1,030847E+21	2,850951E+22
-2700	1,373863E+22	1,373926E+22	5,155788E+20	5,154496E+20	2,747789E+22	1,031028E+21	2,850892E+22
-2699	1,373885E+22	1,373838E+22	5,154677E+20	5,155878E+20	2,747723E+22	1,031056E+21	2,850829E+22
-2698	1,373823E+22	1,373796E+22	5,155165E+20	5,154784E+20	2,747620E+22	1,030995E+21	2,850719E+22
-2697	1,373709E+22	1,373798E+22	5,156281E+20	5,155675E+20	2,747507E+22	1,031196E+21	2,850627E+22
-2696	1,373766E+22	1,373689E+22	5,154707E+20	5,156285E+20	2,747455E+22	1,031099E+21	2,850565E+22
-2695	1,373699E+22	1,373723E+22	5,155931E+20	5,154955E+20	2,747421E+22	1,031089E+21	2,850530E+22
-2694	1,373703E+22	1,373721E+22	5,155870E+20	5,156269E+20	2,747424E+22	1,031214E+21	2,850545E+22
-2693	1,373782E+22	1,373680E+22	5,154655E+20	5,155577E+20	2,747462E+22	1,031023E+21	2,850564E+22
-2692	1,373712E+22	1,373793E+22	5,156125E+20	5,154763E+20	2,747505E+22	1,031089E+21	2,850614E+22
-2691	1,373795E+22	1,373790E+22	5,155039E+20	5,156160E+20	2,747585E+22	1,031120E+21	2,850697E+22
-2690	1,373842E+22	1,373802E+22	5,154613E+20	5,154712E+20	2,747644E+22	1,030932E+21	2,850738E+22
-2689	1,373798E+22	1,373891E+22	5,155802E+20	5,154728E+20	2,747688E+22	1,031053E+21	2,850794E+22
-2688	1,373918E+22	1,373849E+22	5,154173E+20	5,155463E+20	2,747767E+22	1,030964E+21	2,850863E+22
-2687	1,373904E+22	1,373906E+22	5,154790E+20	5,153998E+20	2,747810E+22	1,030879E+21	2,850897E+22
-2686	1,373882E+22	1,373936E+22	5,155296E+20	5,155214E+20	2,747818E+22	1,031051E+21	2,850923E+22
-2685	1,373953E+22	1,373863E+22	5,153732E+20	5,155135E+20	2,747817E+22	1,030887E+21	2,850905E+22
-2684	1,373861E+22	1,373917E+22	5,155289E+20	5,154216E+20	2,747778E+22	1,030950E+21	2,850873E+22
-2683	1,373873E+22	1,373873E+22	5,155062E+20	5,155758E+20	2,747746E+22	1,031082E+21	2,850854E+22
-2682	1,373884E+22	1,373795E+22	5,154468E+20	5,154999E+20	2,747679E+22	1,030947E+21	2,850774E+22
-2681	1,373743E+22	1,373822E+22	5,156294E+20	5,154924E+20	2,747566E+22	1,031122E+21	2,850678E+22
-2680	1,373767E+22	1,373724E+22	5,155083E+20	5,156474E+20	2,747491E+22	1,031156E+21	2,850607E+22
-2679	1,373711E+22	1,373686E+22	5,155478E+20	5,155407E+20	2,747397E+22	1,031089E+21	2,850506E+22
-2678	1,373617E+22	1,373689E+22	5,156563E+20	5,156174E+20	2,747306E+22	1,031274E+21	2,850433E+22
-2677	1,373687E+22	1,373588E+22	5,154988E+20	5,156608E+20	2,747275E+22	1,031160E+21	2,850391E+22
-2676	1,373616E+22	1,373634E+22	5,156339E+20	5,155192E+20	2,747249E+22	1,031153E+21	2,850365E+22
-2675	1,373623E+22	1,373654E+22	5,156393E+20	5,156476E+20	2,747276E+22	1,031287E+21	2,850405E+22
-2674	1,373696E+22	1,373617E+22	5,155106E+20	5,155989E+20	2,747313E+22	1,031109E+21	2,850424E+22
-2673	1,373618E+22	1,373712E+22	5,156465E+20	5,155095E+20	2,747330E+22	1,031156E+21	2,850446E+22
-2672	1,373716E+22	1,373703E+22	5,155355E+20	5,156479E+20	2,747419E+22	1,031183E+21	2,850537E+22
-2671	1,373772E+22	1,373723E+22	5,154894E+20	5,155004E+20	2,747495E+22	1,030990E+21	2,850594E+22
-2670	1,373733E+22	1,373813E+22	5,156095E+20	5,155019E+20	2,747545E+22	1,031111E+21	2,850657E+22
-2669	1,373843E+22	1,373775E+22	5,154396E+20	5,155785E+20	2,747619E+22	1,031018E+21	2,850720E+22
-2668	1,373812E+22	1,373825E+22	5,155098E+20	5,154392E+20	2,747637E+22	1,030949E+21	2,850732E+22
-2667	1,373792E+22	1,373857E+22	5,155758E+20	5,155547E+20	2,747649E+22	1,031130E+21	2,850762E+22
-2666	1,373864E+22	1,373779E+22	5,154205E+20	5,155593E+20	2,747643E+22	1,030980E+21	2,850741E+22
-2665	1,373762E+22	1,373811E+22	5,155764E+20	5,154560E+20	2,747573E+22	1,031032E+21	2,850677E+22
-2664	1,373776E+22	1,373764E+22	5,155544E+20	5,156191E+20	2,747540E+22	1,031174E+21	2,850657E+22
-2663	1,373777E+22	1,373694E+22	5,154875E+20	5,155571E+20	2,747471E+22	1,031045E+21	2,850575E+22
-2662	1,373637E+22	1,373715E+22	5,156645E+20	5,155532E+20	2,747352E+22	1,031218E+21	2,850474E+22
-2661	1,373663E+22	1,373615E+22	5,155365E+20	5,156950E+20	2,747278E+22	1,031232E+21	2,850401E+22
-2660	1,373607E+22	1,373577E+22	5,155890E+20	5,155757E+20	2,747184E+22	1,031165E+21	2,850300E+22
-2659	1,373530E+22	1,373597E+22	5,157130E+20	5,156348E+20	2,747127E+22	1,031348E+21	2,850261E+22
-2658	1,373600E+22	1,373509E+22	5,155530E+20	5,156939E+20	2,747109E+22	1,031247E+21	2,850233E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2657	1,373516E+22	1,373549E+22	5,156737E+20	5,155540E+20	2,747065E+22	1,031228E+21	2,850188E+22
-2656	1,373534E+22	1,373568E+22	5,156709E+20	5,156939E+20	2,747102E+22	1,031365E+21	2,850238E+22
-2655	1,373612E+22	1,373540E+22	5,155346E+20	5,156449E+20	2,747152E+22	1,031180E+21	2,850270E+22
-2654	1,373552E+22	1,373633E+22	5,156688E+20	5,155460E+20	2,747184E+22	1,031215E+21	2,850306E+22
-2653	1,373653E+22	1,373624E+22	5,155591E+20	5,156648E+20	2,747276E+22	1,031224E+21	2,850399E+22
-2652	1,373694E+22	1,373648E+22	5,155257E+20	5,155231E+20	2,747342E+22	1,031049E+21	2,850447E+22
-2651	1,373653E+22	1,373746E+22	5,156543E+20	5,155294E+20	2,747399E+22	1,031184E+21	2,850518E+22
-2650	1,373752E+22	1,373703E+22	5,154806E+20	5,156284E+20	2,747455E+22	1,031109E+21	2,850566E+22
-2649	1,373714E+22	1,373728E+22	5,155429E+20	5,154824E+20	2,747442E+22	1,031025E+21	2,850544E+22
-2648	1,373708E+22	1,373752E+22	5,156112E+20	5,155948E+20	2,747460E+22	1,031206E+21	2,850581E+22
-2647	1,373780E+22	1,373683E+22	5,154593E+20	5,155986E+20	2,747464E+22	1,031058E+21	2,850569E+22
-2646	1,373679E+22	1,373715E+22	5,156151E+20	5,155002E+20	2,747393E+22	1,031115E+21	2,850505E+22
-2645	1,373677E+22	1,373669E+22	5,155869E+20	5,156597E+20	2,747346E+22	1,031247E+21	2,850471E+22
-2644	1,373661E+22	1,373596E+22	5,155302E+20	5,156072E+20	2,747257E+22	1,031137E+21	2,850370E+22
-2643	1,373528E+22	1,373618E+22	5,157187E+20	5,155915E+20	2,747146E+22	1,031310E+21	2,850277E+22
-2642	1,373557E+22	1,373516E+22	5,155918E+20	5,157374E+20	2,747073E+22	1,031329E+21	2,850206E+22
-2641	1,373500E+22	1,373463E+22	5,156409E+20	5,156070E+20	2,746963E+22	1,031248E+21	2,850088E+22
-2640	1,373435E+22	1,373490E+22	5,157587E+20	5,156749E+20	2,746925E+22	1,031434E+21	2,850069E+22
-2639	1,373504E+22	1,373422E+22	5,155898E+20	5,157467E+20	2,746926E+22	1,031336E+21	2,850060E+22
-2638	1,373431E+22	1,373461E+22	5,156979E+20	5,156075E+20	2,746891E+22	1,031305E+21	2,850022E+22
-2637	1,373455E+22	1,373485E+22	5,156881E+20	5,157260E+20	2,746940E+22	1,031414E+21	2,850082E+22
-2636	1,373534E+22	1,373462E+22	5,155644E+20	5,156664E+20	2,746996E+22	1,031231E+21	2,850120E+22
-2635	1,373484E+22	1,373565E+22	5,157139E+20	5,155552E+20	2,747049E+22	1,031269E+21	2,850176E+22
-2634	1,373576E+22	1,373563E+22	5,156022E+20	5,156917E+20	2,747139E+22	1,031294E+21	2,850268E+22
-2633	1,373602E+22	1,373567E+22	5,155590E+20	5,155591E+20	2,747169E+22	1,031118E+21	2,850281E+22
-2632	1,373570E+22	1,373657E+22	5,156807E+20	5,155792E+20	2,747226E+22	1,031260E+21	2,850352E+22
-2631	1,373671E+22	1,373618E+22	5,155069E+20	5,156799E+20	2,747289E+22	1,031187E+21	2,850408E+22
-2630	1,373645E+22	1,373634E+22	5,155684E+20	5,155266E+20	2,747279E+22	1,031095E+21	2,850389E+22
-2629	1,373637E+22	1,373660E+22	5,156409E+20	5,156183E+20	2,747297E+22	1,031259E+21	2,850423E+22
-2628	1,373686E+22	1,373597E+22	5,155059E+20	5,156316E+20	2,747283E+22	1,031138E+21	2,850397E+22
-2627	1,373575E+22	1,373631E+22	5,156742E+20	5,155387E+20	2,747206E+22	1,031213E+21	2,850327E+22
-2626	1,373558E+22	1,373578E+22	5,156423E+20	5,157112E+20	2,747135E+22	1,031353E+21	2,850271E+22
-2625	1,373535E+22	1,373476E+22	5,155800E+20	5,156551E+20	2,747011E+22	1,031235E+21	2,850134E+22
-2624	1,373423E+22	1,373492E+22	5,157627E+20	5,156367E+20	2,746915E+22	1,031399E+21	2,850055E+22
-2623	1,373457E+22	1,373406E+22	5,156356E+20	5,157822E+20	2,746863E+22	1,031418E+21	2,850005E+22
-2622	1,373413E+22	1,373360E+22	5,156731E+20	5,156574E+20	2,746773E+22	1,031330E+21	2,849906E+22
-2621	1,373347E+22	1,373399E+22	5,157794E+20	5,157142E+20	2,746746E+22	1,031494E+21	2,849895E+22
-2620	1,373409E+22	1,373342E+22	5,156225E+20	5,157886E+20	2,746751E+22	1,031411E+21	2,849892E+22
-2619	1,373350E+22	1,373390E+22	5,157387E+20	5,156361E+20	2,746741E+22	1,031375E+21	2,849878E+22
-2618	1,373375E+22	1,373416E+22	5,157318E+20	5,157483E+20	2,746791E+22	1,031480E+21	2,849939E+22
-2617	1,373448E+22	1,373376E+22	5,156071E+20	5,156852E+20	2,746824E+22	1,031292E+21	2,849953E+22
-2616	1,373406E+22	1,373477E+22	5,157490E+20	5,155886E+20	2,746883E+22	1,031338E+21	2,850017E+22
-2615	1,373489E+22	1,373486E+22	5,156327E+20	5,157400E+20	2,746975E+22	1,031373E+21	2,850112E+22
-2614	1,373527E+22	1,373480E+22	5,155787E+20	5,156125E+20	2,747007E+22	1,031191E+21	2,850126E+22
-2613	1,373501E+22	1,373569E+22	5,156949E+20	5,156103E+20	2,747071E+22	1,031305E+21	2,850201E+22
-2612	1,373597E+22	1,373538E+22	5,155434E+20	5,157034E+20	2,747136E+22	1,031247E+21	2,850260E+22
-2611	1,373572E+22	1,373562E+22	5,156205E+20	5,155456E+20	2,747134E+22	1,031166E+21	2,850251E+22
-2610	1,373541E+22	1,373589E+22	5,156950E+20	5,156498E+20	2,747130E+22	1,031345E+21	2,850264E+22
-2609	1,373565E+22	1,373498E+22	5,155555E+20	5,156779E+20	2,747064E+22	1,031233E+21	2,850187E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2608	1,373460E+22	1,373516E+22	5,157177E+20	5,155990E+20	2,746976E+22	1,031317E+21	2,850108E+22
-2607	1,373444E+22	1,373464E+22	5,156835E+20	5,157713E+20	2,746908E+22	1,031455E+21	2,850054E+22
-2606	1,373440E+22	1,373351E+22	5,156160E+20	5,157085E+20	2,746791E+22	1,031324E+21	2,849923E+22
-2605	1,373336E+22	1,373376E+22	5,157909E+20	5,156702E+20	2,746712E+22	1,031461E+21	2,849858E+22
-2604	1,373360E+22	1,373311E+22	5,156778E+20	5,158227E+20	2,746672E+22	1,031501E+21	2,849822E+22
-2603	1,373318E+22	1,373281E+22	5,157212E+20	5,156973E+20	2,746599E+22	1,031418E+21	2,849740E+22
-2602	1,373249E+22	1,373324E+22	5,158238E+20	5,157523E+20	2,746573E+22	1,031576E+21	2,849731E+22
-2601	1,373307E+22	1,373249E+22	5,156673E+20	5,158164E+20	2,746556E+22	1,031484E+21	2,849704E+22
-2600	1,373268E+22	1,373295E+22	5,157782E+20	5,156626E+20	2,746563E+22	1,031441E+21	2,849707E+22
-2599	1,373292E+22	1,373335E+22	5,157699E+20	5,157774E+20	2,746627E+22	1,031547E+21	2,849782E+22
-2598	1,373372E+22	1,373292E+22	5,156305E+20	5,157279E+20	2,746664E+22	1,031358E+21	2,849800E+22
-2597	1,373334E+22	1,373397E+22	5,157571E+20	5,156263E+20	2,746731E+22	1,031383E+21	2,849869E+22
-2596	1,373413E+22	1,373414E+22	5,156576E+20	5,157804E+20	2,746827E+22	1,031438E+21	2,849971E+22
-2595	1,373463E+22	1,373414E+22	5,156156E+20	5,156413E+20	2,746877E+22	1,031257E+21	2,850003E+22
-2594	1,373431E+22	1,373502E+22	5,157394E+20	5,156299E+20	2,746933E+22	1,031369E+21	2,850070E+22
-2593	1,373506E+22	1,373451E+22	5,155958E+20	5,157259E+20	2,746957E+22	1,031322E+21	2,850090E+22
-2592	1,373476E+22	1,373467E+22	5,156667E+20	5,155925E+20	2,746943E+22	1,031259E+21	2,850069E+22
-2591	1,373424E+22	1,373493E+22	5,157391E+20	5,157086E+20	2,746917E+22	1,031448E+21	2,850062E+22
-2590	1,373458E+22	1,373381E+22	5,155883E+20	5,157444E+20	2,746839E+22	1,031333E+21	2,849972E+22
-2589	1,373365E+22	1,373391E+22	5,157407E+20	5,156414E+20	2,746756E+22	1,031382E+21	2,849894E+22
-2588	1,373347E+22	1,373353E+22	5,157271E+20	5,158046E+20	2,746700E+22	1,031532E+21	2,849853E+22
-2587	1,373352E+22	1,373258E+22	5,156694E+20	5,157378E+20	2,746610E+22	1,031407E+21	2,849751E+22
-2586	1,373236E+22	1,373295E+22	5,158401E+20	5,157039E+20	2,746531E+22	1,031544E+21	2,849685E+22
-2585	1,373244E+22	1,373217E+22	5,157294E+20	5,158645E+20	2,746461E+22	1,031594E+21	2,849621E+22
-2584	1,373214E+22	1,373183E+22	5,157644E+20	5,157472E+20	2,746397E+22	1,031512E+21	2,849548E+22
-2583	1,373147E+22	1,373233E+22	5,158656E+20	5,157933E+20	2,746380E+22	1,031659E+21	2,849546E+22
-2582	1,373224E+22	1,373147E+22	5,157011E+20	5,158533E+20	2,746372E+22	1,031554E+21	2,849527E+22
-2581	1,373194E+22	1,373199E+22	5,157991E+20	5,156871E+20	2,746393E+22	1,031486E+21	2,849542E+22
-2580	1,373209E+22	1,373259E+22	5,158017E+20	5,158119E+20	2,746468E+22	1,031614E+21	2,849630E+22
-2579	1,373297E+22	1,373228E+22	5,156652E+20	5,157664E+20	2,746525E+22	1,031432E+21	2,849668E+22
-2578	1,373260E+22	1,373333E+22	5,157871E+20	5,156601E+20	2,746594E+22	1,031447E+21	2,849738E+22
-2577	1,373333E+22	1,373333E+22	5,156978E+20	5,158045E+20	2,746666E+22	1,031502E+21	2,849816E+22
-2576	1,373392E+22	1,373330E+22	5,156553E+20	5,156679E+20	2,746722E+22	1,031323E+21	2,849855E+22
-2575	1,373347E+22	1,373425E+22	5,157833E+20	5,156623E+20	2,746772E+22	1,031446E+21	2,849916E+22
-2574	1,373415E+22	1,373358E+22	5,156293E+20	5,157731E+20	2,746773E+22	1,031402E+21	2,849913E+22
-2573	1,373380E+22	1,373365E+22	5,156877E+20	5,156417E+20	2,746745E+22	1,031329E+21	2,849877E+22
-2572	1,373322E+22	1,373394E+22	5,157745E+20	5,157592E+20	2,746715E+22	1,031534E+21	2,849869E+22
-2571	1,373366E+22	1,373284E+22	5,156350E+20	5,157847E+20	2,746650E+22	1,031420E+21	2,849792E+22
-2570	1,373274E+22	1,373294E+22	5,157891E+20	5,156692E+20	2,746568E+22	1,031458E+21	2,849714E+22
-2569	1,373240E+22	1,373244E+22	5,157864E+20	5,158344E+20	2,746484E+22	1,031621E+21	2,849647E+22
-2568	1,373243E+22	1,373155E+22	5,157223E+20	5,157873E+20	2,746398E+22	1,031510E+21	2,849549E+22
-2567	1,373117E+22	1,373199E+22	5,158892E+20	5,157613E+20	2,746315E+22	1,031651E+21	2,849480E+22
-2566	1,373138E+22	1,373107E+22	5,157673E+20	5,159214E+20	2,746244E+22	1,031689E+21	2,849413E+22
-2565	1,373124E+22	1,373074E+22	5,157881E+20	5,157836E+20	2,746198E+22	1,031572E+21	2,849355E+22
-2564	1,373060E+22	1,373141E+22	5,159018E+20	5,158202E+20	2,746201E+22	1,031722E+21	2,849373E+22
-2563	1,373148E+22	1,373073E+22	5,157414E+20	5,158792E+20	2,746221E+22	1,031621E+21	2,849383E+22
-2562	1,373114E+22	1,373133E+22	5,158296E+20	5,157162E+20	2,746247E+22	1,031546E+21	2,849402E+22
-2561	1,373120E+22	1,373180E+22	5,158395E+20	5,158481E+20	2,746300E+22	1,031688E+21	2,849469E+22
-2560	1,373222E+22	1,373151E+22	5,156984E+20	5,158089E+20	2,746372E+22	1,031507E+21	2,849523E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2559	1,373184E+22	1,373260E+22	5,158232E+20	5,156940E+20	2,746444E+22	1,031517E+21	2,849596E+22
-2558	1,373265E+22	1,373245E+22	5,157322E+20	5,158339E+20	2,746511E+22	1,031566E+21	2,849667E+22
-2557	1,373321E+22	1,373241E+22	5,156783E+20	5,156957E+20	2,746562E+22	1,031374E+21	2,849700E+22
-2556	1,373253E+22	1,373345E+22	5,158205E+20	5,157015E+20	2,746597E+22	1,031522E+21	2,849749E+22
-2555	1,373320E+22	1,373278E+22	5,156719E+20	5,158176E+20	2,746597E+22	1,031489E+21	2,849746E+22
-2554	1,373283E+22	1,373274E+22	5,157287E+20	5,156796E+20	2,746557E+22	1,031408E+21	2,849698E+22
-2553	1,373216E+22	1,373283E+22	5,158289E+20	5,157896E+20	2,746499E+22	1,031618E+21	2,849661E+22
-2552	1,373268E+22	1,373175E+22	5,156891E+20	5,158214E+20	2,746443E+22	1,031511E+21	2,849594E+22
-2551	1,373164E+22	1,373195E+22	5,158404E+20	5,157155E+20	2,746359E+22	1,031556E+21	2,849514E+22
-2550	1,373130E+22	1,373135E+22	5,158262E+20	5,158931E+20	2,746265E+22	1,031719E+21	2,849437E+22
-2549	1,373137E+22	1,373044E+22	5,157483E+20	5,158451E+20	2,746182E+22	1,031593E+21	2,849341E+22
-2548	1,373012E+22	1,373100E+22	5,159268E+20	5,158120E+20	2,746112E+22	1,031739E+21	2,849286E+22
-2547	1,373049E+22	1,373016E+22	5,158128E+20	5,159551E+20	2,746065E+22	1,031768E+21	2,849242E+22
-2546	1,373040E+22	1,372987E+22	5,158307E+20	5,158050E+20	2,746027E+22	1,031636E+21	2,849191E+22
-2545	1,372964E+22	1,373048E+22	5,159503E+20	5,158462E+20	2,746012E+22	1,031796E+21	2,849191E+22
-2544	1,373053E+22	1,372990E+22	5,157822E+20	5,159215E+20	2,746043E+22	1,031704E+21	2,849214E+22
-2543	1,373023E+22	1,373056E+22	5,158636E+20	5,157654E+20	2,746079E+22	1,031629E+21	2,849242E+22
-2542	1,373046E+22	1,373089E+22	5,158661E+20	5,158896E+20	2,746135E+22	1,031756E+21	2,849311E+22
-2541	1,373159E+22	1,373064E+22	5,157168E+20	5,158321E+20	2,746223E+22	1,031549E+21	2,849378E+22
-2540	1,373119E+22	1,373189E+22	5,158551E+20	5,157144E+20	2,746308E+22	1,031569E+21	2,849465E+22
-2539	1,373195E+22	1,373184E+22	5,157717E+20	5,158554E+20	2,746378E+22	1,031627E+21	2,849541E+22
-2538	1,373235E+22	1,373176E+22	5,157114E+20	5,157278E+20	2,746410E+22	1,031439E+21	2,849554E+22
-2537	1,373147E+22	1,373253E+22	5,158655E+20	5,157440E+20	2,746401E+22	1,031610E+21	2,849562E+22
-2536	1,373218E+22	1,373181E+22	5,157165E+20	5,158665E+20	2,746399E+22	1,031583E+21	2,849557E+22
-2535	1,373183E+22	1,373171E+22	5,157760E+20	5,157269E+20	2,746354E+22	1,031503E+21	2,849504E+22
-2534	1,373123E+22	1,373162E+22	5,158716E+20	5,158341E+20	2,746286E+22	1,031706E+21	2,849456E+22
-2533	1,373172E+22	1,373062E+22	5,157211E+20	5,158695E+20	2,746233E+22	1,031591E+21	2,849392E+22
-2532	1,373055E+22	1,373096E+22	5,158800E+20	5,157734E+20	2,746150E+22	1,031653E+21	2,849316E+22
-2531	1,373027E+22	1,373042E+22	5,158714E+20	5,159456E+20	2,746068E+22	1,031817E+21	2,849250E+22
-2530	1,373038E+22	1,372950E+22	5,157907E+20	5,158828E+20	2,745987E+22	1,031674E+21	2,849155E+22
-2529	1,372905E+22	1,372993E+22	5,159821E+20	5,158380E+20	2,745898E+22	1,031820E+21	2,849080E+22
-2528	1,372951E+22	1,372919E+22	5,158665E+20	5,159820E+20	2,745870E+22	1,031849E+21	2,849055E+22
-2527	1,372937E+22	1,372899E+22	5,158773E+20	5,158429E+20	2,745836E+22	1,031720E+21	2,849008E+22
-2526	1,372869E+22	1,372950E+22	5,159810E+20	5,158938E+20	2,745819E+22	1,031875E+21	2,849007E+22
-2525	1,372973E+22	1,372899E+22	5,157988E+20	5,159681E+20	2,745872E+22	1,031767E+21	2,849048E+22
-2524	1,372950E+22	1,372981E+22	5,158874E+20	5,158039E+20	2,745930E+22	1,031691E+21	2,849099E+22
-2523	1,372989E+22	1,373024E+22	5,158997E+20	5,159101E+20	2,746013E+22	1,031810E+21	2,849194E+22
-2522	1,373098E+22	1,373001E+22	5,157513E+20	5,158421E+20	2,746100E+22	1,031593E+21	2,849259E+22
-2521	1,373031E+22	1,373113E+22	5,159017E+20	5,157386E+20	2,746144E+22	1,031640E+21	2,849308E+22
-2520	1,373094E+22	1,373108E+22	5,158154E+20	5,158961E+20	2,746202E+22	1,031712E+21	2,849373E+22
-2519	1,373129E+22	1,373089E+22	5,157526E+20	5,157848E+20	2,746217E+22	1,031537E+21	2,849371E+22
-2518	1,373055E+22	1,373140E+22	5,158980E+20	5,157963E+20	2,746194E+22	1,031694E+21	2,849364E+22
-2517	1,373136E+22	1,373066E+22	5,157426E+20	5,159075E+20	2,746202E+22	1,031650E+21	2,849367E+22
-2516	1,373098E+22	1,373072E+22	5,158120E+20	5,157670E+20	2,746170E+22	1,031579E+21	2,849328E+22
-2515	1,373036E+22	1,373075E+22	5,159123E+20	5,158737E+20	2,746111E+22	1,031786E+21	2,849290E+22
-2514	1,373072E+22	1,372977E+22	5,157613E+20	5,159116E+20	2,746049E+22	1,031673E+21	2,849216E+22
-2513	1,372939E+22	1,372994E+22	5,159345E+20	5,158224E+20	2,745933E+22	1,031757E+21	2,849109E+22
-2512	1,372911E+22	1,372942E+22	5,159282E+20	5,159855E+20	2,745854E+22	1,031914E+21	2,849045E+22
-2511	1,372927E+22	1,372847E+22	5,158491E+20	5,159241E+20	2,745773E+22	1,031773E+21	2,848951E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2510	1,372806E+22	1,372871E+22	5,160272E+20	5,158758E+20	2,745677E+22	1,031903E+21	2,848867E+22
-2509	1,372851E+22	1,372809E+22	5,158955E+20	5,160247E+20	2,745660E+22	1,031920E+21	2,848852E+22
-2508	1,372840E+22	1,372809E+22	5,159047E+20	5,158951E+20	2,745649E+22	1,031800E+21	2,848829E+22
-2507	1,372793E+22	1,372871E+22	5,160084E+20	5,159368E+20	2,745664E+22	1,031945E+21	2,848858E+22
-2506	1,372906E+22	1,372829E+22	5,158274E+20	5,159903E+20	2,745735E+22	1,031818E+21	2,848917E+22
-2505	1,372877E+22	1,372904E+22	5,159293E+20	5,158206E+20	2,745781E+22	1,031750E+21	2,848956E+22
-2504	1,372911E+22	1,372958E+22	5,159441E+20	5,159252E+20	2,745870E+22	1,031869E+21	2,849057E+22
-2503	1,373007E+22	1,372935E+22	5,157917E+20	5,158792E+20	2,745942E+22	1,031671E+21	2,849109E+22
-2502	1,372939E+22	1,373019E+22	5,159297E+20	5,157901E+20	2,745958E+22	1,031720E+21	2,849130E+22
-2501	1,373006E+22	1,373009E+22	5,158343E+20	5,159486E+20	2,746015E+22	1,031783E+21	2,849193E+22
-2500	1,373046E+22	1,372995E+22	5,157801E+20	5,158339E+20	2,746041E+22	1,031614E+21	2,849203E+22
-2499	1,372988E+22	1,373047E+22	5,159333E+20	5,158297E+20	2,746035E+22	1,031763E+21	2,849211E+22
-2498	1,373060E+22	1,372980E+22	5,157838E+20	5,159305E+20	2,746040E+22	1,031714E+21	2,849211E+22
-2497	1,372992E+22	1,372978E+22	5,158665E+20	5,158052E+20	2,745970E+22	1,031672E+21	2,849137E+22
-2496	1,372918E+22	1,372985E+22	5,159689E+20	5,159177E+20	2,745903E+22	1,031887E+21	2,849092E+22
-2495	1,372948E+22	1,372876E+22	5,158208E+20	5,159664E+20	2,745824E+22	1,031787E+21	2,849003E+22
-2494	1,372824E+22	1,372867E+22	5,159848E+20	5,158709E+20	2,745692E+22	1,031856E+21	2,848877E+22
-2493	1,372807E+22	1,372819E+22	5,159660E+20	5,160238E+20	2,745626E+22	1,031990E+21	2,848825E+22
-2492	1,372823E+22	1,372740E+22	5,158881E+20	5,159673E+20	2,745563E+22	1,031855E+21	2,848748E+22
-2491	1,372715E+22	1,372777E+22	5,160572E+20	5,159204E+20	2,745491E+22	1,031978E+21	2,848689E+22
-2490	1,372764E+22	1,372726E+22	5,159230E+20	5,160638E+20	2,745489E+22	1,031987E+21	2,848688E+22
-2489	1,372750E+22	1,372724E+22	5,159426E+20	5,159367E+20	2,745473E+22	1,031879E+21	2,848661E+22
-2488	1,372713E+22	1,372799E+22	5,160500E+20	5,159619E+20	2,745512E+22	1,032012E+21	2,848713E+22
-2487	1,372829E+22	1,372758E+22	5,158756E+20	5,160162E+20	2,745587E+22	1,031892E+21	2,848776E+22
-2486	1,372801E+22	1,372816E+22	5,159650E+20	5,158514E+20	2,745617E+22	1,031816E+21	2,848798E+22
-2485	1,372825E+22	1,372874E+22	5,159660E+20	5,159629E+20	2,745699E+22	1,031929E+21	2,848892E+22
-2484	1,372917E+22	1,372856E+22	5,158156E+20	5,159310E+20	2,745772E+22	1,031747E+21	2,848947E+22
-2483	1,372868E+22	1,372933E+22	5,159533E+20	5,158353E+20	2,745801E+22	1,031789E+21	2,848980E+22
-2482	1,372938E+22	1,372926E+22	5,158652E+20	5,159713E+20	2,745864E+22	1,031836E+21	2,849048E+22
-2481	1,372967E+22	1,372905E+22	5,158281E+20	5,158581E+20	2,745873E+22	1,031686E+21	2,849041E+22
-2480	1,372896E+22	1,372968E+22	5,159853E+20	5,158506E+20	2,745864E+22	1,031836E+21	2,849048E+22
-2479	1,372950E+22	1,372898E+22	5,158397E+20	5,159755E+20	2,745848E+22	1,031815E+21	2,849030E+22
-2478	1,372879E+22	1,372865E+22	5,159101E+20	5,158659E+20	2,745744E+22	1,031776E+21	2,848922E+22
-2477	1,372803E+22	1,372868E+22	5,160037E+20	5,159739E+20	2,745671E+22	1,031978E+21	2,848868E+22
-2476	1,372839E+22	1,372764E+22	5,158618E+20	5,160214E+20	2,745603E+22	1,031883E+21	2,848791E+22
-2475	1,372736E+22	1,372752E+22	5,160260E+20	5,159127E+20	2,745487E+22	1,031939E+21	2,848681E+22
-2474	1,372713E+22	1,372715E+22	5,160055E+20	5,160524E+20	2,745428E+22	1,032058E+21	2,848634E+22
-2473	1,372712E+22	1,372638E+22	5,159347E+20	5,160131E+20	2,745350E+22	1,031948E+21	2,848545E+22
-2472	1,372607E+22	1,372690E+22	5,160996E+20	5,159629E+20	2,745297E+22	1,032063E+21	2,848503E+22
-2471	1,372666E+22	1,372642E+22	5,159720E+20	5,161100E+20	2,745308E+22	1,032082E+21	2,848517E+22
-2470	1,372668E+22	1,372624E+22	5,159804E+20	5,159716E+20	2,745292E+22	1,031952E+21	2,848487E+22
-2469	1,372639E+22	1,372710E+22	5,160789E+20	5,159836E+20	2,745349E+22	1,032063E+21	2,848555E+22
-2468	1,372750E+22	1,372685E+22	5,159064E+20	5,160447E+20	2,745435E+22	1,031951E+21	2,848630E+22
-2467	1,372728E+22	1,372743E+22	5,159879E+20	5,158895E+20	2,745471E+22	1,031877E+21	2,848659E+22
-2466	1,372748E+22	1,372802E+22	5,159895E+20	5,159936E+20	2,745551E+22	1,031983E+21	2,848749E+22
-2465	1,372829E+22	1,372775E+22	5,158543E+20	5,159693E+20	2,745604E+22	1,031824E+21	2,848786E+22
-2464	1,372788E+22	1,372857E+22	5,159965E+20	5,158592E+20	2,745645E+22	1,031856E+21	2,848831E+22
-2463	1,372857E+22	1,372844E+22	5,159215E+20	5,159995E+20	2,745700E+22	1,031921E+21	2,848892E+22
-2462	1,372875E+22	1,372802E+22	5,158730E+20	5,158977E+20	2,745677E+22	1,031771E+21	2,848854E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2461	1,372791E+22	1,372866E+22	5,160170E+20	5,159012E+20	2,745658E+22	1,031918E+21	2,848850E+22
-2460	1,372837E+22	1,372798E+22	5,158768E+20	5,160377E+20	2,745635E+22	1,031915E+21	2,848827E+22
-2459	1,372783E+22	1,372756E+22	5,159453E+20	5,159248E+20	2,745539E+22	1,031870E+21	2,848726E+22
-2458	1,372709E+22	1,372760E+22	5,160428E+20	5,160040E+20	2,745470E+22	1,032047E+21	2,848674E+22
-2457	1,372734E+22	1,372653E+22	5,159161E+20	5,160559E+20	2,745387E+22	1,031972E+21	2,848584E+22
-2456	1,372627E+22	1,372655E+22	5,160769E+20	5,159428E+20	2,745282E+22	1,032020E+21	2,848484E+22
-2455	1,372599E+22	1,372621E+22	5,160592E+20	5,161006E+20	2,745220E+22	1,032160E+21	2,848436E+22
-2454	1,372605E+22	1,372528E+22	5,159749E+20	5,160698E+20	2,745133E+22	1,032045E+21	2,848338E+22
-2453	1,372513E+22	1,372588E+22	5,161270E+20	5,160102E+20	2,745101E+22	1,032137E+21	2,848315E+22
-2452	1,372584E+22	1,372555E+22	5,160090E+20	5,161483E+20	2,745139E+22	1,032157E+21	2,848355E+22
-2451	1,372606E+22	1,372540E+22	5,160125E+20	5,160011E+20	2,745146E+22	1,032014E+21	2,848347E+22
-2450	1,372566E+22	1,372638E+22	5,161084E+20	5,159977E+20	2,745204E+22	1,032106E+21	2,848414E+22
-2449	1,372655E+22	1,372612E+22	5,159451E+20	5,160797E+20	2,745267E+22	1,032025E+21	2,848470E+22
-2448	1,372636E+22	1,372671E+22	5,160257E+20	5,159216E+20	2,745307E+22	1,031947E+21	2,848502E+22
-2447	1,372661E+22	1,372725E+22	5,160372E+20	5,160313E+20	2,745386E+22	1,032068E+21	2,848593E+22
-2446	1,372752E+22	1,372675E+22	5,158924E+20	5,160050E+20	2,745427E+22	1,031897E+21	2,848617E+22
-2445	1,372711E+22	1,372761E+22	5,160233E+20	5,158913E+20	2,745473E+22	1,031915E+21	2,848664E+22
-2444	1,372770E+22	1,372760E+22	5,159538E+20	5,160422E+20	2,745530E+22	1,031996E+21	2,848730E+22
-2443	1,372793E+22	1,372712E+22	5,158987E+20	5,159527E+20	2,745504E+22	1,031851E+21	2,848690E+22
-2442	1,372699E+22	1,372775E+22	5,160476E+20	5,159417E+20	2,745473E+22	1,031989E+21	2,848672E+22
-2441	1,372729E+22	1,372698E+22	5,159267E+20	5,160836E+20	2,745427E+22	1,032010E+21	2,848628E+22
-2440	1,372678E+22	1,372657E+22	5,160029E+20	5,159557E+20	2,745335E+22	1,031959E+21	2,848531E+22
-2439	1,372602E+22	1,372656E+22	5,161101E+20	5,160393E+20	2,745258E+22	1,032149E+21	2,848473E+22
-2438	1,372617E+22	1,372531E+22	5,159686E+20	5,161043E+20	2,745148E+22	1,032073E+21	2,848356E+22
-2437	1,372509E+22	1,372539E+22	5,161102E+20	5,159993E+20	2,745048E+22	1,032109E+21	2,848259E+22
-2436	1,372490E+22	1,372516E+22	5,160971E+20	5,161599E+20	2,745006E+22	1,032257E+21	2,848232E+22
-2435	1,372523E+22	1,372427E+22	5,160078E+20	5,161195E+20	2,744950E+22	1,032127E+21	2,848163E+22
-2434	1,372440E+22	1,372501E+22	5,161600E+20	5,160273E+20	2,744941E+22	1,032187E+21	2,848160E+22
-2433	1,372496E+22	1,372476E+22	5,160581E+20	5,161678E+20	2,744972E+22	1,032226E+21	2,848195E+22
-2432	1,372513E+22	1,372476E+22	5,160558E+20	5,160208E+20	2,744989E+22	1,032077E+21	2,848197E+22
-2431	1,372469E+22	1,372567E+22	5,161530E+20	5,160361E+20	2,745036E+22	1,032189E+21	2,848255E+22
-2430	1,372559E+22	1,372518E+22	5,159771E+20	5,161281E+20	2,745077E+22	1,032105E+21	2,848288E+22
-2429	1,372556E+22	1,372578E+22	5,160440E+20	5,159664E+20	2,745133E+22	1,032010E+21	2,848334E+22
-2428	1,372593E+22	1,372638E+22	5,160680E+20	5,160688E+20	2,745231E+22	1,032137E+21	2,848445E+22
-2427	1,372697E+22	1,372590E+22	5,159201E+20	5,160413E+20	2,745286E+22	1,031961E+21	2,848483E+22
-2426	1,372640E+22	1,372685E+22	5,160487E+20	5,159164E+20	2,745325E+22	1,031965E+21	2,848521E+22
-2425	1,372669E+22	1,372681E+22	5,159966E+20	5,160844E+20	2,745349E+22	1,032081E+21	2,848557E+22
-2424	1,372688E+22	1,372631E+22	5,159469E+20	5,159923E+20	2,745318E+22	1,031939E+21	2,848512E+22
-2423	1,372593E+22	1,372679E+22	5,161097E+20	5,159826E+20	2,745272E+22	1,032092E+21	2,848482E+22
-2422	1,372621E+22	1,372578E+22	5,159825E+20	5,161222E+20	2,745199E+22	1,032105E+21	2,848410E+22
-2421	1,372570E+22	1,372537E+22	5,160450E+20	5,159980E+20	2,745107E+22	1,032043E+21	2,848311E+22
-2420	1,372488E+22	1,372546E+22	5,161523E+20	5,160931E+20	2,745034E+22	1,032245E+21	2,848258E+22
-2419	1,372517E+22	1,372420E+22	5,160000E+20	5,161697E+20	2,744937E+22	1,032170E+21	2,848154E+22
-2418	1,372413E+22	1,372437E+22	5,161373E+20	5,160442E+20	2,744850E+22	1,032182E+21	2,848068E+22
-2417	1,372390E+22	1,372423E+22	5,161436E+20	5,162022E+20	2,744813E+22	1,032346E+21	2,848048E+22
-2416	1,372434E+22	1,372345E+22	5,160616E+20	5,161401E+20	2,744779E+22	1,032202E+21	2,847999E+22
-2415	1,372348E+22	1,372421E+22	5,162196E+20	5,160517E+20	2,744769E+22	1,032271E+21	2,847996E+22
-2414	1,372392E+22	1,372382E+22	5,161004E+20	5,162048E+20	2,744773E+22	1,032305E+21	2,848004E+22
-2413	1,372410E+22	1,372381E+22	5,160787E+20	5,160706E+20	2,744790E+22	1,032149E+21	2,848005E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2412	1,372380E+22	1,372476E+22	5,161786E+20	5,160889E+20	2,744856E+22	1,032268E+21	2,848083E+22
-2411	1,372499E+22	1,372427E+22	5,159980E+20	5,161722E+20	2,744926E+22	1,032170E+21	2,848143E+22
-2410	1,372503E+22	1,372498E+22	5,160637E+20	5,159812E+20	2,745002E+22	1,032045E+21	2,848206E+22
-2409	1,372523E+22	1,372569E+22	5,161075E+20	5,160893E+20	2,745091E+22	1,032197E+21	2,848311E+22
-2408	1,372612E+22	1,372531E+22	5,159637E+20	5,160624E+20	2,745144E+22	1,032026E+21	2,848346E+22
-2407	1,372543E+22	1,372614E+22	5,161013E+20	5,159576E+20	2,745158E+22	1,032059E+21	2,848364E+22
-2406	1,372558E+22	1,372581E+22	5,160436E+20	5,161313E+20	2,745139E+22	1,032175E+21	2,848356E+22
-2405	1,372581E+22	1,372521E+22	5,159858E+20	5,160433E+20	2,745102E+22	1,032029E+21	2,848305E+22
-2404	1,372493E+22	1,372565E+22	5,161579E+20	5,160307E+20	2,745057E+22	1,032189E+21	2,848276E+22
-2403	1,372528E+22	1,372461E+22	5,160218E+20	5,161745E+20	2,744989E+22	1,032196E+21	2,848208E+22
-2402	1,372469E+22	1,372428E+22	5,160743E+20	5,160420E+20	2,744896E+22	1,032116E+21	2,848108E+22
-2401	1,372371E+22	1,372440E+22	5,161953E+20	5,161477E+20	2,744811E+22	1,032343E+21	2,848045E+22
-2400	1,372407E+22	1,372328E+22	5,160518E+20	5,162118E+20	2,744735E+22	1,032264E+21	2,847962E+22
-2399	1,372315E+22	1,372344E+22	5,161970E+20	5,160820E+20	2,744659E+22	1,032279E+21	2,847887E+22
-2398	1,372288E+22	1,372317E+22	5,161973E+20	5,162306E+20	2,744605E+22	1,032428E+21	2,847848E+22
-2397	1,372333E+22	1,372248E+22	5,160984E+20	5,161755E+20	2,744581E+22	1,032274E+21	2,847808E+22
-2396	1,372247E+22	1,372329E+22	5,162527E+20	5,160981E+20	2,744576E+22	1,032351E+21	2,847811E+22
-2395	1,372306E+22	1,372288E+22	5,161203E+20	5,162585E+20	2,744594E+22	1,032379E+21	2,847832E+22
-2394	1,372336E+22	1,372295E+22	5,160915E+20	5,161060E+20	2,744631E+22	1,032198E+21	2,847851E+22
-2393	1,372308E+22	1,372398E+22	5,162106E+20	5,161207E+20	2,744707E+22	1,032331E+21	2,847940E+22
-2392	1,372436E+22	1,372365E+22	5,160444E+20	5,161847E+20	2,744801E+22	1,032229E+21	2,848024E+22
-2391	1,372434E+22	1,372435E+22	5,161151E+20	5,160034E+20	2,744869E+22	1,032118E+21	2,848081E+22
-2390	1,372426E+22	1,372488E+22	5,161496E+20	5,161232E+20	2,744914E+22	1,032273E+21	2,848141E+22
-2389	1,372508E+22	1,372441E+22	5,159943E+20	5,161129E+20	2,744949E+22	1,032107E+21	2,848160E+22
-2388	1,372443E+22	1,372514E+22	5,161401E+20	5,160155E+20	2,744957E+22	1,032156E+21	2,848172E+22
-2387	1,372472E+22	1,372471E+22	5,160773E+20	5,161819E+20	2,744943E+22	1,032259E+21	2,848169E+22
-2386	1,372496E+22	1,372413E+22	5,160168E+20	5,160746E+20	2,744908E+22	1,032091E+21	2,848117E+22
-2385	1,372391E+22	1,372462E+22	5,162014E+20	5,160718E+20	2,744854E+22	1,032273E+21	2,848081E+22
-2384	1,372420E+22	1,372369E+22	5,160710E+20	5,162131E+20	2,744789E+22	1,032284E+21	2,848017E+22
-2383	1,372358E+22	1,372330E+22	5,161282E+20	5,160936E+20	2,744688E+22	1,032222E+21	2,847911E+22
-2382	1,372254E+22	1,372328E+22	5,162430E+20	5,161970E+20	2,744582E+22	1,032440E+21	2,847826E+22
-2381	1,372300E+22	1,372218E+22	5,160974E+20	5,162576E+20	2,744517E+22	1,032355E+21	2,847753E+22
-2380	1,372217E+22	1,372237E+22	5,162492E+20	5,161250E+20	2,744454E+22	1,032374E+21	2,847692E+22
-2379	1,372196E+22	1,372213E+22	5,162349E+20	5,162722E+20	2,744409E+22	1,032507E+21	2,847660E+22
-2378	1,372236E+22	1,372153E+22	5,161214E+20	5,162120E+20	2,744388E+22	1,032333E+21	2,847622E+22
-2377	1,372147E+22	1,372238E+22	5,162838E+20	5,161441E+20	2,744385E+22	1,032428E+21	2,847628E+22
-2376	1,372221E+22	1,372212E+22	5,161613E+20	5,162866E+20	2,744433E+22	1,032448E+21	2,847678E+22
-2375	1,372267E+22	1,372222E+22	5,161387E+20	5,161302E+20	2,744489E+22	1,032269E+21	2,847716E+22
-2374	1,372233E+22	1,372316E+22	5,162520E+20	5,161402E+20	2,744549E+22	1,032392E+21	2,847788E+22
-2373	1,372355E+22	1,372290E+22	5,160776E+20	5,162150E+20	2,744645E+22	1,032293E+21	2,847874E+22
-2372	1,372347E+22	1,372358E+22	5,161466E+20	5,160534E+20	2,744705E+22	1,032200E+21	2,847925E+22
-2371	1,372342E+22	1,372398E+22	5,161715E+20	5,161767E+20	2,744740E+22	1,032348E+21	2,847975E+22
-2370	1,372425E+22	1,372349E+22	5,160122E+20	5,161547E+20	2,744774E+22	1,032167E+21	2,847990E+22
-2369	1,372356E+22	1,372416E+22	5,161796E+20	5,160552E+20	2,744772E+22	1,032235E+21	2,847995E+22
-2368	1,372385E+22	1,372382E+22	5,161324E+20	5,162041E+20	2,744767E+22	1,032336E+21	2,848000E+22
-2367	1,372401E+22	1,372320E+22	5,160741E+20	5,161121E+20	2,744721E+22	1,032186E+21	2,847939E+22
-2366	1,372270E+22	1,372351E+22	5,162471E+20	5,161196E+20	2,744621E+22	1,032367E+21	2,847858E+22
-2365	1,372299E+22	1,372256E+22	5,161128E+20	5,162718E+20	2,744556E+22	1,032385E+21	2,847794E+22
-2364	1,372250E+22	1,372215E+22	5,161764E+20	5,161542E+20	2,744465E+22	1,032331E+21	2,847698E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2363	1,372161E+22	1,372212E+22	5,162839E+20	5,162416E+20	2,744373E+22	1,032526E+21	2,847625E+22
-2362	1,372208E+22	1,372113E+22	5,161331E+20	5,162857E+20	2,744320E+22	1,032419E+21	2,847562E+22
-2361	1,372112E+22	1,372142E+22	5,162916E+20	5,161642E+20	2,744254E+22	1,032456E+21	2,847500E+22
-2360	1,372091E+22	1,372132E+22	5,162798E+20	5,163044E+20	2,744222E+22	1,032584E+21	2,847481E+22
-2359	1,372138E+22	1,372069E+22	5,161656E+20	5,162563E+20	2,744206E+22	1,032422E+21	2,847448E+22
-2358	1,372050E+22	1,372142E+22	5,163183E+20	5,161838E+20	2,744192E+22	1,032502E+21	2,847442E+22
-2357	1,372142E+22	1,372122E+22	5,161974E+20	5,163207E+20	2,744264E+22	1,032518E+21	2,847516E+22
-2356	1,372199E+22	1,372138E+22	5,161786E+20	5,161671E+20	2,744337E+22	1,032346E+21	2,847572E+22
-2355	1,372165E+22	1,372235E+22	5,162763E+20	5,161780E+20	2,744400E+22	1,032454E+21	2,847646E+22
-2354	1,372273E+22	1,372213E+22	5,160937E+20	5,162483E+20	2,744486E+22	1,032342E+21	2,847720E+22
-2353	1,372257E+22	1,372277E+22	5,161755E+20	5,161002E+20	2,744534E+22	1,032276E+21	2,847762E+22
-2352	1,372258E+22	1,372321E+22	5,162159E+20	5,162009E+20	2,744578E+22	1,032417E+21	2,847820E+22
-2351	1,372344E+22	1,372264E+22	5,160663E+20	5,161800E+20	2,744607E+22	1,032246E+21	2,847832E+22
-2350	1,372258E+22	1,372314E+22	5,162274E+20	5,160830E+20	2,744572E+22	1,032310E+21	2,847803E+22
-2349	1,372278E+22	1,372281E+22	5,161772E+20	5,162443E+20	2,744558E+22	1,032422E+21	2,847800E+22
-2348	1,372289E+22	1,372214E+22	5,161188E+20	5,161740E+20	2,744504E+22	1,032293E+21	2,847733E+22
-2347	1,372166E+22	1,372237E+22	5,162785E+20	5,161815E+20	2,744402E+22	1,032460E+21	2,847648E+22
-2346	1,372198E+22	1,372146E+22	5,161443E+20	5,163183E+20	2,744343E+22	1,032463E+21	2,847590E+22
-2345	1,372149E+22	1,372109E+22	5,162257E+20	5,162003E+20	2,744258E+22	1,032426E+21	2,847501E+22
-2344	1,372062E+22	1,372119E+22	5,163438E+20	5,162649E+20	2,744181E+22	1,032609E+21	2,847442E+22
-2343	1,372101E+22	1,372021E+22	5,161908E+20	5,163231E+20	2,744122E+22	1,032514E+21	2,847374E+22
-2342	1,371987E+22	1,372034E+22	5,163337E+20	5,162112E+20	2,744021E+22	1,032545E+21	2,847276E+22
-2341	1,371977E+22	1,372026E+22	5,163176E+20	5,163546E+20	2,744004E+22	1,032672E+21	2,847271E+22
-2340	1,372048E+22	1,371968E+22	5,162053E+20	5,163079E+20	2,744016E+22	1,032513E+21	2,847267E+22
-2339	1,371984E+22	1,372046E+22	5,163434E+20	5,162188E+20	2,744029E+22	1,032562E+21	2,847285E+22
-2338	1,372080E+22	1,372044E+22	5,162197E+20	5,163415E+20	2,744123E+22	1,032561E+21	2,847380E+22
-2337	1,372125E+22	1,372071E+22	5,162065E+20	5,161991E+20	2,744196E+22	1,032406E+21	2,847436E+22
-2336	1,372085E+22	1,372176E+22	5,163128E+20	5,161991E+20	2,744261E+22	1,032512E+21	2,847513E+22
-2335	1,372191E+22	1,372147E+22	5,161344E+20	5,162801E+20	2,744338E+22	1,032415E+21	2,847579E+22
-2334	1,372161E+22	1,372186E+22	5,162151E+20	5,161341E+20	2,744348E+22	1,032349E+21	2,847582E+22
-2333	1,372167E+22	1,372226E+22	5,162632E+20	5,162318E+20	2,744393E+22	1,032495E+21	2,847642E+22
-2332	1,372254E+22	1,372164E+22	5,161177E+20	5,162257E+20	2,744419E+22	1,032343E+21	2,847653E+22
-2331	1,372164E+22	1,372206E+22	5,162569E+20	5,161352E+20	2,744371E+22	1,032392E+21	2,847610E+22
-2330	1,372175E+22	1,372174E+22	5,162015E+20	5,162959E+20	2,744348E+22	1,032497E+21	2,847598E+22
-2329	1,372183E+22	1,372109E+22	5,161556E+20	5,162348E+20	2,744291E+22	1,032390E+21	2,847530E+22
-2328	1,372069E+22	1,372140E+22	5,163313E+20	5,162152E+20	2,744209E+22	1,032547E+21	2,847464E+22
-2327	1,372102E+22	1,372050E+22	5,162071E+20	5,163487E+20	2,744151E+22	1,032556E+21	2,847407E+22
-2326	1,372032E+22	1,372000E+22	5,162818E+20	5,162367E+20	2,744033E+22	1,032519E+21	2,847284E+22
-2325	1,371939E+22	1,372013E+22	5,163931E+20	5,163084E+20	2,743952E+22	1,032702E+21	2,847222E+22
-2324	1,371982E+22	1,371912E+22	5,162365E+20	5,163863E+20	2,743894E+22	1,032623E+21	2,847156E+22
-2323	1,371889E+22	1,371919E+22	5,163567E+20	5,162694E+20	2,743808E+22	1,032626E+21	2,847070E+22
-2322	1,371895E+22	1,371922E+22	5,163408E+20	5,163912E+20	2,743817E+22	1,032732E+21	2,847090E+22
-2321	1,371976E+22	1,371882E+22	5,162432E+20	5,163405E+20	2,743858E+22	1,032584E+21	2,847116E+22
-2320	1,371920E+22	1,371980E+22	5,163878E+20	5,162303E+20	2,743900E+22	1,032618E+21	2,847162E+22
-2319	1,372001E+22	1,371984E+22	5,162655E+20	5,163626E+20	2,743986E+22	1,032628E+21	2,847248E+22
-2318	1,372022E+22	1,371994E+22	5,162423E+20	5,162345E+20	2,744017E+22	1,032477E+21	2,847264E+22
-2317	1,371987E+22	1,372092E+22	5,163518E+20	5,162348E+20	2,744078E+22	1,032587E+21	2,847337E+22
-2316	1,372102E+22	1,372055E+22	5,161792E+20	5,163229E+20	2,744157E+22	1,032502E+21	2,847408E+22
-2315	1,372085E+22	1,372084E+22	5,162440E+20	5,161726E+20	2,744169E+22	1,032417E+21	2,847410E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2314	1,372086E+22	1,372128E+22	5,162894E+20	5,162658E+20	2,744214E+22	1,032555E+21	2,847470E+22
-2313	1,372162E+22	1,372075E+22	5,161495E+20	5,162782E+20	2,744236E+22	1,032428E+21	2,847479E+22
-2312	1,372072E+22	1,372121E+22	5,162943E+20	5,161778E+20	2,744193E+22	1,032472E+21	2,847440E+22
-2311	1,372079E+22	1,372085E+22	5,162482E+20	5,163396E+20	2,744165E+22	1,032588E+21	2,847423E+22
-2310	1,372072E+22	1,372002E+22	5,162068E+20	5,162782E+20	2,744074E+22	1,032485E+21	2,847322E+22
-2309	1,371960E+22	1,372032E+22	5,163935E+20	5,162504E+20	2,743992E+22	1,032644E+21	2,847257E+22
-2308	1,371989E+22	1,371940E+22	5,162711E+20	5,163984E+20	2,743929E+22	1,032670E+21	2,847196E+22
-2307	1,371914E+22	1,371880E+22	5,163200E+20	5,162934E+20	2,743794E+22	1,032613E+21	2,847055E+22
-2306	1,371823E+22	1,371895E+22	5,164205E+20	5,163617E+20	2,743717E+22	1,032782E+21	2,846995E+22
-2305	1,371879E+22	1,371802E+22	5,162713E+20	5,164410E+20	2,743681E+22	1,032712E+21	2,846953E+22
-2304	1,371809E+22	1,371828E+22	5,163977E+20	5,162938E+20	2,743637E+22	1,032691E+21	2,846906E+22
-2303	1,371825E+22	1,371847E+22	5,163891E+20	5,164081E+20	2,743672E+22	1,032797E+21	2,846952E+22
-2302	1,371885E+22	1,371806E+22	5,162874E+20	5,163631E+20	2,743691E+22	1,032650E+21	2,846956E+22
-2301	1,371824E+22	1,371909E+22	5,164287E+20	5,162599E+20	2,743733E+22	1,032689E+21	2,847002E+22
-2300	1,371905E+22	1,371907E+22	5,163063E+20	5,164105E+20	2,743811E+22	1,032717E+21	2,847083E+22
-2299	1,371935E+22	1,371900E+22	5,162614E+20	5,162846E+20	2,743835E+22	1,032546E+21	2,847089E+22
-2298	1,371910E+22	1,371995E+22	5,163717E+20	5,162726E+20	2,743905E+22	1,032644E+21	2,847169E+22
-2297	1,372029E+22	1,371966E+22	5,162128E+20	5,163627E+20	2,743995E+22	1,032576E+21	2,847253E+22
-2296	1,372016E+22	1,372005E+22	5,162816E+20	5,162005E+20	2,744021E+22	1,032482E+21	2,847269E+22
-2295	1,372002E+22	1,372051E+22	5,163301E+20	5,163017E+20	2,744053E+22	1,032632E+21	2,847316E+22
-2294	1,372051E+22	1,371980E+22	5,161920E+20	5,163261E+20	2,744031E+22	1,032518E+21	2,847283E+22
-2293	1,371965E+22	1,372021E+22	5,163455E+20	5,162209E+20	2,743986E+22	1,032566E+21	2,847243E+22
-2292	1,371974E+22	1,371980E+22	5,163107E+20	5,163844E+20	2,743954E+22	1,032695E+21	2,847224E+22
-2291	1,371970E+22	1,371885E+22	5,162531E+20	5,163228E+20	2,743855E+22	1,032576E+21	2,847113E+22
-2290	1,371850E+22	1,371915E+22	5,164335E+20	5,162918E+20	2,743765E+22	1,032725E+21	2,847038E+22
-2289	1,371868E+22	1,371832E+22	5,163125E+20	5,164543E+20	2,743700E+22	1,032767E+21	2,846976E+22
-2288	1,371808E+22	1,371776E+22	5,163593E+20	5,163404E+20	2,743584E+22	1,032700E+21	2,846854E+22
-2287	1,371724E+22	1,371795E+22	5,164629E+20	5,164014E+20	2,743519E+22	1,032864E+21	2,846806E+22
-2286	1,371776E+22	1,371702E+22	5,163198E+20	5,164774E+20	2,743478E+22	1,032797E+21	2,846758E+22
-2285	1,371721E+22	1,371738E+22	5,164509E+20	5,163199E+20	2,743459E+22	1,032771E+21	2,846736E+22
-2284	1,371734E+22	1,371765E+22	5,164419E+20	5,164475E+20	2,743499E+22	1,032889E+21	2,846788E+22
-2283	1,371789E+22	1,371717E+22	5,163122E+20	5,164109E+20	2,743506E+22	1,032723E+21	2,846778E+22
-2282	1,371731E+22	1,371816E+22	5,164450E+20	5,163065E+20	2,743547E+22	1,032751E+21	2,846822E+22
-2281	1,371821E+22	1,371820E+22	5,163314E+20	5,164547E+20	2,743641E+22	1,032786E+21	2,846920E+22
-2280	1,371872E+22	1,371821E+22	5,162928E+20	5,163083E+20	2,743693E+22	1,032601E+21	2,846953E+22
-2279	1,371849E+22	1,371922E+22	5,164102E+20	5,162916E+20	2,743771E+22	1,032702E+21	2,847041E+22
-2278	1,371941E+22	1,371888E+22	5,162545E+20	5,163931E+20	2,743828E+22	1,032648E+21	2,847093E+22
-2277	1,371921E+22	1,371926E+22	5,163240E+20	5,162380E+20	2,743847E+22	1,032562E+21	2,847103E+22
-2276	1,371903E+22	1,371963E+22	5,163771E+20	5,163549E+20	2,743866E+22	1,032732E+21	2,847139E+22
-2275	1,371950E+22	1,371874E+22	5,162263E+20	5,163775E+20	2,743824E+22	1,032604E+21	2,847084E+22
-2274	1,371868E+22	1,371908E+22	5,163851E+20	5,162643E+20	2,743777E+22	1,032649E+21	2,847041E+22
-2273	1,371874E+22	1,371873E+22	5,163613E+20	5,164269E+20	2,743747E+22	1,032788E+21	2,847025E+22
-2272	1,371867E+22	1,371783E+22	5,163027E+20	5,163637E+20	2,743650E+22	1,032666E+21	2,846916E+22
-2271	1,371737E+22	1,371811E+22	5,164776E+20	5,163391E+20	2,743548E+22	1,032817E+21	2,846830E+22
-2270	1,371737E+22	1,371715E+22	5,163583E+20	5,165083E+20	2,743453E+22	1,032867E+21	2,846739E+22
-2269	1,371695E+22	1,371664E+22	5,164096E+20	5,163834E+20	2,743359E+22	1,032793E+21	2,846639E+22
-2268	1,371628E+22	1,371691E+22	5,165180E+20	5,164442E+20	2,743319E+22	1,032962E+21	2,846615E+22
-2267	1,371685E+22	1,371599E+22	5,163588E+20	5,165165E+20	2,743284E+22	1,032875E+21	2,846572E+22
-2266	1,371631E+22	1,371645E+22	5,164781E+20	5,163606E+20	2,743276E+22	1,032839E+21	2,846560E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2265	1,371641E+22	1,371683E+22	5,164695E+20	5,164930E+20	2,743324E+22	1,032963E+21	2,846620E+22
-2264	1,371710E+22	1,371640E+22	5,163377E+20	5,164483E+20	2,743350E+22	1,032786E+21	2,846628E+22
-2263	1,371658E+22	1,371739E+22	5,164739E+20	5,163342E+20	2,743397E+22	1,032808E+21	2,846678E+22
-2262	1,371736E+22	1,371738E+22	5,163741E+20	5,164786E+20	2,743474E+22	1,032853E+21	2,846759E+22
-2261	1,371796E+22	1,371743E+22	5,163436E+20	5,163288E+20	2,743539E+22	1,032672E+21	2,846807E+22
-2260	1,371764E+22	1,371845E+22	5,164601E+20	5,163306E+20	2,743608E+22	1,032791E+21	2,846887E+22
-2259	1,371844E+22	1,371796E+22	5,162857E+20	5,164429E+20	2,743640E+22	1,032729E+21	2,846913E+22
-2258	1,371827E+22	1,371822E+22	5,163490E+20	5,162896E+20	2,743649E+22	1,032639E+21	2,846913E+22
-2257	1,371808E+22	1,371864E+22	5,164136E+20	5,163988E+20	2,743672E+22	1,032812E+21	2,846954E+22
-2256	1,371868E+22	1,371779E+22	5,162691E+20	5,164102E+20	2,743647E+22	1,032679E+21	2,846914E+22
-2255	1,371777E+22	1,371812E+22	5,164337E+20	5,162957E+20	2,743589E+22	1,032729E+21	2,846862E+22
-2254	1,371749E+22	1,371770E+22	5,164135E+20	5,164696E+20	2,743519E+22	1,032883E+21	2,846807E+22
-2253	1,371742E+22	1,371676E+22	5,163557E+20	5,164145E+20	2,743418E+22	1,032770E+21	2,846695E+22
-2252	1,371617E+22	1,371697E+22	5,165271E+20	5,164020E+20	2,743314E+22	1,032929E+21	2,846607E+22
-2251	1,371627E+22	1,371592E+22	5,163950E+20	5,165642E+20	2,743219E+22	1,032959E+21	2,846515E+22
-2250	1,371604E+22	1,371546E+22	5,164448E+20	5,164292E+20	2,743149E+22	1,032874E+21	2,846437E+22
-2249	1,371541E+22	1,371594E+22	5,165593E+20	5,164828E+20	2,743135E+22	1,033042E+21	2,846439E+22
-2248	1,371601E+22	1,371518E+22	5,163976E+20	5,165519E+20	2,743119E+22	1,032949E+21	2,846414E+22
-2247	1,371540E+22	1,371567E+22	5,165108E+20	5,163969E+20	2,743107E+22	1,032908E+21	2,846398E+22
-2246	1,371534E+22	1,371598E+22	5,165087E+20	5,165272E+20	2,743132E+22	1,033036E+21	2,846435E+22
-2245	1,371619E+22	1,371557E+22	5,163843E+20	5,164722E+20	2,743176E+22	1,032856E+21	2,846462E+22
-2244	1,371582E+22	1,371656E+22	5,165219E+20	5,163649E+20	2,743238E+22	1,032887E+21	2,846527E+22
-2243	1,371656E+22	1,371648E+22	5,164090E+20	5,165093E+20	2,743304E+22	1,032918E+21	2,846596E+22
-2242	1,371714E+22	1,371656E+22	5,163668E+20	5,163713E+20	2,743370E+22	1,032738E+21	2,846644E+22
-2241	1,371679E+22	1,371762E+22	5,164827E+20	5,163794E+20	2,743442E+22	1,032862E+21	2,846728E+22
-2240	1,371765E+22	1,371714E+22	5,163126E+20	5,164859E+20	2,743480E+22	1,032798E+21	2,846759E+22
-2239	1,371748E+22	1,371736E+22	5,163814E+20	5,163263E+20	2,743485E+22	1,032708E+21	2,846755E+22
-2238	1,371708E+22	1,371768E+22	5,164657E+20	5,164282E+20	2,743476E+22	1,032894E+21	2,846765E+22
-2237	1,371764E+22	1,371682E+22	5,163316E+20	5,164420E+20	2,743447E+22	1,032774E+21	2,846724E+22
-2236	1,371661E+22	1,371707E+22	5,164920E+20	5,163512E+20	2,743369E+22	1,032843E+21	2,846653E+22
-2235	1,371620E+22	1,371646E+22	5,164537E+20	5,165309E+20	2,743266E+22	1,032985E+21	2,846564E+22
-2234	1,371626E+22	1,371544E+22	5,163891E+20	5,164776E+20	2,743171E+22	1,032867E+21	2,846457E+22
-2233	1,371516E+22	1,371578E+22	5,165637E+20	5,164510E+20	2,743095E+22	1,033015E+21	2,846396E+22
-2232	1,371546E+22	1,371490E+22	5,164402E+20	5,165983E+20	2,743036E+22	1,033038E+21	2,846340E+22
-2231	1,371519E+22	1,371457E+22	5,164882E+20	5,164577E+20	2,742977E+22	1,032946E+21	2,846271E+22
-2230	1,371428E+22	1,371510E+22	5,166078E+20	5,165144E+20	2,742938E+22	1,033122E+21	2,846250E+22
-2229	1,371492E+22	1,371437E+22	5,164494E+20	5,165864E+20	2,742929E+22	1,033036E+21	2,846233E+22
-2228	1,371437E+22	1,371478E+22	5,165578E+20	5,164431E+20	2,742915E+22	1,033001E+21	2,846215E+22
-2227	1,371436E+22	1,371497E+22	5,165435E+20	5,165644E+20	2,742933E+22	1,033108E+21	2,846244E+22
-2226	1,371543E+22	1,371455E+22	5,164145E+20	5,165089E+20	2,742997E+22	1,032923E+21	2,846290E+22
-2225	1,371510E+22	1,371570E+22	5,165492E+20	5,164014E+20	2,743080E+22	1,032951E+21	2,846375E+22
-2224	1,371588E+22	1,371575E+22	5,164342E+20	5,165494E+20	2,743162E+22	1,032984E+21	2,846461E+22
-2223	1,371640E+22	1,371580E+22	5,163877E+20	5,164110E+20	2,743220E+22	1,032799E+21	2,846500E+22
-2222	1,371585E+22	1,371680E+22	5,165191E+20	5,164129E+20	2,743265E+22	1,032932E+21	2,846558E+22
-2221	1,371678E+22	1,371632E+22	5,163659E+20	5,165075E+20	2,743310E+22	1,032873E+21	2,846597E+22
-2220	1,371659E+22	1,371646E+22	5,164397E+20	5,163636E+20	2,743305E+22	1,032803E+21	2,846585E+22
-2219	1,371599E+22	1,371662E+22	5,165130E+20	5,164680E+20	2,743261E+22	1,032981E+21	2,846560E+22
-2218	1,371651E+22	1,371567E+22	5,163680E+20	5,165002E+20	2,743219E+22	1,032868E+21	2,846505E+22
-2217	1,371550E+22	1,371592E+22	5,165233E+20	5,164132E+20	2,743142E+22	1,032937E+21	2,846435E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2216	1,371522E+22	1,371533E+22	5,164882E+20	5,165846E+20	2,743055E+22	1,033073E+21	2,846362E+22
-2215	1,371536E+22	1,371436E+22	5,164282E+20	5,165180E+20	2,742972E+22	1,032946E+21	2,846267E+22
-2214	1,371413E+22	1,371475E+22	5,166199E+20	5,164815E+20	2,742888E+22	1,033101E+21	2,846198E+22
-2213	1,371440E+22	1,371402E+22	5,165086E+20	5,166261E+20	2,742842E+22	1,033135E+21	2,846155E+22
-2212	1,371405E+22	1,371368E+22	5,165469E+20	5,165104E+20	2,742773E+22	1,033057E+21	2,846079E+22
-2211	1,371304E+22	1,371402E+22	5,166470E+20	5,165632E+20	2,742706E+22	1,033210E+21	2,846027E+22
-2210	1,371386E+22	1,371323E+22	5,164792E+20	5,166369E+20	2,742709E+22	1,033116E+21	2,846020E+22
-2209	1,371353E+22	1,371375E+22	5,165831E+20	5,164827E+20	2,742728E+22	1,033066E+21	2,846035E+22
-2208	1,371373E+22	1,371408E+22	5,165732E+20	5,165937E+20	2,742781E+22	1,033167E+21	2,846098E+22
-2207	1,371479E+22	1,371382E+22	5,164390E+20	5,165362E+20	2,742861E+22	1,032975E+21	2,846159E+22
-2206	1,371425E+22	1,371501E+22	5,165799E+20	5,164330E+20	2,742926E+22	1,033013E+21	2,846227E+22
-2205	1,371504E+22	1,371509E+22	5,164780E+20	5,165780E+20	2,743013E+22	1,033056E+21	2,846319E+22
-2204	1,371555E+22	1,371506E+22	5,164315E+20	5,164542E+20	2,743061E+22	1,032886E+21	2,846350E+22
-2203	1,371491E+22	1,371584E+22	5,165610E+20	5,164443E+20	2,743074E+22	1,033005E+21	2,846375E+22
-2202	1,371588E+22	1,371527E+22	5,164097E+20	5,165449E+20	2,743115E+22	1,032955E+21	2,846411E+22
-2201	1,371561E+22	1,371545E+22	5,164803E+20	5,164107E+20	2,743106E+22	1,032891E+21	2,846395E+22
-2200	1,371499E+22	1,371559E+22	5,165507E+20	5,165222E+20	2,743058E+22	1,033073E+21	2,846365E+22
-2199	1,371546E+22	1,371459E+22	5,164004E+20	5,165538E+20	2,743005E+22	1,032954E+21	2,846301E+22
-2198	1,371434E+22	1,371479E+22	5,165670E+20	5,164580E+20	2,742913E+22	1,033025E+21	2,846216E+22
-2197	1,371420E+22	1,371431E+22	5,165511E+20	5,166140E+20	2,742851E+22	1,033165E+21	2,846168E+22
-2196	1,371433E+22	1,371337E+22	5,164939E+20	5,165599E+20	2,742770E+22	1,033054E+21	2,846076E+22
-2195	1,371292E+22	1,371368E+22	5,166724E+20	5,165229E+20	2,742660E+22	1,033195E+21	2,845980E+22
-2194	1,371323E+22	1,371290E+22	5,165498E+20	5,166820E+20	2,742612E+22	1,033232E+21	2,845936E+22
-2193	1,371293E+22	1,371261E+22	5,165773E+20	5,165690E+20	2,742553E+22	1,033146E+21	2,845868E+22
-2192	1,371213E+22	1,371298E+22	5,166728E+20	5,166113E+20	2,742512E+22	1,033284E+21	2,845840E+22
-2191	1,371310E+22	1,371227E+22	5,165049E+20	5,166678E+20	2,742537E+22	1,033173E+21	2,845854E+22
-2190	1,371274E+22	1,371289E+22	5,166213E+20	5,165054E+20	2,742562E+22	1,033127E+21	2,845875E+22
-2189	1,371297E+22	1,371342E+22	5,166248E+20	5,166133E+20	2,742639E+22	1,033238E+21	2,845963E+22
-2188	1,371394E+22	1,371318E+22	5,164846E+20	5,165790E+20	2,742711E+22	1,033064E+21	2,846018E+22
-2187	1,371328E+22	1,371416E+22	5,166133E+20	5,164722E+20	2,742744E+22	1,033085E+21	2,846053E+22
-2186	1,371418E+22	1,371415E+22	5,165109E+20	5,166167E+20	2,742832E+22	1,033128E+21	2,846145E+22
-2185	1,371476E+22	1,371415E+22	5,164638E+20	5,164902E+20	2,742891E+22	1,032954E+21	2,846186E+22
-2184	1,371416E+22	1,371492E+22	5,165973E+20	5,164791E+20	2,742908E+22	1,033076E+21	2,846216E+22
-2183	1,371499E+22	1,371438E+22	5,164411E+20	5,165826E+20	2,742937E+22	1,033024E+21	2,846240E+22
-2182	1,371450E+22	1,371448E+22	5,165194E+20	5,164589E+20	2,742899E+22	1,032978E+21	2,846197E+22
-2181	1,371390E+22	1,371462E+22	5,166042E+20	5,165643E+20	2,742852E+22	1,033169E+21	2,846169E+22
-2180	1,371439E+22	1,371357E+22	5,164554E+20	5,166094E+20	2,742797E+22	1,033065E+21	2,846103E+22
-2179	1,371323E+22	1,371358E+22	5,166179E+20	5,164996E+20	2,742681E+22	1,033117E+21	2,845993E+22
-2178	1,371314E+22	1,371311E+22	5,166037E+20	5,166596E+20	2,742625E+22	1,033263E+21	2,845951E+22
-2177	1,371322E+22	1,371230E+22	5,165379E+20	5,166161E+20	2,742551E+22	1,033154E+21	2,845867E+22
-2176	1,371182E+22	1,371260E+22	5,167093E+20	5,165812E+20	2,742442E+22	1,033290E+21	2,845771E+22
-2175	1,371215E+22	1,371183E+22	5,165798E+20	5,167281E+20	2,742398E+22	1,033308E+21	2,845729E+22
-2174	1,371186E+22	1,371155E+22	5,166170E+20	5,166040E+20	2,742342E+22	1,033221E+21	2,845664E+22
-2173	1,371127E+22	1,371209E+22	5,167282E+20	5,166279E+20	2,742336E+22	1,033356E+21	2,845671E+22
-2172	1,371227E+22	1,371150E+22	5,165591E+20	5,166989E+20	2,742377E+22	1,033258E+21	2,845702E+22
-2171	1,371179E+22	1,371205E+22	5,166586E+20	5,165377E+20	2,742384E+22	1,033196E+21	2,845703E+22
-2170	1,371209E+22	1,371256E+22	5,166559E+20	5,166588E+20	2,742466E+22	1,033315E+21	2,845797E+22
-2169	1,371308E+22	1,371237E+22	5,165088E+20	5,166268E+20	2,742546E+22	1,033136E+21	2,845859E+22
-2168	1,371257E+22	1,371331E+22	5,166375E+20	5,165139E+20	2,742588E+22	1,033151E+21	2,845903E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2167	1,371347E+22	1,371329E+22	5,165389E+20	5,166409E+20	2,742676E+22	1,033180E+21	2,845994E+22
-2166	1,371388E+22	1,371330E+22	5,165064E+20	5,165199E+20	2,742718E+22	1,033026E+21	2,846020E+22
-2165	1,371322E+22	1,371413E+22	5,166518E+20	5,165122E+20	2,742735E+22	1,033164E+21	2,846052E+22
-2164	1,371391E+22	1,371350E+22	5,164917E+20	5,166387E+20	2,742740E+22	1,033130E+21	2,846053E+22
-2163	1,371332E+22	1,371333E+22	5,165599E+20	5,165106E+20	2,742665E+22	1,033070E+21	2,845972E+22
-2162	1,371289E+22	1,371338E+22	5,166452E+20	5,166137E+20	2,742627E+22	1,033259E+21	2,845953E+22
-2161	1,371341E+22	1,371244E+22	5,164997E+20	5,166552E+20	2,742585E+22	1,033155E+21	2,845900E+22
-2160	1,371230E+22	1,371250E+22	5,166610E+20	5,165474E+20	2,742481E+22	1,033208E+21	2,845802E+22
-2159	1,371209E+22	1,371210E+22	5,166410E+20	5,167011E+20	2,742419E+22	1,033342E+21	2,845753E+22
-2158	1,371199E+22	1,371128E+22	5,165825E+20	5,166662E+20	2,742328E+22	1,033249E+21	2,845653E+22
-2157	1,371070E+22	1,371162E+22	5,167636E+20	5,166200E+20	2,742232E+22	1,033384E+21	2,845570E+22
-2156	1,371107E+22	1,371085E+22	5,166333E+20	5,167715E+20	2,742192E+22	1,033405E+21	2,845533E+22
-2155	1,371083E+22	1,371044E+22	5,166641E+20	5,166361E+20	2,742127E+22	1,033300E+21	2,845457E+22
-2154	1,371039E+22	1,371104E+22	5,167707E+20	5,166662E+20	2,742143E+22	1,033437E+21	2,845487E+22
-2153	1,371137E+22	1,371065E+22	5,165933E+20	5,167482E+20	2,742202E+22	1,033341E+21	2,845536E+22
-2152	1,371099E+22	1,371120E+22	5,166797E+20	5,165915E+20	2,742219E+22	1,033271E+21	2,845546E+22
-2151	1,371132E+22	1,371174E+22	5,166722E+20	5,166940E+20	2,742306E+22	1,033366E+21	2,845643E+22
-2150	1,371228E+22	1,371158E+22	5,165395E+20	5,166540E+20	2,742386E+22	1,033194E+21	2,845705E+22
-2149	1,371184E+22	1,371258E+22	5,166883E+20	5,165276E+20	2,742442E+22	1,033216E+21	2,845763E+22
-2148	1,371260E+22	1,371259E+22	5,165915E+20	5,166708E+20	2,742519E+22	1,033262E+21	2,845846E+22
-2147	1,371282E+22	1,371235E+22	5,165476E+20	5,165603E+20	2,742517E+22	1,033108E+21	2,845828E+22
-2146	1,371220E+22	1,371305E+22	5,166876E+20	5,165672E+20	2,742524E+22	1,033255E+21	2,845850E+22
-2145	1,371289E+22	1,371245E+22	5,165247E+20	5,166980E+20	2,742534E+22	1,033223E+21	2,845856E+22
-2144	1,371245E+22	1,371220E+22	5,165913E+20	5,165634E+20	2,742465E+22	1,033155E+21	2,845781E+22
-2143	1,371202E+22	1,371231E+22	5,166813E+20	5,166449E+20	2,742432E+22	1,033326E+21	2,845765E+22
-2142	1,371236E+22	1,371144E+22	5,165539E+20	5,166924E+20	2,742380E+22	1,033246E+21	2,845705E+22
-2141	1,371116E+22	1,371158E+22	5,167268E+20	5,165879E+20	2,742274E+22	1,033315E+21	2,845605E+22
-2140	1,371080E+22	1,371113E+22	5,167012E+20	5,167550E+20	2,742193E+22	1,033456E+21	2,845539E+22
-2139	1,371066E+22	1,371004E+22	5,166324E+20	5,167162E+20	2,742071E+22	1,033349E+21	2,845405E+22
-2138	1,370961E+22	1,371034E+22	5,168072E+20	5,166663E+20	2,741995E+22	1,033474E+21	2,845342E+22
-2137	1,371010E+22	1,370974E+22	5,166749E+20	5,168147E+20	2,741984E+22	1,033490E+21	2,845333E+22
-2136	1,371000E+22	1,370944E+22	5,166936E+20	5,166831E+20	2,741945E+22	1,033377E+21	2,845282E+22
-2135	1,370958E+22	1,371019E+22	5,167893E+20	5,167042E+20	2,741977E+22	1,033494E+21	2,845327E+22
-2134	1,371047E+22	1,370990E+22	5,166241E+20	5,167885E+20	2,742038E+22	1,033413E+21	2,845379E+22
-2133	1,371022E+22	1,371054E+22	5,167206E+20	5,166206E+20	2,742075E+22	1,033341E+21	2,845409E+22
-2132	1,371053E+22	1,371105E+22	5,167172E+20	5,167179E+20	2,742158E+22	1,033435E+21	2,845501E+22
-2131	1,371138E+22	1,371068E+22	5,165840E+20	5,166747E+20	2,742206E+22	1,033259E+21	2,845532E+22
-2130	1,371100E+22	1,371162E+22	5,167289E+20	5,165647E+20	2,742262E+22	1,033294E+21	2,845591E+22
-2129	1,371161E+22	1,371170E+22	5,166276E+20	5,167225E+20	2,742331E+22	1,033350E+21	2,845666E+22
-2128	1,371190E+22	1,371133E+22	5,165725E+20	5,166221E+20	2,742324E+22	1,033195E+21	2,845643E+22
-2127	1,371134E+22	1,371199E+22	5,167072E+20	5,166089E+20	2,742333E+22	1,033316E+21	2,845665E+22
-2126	1,371198E+22	1,371145E+22	5,165667E+20	5,167322E+20	2,742344E+22	1,033299E+21	2,845673E+22
-2125	1,371159E+22	1,371131E+22	5,166508E+20	5,165900E+20	2,742289E+22	1,033241E+21	2,845613E+22
-2124	1,371093E+22	1,371145E+22	5,167423E+20	5,166819E+20	2,742239E+22	1,033424E+21	2,845581E+22
-2123	1,371103E+22	1,371036E+22	5,166087E+20	5,167425E+20	2,742139E+22	1,033351E+21	2,845474E+22
-2122	1,370990E+22	1,371034E+22	5,167748E+20	5,166516E+20	2,742024E+22	1,033426E+21	2,845367E+22
-2121	1,370957E+22	1,370992E+22	5,167437E+20	5,168167E+20	2,741949E+22	1,033560E+21	2,845305E+22
-2120	1,370966E+22	1,370877E+22	5,166668E+20	5,167734E+20	2,741844E+22	1,033440E+21	2,845188E+22
-2119	1,370875E+22	1,370918E+22	5,168342E+20	5,167009E+20	2,741793E+22	1,033535E+21	2,845146E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2118	1,370918E+22	1,370882E+22	5,167167E+20	5,168532E+20	2,741801E+22	1,033570E+21	2,845158E+22
-2117	1,370912E+22	1,370870E+22	5,167415E+20	5,167180E+20	2,741782E+22	1,033460E+21	2,845128E+22
-2116	1,370864E+22	1,370949E+22	5,168338E+20	5,167399E+20	2,741813E+22	1,033574E+21	2,845170E+22
-2115	1,370948E+22	1,370900E+22	5,166663E+20	5,168154E+20	2,741849E+22	1,033482E+21	2,845197E+22
-2114	1,370939E+22	1,370957E+22	5,167606E+20	5,166479E+20	2,741897E+22	1,033409E+21	2,845237E+22
-2113	1,370967E+22	1,371021E+22	5,167576E+20	5,167468E+20	2,741988E+22	1,033504E+21	2,845339E+22
-2112	1,371057E+22	1,370979E+22	5,166117E+20	5,167186E+20	2,742035E+22	1,033330E+21	2,845368E+22
-2111	1,371016E+22	1,371072E+22	5,167437E+20	5,166062E+20	2,742088E+22	1,033350E+21	2,845423E+22
-2110	1,371070E+22	1,371083E+22	5,166588E+20	5,167691E+20	2,742153E+22	1,033428E+21	2,845496E+22
-2109	1,371108E+22	1,371051E+22	5,166159E+20	5,166596E+20	2,742159E+22	1,033275E+21	2,845486E+22
-2108	1,371047E+22	1,371115E+22	5,167570E+20	5,166397E+20	2,742161E+22	1,033397E+21	2,845501E+22
-2107	1,371093E+22	1,371041E+22	5,166243E+20	5,167632E+20	2,742134E+22	1,033387E+21	2,845473E+22
-2106	1,371050E+22	1,371021E+22	5,167054E+20	5,166424E+20	2,742070E+22	1,033348E+21	2,845405E+22
-2105	1,370965E+22	1,371037E+22	5,167918E+20	5,167447E+20	2,742002E+22	1,033536E+21	2,845355E+22
-2104	1,370983E+22	1,370909E+22	5,166455E+20	5,168141E+20	2,741892E+22	1,033460E+21	2,845238E+22
-2103	1,370884E+22	1,370903E+22	5,168010E+20	5,167003E+20	2,741788E+22	1,033501E+21	2,845138E+22
-2102	1,370854E+22	1,370876E+22	5,167888E+20	5,168525E+20	2,741730E+22	1,033641E+21	2,845094E+22
-2101	1,370877E+22	1,370783E+22	5,167228E+20	5,168013E+20	2,741660E+22	1,033524E+21	2,845013E+22
-2100	1,370779E+22	1,370837E+22	5,168833E+20	5,167318E+20	2,741616E+22	1,033615E+21	2,844978E+22
-2099	1,370806E+22	1,370791E+22	5,167659E+20	5,168910E+20	2,741597E+22	1,033657E+21	2,844963E+22
-2098	1,370814E+22	1,370776E+22	5,167808E+20	5,167660E+20	2,741591E+22	1,033547E+21	2,844945E+22
-2097	1,370767E+22	1,370862E+22	5,168708E+20	5,167793E+20	2,741629E+22	1,033650E+21	2,844994E+22
-2096	1,370869E+22	1,370804E+22	5,166964E+20	5,168523E+20	2,741673E+22	1,033549E+21	2,845028E+22
-2095	1,370868E+22	1,370863E+22	5,167821E+20	5,166737E+20	2,741731E+22	1,033456E+21	2,845076E+22
-2094	1,370881E+22	1,370942E+22	5,167925E+20	5,167826E+20	2,741823E+22	1,033575E+21	2,845181E+22
-2093	1,370973E+22	1,370907E+22	5,166516E+20	5,167606E+20	2,741880E+22	1,033412E+21	2,845221E+22
-2092	1,370929E+22	1,370995E+22	5,167781E+20	5,166479E+20	2,741924E+22	1,033426E+21	2,845266E+22
-2091	1,370974E+22	1,370985E+22	5,167028E+20	5,168026E+20	2,741959E+22	1,033505E+21	2,845309E+22
-2090	1,371023E+22	1,370947E+22	5,166616E+20	5,166960E+20	2,741971E+22	1,033358E+21	2,845306E+22
-2089	1,370948E+22	1,371020E+22	5,168078E+20	5,166789E+20	2,741967E+22	1,033487E+21	2,845316E+22
-2088	1,370988E+22	1,370935E+22	5,166657E+20	5,168179E+20	2,741923E+22	1,033484E+21	2,845271E+22
-2087	1,370939E+22	1,370907E+22	5,167353E+20	5,166979E+20	2,741846E+22	1,033433E+21	2,845189E+22
-2086	1,370848E+22	1,370926E+22	5,168348E+20	5,168000E+20	2,741774E+22	1,033635E+21	2,845137E+22
-2085	1,370878E+22	1,370801E+22	5,166988E+20	5,168568E+20	2,741679E+22	1,033556E+21	2,845034E+22
-2084	1,370782E+22	1,370797E+22	5,168538E+20	5,167306E+20	2,741579E+22	1,033584E+21	2,844938E+22
-2083	1,370742E+22	1,370761E+22	5,168495E+20	5,168824E+20	2,741504E+22	1,033732E+21	2,844877E+22
-2082	1,370768E+22	1,370677E+22	5,167769E+20	5,168485E+20	2,741445E+22	1,033625E+21	2,844808E+22
-2081	1,370662E+22	1,370744E+22	5,169290E+20	5,167870E+20	2,741406E+22	1,033716E+21	2,844777E+22
-2080	1,370704E+22	1,370686E+22	5,167998E+20	5,169468E+20	2,741390E+22	1,033747E+21	2,844765E+22
-2079	1,370729E+22	1,370673E+22	5,168005E+20	5,168015E+20	2,741402E+22	1,033602E+21	2,844762E+22
-2078	1,370685E+22	1,370774E+22	5,169050E+20	5,168049E+20	2,741459E+22	1,033710E+21	2,844830E+22
-2077	1,370794E+22	1,370732E+22	5,167380E+20	5,168751E+20	2,741526E+22	1,033613E+21	2,844887E+22
-2076	1,370785E+22	1,370796E+22	5,168157E+20	5,167040E+20	2,741582E+22	1,033520E+21	2,844934E+22
-2075	1,370785E+22	1,370856E+22	5,168328E+20	5,168213E+20	2,741641E+22	1,033654E+21	2,845007E+22
-2074	1,370887E+22	1,370818E+22	5,166886E+20	5,168095E+20	2,741705E+22	1,033498E+21	2,845055E+22
-2073	1,370842E+22	1,370907E+22	5,168153E+20	5,166914E+20	2,741749E+22	1,033507E+21	2,845100E+22
-2072	1,370895E+22	1,370883E+22	5,167399E+20	5,168426E+20	2,741778E+22	1,033583E+21	2,845136E+22
-2071	1,370941E+22	1,370846E+22	5,166920E+20	5,167331E+20	2,741787E+22	1,033425E+21	2,845129E+22
-2070	1,370842E+22	1,370926E+22	5,168543E+20	5,167236E+20	2,741768E+22	1,033578E+21	2,845125E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2069	1,370877E+22	1,370842E+22	5,167192E+20	5,168667E+20	2,741718E+22	1,033586E+21	2,845077E+22
-2068	1,370825E+22	1,370802E+22	5,167842E+20	5,167431E+20	2,741627E+22	1,033527E+21	2,844980E+22
-2067	1,370724E+22	1,370800E+22	5,168935E+20	5,168362E+20	2,741525E+22	1,033730E+21	2,844898E+22
-2066	1,370768E+22	1,370680E+22	5,167557E+20	5,168984E+20	2,741448E+22	1,033654E+21	2,844813E+22
-2065	1,370668E+22	1,370689E+22	5,169050E+20	5,167776E+20	2,741357E+22	1,033683E+21	2,844725E+22
-2064	1,370632E+22	1,370650E+22	5,168889E+20	5,169409E+20	2,741282E+22	1,033830E+21	2,844665E+22
-2063	1,370665E+22	1,370570E+22	5,168016E+20	5,169041E+20	2,741235E+22	1,033706E+21	2,844606E+22
-2062	1,370561E+22	1,370650E+22	5,169629E+20	5,168355E+20	2,741211E+22	1,033798E+21	2,844590E+22
-2061	1,370620E+22	1,370602E+22	5,168429E+20	5,169780E+20	2,741222E+22	1,033821E+21	2,844604E+22
-2060	1,370649E+22	1,370592E+22	5,168406E+20	5,168215E+20	2,741241E+22	1,033662E+21	2,844607E+22
-2059	1,370592E+22	1,370684E+22	5,169535E+20	5,168289E+20	2,741276E+22	1,033782E+21	2,844654E+22
-2058	1,370701E+22	1,370649E+22	5,167802E+20	5,169176E+20	2,741349E+22	1,033698E+21	2,844719E+22
-2057	1,370689E+22	1,370714E+22	5,168508E+20	5,167560E+20	2,741403E+22	1,033607E+21	2,844764E+22
-2056	1,370704E+22	1,370758E+22	5,168616E+20	5,168709E+20	2,741461E+22	1,033732E+21	2,844834E+22
-2055	1,370816E+22	1,370720E+22	5,167114E+20	5,168410E+20	2,741536E+22	1,033552E+21	2,844891E+22
-2054	1,370766E+22	1,370823E+22	5,168549E+20	5,167184E+20	2,741589E+22	1,033573E+21	2,844946E+22
-2053	1,370812E+22	1,370807E+22	5,167906E+20	5,168674E+20	2,741619E+22	1,033658E+21	2,844985E+22
-2052	1,370837E+22	1,370766E+22	5,167371E+20	5,167700E+20	2,741603E+22	1,033507E+21	2,844954E+22
-2051	1,370717E+22	1,370819E+22	5,169086E+20	5,167720E+20	2,741536E+22	1,033681E+21	2,844904E+22
-2050	1,370756E+22	1,370727E+22	5,167712E+20	5,169221E+20	2,741482E+22	1,033693E+21	2,844852E+22
-2049	1,370707E+22	1,370683E+22	5,168351E+20	5,167975E+20	2,741390E+22	1,033633E+21	2,844753E+22
-2048	1,370621E+22	1,370667E+22	5,169389E+20	5,168869E+20	2,741287E+22	1,033826E+21	2,844670E+22
-2047	1,370667E+22	1,370557E+22	5,167909E+20	5,169486E+20	2,741224E+22	1,033739E+21	2,844598E+22
-2046	1,370557E+22	1,370587E+22	5,169450E+20	5,168351E+20	2,741144E+22	1,033780E+21	2,844522E+22
-2045	1,370529E+22	1,370558E+22	5,169338E+20	5,169919E+20	2,741087E+22	1,033926E+21	2,844479E+22
-2044	1,370567E+22	1,370480E+22	5,168420E+20	5,169409E+20	2,741047E+22	1,033783E+21	2,844425E+22
-2043	1,370459E+22	1,370547E+22	5,170142E+20	5,168601E+20	2,741006E+22	1,033874E+21	2,844393E+22
-2042	1,370527E+22	1,370510E+22	5,168944E+20	5,170020E+20	2,741037E+22	1,033896E+21	2,844426E+22
-2041	1,370551E+22	1,370509E+22	5,168843E+20	5,168586E+20	2,741060E+22	1,033743E+21	2,844434E+22
-2040	1,370500E+22	1,370589E+22	5,169831E+20	5,168785E+20	2,741090E+22	1,033862E+21	2,844476E+22
-2039	1,370620E+22	1,370557E+22	5,167973E+20	5,169677E+20	2,741177E+22	1,033765E+21	2,844554E+22
-2038	1,370613E+22	1,370633E+22	5,168754E+20	5,167985E+20	2,741246E+22	1,033674E+21	2,844613E+22
-2037	1,370639E+22	1,370684E+22	5,168991E+20	5,168958E+20	2,741323E+22	1,033795E+21	2,844702E+22
-2036	1,370746E+22	1,370646E+22	5,167515E+20	5,168574E+20	2,741392E+22	1,033609E+21	2,844753E+22
-2035	1,370665E+22	1,370733E+22	5,169099E+20	5,167481E+20	2,741399E+22	1,033658E+21	2,844764E+22
-2034	1,370696E+22	1,370717E+22	5,168433E+20	5,169144E+20	2,741413E+22	1,033758E+21	2,844789E+22
-2033	1,370713E+22	1,370662E+22	5,167852E+20	5,168348E+20	2,741375E+22	1,033620E+21	2,844737E+22
-2032	1,370605E+22	1,370688E+22	5,169475E+20	5,168341E+20	2,741293E+22	1,033782E+21	2,844671E+22
-2031	1,370656E+22	1,370595E+22	5,168026E+20	5,169707E+20	2,741251E+22	1,033773E+21	2,844629E+22
-2030	1,370608E+22	1,370568E+22	5,168758E+20	5,168423E+20	2,741176E+22	1,033718E+21	2,844547E+22
-2029	1,370524E+22	1,370569E+22	5,169853E+20	5,169285E+20	2,741093E+22	1,033914E+21	2,844484E+22
-2028	1,370560E+22	1,370466E+22	5,168355E+20	5,169914E+20	2,741027E+22	1,033827E+21	2,844409E+22
-2027	1,370438E+22	1,370483E+22	5,170006E+20	5,168831E+20	2,740920E+22	1,033884E+21	2,844309E+22
-2026	1,370415E+22	1,370459E+22	5,169890E+20	5,170319E+20	2,740874E+22	1,034021E+21	2,844276E+22
-2025	1,370458E+22	1,370381E+22	5,168956E+20	5,169812E+20	2,740838E+22	1,033877E+21	2,844226E+22
-2024	1,370364E+22	1,370432E+22	5,170568E+20	5,168979E+20	2,740797E+22	1,033955E+21	2,844192E+22
-2023	1,370433E+22	1,370407E+22	5,169234E+20	5,170411E+20	2,740840E+22	1,033965E+21	2,844236E+22
-2022	1,370457E+22	1,370424E+22	5,169128E+20	5,169087E+20	2,740881E+22	1,033822E+21	2,844263E+22
-2021	1,370424E+22	1,370509E+22	5,170127E+20	5,169214E+20	2,740934E+22	1,033934E+21	2,844327E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-2020	1,370548E+22	1,370482E+22	5,168281E+20	5,169926E+20	2,741031E+22	1,033821E+21	2,844413E+22
-2019	1,370534E+22	1,370549E+22	5,169187E+20	5,168201E+20	2,741083E+22	1,033739E+21	2,844457E+22
-2018	1,370555E+22	1,370607E+22	5,169479E+20	5,169150E+20	2,741162E+22	1,033863E+21	2,844548E+22
-2017	1,370643E+22	1,370569E+22	5,167975E+20	5,168989E+20	2,741213E+22	1,033696E+21	2,844582E+22
-2016	1,370561E+22	1,370627E+22	5,169462E+20	5,168064E+20	2,741188E+22	1,033753E+21	2,844563E+22
-2015	1,370591E+22	1,370604E+22	5,168699E+20	5,169730E+20	2,741195E+22	1,033843E+21	2,844580E+22
-2014	1,370612E+22	1,370552E+22	5,168188E+20	5,168924E+20	2,741165E+22	1,033711E+21	2,844536E+22
-2013	1,370520E+22	1,370578E+22	5,169883E+20	5,168748E+20	2,741098E+22	1,033863E+21	2,844484E+22
-2012	1,370566E+22	1,370493E+22	5,168492E+20	5,170002E+20	2,741059E+22	1,033849E+21	2,844444E+22
-2011	1,370493E+22	1,370461E+22	5,169346E+20	5,168845E+20	2,740954E+22	1,033819E+21	2,844336E+22
-2010	1,370399E+22	1,370471E+22	5,170443E+20	5,169763E+20	2,740870E+22	1,034021E+21	2,844272E+22
-2009	1,370432E+22	1,370364E+22	5,168944E+20	5,170507E+20	2,740796E+22	1,033945E+21	2,844190E+22
-2008	1,370324E+22	1,370357E+22	5,170486E+20	5,169351E+20	2,740681E+22	1,033984E+21	2,844079E+22
-2007	1,370314E+22	1,370340E+22	5,170256E+20	5,170689E+20	2,740654E+22	1,034094E+21	2,844063E+22
-2006	1,370360E+22	1,370278E+22	5,169332E+20	5,170194E+20	2,740638E+22	1,033953E+21	2,844034E+22
-2005	1,370277E+22	1,370343E+22	5,170884E+20	5,169370E+20	2,740620E+22	1,034025E+21	2,844023E+22
-2004	1,370348E+22	1,370327E+22	5,169508E+20	5,170777E+20	2,740675E+22	1,034029E+21	2,844078E+22
-2003	1,370366E+22	1,370337E+22	5,169499E+20	5,169496E+20	2,740704E+22	1,033900E+21	2,844094E+22
-2002	1,370343E+22	1,370434E+22	5,170526E+20	5,169501E+20	2,740777E+22	1,034003E+21	2,844178E+22
-2001	1,370468E+22	1,370406E+22	5,168750E+20	5,170222E+20	2,740874E+22	1,033897E+21	2,844264E+22
-2000	1,370455E+22	1,370452E+22	5,169572E+20	5,168559E+20	2,740907E+22	1,033813E+21	2,844288E+22
-1999	1,370462E+22	1,370514E+22	5,169761E+20	5,169561E+20	2,740977E+22	1,033932E+21	2,844370E+22
-1998	1,370540E+22	1,370478E+22	5,168285E+20	5,169556E+20	2,741018E+22	1,033784E+21	2,844397E+22
-1997	1,370471E+22	1,370526E+22	5,169797E+20	5,168588E+20	2,740998E+22	1,033839E+21	2,844381E+22
-1996	1,370503E+22	1,370502E+22	5,169084E+20	5,170040E+20	2,741005E+22	1,033912E+21	2,844396E+22
-1995	1,370513E+22	1,370442E+22	5,168747E+20	5,169239E+20	2,740955E+22	1,033799E+21	2,844334E+22
-1994	1,370414E+22	1,370480E+22	5,170464E+20	5,169038E+20	2,740894E+22	1,033950E+21	2,844289E+22
-1993	1,370443E+22	1,370398E+22	5,169101E+20	5,170519E+20	2,740841E+22	1,033962E+21	2,844237E+22
-1992	1,370371E+22	1,370340E+22	5,169830E+20	5,169512E+20	2,740711E+22	1,033934E+21	2,844105E+22
-1991	1,370279E+22	1,370349E+22	5,170818E+20	5,170342E+20	2,740628E+22	1,034116E+21	2,844040E+22
-1990	1,370319E+22	1,370250E+22	5,169366E+20	5,171050E+20	2,740569E+22	1,034042E+21	2,843974E+22
-1989	1,370234E+22	1,370243E+22	5,170902E+20	5,169748E+20	2,740477E+22	1,034065E+21	2,843883E+22
-1988	1,370220E+22	1,370239E+22	5,170656E+20	5,170931E+20	2,740459E+22	1,034159E+21	2,843875E+22
-1987	1,370252E+22	1,370182E+22	5,169790E+20	5,170612E+20	2,740434E+22	1,034040E+21	2,843838E+22
-1986	1,370174E+22	1,370259E+22	5,171288E+20	5,169783E+20	2,740433E+22	1,034107E+21	2,843844E+22
-1985	1,370253E+22	1,370246E+22	5,169960E+20	5,171246E+20	2,740499E+22	1,034121E+21	2,843911E+22
-1984	1,370289E+22	1,370238E+22	5,169841E+20	5,169872E+20	2,740527E+22	1,033971E+21	2,843924E+22
-1983	1,370271E+22	1,370343E+22	5,170800E+20	5,169735E+20	2,740615E+22	1,034053E+21	2,844020E+22
-1982	1,370388E+22	1,370330E+22	5,169076E+20	5,170520E+20	2,740719E+22	1,033960E+21	2,844115E+22
-1981	1,370376E+22	1,370374E+22	5,169860E+20	5,168970E+20	2,740750E+22	1,033883E+21	2,844138E+22
-1980	1,370373E+22	1,370434E+22	5,170066E+20	5,169914E+20	2,740807E+22	1,033998E+21	2,844207E+22
-1979	1,370437E+22	1,370383E+22	5,168732E+20	5,170019E+20	2,740820E+22	1,033875E+21	2,844208E+22
-1978	1,370373E+22	1,370432E+22	5,170281E+20	5,168930E+20	2,740805E+22	1,033921E+21	2,844197E+22
-1977	1,370404E+22	1,370402E+22	5,169687E+20	5,170432E+20	2,740805E+22	1,034012E+21	2,844206E+22
-1976	1,370408E+22	1,370321E+22	5,169260E+20	5,169724E+20	2,740730E+22	1,033898E+21	2,844119E+22
-1975	1,370299E+22	1,370365E+22	5,170850E+20	5,169602E+20	2,740664E+22	1,034045E+21	2,844068E+22
-1974	1,370320E+22	1,370287E+22	5,169533E+20	5,171181E+20	2,740607E+22	1,034071E+21	2,844014E+22
-1973	1,370264E+22	1,370223E+22	5,170241E+20	5,170126E+20	2,740487E+22	1,034037E+21	2,843891E+22
-1972	1,370178E+22	1,370237E+22	5,171226E+20	5,170657E+20	2,740414E+22	1,034188E+21	2,843833E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1971	1,370209E+22	1,370136E+22	5,169924E+20	5,171373E+20	2,740345E+22	1,034130E+21	2,843758E+22
-1970	1,370124E+22	1,370147E+22	5,171420E+20	5,170026E+20	2,740270E+22	1,034145E+21	2,843685E+22
-1969	1,370108E+22	1,370148E+22	5,171189E+20	5,171386E+20	2,740255E+22	1,034258E+21	2,843681E+22
-1968	1,370148E+22	1,370075E+22	5,170174E+20	5,171164E+20	2,740223E+22	1,034134E+21	2,843637E+22
-1967	1,370086E+22	1,370161E+22	5,171522E+20	5,170249E+20	2,740247E+22	1,034177E+21	2,843665E+22
-1966	1,370174E+22	1,370161E+22	5,170286E+20	5,171624E+20	2,740335E+22	1,034191E+21	2,843754E+22
-1965	1,370229E+22	1,370156E+22	5,170156E+20	5,170162E+20	2,740384E+22	1,034032E+21	2,843787E+22
-1964	1,370199E+22	1,370270E+22	5,171122E+20	5,169875E+20	2,740468E+22	1,034100E+21	2,843878E+22
-1963	1,370287E+22	1,370253E+22	5,169521E+20	5,170879E+20	2,740540E+22	1,034040E+21	2,843944E+22
-1962	1,370272E+22	1,370294E+22	5,170303E+20	5,169374E+20	2,740566E+22	1,033968E+21	2,843963E+22
-1961	1,370270E+22	1,370343E+22	5,170595E+20	5,170391E+20	2,740612E+22	1,034099E+21	2,844022E+22
-1960	1,370344E+22	1,370267E+22	5,169172E+20	5,170487E+20	2,740610E+22	1,033966E+21	2,844007E+22
-1959	1,370283E+22	1,370317E+22	5,170610E+20	5,169320E+20	2,740600E+22	1,033993E+21	2,843999E+22
-1958	1,370302E+22	1,370301E+22	5,170089E+20	5,170906E+20	2,740603E+22	1,034100E+21	2,844013E+22
-1957	1,370311E+22	1,370217E+22	5,169607E+20	5,170321E+20	2,740528E+22	1,033993E+21	2,843928E+22
-1956	1,370191E+22	1,370261E+22	5,171226E+20	5,170049E+20	2,740453E+22	1,034128E+21	2,843865E+22
-1955	1,370200E+22	1,370178E+22	5,170083E+20	5,171680E+20	2,740377E+22	1,034176E+21	2,843795E+22
-1954	1,370151E+22	1,370117E+22	5,170835E+20	5,170477E+20	2,740268E+22	1,034131E+21	2,843681E+22
-1953	1,370064E+22	1,370128E+22	5,171891E+20	5,171031E+20	2,740192E+22	1,034292E+21	2,843622E+22
-1952	1,370093E+22	1,370014E+22	5,170442E+20	5,171852E+20	2,740107E+22	1,034229E+21	2,843530E+22
-1951	1,370010E+22	1,370032E+22	5,171724E+20	5,170573E+20	2,740042E+22	1,034230E+21	2,843465E+22
-1950	1,370003E+22	1,370046E+22	5,171535E+20	5,171971E+20	2,740049E+22	1,034351E+21	2,843484E+22
-1949	1,370071E+22	1,369978E+22	5,170468E+20	5,171652E+20	2,740049E+22	1,034212E+21	2,843470E+22
-1948	1,370017E+22	1,370078E+22	5,171812E+20	5,170410E+20	2,740095E+22	1,034222E+21	2,843517E+22
-1947	1,370092E+22	1,370084E+22	5,170756E+20	5,171810E+20	2,740176E+22	1,034257E+21	2,843602E+22
-1946	1,370138E+22	1,370092E+22	5,170595E+20	5,170373E+20	2,740229E+22	1,034097E+21	2,843639E+22
-1945	1,370098E+22	1,370198E+22	5,171602E+20	5,170303E+20	2,740296E+22	1,034190E+21	2,843715E+22
-1944	1,370184E+22	1,370152E+22	5,169894E+20	5,171409E+20	2,740336E+22	1,034130E+21	2,843749E+22
-1943	1,370181E+22	1,370189E+22	5,170546E+20	5,169889E+20	2,740370E+22	1,034044E+21	2,843774E+22
-1942	1,370186E+22	1,370239E+22	5,170957E+20	5,170832E+20	2,740426E+22	1,034179E+21	2,843843E+22
-1941	1,370271E+22	1,370162E+22	5,169530E+20	5,170912E+20	2,740434E+22	1,034044E+21	2,843838E+22
-1940	1,370196E+22	1,370223E+22	5,170940E+20	5,169635E+20	2,740419E+22	1,034057E+21	2,843825E+22
-1939	1,370185E+22	1,370205E+22	5,170604E+20	5,171389E+20	2,740390E+22	1,034199E+21	2,843810E+22
-1938	1,370190E+22	1,370122E+22	5,170173E+20	5,170790E+20	2,740312E+22	1,034096E+21	2,843722E+22
-1937	1,370071E+22	1,370154E+22	5,171903E+20	5,170526E+20	2,740225E+22	1,034243E+21	2,843649E+22
-1936	1,370080E+22	1,370047E+22	5,170686E+20	5,172101E+20	2,740127E+22	1,034279E+21	2,843555E+22
-1935	1,370035E+22	1,369991E+22	5,171284E+20	5,170907E+20	2,740026E+22	1,034219E+21	2,843448E+22
-1934	1,369946E+22	1,370014E+22	5,172326E+20	5,171552E+20	2,739960E+22	1,034388E+21	2,843399E+22
-1933	1,369991E+22	1,369903E+22	5,170768E+20	5,172485E+20	2,739894E+22	1,034325E+21	2,843326E+22
-1932	1,369916E+22	1,369933E+22	5,171969E+20	5,171007E+20	2,739849E+22	1,034298E+21	2,843279E+22
-1931	1,369908E+22	1,369956E+22	5,171967E+20	5,172381E+20	2,739864E+22	1,034435E+21	2,843307E+22
-1930	1,369988E+22	1,369902E+22	5,170960E+20	5,171864E+20	2,739890E+22	1,034282E+21	2,843318E+22
-1929	1,369933E+22	1,370002E+22	5,172381E+20	5,170655E+20	2,739935E+22	1,034304E+21	2,843365E+22
-1928	1,369994E+22	1,369994E+22	5,171197E+20	5,172163E+20	2,739988E+22	1,034336E+21	2,843421E+22
-1927	1,370036E+22	1,369998E+22	5,170848E+20	5,170871E+20	2,740034E+22	1,034172E+21	2,843451E+22
-1926	1,370001E+22	1,370102E+22	5,171903E+20	5,170857E+20	2,740104E+22	1,034276E+21	2,843531E+22
-1925	1,370112E+22	1,370052E+22	5,170144E+20	5,171910E+20	2,740164E+22	1,034205E+21	2,843585E+22
-1924	1,370114E+22	1,370094E+22	5,170788E+20	5,170101E+20	2,740209E+22	1,034089E+21	2,843617E+22
-1923	1,370101E+22	1,370153E+22	5,171419E+20	5,171099E+20	2,740254E+22	1,034252E+21	2,843679E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1922	1,370173E+22	1,370087E+22	5,170044E+20	5,171200E+20	2,740260E+22	1,034124E+21	2,843672E+22
-1921	1,370083E+22	1,370137E+22	5,171539E+20	5,170134E+20	2,740221E+22	1,034167E+21	2,843637E+22
-1920	1,370061E+22	1,370091E+22	5,171142E+20	5,171942E+20	2,740152E+22	1,034308E+21	2,843583E+22
-1919	1,370070E+22	1,370000E+22	5,170602E+20	5,171371E+20	2,740070E+22	1,034197E+21	2,843490E+22
-1918	1,369958E+22	1,370028E+22	5,172413E+20	5,171053E+20	2,739986E+22	1,034347E+21	2,843421E+22
-1917	1,369979E+22	1,369920E+22	5,171113E+20	5,172634E+20	2,739899E+22	1,034375E+21	2,843337E+22
-1916	1,369928E+22	1,369875E+22	5,171605E+20	5,171342E+20	2,739804E+22	1,034295E+21	2,843233E+22
-1915	1,369826E+22	1,369907E+22	5,172768E+20	5,172113E+20	2,739733E+22	1,034488E+21	2,843182E+22
-1914	1,369882E+22	1,369811E+22	5,171271E+20	5,172932E+20	2,739693E+22	1,034420E+21	2,843135E+22
-1913	1,369822E+22	1,369843E+22	5,172524E+20	5,171406E+20	2,739666E+22	1,034393E+21	2,843105E+22
-1912	1,369814E+22	1,369854E+22	5,172475E+20	5,172642E+20	2,739668E+22	1,034512E+21	2,843119E+22
-1911	1,369895E+22	1,369810E+22	5,171315E+20	5,172163E+20	2,739705E+22	1,034348E+21	2,843140E+22
-1910	1,369836E+22	1,369915E+22	5,172719E+20	5,171075E+20	2,739751E+22	1,034379E+21	2,843189E+22
-1909	1,369906E+22	1,369902E+22	5,171434E+20	5,172672E+20	2,739808E+22	1,034411E+21	2,843249E+22
-1908	1,369956E+22	1,369910E+22	5,171009E+20	5,171246E+20	2,739865E+22	1,034225E+21	2,843288E+22
-1907	1,369920E+22	1,370015E+22	5,172264E+20	5,171226E+20	2,739935E+22	1,034349E+21	2,843370E+22
-1906	1,370036E+22	1,369976E+22	5,170646E+20	5,172108E+20	2,740012E+22	1,034275E+21	2,843440E+22
-1905	1,370032E+22	1,370016E+22	5,171357E+20	5,170396E+20	2,740048E+22	1,034175E+21	2,843465E+22
-1904	1,369993E+22	1,370055E+22	5,171911E+20	5,171506E+20	2,740048E+22	1,034342E+21	2,843482E+22
-1903	1,370054E+22	1,369983E+22	5,170431E+20	5,171787E+20	2,740037E+22	1,034222E+21	2,843459E+22
-1902	1,369966E+22	1,370022E+22	5,172002E+20	5,170793E+20	2,739988E+22	1,034279E+21	2,843416E+22
-1901	1,369959E+22	1,369967E+22	5,171548E+20	5,172510E+20	2,739925E+22	1,034406E+21	2,843366E+22
-1900	1,369971E+22	1,369878E+22	5,170962E+20	5,171734E+20	2,739850E+22	1,034270E+21	2,843277E+22
-1899	1,369845E+22	1,369914E+22	5,172906E+20	5,171491E+20	2,739759E+22	1,034440E+21	2,843203E+22
-1898	1,369862E+22	1,369822E+22	5,171642E+20	5,173051E+20	2,739684E+22	1,034469E+21	2,843131E+22
-1897	1,369813E+22	1,369775E+22	5,172161E+20	5,171878E+20	2,739588E+22	1,034404E+21	2,843028E+22
-1896	1,369711E+22	1,369794E+22	5,173250E+20	5,172611E+20	2,739506E+22	1,034586E+21	2,842964E+22
-1895	1,369780E+22	1,369704E+22	5,171695E+20	5,173371E+20	2,739484E+22	1,034507E+21	2,842935E+22
-1894	1,369729E+22	1,369742E+22	5,172997E+20	5,171795E+20	2,739471E+22	1,034479E+21	2,842919E+22
-1893	1,369731E+22	1,369757E+22	5,172818E+20	5,173013E+20	2,739488E+22	1,034583E+21	2,842946E+22
-1892	1,369803E+22	1,369722E+22	5,171524E+20	5,172482E+20	2,739525E+22	1,034401E+21	2,842965E+22
-1891	1,369736E+22	1,369828E+22	5,173043E+20	5,171537E+20	2,739564E+22	1,034458E+21	2,843010E+22
-1890	1,369817E+22	1,369825E+22	5,171854E+20	5,172986E+20	2,739642E+22	1,034484E+21	2,843090E+22
-1889	1,369880E+22	1,369829E+22	5,171492E+20	5,171551E+20	2,739709E+22	1,034304E+21	2,843139E+22
-1888	1,369838E+22	1,369922E+22	5,172704E+20	5,171483E+20	2,739759E+22	1,034419E+21	2,843201E+22
-1887	1,369946E+22	1,369887E+22	5,171018E+20	5,172465E+20	2,739834E+22	1,034348E+21	2,843268E+22
-1886	1,369932E+22	1,369924E+22	5,171734E+20	5,170953E+20	2,739857E+22	1,034269E+21	2,843283E+22
-1885	1,369895E+22	1,369951E+22	5,172206E+20	5,172109E+20	2,739846E+22	1,034431E+21	2,843289E+22
-1884	1,369955E+22	1,369876E+22	5,170688E+20	5,172276E+20	2,739831E+22	1,034296E+21	2,843260E+22
-1883	1,369862E+22	1,369910E+22	5,172479E+20	5,171286E+20	2,739772E+22	1,034376E+21	2,843209E+22
-1882	1,369855E+22	1,369864E+22	5,172160E+20	5,172800E+20	2,739718E+22	1,034496E+21	2,843168E+22
-1881	1,369863E+22	1,369773E+22	5,171607E+20	5,172162E+20	2,739636E+22	1,034377E+21	2,843074E+22
-1880	1,369715E+22	1,369792E+22	5,173425E+20	5,171990E+20	2,739508E+22	1,034542E+21	2,842962E+22
-1879	1,369734E+22	1,369703E+22	5,172103E+20	5,173650E+20	2,739437E+22	1,034575E+21	2,842894E+22
-1878	1,369700E+22	1,369657E+22	5,172641E+20	5,172484E+20	2,739357E+22	1,034512E+21	2,842808E+22
-1877	1,369618E+22	1,369678E+22	5,173642E+20	5,173042E+20	2,739296E+22	1,034668E+21	2,842763E+22
-1876	1,369692E+22	1,369604E+22	5,172028E+20	5,173604E+20	2,739296E+22	1,034563E+21	2,842752E+22
-1875	1,369630E+22	1,369653E+22	5,173414E+20	5,172138E+20	2,739283E+22	1,034555E+21	2,842739E+22
-1874	1,369627E+22	1,369683E+22	5,173264E+20	5,173298E+20	2,739311E+22	1,034656E+21	2,842776E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1873	1,369706E+22	1,369643E+22	5,171963E+20	5,172921E+20	2,739349E+22	1,034488E+21	2,842798E+22
-1872	1,369640E+22	1,369730E+22	5,173389E+20	5,171958E+20	2,739370E+22	1,034535E+21	2,842824E+22
-1871	1,369735E+22	1,369731E+22	5,172207E+20	5,173366E+20	2,739466E+22	1,034557E+21	2,842922E+22
-1870	1,369806E+22	1,369737E+22	5,171895E+20	5,171951E+20	2,739543E+22	1,034385E+21	2,842981E+22
-1869	1,369764E+22	1,369829E+22	5,172982E+20	5,171896E+20	2,739594E+22	1,034488E+21	2,843042E+22
-1868	1,369857E+22	1,369800E+22	5,171229E+20	5,172860E+20	2,739657E+22	1,034409E+21	2,843098E+22
-1867	1,369829E+22	1,369832E+22	5,172103E+20	5,171517E+20	2,739661E+22	1,034362E+21	2,843097E+22
-1866	1,369794E+22	1,369861E+22	5,172724E+20	5,172456E+20	2,739655E+22	1,034518E+21	2,843107E+22
-1865	1,369857E+22	1,369776E+22	5,171304E+20	5,172617E+20	2,739633E+22	1,034392E+21	2,843072E+22
-1864	1,369749E+22	1,369791E+22	5,173050E+20	5,171619E+20	2,739540E+22	1,034467E+21	2,842987E+22
-1863	1,369734E+22	1,369746E+22	5,172674E+20	5,173235E+20	2,739481E+22	1,034591E+21	2,842940E+22
-1862	1,369737E+22	1,369654E+22	5,172107E+20	5,172802E+20	2,739391E+22	1,034491E+21	2,842840E+22
-1861	1,369603E+22	1,369669E+22	5,173751E+20	5,172649E+20	2,739272E+22	1,034640E+21	2,842736E+22
-1860	1,369629E+22	1,369588E+22	5,172411E+20	5,174139E+20	2,739217E+22	1,034655E+21	2,842683E+22
-1859	1,369600E+22	1,369551E+22	5,173113E+20	5,172950E+20	2,739150E+22	1,034606E+21	2,842611E+22
-1858	1,369523E+22	1,369589E+22	5,174212E+20	5,173245E+20	2,739112E+22	1,034746E+21	2,842587E+22
-1857	1,369591E+22	1,369518E+22	5,172588E+20	5,173931E+20	2,739109E+22	1,034652E+21	2,842574E+22
-1856	1,369512E+22	1,369552E+22	5,173829E+20	5,172581E+20	2,739063E+22	1,034641E+21	2,842527E+22
-1855	1,369517E+22	1,369582E+22	5,173624E+20	5,173798E+20	2,739099E+22	1,034742E+21	2,842573E+22
-1854	1,369616E+22	1,369543E+22	5,172343E+20	5,173448E+20	2,739158E+22	1,034579E+21	2,842616E+22
-1853	1,369574E+22	1,369630E+22	5,173619E+20	5,172340E+20	2,739204E+22	1,034596E+21	2,842663E+22
-1852	1,369670E+22	1,369646E+22	5,172436E+20	5,173588E+20	2,739316E+22	1,034602E+21	2,842776E+22
-1851	1,369727E+22	1,369662E+22	5,172223E+20	5,172316E+20	2,739389E+22	1,034454E+21	2,842835E+22
-1850	1,369674E+22	1,369763E+22	5,173420E+20	5,172159E+20	2,739437E+22	1,034558E+21	2,842892E+22
-1849	1,369761E+22	1,369723E+22	5,171736E+20	5,173244E+20	2,739484E+22	1,034498E+21	2,842934E+22
-1848	1,369719E+22	1,369726E+22	5,172599E+20	5,171932E+20	2,739445E+22	1,034453E+21	2,842891E+22
-1847	1,369684E+22	1,369750E+22	5,173276E+20	5,172833E+20	2,739434E+22	1,034611E+21	2,842895E+22
-1846	1,369749E+22	1,369658E+22	5,171884E+20	5,173125E+20	2,739407E+22	1,034501E+21	2,842857E+22
-1845	1,369640E+22	1,369665E+22	5,173412E+20	5,172183E+20	2,739305E+22	1,034560E+21	2,842761E+22
-1844	1,369617E+22	1,369626E+22	5,172970E+20	5,173794E+20	2,739243E+22	1,034676E+21	2,842711E+22
-1843	1,369619E+22	1,369538E+22	5,172528E+20	5,173462E+20	2,739157E+22	1,034599E+21	2,842617E+22
-1842	1,369498E+22	1,369567E+22	5,174286E+20	5,173029E+20	2,739064E+22	1,034732E+21	2,842537E+22
-1841	1,369531E+22	1,369490E+22	5,173040E+20	5,174458E+20	2,739021E+22	1,034750E+21	2,842496E+22
-1840	1,369486E+22	1,369443E+22	5,173665E+20	5,173284E+20	2,738929E+22	1,034695E+21	2,842398E+22
-1839	1,369405E+22	1,369488E+22	5,174686E+20	5,173636E+20	2,738893E+22	1,034832E+21	2,842377E+22
-1838	1,369475E+22	1,369415E+22	5,173022E+20	5,174510E+20	2,738890E+22	1,034753E+21	2,842366E+22
-1837	1,369417E+22	1,369441E+22	5,174039E+20	5,173146E+20	2,738858E+22	1,034718E+21	2,842330E+22
-1836	1,369438E+22	1,369483E+22	5,173821E+20	5,174179E+20	2,738921E+22	1,034800E+21	2,842401E+22
-1835	1,369545E+22	1,369458E+22	5,172695E+20	5,173810E+20	2,739003E+22	1,034651E+21	2,842468E+22
-1834	1,369510E+22	1,369564E+22	5,174056E+20	5,172489E+20	2,739074E+22	1,034655E+21	2,842540E+22
-1833	1,369591E+22	1,369583E+22	5,172927E+20	5,173819E+20	2,739174E+22	1,034675E+21	2,842641E+22
-1832	1,369619E+22	1,369579E+22	5,172646E+20	5,172711E+20	2,739197E+22	1,034536E+21	2,842651E+22
-1831	1,369566E+22	1,369667E+22	5,173872E+20	5,172586E+20	2,739233E+22	1,034646E+21	2,842697E+22
-1830	1,369655E+22	1,369617E+22	5,172255E+20	5,173733E+20	2,739272E+22	1,034599E+21	2,842732E+22
-1829	1,369626E+22	1,369607E+22	5,172956E+20	5,172397E+20	2,739233E+22	1,034535E+21	2,842687E+22
-1828	1,369587E+22	1,369635E+22	5,173606E+20	5,173226E+20	2,739222E+22	1,034683E+21	2,842690E+22
-1827	1,369638E+22	1,369552E+22	5,172281E+20	5,173712E+20	2,739189E+22	1,034599E+21	2,842649E+22
-1826	1,369531E+22	1,369565E+22	5,173844E+20	5,172668E+20	2,739096E+22	1,034651E+21	2,842561E+22
-1825	1,369509E+22	1,369525E+22	5,173489E+20	5,174295E+20	2,739033E+22	1,034778E+21	2,842511E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1824	1,369500E+22	1,369423E+22	5,173075E+20	5,173945E+20	2,738923E+22	1,034702E+21	2,842393E+22
-1823	1,369385E+22	1,369453E+22	5,174901E+20	5,173396E+20	2,738838E+22	1,034830E+21	2,842321E+22
-1822	1,369417E+22	1,369379E+22	5,173685E+20	5,174918E+20	2,738796E+22	1,034860E+21	2,842282E+22
-1821	1,369371E+22	1,369327E+22	5,174033E+20	5,173824E+20	2,738698E+22	1,034786E+21	2,842176E+22
-1820	1,369291E+22	1,369376E+22	5,174945E+20	5,174147E+20	2,738667E+22	1,034909E+21	2,842158E+22
-1819	1,369373E+22	1,369312E+22	5,173359E+20	5,175068E+20	2,738686E+22	1,034843E+21	2,842170E+22
-1818	1,369339E+22	1,369355E+22	5,174431E+20	5,173393E+20	2,738694E+22	1,034782E+21	2,842172E+22
-1817	1,369372E+22	1,369408E+22	5,174318E+20	5,174341E+20	2,738780E+22	1,034866E+21	2,842267E+22
-1816	1,369458E+22	1,369379E+22	5,173160E+20	5,174014E+20	2,738838E+22	1,034717E+21	2,842309E+22
-1815	1,369412E+22	1,369489E+22	5,174493E+20	5,172786E+20	2,738901E+22	1,034728E+21	2,842374E+22
-1814	1,369488E+22	1,369500E+22	5,173372E+20	5,174320E+20	2,738987E+22	1,034769E+21	2,842464E+22
-1813	1,369522E+22	1,369475E+22	5,172885E+20	5,173274E+20	2,738998E+22	1,034616E+21	2,842459E+22
-1812	1,369475E+22	1,369560E+22	5,174126E+20	5,173032E+20	2,739035E+22	1,034716E+21	2,842507E+22
-1811	1,369567E+22	1,369513E+22	5,172657E+20	5,174199E+20	2,739080E+22	1,034686E+21	2,842549E+22
-1810	1,369540E+22	1,369512E+22	5,173409E+20	5,172731E+20	2,739052E+22	1,034614E+21	2,842513E+22
-1809	1,369487E+22	1,369541E+22	5,174097E+20	5,173646E+20	2,739028E+22	1,034774E+21	2,842505E+22
-1808	1,369511E+22	1,369441E+22	5,172777E+20	5,174267E+20	2,738952E+22	1,034704E+21	2,842423E+22
-1807	1,369410E+22	1,369451E+22	5,174393E+20	5,173183E+20	2,738861E+22	1,034758E+21	2,842337E+22
-1806	1,369394E+22	1,369409E+22	5,174132E+20	5,174801E+20	2,738802E+22	1,034893E+21	2,842292E+22
-1805	1,369394E+22	1,369299E+22	5,173551E+20	5,174413E+20	2,738693E+22	1,034796E+21	2,842172E+22
-1804	1,369274E+22	1,369336E+22	5,175302E+20	5,173808E+20	2,738611E+22	1,034911E+21	2,842102E+22
-1803	1,369296E+22	1,369274E+22	5,174107E+20	5,175457E+20	2,738570E+22	1,034956E+21	2,842066E+22
-1802	1,369265E+22	1,369229E+22	5,174428E+20	5,174278E+20	2,738494E+22	1,034871E+21	2,841981E+22
-1801	1,369197E+22	1,369281E+22	5,175370E+20	5,174535E+20	2,738478E+22	1,034990E+21	2,841977E+22
-1800	1,369274E+22	1,369215E+22	5,173826E+20	5,175422E+20	2,738489E+22	1,034925E+21	2,841981E+22
-1799	1,369257E+22	1,369266E+22	5,174912E+20	5,173648E+20	2,738523E+22	1,034856E+21	2,842008E+22
-1798	1,369285E+22	1,369325E+22	5,174828E+20	5,174705E+20	2,738611E+22	1,034953E+21	2,842106E+22
-1797	1,369365E+22	1,369290E+22	5,173411E+20	5,174489E+20	2,738655E+22	1,034790E+21	2,842134E+22
-1796	1,369317E+22	1,369394E+22	5,174683E+20	5,173282E+20	2,738711E+22	1,034796E+21	2,842191E+22
-1795	1,369394E+22	1,369407E+22	5,173674E+20	5,174818E+20	2,738801E+22	1,034849E+21	2,842286E+22
-1794	1,369446E+22	1,369386E+22	5,173256E+20	5,173580E+20	2,738833E+22	1,034684E+21	2,842301E+22
-1793	1,369399E+22	1,369471E+22	5,174594E+20	5,173281E+20	2,738870E+22	1,034788E+21	2,842349E+22
-1792	1,369462E+22	1,369417E+22	5,173161E+20	5,174555E+20	2,738879E+22	1,034772E+21	2,842356E+22
-1791	1,369427E+22	1,369413E+22	5,173906E+20	5,173166E+20	2,738840E+22	1,034707E+21	2,842311E+22
-1790	1,369369E+22	1,369434E+22	5,174645E+20	5,174240E+20	2,738803E+22	1,034888E+21	2,842292E+22
-1789	1,369397E+22	1,369320E+22	5,173177E+20	5,174878E+20	2,738717E+22	1,034806E+21	2,842198E+22
-1788	1,369302E+22	1,369328E+22	5,174820E+20	5,173696E+20	2,738630E+22	1,034852E+21	2,842116E+22
-1787	1,369285E+22	1,369295E+22	5,174676E+20	5,175274E+20	2,738580E+22	1,034995E+21	2,842079E+22
-1786	1,369286E+22	1,369194E+22	5,174086E+20	5,174808E+20	2,738480E+22	1,034889E+21	2,841969E+22
-1785	1,369158E+22	1,369233E+22	5,175792E+20	5,174255E+20	2,738391E+22	1,035005E+21	2,841891E+22
-1784	1,369164E+22	1,369158E+22	5,174586E+20	5,175975E+20	2,738323E+22	1,035056E+21	2,841828E+22
-1783	1,369152E+22	1,369118E+22	5,174910E+20	5,174703E+20	2,738269E+22	1,034961E+21	2,841765E+22
-1782	1,369103E+22	1,369178E+22	5,175884E+20	5,174956E+20	2,738282E+22	1,035084E+21	2,841790E+22
-1781	1,369191E+22	1,369115E+22	5,174178E+20	5,175790E+20	2,738306E+22	1,034997E+21	2,841805E+22
-1780	1,369174E+22	1,369178E+22	5,175152E+20	5,174020E+20	2,738351E+22	1,034917E+21	2,841843E+22
-1779	1,369195E+22	1,369248E+22	5,175102E+20	5,175144E+20	2,738443E+22	1,035025E+21	2,841945E+22
-1778	1,369284E+22	1,369215E+22	5,173680E+20	5,174863E+20	2,738498E+22	1,034854E+21	2,841984E+22
-1777	1,369240E+22	1,369314E+22	5,175021E+20	5,173608E+20	2,738554E+22	1,034863E+21	2,842040E+22
-1776	1,369300E+22	1,369315E+22	5,174141E+20	5,175113E+20	2,738615E+22	1,034925E+21	2,842108E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1775	1,369358E+22	1,369294E+22	5,173804E+20	5,173856E+20	2,738652E+22	1,034766E+21	2,842129E+22
-1774	1,369301E+22	1,369376E+22	5,175147E+20	5,173736E+20	2,738677E+22	1,034888E+21	2,842165E+22
-1773	1,369350E+22	1,369308E+22	5,173525E+20	5,175142E+20	2,738658E+22	1,034867E+21	2,842145E+22
-1772	1,369317E+22	1,369295E+22	5,174210E+20	5,173793E+20	2,738612E+22	1,034800E+21	2,842092E+22
-1771	1,369260E+22	1,369320E+22	5,175066E+20	5,174786E+20	2,738581E+22	1,034985E+21	2,842079E+22
-1770	1,369303E+22	1,369213E+22	5,173679E+20	5,175266E+20	2,738516E+22	1,034894E+21	2,842005E+22
-1769	1,369203E+22	1,369222E+22	5,175385E+20	5,174027E+20	2,738425E+22	1,034941E+21	2,841919E+22
-1768	1,369151E+22	1,369185E+22	5,175264E+20	5,175683E+20	2,738336E+22	1,035095E+21	2,841845E+22
-1767	1,369154E+22	1,369083E+22	5,174634E+20	5,175311E+20	2,738237E+22	1,034994E+21	2,841736E+22
-1766	1,369033E+22	1,369114E+22	5,176299E+20	5,174876E+20	2,738148E+22	1,035117E+21	2,841659E+22
-1765	1,369054E+22	1,369035E+22	5,174932E+20	5,176540E+20	2,738089E+22	1,035147E+21	2,841604E+22
-1764	1,369064E+22	1,369003E+22	5,175218E+20	5,175148E+20	2,738067E+22	1,035037E+21	2,841571E+22
-1763	1,369023E+22	1,369085E+22	5,176262E+20	5,175316E+20	2,738108E+22	1,035158E+21	2,841624E+22
-1762	1,369114E+22	1,369040E+22	5,174549E+20	5,176090E+20	2,738155E+22	1,035064E+21	2,841661E+22
-1761	1,369088E+22	1,369104E+22	5,175485E+20	5,174357E+20	2,738192E+22	1,034984E+21	2,841691E+22
-1760	1,369087E+22	1,369164E+22	5,175515E+20	5,175491E+20	2,738251E+22	1,035101E+21	2,841761E+22
-1759	1,369188E+22	1,369128E+22	5,174157E+20	5,175140E+20	2,738316E+22	1,034930E+21	2,841809E+22
-1758	1,369154E+22	1,369221E+22	5,175550E+20	5,173960E+20	2,738374E+22	1,034951E+21	2,841870E+22
-1757	1,369210E+22	1,369214E+22	5,174536E+20	5,175482E+20	2,738423E+22	1,035002E+21	2,841923E+22
-1756	1,369263E+22	1,369193E+22	5,174094E+20	5,174349E+20	2,738456E+22	1,034844E+21	2,841940E+22
-1755	1,369200E+22	1,369279E+22	5,175445E+20	5,174312E+20	2,738479E+22	1,034976E+21	2,841977E+22
-1754	1,369257E+22	1,369210E+22	5,173877E+20	5,175647E+20	2,738467E+22	1,034952E+21	2,841962E+22
-1753	1,369224E+22	1,369194E+22	5,174631E+20	5,174236E+20	2,738418E+22	1,034887E+21	2,841906E+22
-1752	1,369147E+22	1,369210E+22	5,175652E+20	5,175139E+20	2,738357E+22	1,035079E+21	2,841865E+22
-1751	1,369187E+22	1,369104E+22	5,174362E+20	5,175609E+20	2,738290E+22	1,034997E+21	2,841790E+22
-1750	1,369076E+22	1,369108E+22	5,176025E+20	5,174593E+20	2,738184E+22	1,035062E+21	2,841691E+22
-1749	1,369015E+22	1,369055E+22	5,175688E+20	5,176310E+20	2,738070E+22	1,035200E+21	2,841590E+22
-1748	1,369032E+22	1,368949E+22	5,174968E+20	5,175966E+20	2,737981E+22	1,035093E+21	2,841490E+22
-1747	1,368931E+22	1,368995E+22	5,176642E+20	5,175393E+20	2,737926E+22	1,035203E+21	2,841446E+22
-1746	1,368976E+22	1,368935E+22	5,175351E+20	5,176865E+20	2,737911E+22	1,035222E+21	2,841433E+22
-1745	1,368988E+22	1,368919E+22	5,175629E+20	5,175388E+20	2,737907E+22	1,035102E+21	2,841418E+22
-1744	1,368918E+22	1,369007E+22	5,176721E+20	5,175581E+20	2,737925E+22	1,035230E+21	2,841448E+22
-1743	1,369009E+22	1,368965E+22	5,175038E+20	5,176399E+20	2,737974E+22	1,035144E+21	2,841489E+22
-1742	1,368987E+22	1,369018E+22	5,175942E+20	5,174841E+20	2,738006E+22	1,035078E+21	2,841513E+22
-1741	1,368989E+22	1,369063E+22	5,175848E+20	5,175913E+20	2,738052E+22	1,035176E+21	2,841570E+22
-1740	1,369107E+22	1,369023E+22	5,174462E+20	5,175573E+20	2,738130E+22	1,035003E+21	2,841630E+22
-1739	1,369076E+22	1,369125E+22	5,175866E+20	5,174373E+20	2,738200E+22	1,035024E+21	2,841703E+22
-1738	1,369131E+22	1,369128E+22	5,174864E+20	5,175909E+20	2,738259E+22	1,035077E+21	2,841767E+22
-1737	1,369175E+22	1,369103E+22	5,174395E+20	5,174800E+20	2,738278E+22	1,034920E+21	2,841770E+22
-1736	1,369088E+22	1,369179E+22	5,175891E+20	5,174730E+20	2,738267E+22	1,035062E+21	2,841773E+22
-1735	1,369151E+22	1,369111E+22	5,174474E+20	5,175965E+20	2,738262E+22	1,035044E+21	2,841767E+22
-1734	1,369118E+22	1,369086E+22	5,175295E+20	5,174679E+20	2,738205E+22	1,034997E+21	2,841704E+22
-1733	1,369025E+22	1,369091E+22	5,176191E+20	5,175574E+20	2,738116E+22	1,035176E+21	2,841633E+22
-1732	1,369061E+22	1,368979E+22	5,174789E+20	5,176204E+20	2,738040E+22	1,035099E+21	2,841550E+22
-1731	1,368952E+22	1,368983E+22	5,176394E+20	5,175229E+20	2,737935E+22	1,035162E+21	2,841452E+22
-1730	1,368908E+22	1,368937E+22	5,176066E+20	5,176857E+20	2,737845E+22	1,035292E+21	2,841374E+22
-1729	1,368936E+22	1,368839E+22	5,175366E+20	5,176383E+20	2,737776E+22	1,035175E+21	2,841293E+22
-1728	1,368828E+22	1,368892E+22	5,177174E+20	5,175693E+20	2,737720E+22	1,035287E+21	2,841249E+22
-1727	1,368877E+22	1,368849E+22	5,175996E+20	5,177113E+20	2,737726E+22	1,035311E+21	2,841257E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1726	1,368881E+22	1,368835E+22	5,176188E+20	5,175870E+20	2,737716E+22	1,035206E+21	2,841237E+22
-1725	1,368802E+22	1,368906E+22	5,177079E+20	5,176063E+20	2,737708E+22	1,035314E+21	2,841239E+22
-1724	1,368907E+22	1,368857E+22	5,175314E+20	5,176909E+20	2,737765E+22	1,035222E+21	2,841287E+22
-1723	1,368904E+22	1,368918E+22	5,176207E+20	5,175268E+20	2,737822E+22	1,035148E+21	2,841336E+22
-1722	1,368924E+22	1,368972E+22	5,176179E+20	5,176206E+20	2,737896E+22	1,035239E+21	2,841420E+22
-1721	1,369037E+22	1,368944E+22	5,174774E+20	5,175848E+20	2,737980E+22	1,035062E+21	2,841487E+22
-1720	1,368980E+22	1,369045E+22	5,176220E+20	5,174722E+20	2,738025E+22	1,035094E+21	2,841535E+22
-1719	1,369033E+22	1,369048E+22	5,175356E+20	5,176253E+20	2,738081E+22	1,035161E+21	2,841597E+22
-1718	1,369075E+22	1,369013E+22	5,174902E+20	5,175323E+20	2,738088E+22	1,035022E+21	2,841590E+22
-1717	1,368980E+22	1,369068E+22	5,176359E+20	5,175145E+20	2,738048E+22	1,035150E+21	2,841563E+22
-1716	1,369048E+22	1,368992E+22	5,174967E+20	5,176417E+20	2,738040E+22	1,035138E+21	2,841554E+22
-1715	1,369008E+22	1,368971E+22	5,175773E+20	5,175207E+20	2,737980E+22	1,035098E+21	2,841489E+22
-1714	1,368911E+22	1,368976E+22	5,176624E+20	5,176141E+20	2,737887E+22	1,035277E+21	2,841415E+22
-1713	1,368943E+22	1,368861E+22	5,175170E+20	5,176777E+20	2,737804E+22	1,035195E+21	2,841323E+22
-1712	1,368826E+22	1,368861E+22	5,176849E+20	5,175722E+20	2,737687E+22	1,035257E+21	2,841213E+22
-1711	1,368800E+22	1,368827E+22	5,176694E+20	5,177182E+20	2,737627E+22	1,035388E+21	2,841166E+22
-1710	1,368835E+22	1,368738E+22	5,176011E+20	5,176814E+20	2,737572E+22	1,035283E+21	2,841101E+22
-1709	1,368714E+22	1,368788E+22	5,177657E+20	5,176095E+20	2,737502E+22	1,035375E+21	2,841040E+22
-1708	1,368767E+22	1,368746E+22	5,176379E+20	5,177645E+20	2,737512E+22	1,035402E+21	2,841053E+22
-1707	1,368775E+22	1,368735E+22	5,176475E+20	5,176421E+20	2,737510E+22	1,035290E+21	2,841039E+22
-1706	1,368715E+22	1,368809E+22	5,177343E+20	5,176514E+20	2,737525E+22	1,035386E+21	2,841063E+22
-1705	1,368832E+22	1,368765E+22	5,175583E+20	5,177203E+20	2,737597E+22	1,035279E+21	2,841125E+22
-1704	1,368821E+22	1,368829E+22	5,176610E+20	5,175492E+20	2,737650E+22	1,035210E+21	2,841171E+22
-1703	1,368843E+22	1,368898E+22	5,176725E+20	5,176412E+20	2,737741E+22	1,035314E+21	2,841273E+22
-1702	1,368943E+22	1,368869E+22	5,175280E+20	5,176315E+20	2,737812E+22	1,035160E+21	2,841328E+22
-1701	1,368872E+22	1,368948E+22	5,176592E+20	5,175193E+20	2,737820E+22	1,035179E+21	2,841338E+22
-1700	1,368933E+22	1,368940E+22	5,175736E+20	5,176734E+20	2,737873E+22	1,035247E+21	2,841398E+22
-1699	1,368980E+22	1,368906E+22	5,175297E+20	5,175773E+20	2,737886E+22	1,035107E+21	2,841397E+22
-1698	1,368891E+22	1,368962E+22	5,176812E+20	5,175545E+20	2,737853E+22	1,035236E+21	2,841376E+22
-1697	1,368943E+22	1,368889E+22	5,175383E+20	5,176819E+20	2,737832E+22	1,035220E+21	2,841354E+22
-1696	1,368879E+22	1,368861E+22	5,176248E+20	5,175727E+20	2,737740E+22	1,035197E+21	2,841260E+22
-1695	1,368786E+22	1,368865E+22	5,177209E+20	5,176622E+20	2,737652E+22	1,035383E+21	2,841190E+22
-1694	1,368823E+22	1,368747E+22	5,175754E+20	5,177403E+20	2,737570E+22	1,035316E+21	2,841101E+22
-1693	1,368710E+22	1,368734E+22	5,177337E+20	5,176207E+20	2,737444E+22	1,035354E+21	2,840979E+22
-1692	1,368697E+22	1,368705E+22	5,177206E+20	5,177650E+20	2,737402E+22	1,035486E+21	2,840950E+22
-1691	1,368730E+22	1,368633E+22	5,176457E+20	5,177331E+20	2,737363E+22	1,035379E+21	2,840901E+22
-1690	1,368612E+22	1,368687E+22	5,178018E+20	5,176611E+20	2,737300E+22	1,035463E+21	2,840846E+22
-1689	1,368663E+22	1,368647E+22	5,176684E+20	5,178055E+20	2,737310E+22	1,035474E+21	2,840857E+22
-1688	1,368671E+22	1,368637E+22	5,176844E+20	5,176767E+20	2,737307E+22	1,035361E+21	2,840844E+22
-1687	1,368630E+22	1,368722E+22	5,177876E+20	5,176686E+20	2,737351E+22	1,035456E+21	2,840897E+22
-1686	1,368749E+22	1,368687E+22	5,176126E+20	5,177520E+20	2,737437E+22	1,035365E+21	2,840973E+22
-1685	1,368726E+22	1,368741E+22	5,176979E+20	5,175830E+20	2,737468E+22	1,035281E+21	2,840996E+22
-1684	1,368751E+22	1,368806E+22	5,177050E+20	5,176896E+20	2,737557E+22	1,035395E+21	2,841097E+22
-1683	1,368850E+22	1,368779E+22	5,175559E+20	5,176852E+20	2,737629E+22	1,035241E+21	2,841153E+22
-1682	1,368790E+22	1,368852E+22	5,176879E+20	5,175686E+20	2,737643E+22	1,035256E+21	2,841168E+22
-1681	1,368850E+22	1,368843E+22	5,176084E+20	5,177052E+20	2,737693E+22	1,035314E+21	2,841224E+22
-1680	1,368879E+22	1,368806E+22	5,175794E+20	5,176135E+20	2,737685E+22	1,035193E+21	2,841204E+22
-1679	1,368781E+22	1,368865E+22	5,177448E+20	5,175921E+20	2,737647E+22	1,035337E+21	2,841181E+22
-1678	1,368817E+22	1,368785E+22	5,175968E+20	5,177451E+20	2,737602E+22	1,035342E+21	2,841137E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1677	1,368745E+22	1,368731E+22	5,176702E+20	5,176337E+20	2,737475E+22	1,035304E+21	2,841006E+22
-1676	1,368672E+22	1,368729E+22	5,177663E+20	5,177205E+20	2,737401E+22	1,035487E+21	2,840949E+22
-1675	1,368718E+22	1,368623E+22	5,176239E+20	5,177895E+20	2,737341E+22	1,035413E+21	2,840882E+22
-1674	1,368615E+22	1,368622E+22	5,177801E+20	5,176658E+20	2,737236E+22	1,035446E+21	2,840781E+22
-1673	1,368592E+22	1,368605E+22	5,177607E+20	5,178015E+20	2,737198E+22	1,035562E+21	2,840754E+22
-1672	1,368607E+22	1,368535E+22	5,176910E+20	5,177771E+20	2,737142E+22	1,035468E+21	2,840689E+22
-1671	1,368500E+22	1,368595E+22	5,178553E+20	5,176966E+20	2,737095E+22	1,035552E+21	2,840650E+22
-1670	1,368556E+22	1,368555E+22	5,177207E+20	5,178478E+20	2,737111E+22	1,035569E+21	2,840668E+22
-1669	1,368569E+22	1,368530E+22	5,177275E+20	5,177098E+20	2,737099E+22	1,035437E+21	2,840642E+22
-1668	1,368546E+22	1,368618E+22	5,178288E+20	5,177073E+20	2,737164E+22	1,035536E+21	2,840718E+22
-1667	1,368662E+22	1,368600E+22	5,176468E+20	5,178003E+20	2,737262E+22	1,035447E+21	2,840807E+22
-1666	1,368645E+22	1,368654E+22	5,177202E+20	5,176381E+20	2,737299E+22	1,035358E+21	2,840835E+22
-1665	1,368668E+22	1,368718E+22	5,177250E+20	5,177291E+20	2,737385E+22	1,035454E+21	2,840931E+22
-1664	1,368759E+22	1,368689E+22	5,175913E+20	5,177190E+20	2,737449E+22	1,035310E+21	2,840980E+22
-1663	1,368706E+22	1,368767E+22	5,177451E+20	5,175906E+20	2,737473E+22	1,035336E+21	2,841007E+22
-1662	1,368750E+22	1,368759E+22	5,176695E+20	5,177415E+20	2,737508E+22	1,035411E+21	2,841049E+22
-1661	1,368757E+22	1,368699E+22	5,176281E+20	5,176618E+20	2,737456E+22	1,035290E+21	2,840985E+22
-1660	1,368663E+22	1,368742E+22	5,177888E+20	5,176537E+20	2,737405E+22	1,035442E+21	2,840949E+22
-1659	1,368699E+22	1,368664E+22	5,176374E+20	5,178103E+20	2,737363E+22	1,035448E+21	2,840908E+22
-1658	1,368645E+22	1,368604E+22	5,177062E+20	5,176921E+20	2,737249E+22	1,035398E+21	2,840789E+22
-1657	1,368574E+22	1,368611E+22	5,178063E+20	5,177557E+20	2,737184E+22	1,035562E+21	2,840741E+22
-1656	1,368607E+22	1,368517E+22	5,176803E+20	5,178281E+20	2,737125E+22	1,035508E+21	2,840675E+22
-1655	1,368499E+22	1,368528E+22	5,178463E+20	5,177045E+20	2,737027E+22	1,035551E+21	2,840582E+22
-1654	1,368464E+22	1,368510E+22	5,178208E+20	5,178543E+20	2,736974E+22	1,035675E+21	2,840542E+22
-1653	1,368476E+22	1,368416E+22	5,177370E+20	5,178270E+20	2,736892E+22	1,035564E+21	2,840448E+22
-1652	1,368395E+22	1,368470E+22	5,178956E+20	5,177433E+20	2,736865E+22	1,035639E+21	2,840429E+22
-1651	1,368464E+22	1,368448E+22	5,177594E+20	5,178889E+20	2,736911E+22	1,035648E+21	2,840476E+22
-1650	1,368493E+22	1,368433E+22	5,177552E+20	5,177534E+20	2,736926E+22	1,035509E+21	2,840476E+22
-1649	1,368468E+22	1,368535E+22	5,178480E+20	5,177431E+20	2,737003E+22	1,035591E+21	2,840562E+22
-1648	1,368571E+22	1,368523E+22	5,176781E+20	5,178413E+20	2,737094E+22	1,035519E+21	2,840646E+22
-1647	1,368563E+22	1,368581E+22	5,177632E+20	5,176711E+20	2,737144E+22	1,035434E+21	2,840687E+22
-1646	1,368581E+22	1,368642E+22	5,177737E+20	5,177610E+20	2,737223E+22	1,035535E+21	2,840776E+22
-1645	1,368661E+22	1,368590E+22	5,176401E+20	5,177474E+20	2,737250E+22	1,035387E+21	2,840789E+22
-1644	1,368611E+22	1,368659E+22	5,177957E+20	5,176336E+20	2,737270E+22	1,035429E+21	2,840813E+22
-1643	1,368636E+22	1,368654E+22	5,177158E+20	5,177956E+20	2,737290E+22	1,035511E+21	2,840841E+22
-1642	1,368646E+22	1,368581E+22	5,176630E+20	5,177285E+20	2,737227E+22	1,035392E+21	2,840766E+22
-1641	1,368557E+22	1,368619E+22	5,178163E+20	5,177034E+20	2,737176E+22	1,035520E+21	2,840728E+22
-1640	1,368589E+22	1,368546E+22	5,176854E+20	5,178526E+20	2,737135E+22	1,035538E+21	2,840689E+22
-1639	1,368544E+22	1,368500E+22	5,177711E+20	5,177234E+20	2,737045E+22	1,035495E+21	2,840594E+22
-1638	1,368459E+22	1,368516E+22	5,178717E+20	5,177948E+20	2,736975E+22	1,035667E+21	2,840542E+22
-1637	1,368470E+22	1,368405E+22	5,177370E+20	5,178780E+20	2,736875E+22	1,035615E+21	2,840437E+22
-1636	1,368372E+22	1,368404E+22	5,178950E+20	5,177679E+20	2,736776E+22	1,035663E+21	2,840343E+22
-1635	1,368340E+22	1,368392E+22	5,178617E+20	5,179136E+20	2,736732E+22	1,035775E+21	2,840310E+22
-1634	1,368378E+22	1,368295E+22	5,177679E+20	5,178825E+20	2,736673E+22	1,035650E+21	2,840238E+22
-1633	1,368314E+22	1,368359E+22	5,179203E+20	5,177752E+20	2,736673E+22	1,035696E+21	2,840243E+22
-1632	1,368378E+22	1,368359E+22	5,177999E+20	5,179228E+20	2,736737E+22	1,035723E+21	2,840309E+22
-1631	1,368409E+22	1,368363E+22	5,178013E+20	5,177864E+20	2,736772E+22	1,035588E+21	2,840331E+22
-1630	1,368376E+22	1,368467E+22	5,178913E+20	5,177822E+20	2,736842E+22	1,035674E+21	2,840410E+22
-1629	1,368471E+22	1,368433E+22	5,177195E+20	5,178746E+20	2,736904E+22	1,035594E+21	2,840464E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1628	1,368478E+22	1,368480E+22	5,178062E+20	5,177052E+20	2,736958E+22	1,035511E+21	2,840509E+22
-1627	1,368489E+22	1,368549E+22	5,178201E+20	5,177927E+20	2,737038E+22	1,035613E+21	2,840599E+22
-1626	1,368570E+22	1,368490E+22	5,176749E+20	5,177937E+20	2,737060E+22	1,035469E+21	2,840607E+22
-1625	1,368511E+22	1,368554E+22	5,178202E+20	5,176786E+20	2,737065E+22	1,035499E+21	2,840615E+22
-1624	1,368525E+22	1,368550E+22	5,177542E+20	5,178489E+20	2,737075E+22	1,035603E+21	2,840635E+22
-1623	1,368544E+22	1,368479E+22	5,177130E+20	5,177749E+20	2,737023E+22	1,035488E+21	2,840572E+22
-1622	1,368452E+22	1,368517E+22	5,178703E+20	5,177452E+20	2,736970E+22	1,035616E+21	2,840531E+22
-1621	1,368473E+22	1,368428E+22	5,177464E+20	5,178916E+20	2,736900E+22	1,035638E+21	2,840464E+22
-1620	1,368429E+22	1,368379E+22	5,178306E+20	5,177788E+20	2,736809E+22	1,035609E+21	2,840370E+22
-1619	1,368326E+22	1,368402E+22	5,179242E+20	5,178568E+20	2,736728E+22	1,035781E+21	2,840306E+22
-1618	1,368346E+22	1,368278E+22	5,177752E+20	5,179485E+20	2,736623E+22	1,035724E+21	2,840196E+22
-1617	1,368261E+22	1,368275E+22	5,179223E+20	5,178167E+20	2,736536E+22	1,035739E+21	2,840110E+22
-1616	1,368236E+22	1,368277E+22	5,179053E+20	5,179496E+20	2,736514E+22	1,035855E+21	2,840099E+22
-1615	1,368291E+22	1,368203E+22	5,178227E+20	5,179079E+20	2,736494E+22	1,035731E+21	2,840067E+22
-1614	1,368223E+22	1,368283E+22	5,179681E+20	5,178053E+20	2,736507E+22	1,035773E+21	2,840084E+22
-1613	1,368271E+22	1,368272E+22	5,178473E+20	5,179583E+20	2,736544E+22	1,035806E+21	2,840124E+22
-1612	1,368316E+22	1,368272E+22	5,178415E+20	5,178332E+20	2,736588E+22	1,035675E+21	2,840155E+22
-1611	1,368280E+22	1,368379E+22	5,179290E+20	5,178214E+20	2,736659E+22	1,035750E+21	2,840234E+22
-1610	1,368387E+22	1,368335E+22	5,177514E+20	5,179130E+20	2,736722E+22	1,035664E+21	2,840288E+22
-1609	1,368400E+22	1,368380E+22	5,178322E+20	5,177353E+20	2,736780E+22	1,035567E+21	2,840337E+22
-1608	1,368393E+22	1,368459E+22	5,178617E+20	5,178313E+20	2,736851E+22	1,035693E+21	2,840421E+22
-1607	1,368470E+22	1,368405E+22	5,177226E+20	5,178405E+20	2,736876E+22	1,035563E+21	2,840432E+22
-1606	1,368406E+22	1,368460E+22	5,178618E+20	5,177293E+20	2,736866E+22	1,035591E+21	2,840425E+22
-1605	1,368411E+22	1,368433E+22	5,178030E+20	5,178928E+20	2,736843E+22	1,035696E+21	2,840413E+22
-1604	1,368444E+22	1,368358E+22	5,177650E+20	5,178210E+20	2,736802E+22	1,035586E+21	2,840361E+22
-1603	1,368342E+22	1,368407E+22	5,179259E+20	5,177893E+20	2,736749E+22	1,035715E+21	2,840320E+22
-1602	1,368359E+22	1,368312E+22	5,177935E+20	5,179488E+20	2,736671E+22	1,035742E+21	2,840245E+22
-1601	1,368310E+22	1,368260E+22	5,178655E+20	5,178357E+20	2,736570E+22	1,035701E+21	2,840140E+22
-1600	1,368200E+22	1,368287E+22	5,179697E+20	5,179125E+20	2,736487E+22	1,035882E+21	2,840075E+22
-1599	1,368235E+22	1,368169E+22	5,178286E+20	5,179931E+20	2,736404E+22	1,035822E+21	2,839986E+22
-1598	1,368158E+22	1,368170E+22	5,179731E+20	5,178503E+20	2,736328E+22	1,035823E+21	2,839910E+22
-1597	1,368129E+22	1,368166E+22	5,179638E+20	5,179795E+20	2,736295E+22	1,035943E+21	2,839890E+22
-1596	1,368191E+22	1,368101E+22	5,178757E+20	5,179515E+20	2,736293E+22	1,035827E+21	2,839876E+22
-1595	1,368114E+22	1,368195E+22	5,180109E+20	5,178559E+20	2,736309E+22	1,035867E+21	2,839895E+22
-1594	1,368176E+22	1,368172E+22	5,178775E+20	5,180131E+20	2,736348E+22	1,035891E+21	2,839937E+22
-1593	1,368232E+22	1,368170E+22	5,178596E+20	5,178695E+20	2,736402E+22	1,035729E+21	2,839975E+22
-1592	1,368197E+22	1,368290E+22	5,179639E+20	5,178487E+20	2,736487E+22	1,035813E+21	2,840068E+22
-1591	1,368308E+22	1,368259E+22	5,177979E+20	5,179359E+20	2,736567E+22	1,035734E+21	2,840140E+22
-1590	1,368308E+22	1,368306E+22	5,178729E+20	5,177695E+20	2,736614E+22	1,035642E+21	2,840178E+22
-1589	1,368282E+22	1,368362E+22	5,179083E+20	5,178754E+20	2,736644E+22	1,035784E+21	2,840222E+22
-1588	1,368368E+22	1,368299E+22	5,177664E+20	5,178975E+20	2,736667E+22	1,035664E+21	2,840233E+22
-1587	1,368302E+22	1,368354E+22	5,179038E+20	5,177813E+20	2,736656E+22	1,035685E+21	2,840224E+22
-1586	1,368316E+22	1,368313E+22	5,178449E+20	5,179412E+20	2,736630E+22	1,035786E+21	2,840208E+22
-1585	1,368349E+22	1,368241E+22	5,178036E+20	5,178632E+20	2,736590E+22	1,035667E+21	2,840157E+22
-1584	1,368225E+22	1,368301E+22	5,179795E+20	5,178381E+20	2,736526E+22	1,035818E+21	2,840108E+22
-1583	1,368235E+22	1,368211E+22	5,178543E+20	5,180007E+20	2,736446E+22	1,035855E+21	2,840032E+22
-1582	1,368184E+22	1,368150E+22	5,179195E+20	5,178875E+20	2,736334E+22	1,035807E+21	2,839915E+22
-1581	1,368069E+22	1,368156E+22	5,180301E+20	5,179528E+20	2,736225E+22	1,035983E+21	2,839823E+22
-1580	1,368123E+22	1,368044E+22	5,178877E+20	5,180352E+20	2,736167E+22	1,035923E+21	2,839759E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1579	1,368047E+22	1,368060E+22	5,180233E+20	5,178928E+20	2,736107E+22	1,035916E+21	2,839699E+22
-1578	1,368024E+22	1,368057E+22	5,180022E+20	5,180329E+20	2,736081E+22	1,036035E+21	2,839685E+22
-1577	1,368094E+22	1,368001E+22	5,178979E+20	5,180030E+20	2,736094E+22	1,035901E+21	2,839685E+22
-1576	1,368018E+22	1,368105E+22	5,180414E+20	5,179022E+20	2,736124E+22	1,035944E+21	2,839718E+22
-1575	1,368094E+22	1,368094E+22	5,179186E+20	5,180432E+20	2,736188E+22	1,035962E+21	2,839784E+22
-1574	1,368154E+22	1,368092E+22	5,178990E+20	5,178916E+20	2,736246E+22	1,035791E+21	2,839825E+22
-1573	1,368103E+22	1,368197E+22	5,180145E+20	5,178736E+20	2,736300E+22	1,035888E+21	2,839889E+22
-1572	1,368211E+22	1,368169E+22	5,178449E+20	5,179799E+20	2,736381E+22	1,035825E+21	2,839963E+22
-1571	1,368201E+22	1,368213E+22	5,179121E+20	5,178257E+20	2,736414E+22	1,035738E+21	2,839988E+22
-1570	1,368186E+22	1,368249E+22	5,179414E+20	5,179335E+20	2,736435E+22	1,035875E+21	2,840022E+22
-1569	1,368281E+22	1,368184E+22	5,177935E+20	5,179402E+20	2,736466E+22	1,035734E+21	2,840039E+22
-1568	1,368211E+22	1,368252E+22	5,179483E+20	5,178179E+20	2,736463E+22	1,035766E+21	2,840039E+22
-1567	1,368220E+22	1,368224E+22	5,179031E+20	5,179737E+20	2,736445E+22	1,035877E+21	2,840032E+22
-1566	1,368233E+22	1,368150E+22	5,178572E+20	5,179067E+20	2,736383E+22	1,035764E+21	2,839959E+22
-1565	1,368088E+22	1,368185E+22	5,180413E+20	5,178912E+20	2,736272E+22	1,035932E+21	2,839866E+22
-1564	1,368104E+22	1,368086E+22	5,179126E+20	5,180587E+20	2,736190E+22	1,035971E+21	2,839787E+22
-1563	1,368055E+22	1,368023E+22	5,179727E+20	5,179440E+20	2,736078E+22	1,035917E+21	2,839669E+22
-1562	1,367960E+22	1,368018E+22	5,180746E+20	5,180058E+20	2,735978E+22	1,036080E+21	2,839586E+22
-1561	1,368022E+22	1,367920E+22	5,179228E+20	5,180833E+20	2,735941E+22	1,036006E+21	2,839542E+22
-1560	1,367941E+22	1,367960E+22	5,180609E+20	5,179462E+20	2,735902E+22	1,036007E+21	2,839502E+22
-1559	1,367926E+22	1,367971E+22	5,180454E+20	5,180800E+20	2,735898E+22	1,036125E+21	2,839510E+22
-1558	1,367999E+22	1,367917E+22	5,179358E+20	5,180387E+20	2,735916E+22	1,035974E+21	2,839514E+22
-1557	1,367920E+22	1,368008E+22	5,180903E+20	5,179268E+20	2,735928E+22	1,036017E+21	2,839530E+22
-1556	1,368004E+22	1,368003E+22	5,179705E+20	5,180654E+20	2,736007E+22	1,036036E+21	2,839611E+22
-1555	1,368056E+22	1,368008E+22	5,179448E+20	5,179269E+20	2,736064E+22	1,035872E+21	2,839651E+22
-1554	1,368007E+22	1,368098E+22	5,180481E+20	5,179244E+20	2,736106E+22	1,035973E+21	2,839703E+22
-1553	1,368119E+22	1,368069E+22	5,178672E+20	5,180332E+20	2,736188E+22	1,035900E+21	2,839778E+22
-1552	1,368111E+22	1,368119E+22	5,179405E+20	5,178768E+20	2,736230E+22	1,035817E+21	2,839812E+22
-1551	1,368106E+22	1,368161E+22	5,179839E+20	5,179683E+20	2,736266E+22	1,035952E+21	2,839862E+22
-1550	1,368197E+22	1,368096E+22	5,178412E+20	5,179679E+20	2,736293E+22	1,035809E+21	2,839874E+22
-1549	1,368099E+22	1,368147E+22	5,180126E+20	5,178539E+20	2,736246E+22	1,035867E+21	2,839833E+22
-1548	1,368093E+22	1,368120E+22	5,179666E+20	5,180244E+20	2,736213E+22	1,035991E+21	2,839812E+22
-1547	1,368094E+22	1,368034E+22	5,179125E+20	5,179753E+20	2,736128E+22	1,035888E+21	2,839717E+22
-1546	1,367960E+22	1,368041E+22	5,180853E+20	5,179583E+20	2,736001E+22	1,036044E+21	2,839605E+22
-1545	1,367991E+22	1,367945E+22	5,179467E+20	5,181113E+20	2,735936E+22	1,036058E+21	2,839542E+22
-1544	1,367950E+22	1,367900E+22	5,180148E+20	5,179897E+20	2,735849E+22	1,036005E+21	2,839450E+22
-1543	1,367862E+22	1,367918E+22	5,181231E+20	5,180453E+20	2,735780E+22	1,036168E+21	2,839397E+22
-1542	1,367918E+22	1,367832E+22	5,179679E+20	5,181241E+20	2,735749E+22	1,036092E+21	2,839359E+22
-1541	1,367826E+22	1,367861E+22	5,181131E+20	5,179911E+20	2,735687E+22	1,036104E+21	2,839297E+22
-1540	1,367820E+22	1,367878E+22	5,180969E+20	5,181181E+20	2,735698E+22	1,036215E+21	2,839319E+22
-1539	1,367896E+22	1,367824E+22	5,179831E+20	5,180764E+20	2,735720E+22	1,036059E+21	2,839326E+22
-1538	1,367831E+22	1,367898E+22	5,181298E+20	5,179642E+20	2,735730E+22	1,036094E+21	2,839339E+22
-1537	1,367915E+22	1,367903E+22	5,179990E+20	5,181041E+20	2,735818E+22	1,036103E+21	2,839428E+22
-1536	1,367961E+22	1,367922E+22	5,179740E+20	5,179792E+20	2,735882E+22	1,035953E+21	2,839477E+22
-1535	1,367924E+22	1,368014E+22	5,180809E+20	5,179740E+20	2,735938E+22	1,036055E+21	2,839543E+22
-1534	1,368037E+22	1,367983E+22	5,179020E+20	5,180678E+20	2,736021E+22	1,035970E+21	2,839618E+22
-1533	1,368021E+22	1,368020E+22	5,179894E+20	5,179066E+20	2,736041E+22	1,035896E+21	2,839631E+22
-1532	1,368012E+22	1,368067E+22	5,180405E+20	5,179933E+20	2,736079E+22	1,036034E+21	2,839683E+22
-1531	1,368080E+22	1,368004E+22	5,178967E+20	5,180128E+20	2,736084E+22	1,035910E+21	2,839675E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1530	1,367979E+22	1,368028E+22	5,180579E+20	5,179183E+20	2,736006E+22	1,035976E+21	2,839604E+22
-1529	1,367971E+22	1,367993E+22	5,180014E+20	5,180878E+20	2,735963E+22	1,036089E+21	2,839572E+22
-1528	1,367976E+22	1,367909E+22	5,179519E+20	5,180389E+20	2,735885E+22	1,035991E+21	2,839484E+22
-1527	1,367860E+22	1,367919E+22	5,181312E+20	5,180038E+20	2,735779E+22	1,036135E+21	2,839393E+22
-1526	1,367891E+22	1,367833E+22	5,179972E+20	5,181436E+20	2,735724E+22	1,036141E+21	2,839338E+22
-1525	1,367832E+22	1,367787E+22	5,180761E+20	5,180308E+20	2,735620E+22	1,036107E+21	2,839230E+22
-1524	1,367739E+22	1,367818E+22	5,181826E+20	5,180914E+20	2,735557E+22	1,036274E+21	2,839184E+22
-1523	1,367791E+22	1,367732E+22	5,180246E+20	5,181812E+20	2,735523E+22	1,036206E+21	2,839144E+22
-1522	1,367716E+22	1,367740E+22	5,181561E+20	5,180435E+20	2,735456E+22	1,036200E+21	2,839076E+22
-1521	1,367723E+22	1,367764E+22	5,181297E+20	5,181533E+20	2,735487E+22	1,036283E+21	2,839116E+22
-1520	1,367804E+22	1,367728E+22	5,180174E+20	5,181129E+20	2,735531E+22	1,036130E+21	2,839144E+22
-1519	1,367748E+22	1,367814E+22	5,181629E+20	5,180018E+20	2,735562E+22	1,036165E+21	2,839178E+22
-1518	1,367829E+22	1,367826E+22	5,180298E+20	5,181412E+20	2,735654E+22	1,036171E+21	2,839272E+22
-1517	1,367866E+22	1,367831E+22	5,180147E+20	5,180219E+20	2,735697E+22	1,036037E+21	2,839300E+22
-1516	1,367835E+22	1,367929E+22	5,181245E+20	5,180076E+20	2,735764E+22	1,036132E+21	2,839377E+22
-1515	1,367947E+22	1,367896E+22	5,179513E+20	5,181037E+20	2,735843E+22	1,036055E+21	2,839449E+22
-1514	1,367932E+22	1,367910E+22	5,180334E+20	5,179487E+20	2,735842E+22	1,035982E+21	2,839440E+22
-1513	1,367909E+22	1,367962E+22	5,180764E+20	5,180386E+20	2,735871E+22	1,036115E+21	2,839482E+22
-1512	1,367963E+22	1,367900E+22	5,179353E+20	5,180749E+20	2,735863E+22	1,036010E+21	2,839464E+22
-1511	1,367871E+22	1,367914E+22	5,181005E+20	5,179782E+20	2,735785E+22	1,036079E+21	2,839392E+22
-1510	1,367863E+22	1,367877E+22	5,180459E+20	5,181274E+20	2,735740E+22	1,036173E+21	2,839357E+22
-1509	1,367861E+22	1,367784E+22	5,180122E+20	5,180769E+20	2,735644E+22	1,036089E+21	2,839253E+22
-1508	1,367746E+22	1,367808E+22	5,181929E+20	5,180368E+20	2,735553E+22	1,036230E+21	2,839176E+22
-1507	1,367764E+22	1,367729E+22	5,180597E+20	5,181956E+20	2,735493E+22	1,036255E+21	2,839119E+22
-1506	1,367708E+22	1,367665E+22	5,181240E+20	5,180971E+20	2,735374E+22	1,036221E+21	2,838996E+22
-1505	1,367622E+22	1,367699E+22	5,182168E+20	5,181495E+20	2,735321E+22	1,036366E+21	2,838957E+22
-1504	1,367682E+22	1,367624E+22	5,180617E+20	5,182351E+20	2,735306E+22	1,036297E+21	2,838936E+22
-1503	1,367631E+22	1,367636E+22	5,181944E+20	5,180833E+20	2,735267E+22	1,036278E+21	2,838894E+22
-1502	1,367637E+22	1,367671E+22	5,181693E+20	5,181744E+20	2,735308E+22	1,036344E+21	2,838942E+22
-1501	1,367701E+22	1,367636E+22	5,180654E+20	5,181498E+20	2,735337E+22	1,036215E+21	2,838959E+22
-1500	1,367648E+22	1,367730E+22	5,182051E+20	5,180415E+20	2,735378E+22	1,036247E+21	2,839003E+22
-1499	1,367728E+22	1,367740E+22	5,180761E+20	5,181893E+20	2,735468E+22	1,036265E+21	2,839094E+22
-1498	1,367781E+22	1,367724E+22	5,180494E+20	5,180658E+20	2,735505E+22	1,036115E+21	2,839117E+22
-1497	1,367756E+22	1,367827E+22	5,181545E+20	5,180365E+20	2,735584E+22	1,036191E+21	2,839203E+22
-1496	1,367858E+22	1,367808E+22	5,179898E+20	5,181377E+20	2,735666E+22	1,036127E+21	2,839279E+22
-1495	1,367841E+22	1,367821E+22	5,180723E+20	5,179945E+20	2,735662E+22	1,036067E+21	2,839268E+22
-1494	1,367802E+22	1,367868E+22	5,181168E+20	5,180791E+20	2,735670E+22	1,036196E+21	2,839290E+22
-1493	1,367841E+22	1,367789E+22	5,179890E+20	5,181276E+20	2,735630E+22	1,036117E+21	2,839242E+22
-1492	1,367754E+22	1,367801E+22	5,181557E+20	5,180206E+20	2,735554E+22	1,036176E+21	2,839172E+22
-1491	1,367746E+22	1,367759E+22	5,181100E+20	5,181735E+20	2,735505E+22	1,036283E+21	2,839134E+22
-1490	1,367746E+22	1,367649E+22	5,180668E+20	5,181315E+20	2,735395E+22	1,036198E+21	2,839015E+22
-1489	1,367625E+22	1,367684E+22	5,182330E+20	5,180961E+20	2,735309E+22	1,036329E+21	2,838942E+22
-1488	1,367639E+22	1,367616E+22	5,181032E+20	5,182652E+20	2,735255E+22	1,036368E+21	2,838892E+22
-1487	1,367601E+22	1,367550E+22	5,181651E+20	5,181596E+20	2,735152E+22	1,036325E+21	2,838784E+22
-1486	1,367522E+22	1,367592E+22	5,182569E+20	5,181799E+20	2,735114E+22	1,036437E+21	2,838758E+22
-1485	1,367577E+22	1,367516E+22	5,181169E+20	5,182618E+20	2,735092E+22	1,036379E+21	2,838730E+22
-1484	1,367527E+22	1,367544E+22	5,182472E+20	5,181053E+20	2,735071E+22	1,036352E+21	2,838706E+22
-1483	1,367528E+22	1,367585E+22	5,182215E+20	5,182162E+20	2,735113E+22	1,036438E+21	2,838757E+22
-1482	1,367599E+22	1,367531E+22	5,181023E+20	5,182046E+20	2,735131E+22	1,036307E+21	2,838761E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1481	1,367560E+22	1,367631E+22	5,182262E+20	5,180904E+20	2,735191E+22	1,036317E+21	2,838822E+22
-1480	1,367648E+22	1,367651E+22	5,181061E+20	5,182312E+20	2,735299E+22	1,036337E+21	2,838933E+22
-1479	1,367717E+22	1,367636E+22	5,180821E+20	5,180998E+20	2,735353E+22	1,036182E+21	2,838971E+22
-1478	1,367679E+22	1,367746E+22	5,181920E+20	5,180548E+20	2,735425E+22	1,036247E+21	2,839049E+22
-1477	1,367748E+22	1,367720E+22	5,180419E+20	5,181768E+20	2,735469E+22	1,036219E+21	2,839090E+22
-1476	1,367723E+22	1,367728E+22	5,181253E+20	5,180425E+20	2,735451E+22	1,036168E+21	2,839068E+22
-1475	1,367680E+22	1,367760E+22	5,181757E+20	5,181361E+20	2,735440E+22	1,036312E+21	2,839072E+22
-1474	1,367728E+22	1,367654E+22	5,180379E+20	5,181842E+20	2,735382E+22	1,036222E+21	2,839004E+22
-1473	1,367649E+22	1,367668E+22	5,181923E+20	5,180683E+20	2,735317E+22	1,036261E+21	2,838943E+22
-1472	1,367633E+22	1,367643E+22	5,181547E+20	5,182265E+20	2,735277E+22	1,036381E+21	2,838915E+22
-1471	1,367640E+22	1,367538E+22	5,181085E+20	5,181946E+20	2,735177E+22	1,036303E+21	2,838808E+22
-1470	1,367512E+22	1,367576E+22	5,182753E+20	5,181418E+20	2,735088E+22	1,036417E+21	2,838730E+22
-1469	1,367514E+22	1,367505E+22	5,181625E+20	5,183137E+20	2,735019E+22	1,036476E+21	2,838667E+22
-1468	1,367486E+22	1,367445E+22	5,182244E+20	5,181935E+20	2,734932E+22	1,036418E+21	2,838573E+22
-1467	1,367408E+22	1,367486E+22	5,183217E+20	5,182139E+20	2,734893E+22	1,036536E+21	2,838547E+22
-1466	1,367465E+22	1,367398E+22	5,181671E+20	5,183054E+20	2,734862E+22	1,036473E+21	2,838509E+22
-1465	1,367418E+22	1,367435E+22	5,182762E+20	5,181561E+20	2,734853E+22	1,036432E+21	2,838496E+22
-1464	1,367425E+22	1,367488E+22	5,182545E+20	5,182739E+20	2,734912E+22	1,036528E+21	2,838565E+22
-1463	1,367522E+22	1,367436E+22	5,181308E+20	5,182556E+20	2,734959E+22	1,036386E+21	2,838597E+22
-1462	1,367490E+22	1,367545E+22	5,182539E+20	5,181102E+20	2,735035E+22	1,036364E+21	2,838672E+22
-1461	1,367564E+22	1,367569E+22	5,181552E+20	5,182514E+20	2,735133E+22	1,036407E+21	2,838774E+22
-1460	1,367622E+22	1,367564E+22	5,181312E+20	5,181232E+20	2,735186E+22	1,036254E+21	2,838812E+22
-1459	1,367568E+22	1,367665E+22	5,182469E+20	5,181011E+20	2,735233E+22	1,036348E+21	2,838868E+22
-1458	1,367632E+22	1,367608E+22	5,180857E+20	5,182367E+20	2,735240E+22	1,036322E+21	2,838872E+22
-1457	1,367615E+22	1,367608E+22	5,181556E+20	5,181035E+20	2,735223E+22	1,036259E+21	2,838849E+22
-1456	1,367579E+22	1,367641E+22	5,182162E+20	5,181907E+20	2,735220E+22	1,036407E+21	2,838860E+22
-1455	1,367641E+22	1,367533E+22	5,180805E+20	5,182348E+20	2,735174E+22	1,036315E+21	2,838806E+22
-1454	1,367551E+22	1,367560E+22	5,182329E+20	5,181037E+20	2,735111E+22	1,036337E+21	2,838745E+22
-1453	1,367508E+22	1,367536E+22	5,182131E+20	5,182768E+20	2,735045E+22	1,036490E+21	2,838694E+22
-1452	1,367509E+22	1,367435E+22	5,181708E+20	5,182443E+20	2,734943E+22	1,036415E+21	2,838585E+22
-1451	1,367384E+22	1,367465E+22	5,183430E+20	5,181935E+20	2,734849E+22	1,036536E+21	2,838502E+22
-1450	1,367391E+22	1,367372E+22	5,182215E+20	5,183574E+20	2,734764E+22	1,036579E+21	2,838422E+22
-1449	1,367373E+22	1,367320E+22	5,182667E+20	5,182352E+20	2,734693E+22	1,036502E+21	2,838343E+22
-1448	1,367294E+22	1,367375E+22	5,183630E+20	5,182626E+20	2,734670E+22	1,036626E+21	2,838332E+22
-1447	1,367366E+22	1,367294E+22	5,181980E+20	5,183654E+20	2,734660E+22	1,036563E+21	2,838316E+22
-1446	1,367329E+22	1,367341E+22	5,182978E+20	5,181979E+20	2,734670E+22	1,036496E+21	2,838320E+22
-1445	1,367334E+22	1,367399E+22	5,182951E+20	5,183143E+20	2,734733E+22	1,036609E+21	2,838394E+22
-1444	1,367441E+22	1,367361E+22	5,181778E+20	5,182782E+20	2,734802E+22	1,036456E+21	2,838447E+22
-1443	1,367407E+22	1,367467E+22	5,183099E+20	5,181375E+20	2,734873E+22	1,036447E+21	2,838518E+22
-1442	1,367465E+22	1,367474E+22	5,182027E+20	5,182884E+20	2,734938E+22	1,036491E+21	2,838587E+22
-1441	1,367515E+22	1,367465E+22	5,181610E+20	5,181786E+20	2,734980E+22	1,036340E+21	2,838614E+22
-1440	1,367458E+22	1,367560E+22	5,182832E+20	5,181641E+20	2,735018E+22	1,036447E+21	2,838663E+22
-1439	1,367543E+22	1,367495E+22	5,181189E+20	5,182955E+20	2,735037E+22	1,036414E+21	2,838678E+22
-1438	1,367531E+22	1,367495E+22	5,181883E+20	5,181315E+20	2,735026E+22	1,036320E+21	2,838658E+22
-1437	1,367477E+22	1,367535E+22	5,182727E+20	5,182217E+20	2,735011E+22	1,036494E+21	2,838661E+22
-1436	1,367527E+22	1,367441E+22	5,181414E+20	5,182686E+20	2,734968E+22	1,036410E+21	2,838609E+22
-1435	1,367423E+22	1,367460E+22	5,182997E+20	5,181585E+20	2,734882E+22	1,036458E+21	2,838528E+22
-1434	1,367372E+22	1,367412E+22	5,182719E+20	5,183374E+20	2,734784E+22	1,036609E+21	2,838445E+22
-1433	1,367381E+22	1,367305E+22	5,182155E+20	5,183062E+20	2,734687E+22	1,036522E+21	2,838339E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1432	1,367264E+22	1,367336E+22	5,183930E+20	5,182479E+20	2,734600E+22	1,036641E+21	2,838265E+22
-1431	1,367289E+22	1,367246E+22	5,182647E+20	5,184086E+20	2,734536E+22	1,036673E+21	2,838203E+22
-1430	1,367269E+22	1,367208E+22	5,182986E+20	5,182744E+20	2,734476E+22	1,036573E+21	2,838134E+22
-1429	1,367180E+22	1,367273E+22	5,184073E+20	5,183151E+20	2,734452E+22	1,036722E+21	2,838125E+22
-1428	1,367261E+22	1,367206E+22	5,182460E+20	5,184087E+20	2,734467E+22	1,036655E+21	2,838133E+22
-1427	1,367239E+22	1,367254E+22	5,183485E+20	5,182382E+20	2,734493E+22	1,036587E+21	2,838151E+22
-1426	1,367246E+22	1,367299E+22	5,183413E+20	5,183423E+20	2,734546E+22	1,036684E+21	2,838214E+22
-1425	1,367354E+22	1,367270E+22	5,182116E+20	5,183083E+20	2,734624E+22	1,036520E+21	2,838276E+22
-1424	1,367311E+22	1,367381E+22	5,183465E+20	5,181814E+20	2,734692E+22	1,036528E+21	2,838344E+22
-1423	1,367372E+22	1,367380E+22	5,182329E+20	5,183410E+20	2,734751E+22	1,036574E+21	2,838409E+22
-1422	1,367424E+22	1,367369E+22	5,181850E+20	5,182205E+20	2,734793E+22	1,036406E+21	2,838433E+22
-1421	1,367362E+22	1,367458E+22	5,183263E+20	5,182073E+20	2,734821E+22	1,036534E+21	2,838474E+22
-1420	1,367448E+22	1,367401E+22	5,181747E+20	5,183232E+20	2,734848E+22	1,036498E+21	2,838498E+22
-1419	1,367432E+22	1,367398E+22	5,182502E+20	5,181695E+20	2,734830E+22	1,036420E+21	2,838472E+22
-1418	1,367356E+22	1,367420E+22	5,183282E+20	5,182693E+20	2,734775E+22	1,036597E+21	2,838435E+22
-1417	1,367396E+22	1,367324E+22	5,181862E+20	5,183345E+20	2,734720E+22	1,036521E+21	2,838372E+22
-1416	1,367293E+22	1,367334E+22	5,183505E+20	5,182313E+20	2,734628E+22	1,036582E+21	2,838286E+22
-1415	1,367259E+22	1,367279E+22	5,183160E+20	5,183989E+20	2,734539E+22	1,036715E+21	2,838210E+22
-1414	1,367276E+22	1,367179E+22	5,182535E+20	5,183436E+20	2,734454E+22	1,036597E+21	2,838114E+22
-1413	1,367149E+22	1,367218E+22	5,184448E+20	5,182890E+20	2,734366E+22	1,036734E+21	2,838040E+22
-1412	1,367170E+22	1,367149E+22	5,183194E+20	5,184465E+20	2,734319E+22	1,036766E+21	2,837995E+22
-1411	1,367154E+22	1,367110E+22	5,183526E+20	5,183269E+20	2,734264E+22	1,036679E+21	2,837932E+22
-1410	1,367069E+22	1,367162E+22	5,184527E+20	5,183652E+20	2,734231E+22	1,036818E+21	2,837913E+22
-1409	1,367166E+22	1,367104E+22	5,182836E+20	5,184540E+20	2,734270E+22	1,036738E+21	2,837944E+22
-1408	1,367152E+22	1,367157E+22	5,183910E+20	5,182765E+20	2,734310E+22	1,036668E+21	2,837976E+22
-1407	1,367170E+22	1,367206E+22	5,183767E+20	5,183764E+20	2,734376E+22	1,036753E+21	2,838051E+22
-1406	1,367265E+22	1,367184E+22	5,182361E+20	5,183364E+20	2,734449E+22	1,036573E+21	2,838106E+22
-1405	1,367205E+22	1,367291E+22	5,183863E+20	5,182282E+20	2,734496E+22	1,036614E+21	2,838157E+22
-1404	1,367269E+22	1,367295E+22	5,182804E+20	5,183784E+20	2,734564E+22	1,036659E+21	2,838230E+22
-1403	1,367331E+22	1,367274E+22	5,182380E+20	5,182605E+20	2,734604E+22	1,036499E+21	2,838254E+22
-1402	1,367265E+22	1,367345E+22	5,183753E+20	5,182418E+20	2,734610E+22	1,036617E+21	2,838272E+22
-1401	1,367345E+22	1,367293E+22	5,182178E+20	5,183663E+20	2,734639E+22	1,036584E+21	2,838297E+22
-1400	1,367318E+22	1,367290E+22	5,182945E+20	5,182309E+20	2,734608E+22	1,036525E+21	2,838261E+22
-1399	1,367244E+22	1,367303E+22	5,183649E+20	5,183356E+20	2,734548E+22	1,036701E+21	2,838218E+22
-1398	1,367284E+22	1,367206E+22	5,182188E+20	5,183882E+20	2,734490E+22	1,036607E+21	2,838150E+22
-1397	1,367176E+22	1,367213E+22	5,184037E+20	5,182853E+20	2,734390E+22	1,036689E+21	2,838059E+22
-1396	1,367145E+22	1,367168E+22	5,183800E+20	5,184301E+20	2,734313E+22	1,036810E+21	2,837994E+22
-1395	1,367161E+22	1,367067E+22	5,183200E+20	5,183865E+20	2,734228E+22	1,036706E+21	2,837899E+22
-1394	1,367019E+22	1,367094E+22	5,184970E+20	5,183399E+20	2,734113E+22	1,036837E+21	2,837797E+22
-1393	1,367045E+22	1,367031E+22	5,183632E+20	5,185078E+20	2,734076E+22	1,036871E+21	2,837763E+22
-1392	1,367045E+22	1,366997E+22	5,183963E+20	5,183883E+20	2,734042E+22	1,036785E+21	2,837721E+22
-1391	1,366984E+22	1,367052E+22	5,184878E+20	5,184073E+20	2,734036E+22	1,036895E+21	2,837725E+22
-1390	1,367086E+22	1,367010E+22	5,183145E+20	5,184724E+20	2,734096E+22	1,036787E+21	2,837775E+22
-1389	1,367061E+22	1,367073E+22	5,184323E+20	5,183065E+20	2,734134E+22	1,036739E+21	2,837808E+22
-1388	1,367066E+22	1,367135E+22	5,184230E+20	5,184020E+20	2,734202E+22	1,036825E+21	2,837884E+22
-1387	1,367163E+22	1,367104E+22	5,182818E+20	5,183824E+20	2,734267E+22	1,036664E+21	2,837933E+22
-1386	1,367101E+22	1,367186E+22	5,184244E+20	5,182759E+20	2,734287E+22	1,036700E+21	2,837957E+22
-1385	1,367176E+22	1,367189E+22	5,183180E+20	5,184236E+20	2,734366E+22	1,036742E+21	2,838040E+22
-1384	1,367244E+22	1,367167E+22	5,182814E+20	5,183077E+20	2,734411E+22	1,036589E+21	2,838070E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1383	1,367180E+22	1,367237E+22	5,184089E+20	5,182892E+20	2,734417E+22	1,036698E+21	2,838087E+22
-1382	1,367244E+22	1,367192E+22	5,182470E+20	5,184111E+20	2,734436E+22	1,036658E+21	2,838101E+22
-1381	1,367200E+22	1,367184E+22	5,183407E+20	5,182939E+20	2,734384E+22	1,036635E+21	2,838047E+22
-1380	1,367125E+22	1,367200E+22	5,184243E+20	5,183774E+20	2,734325E+22	1,036802E+21	2,838006E+22
-1379	1,367170E+22	1,367093E+22	5,182855E+20	5,184301E+20	2,734263E+22	1,036716E+21	2,837934E+22
-1378	1,367053E+22	1,367081E+22	5,184662E+20	5,183234E+20	2,734134E+22	1,036790E+21	2,837813E+22
-1377	1,367017E+22	1,367044E+22	5,184351E+20	5,184762E+20	2,734061E+22	1,036911E+21	2,837753E+22
-1376	1,367029E+22	1,366945E+22	5,183727E+20	5,184502E+20	2,733975E+22	1,036823E+21	2,837657E+22
-1375	1,366906E+22	1,366971E+22	5,185311E+20	5,184050E+20	2,733877E+22	1,036936E+21	2,837570E+22
-1374	1,366943E+22	1,366919E+22	5,183927E+20	5,185543E+20	2,733863E+22	1,036947E+21	2,837557E+22
-1373	1,366948E+22	1,366895E+22	5,184405E+20	5,184316E+20	2,733843E+22	1,036872E+21	2,837530E+22
-1372	1,366895E+22	1,366969E+22	5,185405E+20	5,184245E+20	2,733863E+22	1,036965E+21	2,837560E+22
-1371	1,366992E+22	1,366929E+22	5,183684E+20	5,185007E+20	2,733921E+22	1,036869E+21	2,837608E+22
-1370	1,366947E+22	1,366976E+22	5,184744E+20	5,183496E+20	2,733924E+22	1,036824E+21	2,837606E+22
-1369	1,366956E+22	1,367036E+22	5,184598E+20	5,184541E+20	2,733992E+22	1,036914E+21	2,837684E+22
-1368	1,367065E+22	1,367000E+22	5,183203E+20	5,184394E+20	2,734065E+22	1,036760E+21	2,837741E+22
-1367	1,367028E+22	1,367076E+22	5,184491E+20	5,183202E+20	2,734105E+22	1,036769E+21	2,837781E+22
-1366	1,367103E+22	1,367091E+22	5,183444E+20	5,184493E+20	2,734195E+22	1,036794E+21	2,837874E+22
-1365	1,367154E+22	1,367078E+22	5,183214E+20	5,183486E+20	2,734232E+22	1,036670E+21	2,837899E+22
-1364	1,367076E+22	1,367157E+22	5,184594E+20	5,183225E+20	2,734233E+22	1,036782E+21	2,837911E+22
-1363	1,367132E+22	1,367100E+22	5,183052E+20	5,184586E+20	2,734232E+22	1,036764E+21	2,837909E+22
-1362	1,367075E+22	1,367065E+22	5,183970E+20	5,183469E+20	2,734140E+22	1,036744E+21	2,837814E+22
-1361	1,367003E+22	1,367076E+22	5,184828E+20	5,184241E+20	2,734078E+22	1,036907E+21	2,837769E+22
-1360	1,367050E+22	1,366964E+22	5,183478E+20	5,184853E+20	2,734014E+22	1,036833E+21	2,837697E+22
-1359	1,366937E+22	1,366946E+22	5,185075E+20	5,183807E+20	2,733883E+22	1,036888E+21	2,837572E+22
-1358	1,366894E+22	1,366919E+22	5,184689E+20	5,185308E+20	2,733813E+22	1,037000E+21	2,837513E+22
-1357	1,366908E+22	1,366827E+22	5,184162E+20	5,185174E+20	2,733735E+22	1,036934E+21	2,837428E+22
-1356	1,366799E+22	1,366868E+22	5,185817E+20	5,184440E+20	2,733667E+22	1,037026E+21	2,837370E+22
-1355	1,366849E+22	1,366824E+22	5,184515E+20	5,185860E+20	2,733672E+22	1,037038E+21	2,837376E+22
-1354	1,366842E+22	1,366792E+22	5,184922E+20	5,184612E+20	2,733635E+22	1,036953E+21	2,837330E+22
-1353	1,366784E+22	1,366875E+22	5,185857E+20	5,184588E+20	2,733659E+22	1,037045E+21	2,837363E+22
-1352	1,366880E+22	1,366833E+22	5,184109E+20	5,185539E+20	2,733713E+22	1,036965E+21	2,837410E+22
-1351	1,366853E+22	1,366869E+22	5,184965E+20	5,184061E+20	2,733722E+22	1,036903E+21	2,837412E+22
-1350	1,366874E+22	1,366935E+22	5,184811E+20	5,184941E+20	2,733809E+22	1,036975E+21	2,837506E+22
-1349	1,366988E+22	1,366908E+22	5,183577E+20	5,184799E+20	2,733896E+22	1,036838E+21	2,837580E+22
-1348	1,366955E+22	1,366998E+22	5,184959E+20	5,183394E+20	2,733953E+22	1,036835E+21	2,837637E+22
-1347	1,367015E+22	1,367015E+22	5,183986E+20	5,184792E+20	2,734030E+22	1,036878E+21	2,837718E+22
-1346	1,367034E+22	1,366981E+22	5,183712E+20	5,183969E+20	2,734016E+22	1,036768E+21	2,837692E+22
-1345	1,366953E+22	1,367049E+22	5,185125E+20	5,183761E+20	2,734002E+22	1,036889E+21	2,837691E+22
-1344	1,367010E+22	1,366979E+22	5,183651E+20	5,185157E+20	2,733990E+22	1,036881E+21	2,837678E+22
-1343	1,366967E+22	1,366930E+22	5,184414E+20	5,184000E+20	2,733897E+22	1,036841E+21	2,837582E+22
-1342	1,366892E+22	1,366946E+22	5,185223E+20	5,184657E+20	2,733839E+22	1,036988E+21	2,837537E+22
-1341	1,366925E+22	1,366844E+22	5,183945E+20	5,185448E+20	2,733770E+22	1,036939E+21	2,837464E+22
-1340	1,366816E+22	1,366838E+22	5,185538E+20	5,184308E+20	2,733654E+22	1,036985E+21	2,837353E+22
-1339	1,366780E+22	1,366812E+22	5,185226E+20	5,185831E+20	2,733591E+22	1,037106E+21	2,837302E+22
-1338	1,366788E+22	1,366711E+22	5,184700E+20	5,185667E+20	2,733499E+22	1,037037E+21	2,837203E+22
-1337	1,366691E+22	1,366758E+22	5,186382E+20	5,184802E+20	2,733450E+22	1,037118E+21	2,837161E+22
-1336	1,366742E+22	1,366718E+22	5,185121E+20	5,186268E+20	2,733460E+22	1,037139E+21	2,837174E+22
-1335	1,366738E+22	1,366684E+22	5,185261E+20	5,185102E+20	2,733422E+22	1,037036E+21	2,837126E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1334	1,366777E+22	1,366771E+22	5,186095E+20	5,185062E+20	2,733448E+22	1,037116E+21	2,837159E+22
-1333	1,366778E+22	1,366736E+22	5,184439E+20	5,186098E+20	2,733513E+22	1,037054E+21	2,837219E+22
-1332	1,366773E+22	1,366782E+22	5,185337E+20	5,184352E+20	2,733555E+22	1,036969E+21	2,837252E+22
-1331	1,366804E+22	1,366854E+22	5,185306E+20	5,185157E+20	2,733658E+22	1,037046E+21	2,837363E+22
-1330	1,366898E+22	1,366821E+22	5,184067E+20	5,185066E+20	2,733719E+22	1,036913E+21	2,837410E+22
-1329	1,366852E+22	1,366914E+22	5,185433E+20	5,183752E+20	2,733766E+22	1,036919E+21	2,837458E+22
-1328	1,366901E+22	1,366922E+22	5,184502E+20	5,185346E+20	2,733823E+22	1,036985E+21	2,837522E+22
-1327	1,366927E+22	1,366865E+22	5,184035E+20	5,184602E+20	2,733792E+22	1,036864E+21	2,837478E+22
-1326	1,366846E+22	1,366928E+22	5,185461E+20	5,184267E+20	2,733774E+22	1,036973E+21	2,837471E+22
-1325	1,366903E+22	1,366861E+22	5,184122E+20	5,185684E+20	2,733764E+22	1,036981E+21	2,837462E+22
-1324	1,366864E+22	1,366818E+22	5,184940E+20	5,184377E+20	2,733682E+22	1,036932E+21	2,837375E+22
-1323	1,366778E+22	1,366837E+22	5,185784E+20	5,185119E+20	2,733615E+22	1,037090E+21	2,837324E+22
-1322	1,366788E+22	1,366722E+22	5,184495E+20	5,186050E+20	2,733510E+22	1,037054E+21	2,837216E+22
-1321	1,366688E+22	1,366716E+22	5,186092E+20	5,184873E+20	2,733404E+22	1,037096E+21	2,837114E+22
-1320	1,366662E+22	1,366692E+22	5,185860E+20	5,186360E+20	2,733353E+22	1,037222E+21	2,837076E+22
-1319	1,366684E+22	1,366588E+22	5,185157E+20	5,186116E+20	2,733272E+22	1,037127E+21	2,836985E+22
-1318	1,366586E+22	1,366647E+22	5,186766E+20	5,185155E+20	2,733233E+22	1,037192E+21	2,836952E+22
-1317	1,366626E+22	1,366620E+22	5,185539E+20	5,186748E+20	2,733246E+22	1,037229E+21	2,836969E+22
-1316	1,366633E+22	1,366594E+22	5,185645E+20	5,185522E+20	2,733226E+22	1,037117E+21	2,836938E+22
-1315	1,366584E+22	1,366680E+22	5,186508E+20	5,185477E+20	2,733264E+22	1,037199E+21	2,836984E+22
-1314	1,366680E+22	1,366639E+22	5,184886E+20	5,186494E+20	2,733319E+22	1,037138E+21	2,837032E+22
-1313	1,366691E+22	1,366691E+22	5,185799E+20	5,184652E+20	2,733382E+22	1,037045E+21	2,837087E+22
-1312	1,366718E+22	1,366765E+22	5,185838E+20	5,185525E+20	2,733483E+22	1,037136E+21	2,837196E+22
-1311	1,366802E+22	1,366725E+22	5,184377E+20	5,185558E+20	2,733526E+22	1,036994E+21	2,837226E+22
-1310	1,366749E+22	1,366811E+22	5,185687E+20	5,184293E+20	2,733561E+22	1,036998E+21	2,837260E+22
-1309	1,366793E+22	1,366817E+22	5,184884E+20	5,185911E+20	2,733610E+22	1,037080E+21	2,837318E+22
-1308	1,366832E+22	1,366763E+22	5,184475E+20	5,184992E+20	2,733595E+22	1,036947E+21	2,837290E+22
-1307	1,366754E+22	1,366822E+22	5,186008E+20	5,184584E+20	2,733576E+22	1,037059E+21	2,837282E+22
-1306	1,366782E+22	1,366748E+22	5,184701E+20	5,186089E+20	2,733530E+22	1,037079E+21	2,837237E+22
-1305	1,366736E+22	1,366705E+22	5,185492E+20	5,184867E+20	2,733441E+22	1,037036E+21	2,837145E+22
-1304	1,366647E+22	1,366717E+22	5,186376E+20	5,185759E+20	2,733365E+22	1,037214E+21	2,837086E+22
-1303	1,366667E+22	1,366592E+22	5,184924E+20	5,186715E+20	2,733260E+22	1,037164E+21	2,836976E+22
-1302	1,366577E+22	1,366590E+22	5,186499E+20	5,185409E+20	2,733166E+22	1,037191E+21	2,836886E+22
-1301	1,366553E+22	1,366577E+22	5,186386E+20	5,186827E+20	2,733130E+22	1,037321E+21	2,836863E+22
-1300	1,366581E+22	1,366487E+22	5,185664E+20	5,186477E+20	2,733068E+22	1,037214E+21	2,836789E+22
-1299	1,366475E+22	1,366550E+22	5,187241E+20	5,185576E+20	2,733025E+22	1,037282E+21	2,836753E+22
-1298	1,366498E+22	1,366513E+22	5,186006E+20	5,187264E+20	2,733011E+22	1,037327E+21	2,836744E+22
-1297	1,366523E+22	1,366488E+22	5,186101E+20	5,185963E+20	2,733011E+22	1,037206E+21	2,836732E+22
-1296	1,366494E+22	1,366579E+22	5,187013E+20	5,185904E+20	2,733072E+22	1,037292E+21	2,836801E+22
-1295	1,366602E+22	1,366537E+22	5,185230E+20	5,186858E+20	2,733138E+22	1,037209E+21	2,836859E+22
-1294	1,366609E+22	1,366599E+22	5,186051E+20	5,185005E+20	2,733207E+22	1,037106E+21	2,836918E+22
-1293	1,366623E+22	1,366683E+22	5,186146E+20	5,185978E+20	2,733305E+22	1,037212E+21	2,837027E+22
-1292	1,366710E+22	1,366642E+22	5,184705E+20	5,185965E+20	2,733352E+22	1,037067E+21	2,837059E+22
-1291	1,366658E+22	1,366720E+22	5,186113E+20	5,184694E+20	2,733378E+22	1,037081E+21	2,837087E+22
-1290	1,366682E+22	1,366712E+22	5,185428E+20	5,186279E+20	2,733395E+22	1,037171E+21	2,837112E+22
-1289	1,366726E+22	1,366654E+22	5,185084E+20	5,185344E+20	2,733380E+22	1,037043E+21	2,837084E+22
-1288	1,366639E+22	1,366708E+22	5,186640E+20	5,185090E+20	2,733347E+22	1,037173E+21	2,837065E+22
-1287	1,366656E+22	1,366621E+22	5,185129E+20	5,186733E+20	2,733277E+22	1,037186E+21	2,836996E+22
-1286	1,366612E+22	1,366574E+22	5,185848E+20	5,185553E+20	2,733186E+22	1,037140E+21	2,836900E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1285	1,366527E+22	1,366592E+22	5,186825E+20	5,186386E+20	2,733119E+22	1,037321E+21	2,836852E+22
-1284	1,366564E+22	1,366479E+22	5,185444E+20	5,187145E+20	2,733043E+22	1,037259E+21	2,836769E+22
-1283	1,366475E+22	1,366482E+22	5,187073E+20	5,185761E+20	2,732957E+22	1,037283E+21	2,836685E+22
-1282	1,366421E+22	1,366470E+22	5,186981E+20	5,187210E+20	2,732891E+22	1,037419E+21	2,836633E+22
-1281	1,366451E+22	1,366382E+22	5,186205E+20	5,186946E+20	2,732833E+22	1,037315E+21	2,836565E+22
-1280	1,366355E+22	1,366436E+22	5,187748E+20	5,186155E+20	2,732791E+22	1,037390E+21	2,836530E+22
-1279	1,366393E+22	1,366394E+22	5,186337E+20	5,187803E+20	2,732787E+22	1,037414E+21	2,836528E+22
-1278	1,366441E+22	1,366378E+22	5,186362E+20	5,186397E+20	2,732819E+22	1,037276E+21	2,836546E+22
-1277	1,366418E+22	1,366486E+22	5,187363E+20	5,186258E+20	2,732903E+22	1,037362E+21	2,836639E+22
-1276	1,366527E+22	1,366462E+22	5,185595E+20	5,187142E+20	2,732990E+22	1,037274E+21	2,836717E+22
-1275	1,366523E+22	1,366524E+22	5,186408E+20	5,185364E+20	2,733047E+22	1,037177E+21	2,836765E+22
-1274	1,366509E+22	1,366594E+22	5,186597E+20	5,186375E+20	2,733103E+22	1,037297E+21	2,836833E+22
-1273	1,366605E+22	1,366546E+22	5,185215E+20	5,186325E+20	2,733151E+22	1,037154E+21	2,836867E+22
-1272	1,366559E+22	1,366613E+22	5,186699E+20	5,185123E+20	2,733172E+22	1,037182E+21	2,836890E+22
-1271	1,366579E+22	1,366594E+22	5,185883E+20	5,186710E+20	2,733174E+22	1,037259E+21	2,836899E+22
-1270	1,366617E+22	1,366536E+22	5,185436E+20	5,185889E+20	2,733153E+22	1,037132E+21	2,836866E+22
-1269	1,366521E+22	1,366594E+22	5,186998E+20	5,185735E+20	2,733115E+22	1,037273E+21	2,836842E+22
-1268	1,366547E+22	1,366510E+22	5,185533E+20	5,187326E+20	2,733057E+22	1,037286E+21	2,836785E+22
-1267	1,366507E+22	1,366461E+22	5,186315E+20	5,186080E+20	2,732968E+22	1,037240E+21	2,836692E+22
-1266	1,366406E+22	1,366475E+22	5,187438E+20	5,186798E+20	2,732881E+22	1,037424E+21	2,836624E+22
-1265	1,366446E+22	1,366365E+22	5,186150E+20	5,187491E+20	2,732810E+22	1,037364E+21	2,836547E+22
-1264	1,366348E+22	1,366367E+22	5,187751E+20	5,186287E+20	2,732715E+22	1,037404E+21	2,836455E+22
-1263	1,366287E+22	1,366343E+22	5,187413E+20	5,187800E+20	2,732630E+22	1,037521E+21	2,836382E+22
-1262	1,366329E+22	1,366252E+22	5,186528E+20	5,187575E+20	2,732581E+22	1,037410E+21	2,836322E+22
-1261	1,366253E+22	1,366320E+22	5,188063E+20	5,186676E+20	2,732573E+22	1,037474E+21	2,836321E+22
-1260	1,366318E+22	1,366297E+22	5,186726E+20	5,188107E+20	2,732615E+22	1,037483E+21	2,836364E+22
-1259	1,366370E+22	1,366297E+22	5,186762E+20	5,186607E+20	2,732666E+22	1,037337E+21	2,836400E+22
-1258	1,366317E+22	1,366409E+22	5,187825E+20	5,186502E+20	2,732726E+22	1,037433E+21	2,836469E+22
-1257	1,366422E+22	1,366387E+22	5,186092E+20	5,187450E+20	2,732808E+22	1,037354E+21	2,836544E+22
-1256	1,366418E+22	1,366434E+22	5,186903E+20	5,185886E+20	2,732852E+22	1,037279E+21	2,836580E+22
-1255	1,366403E+22	1,366485E+22	5,186964E+20	5,186855E+20	2,732889E+22	1,037382E+21	2,836627E+22
-1254	1,366511E+22	1,366431E+22	5,185557E+20	5,186817E+20	2,732942E+22	1,037237E+21	2,836666E+22
-1253	1,366467E+22	1,366501E+22	5,187070E+20	5,185608E+20	2,732969E+22	1,037268E+21	2,836696E+22
-1252	1,366486E+22	1,366492E+22	5,186276E+20	5,187192E+20	2,732978E+22	1,037347E+21	2,836712E+22
-1251	1,366513E+22	1,366432E+22	5,185820E+20	5,186431E+20	2,732945E+22	1,037225E+21	2,836667E+22
-1250	1,366394E+22	1,366480E+22	5,187508E+20	5,186249E+20	2,732874E+22	1,037376E+21	2,836611E+22
-1249	1,366429E+22	1,366398E+22	5,186188E+20	5,187733E+20	2,732827E+22	1,037392E+21	2,836566E+22
-1248	1,366393E+22	1,366343E+22	5,187033E+20	5,186560E+20	2,732736E+22	1,037359E+21	2,836471E+22
-1247	1,366278E+22	1,366349E+22	5,188011E+20	5,187226E+20	2,732627E+22	1,037524E+21	2,836379E+22
-1246	1,366316E+22	1,366239E+22	5,186591E+20	5,188062E+20	2,732554E+22	1,037465E+21	2,836301E+22
-1245	1,366220E+22	1,366242E+22	5,188127E+20	5,186914E+20	2,732462E+22	1,037504E+21	2,836212E+22
-1244	1,366179E+22	1,366227E+22	5,187783E+20	5,188337E+20	2,732405E+22	1,037612E+21	2,836167E+22
-1243	1,366237E+22	1,366146E+22	5,186899E+20	5,187994E+20	2,732383E+22	1,037489E+21	2,836132E+22
-1242	1,366156E+22	1,366222E+22	5,188541E+20	5,186973E+20	2,732378E+22	1,037551E+21	2,836133E+22
-1241	1,366228E+22	1,366214E+22	5,187323E+20	5,188333E+20	2,732443E+22	1,037566E+21	2,836199E+22
-1240	1,366270E+22	1,366216E+22	5,187296E+20	5,187055E+20	2,732486E+22	1,037435E+21	2,836230E+22
-1239	1,366205E+22	1,366312E+22	5,188174E+20	5,186985E+20	2,732517E+22	1,037516E+21	2,836268E+22
-1238	1,366318E+22	1,366279E+22	5,186372E+20	5,187986E+20	2,732597E+22	1,037436E+21	2,836341E+22
-1237	1,366327E+22	1,366327E+22	5,187197E+20	5,186382E+20	2,732654E+22	1,037358E+21	2,836390E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1236	1,366328E+22	1,366385E+22	5,187332E+20	5,187218E+20	2,732714E+22	1,037455E+21	2,836459E+22
-1235	1,366429E+22	1,366338E+22	5,185937E+20	5,187155E+20	2,732768E+22	1,037309E+21	2,836499E+22
-1234	1,366357E+22	1,366407E+22	5,187506E+20	5,186018E+20	2,732764E+22	1,037352E+21	2,836499E+22
-1233	1,366372E+22	1,366394E+22	5,186850E+20	5,187597E+20	2,732766E+22	1,037445E+21	2,836510E+22
-1232	1,366396E+22	1,366324E+22	5,186427E+20	5,187022E+20	2,732720E+22	1,037345E+21	2,836455E+22
-1231	1,366273E+22	1,366354E+22	5,188028E+20	5,186746E+20	2,732627E+22	1,037477E+21	2,836375E+22
-1230	1,366313E+22	1,366267E+22	5,186730E+20	5,188232E+20	2,732580E+22	1,037496E+21	2,836329E+22
-1229	1,366273E+22	1,366218E+22	5,187559E+20	5,187113E+20	2,732491E+22	1,037467E+21	2,836238E+22
-1228	1,366157E+22	1,366230E+22	5,188479E+20	5,187784E+20	2,732387E+22	1,037626E+21	2,836150E+22
-1227	1,366191E+22	1,366119E+22	5,187002E+20	5,188633E+20	2,732310E+22	1,037563E+21	2,836066E+22
-1226	1,366091E+22	1,366119E+22	5,188583E+20	5,187421E+20	2,732210E+22	1,037600E+21	2,835970E+22
-1225	1,366072E+22	1,366117E+22	5,188385E+20	5,188668E+20	2,732188E+22	1,037705E+21	2,835959E+22
-1224	1,366141E+22	1,366047E+22	5,187516E+20	5,188402E+20	2,732188E+22	1,037592E+21	2,835947E+22
-1223	1,366053E+22	1,366122E+22	5,188972E+20	5,187338E+20	2,732174E+22	1,037631E+21	2,835937E+22
-1222	1,366125E+22	1,366118E+22	5,187670E+20	5,188820E+20	2,732243E+22	1,037649E+21	2,836008E+22
-1221	1,366169E+22	1,366121E+22	5,187560E+20	5,187606E+20	2,732290E+22	1,037517E+21	2,836042E+22
-1220	1,366119E+22	1,366217E+22	5,188440E+20	5,187454E+20	2,732337E+22	1,037589E+21	2,836096E+22
-1219	1,366239E+22	1,366187E+22	5,186670E+20	5,188325E+20	2,732427E+22	1,037499E+21	2,836177E+22
-1218	1,366237E+22	1,366232E+22	5,187648E+20	5,186656E+20	2,732469E+22	1,037430E+21	2,836213E+22
-1217	1,366238E+22	1,366300E+22	5,187945E+20	5,187459E+20	2,732537E+22	1,037540E+21	2,836291E+22
-1216	1,366324E+22	1,366249E+22	5,186517E+20	5,187677E+20	2,732572E+22	1,037419E+21	2,836314E+22
-1215	1,366234E+22	1,366293E+22	5,187929E+20	5,186571E+20	2,732527E+22	1,037450E+21	2,836272E+22
-1214	1,366256E+22	1,366271E+22	5,187271E+20	5,188186E+20	2,732527E+22	1,037546E+21	2,836282E+22
-1213	1,366287E+22	1,366201E+22	5,186876E+20	5,187567E+20	2,732488E+22	1,037444E+21	2,836233E+22
-1212	1,366172E+22	1,366235E+22	5,188540E+20	5,187195E+20	2,732407E+22	1,037573E+21	2,836165E+22
-1211	1,366199E+22	1,366155E+22	5,187219E+20	5,188647E+20	2,732353E+22	1,037587E+21	2,836112E+22
-1210	1,366133E+22	1,366101E+22	5,188083E+20	5,187645E+20	2,732234E+22	1,037573E+21	2,835992E+22
-1209	1,366024E+22	1,366113E+22	5,189086E+20	5,188282E+20	2,732138E+22	1,037737E+21	2,835911E+22
-1208	1,366067E+22	1,366001E+22	5,187590E+20	5,189272E+20	2,732068E+22	1,037686E+21	2,835836E+22
-1207	1,365976E+22	1,365992E+22	5,189025E+20	5,187915E+20	2,731968E+22	1,037694E+21	2,835737E+22
-1206	1,365975E+22	1,365997E+22	5,188844E+20	5,189127E+20	2,731973E+22	1,037797E+21	2,835752E+22
-1205	1,366044E+22	1,365947E+22	5,187924E+20	5,188878E+20	2,731991E+22	1,037680E+21	2,835759E+22
-1204	1,365959E+22	1,366030E+22	5,189302E+20	5,187825E+20	2,731989E+22	1,037713E+21	2,835760E+22
-1203	1,366027E+22	1,366028E+22	5,187976E+20	5,189216E+20	2,732054E+22	1,037719E+21	2,835826E+22
-1202	1,366065E+22	1,366027E+22	5,187946E+20	5,187970E+20	2,732092E+22	1,037592E+21	2,835852E+22
-1201	1,366031E+22	1,366128E+22	5,189005E+20	5,187647E+20	2,732159E+22	1,037665E+21	2,835925E+22
-1200	1,366149E+22	1,366101E+22	5,187270E+20	5,188655E+20	2,732250E+22	1,037592E+21	2,836010E+22
-1199	1,366134E+22	1,366133E+22	5,188058E+20	5,187032E+20	2,732267E+22	1,037509E+21	2,836018E+22
-1198	1,366132E+22	1,366193E+22	5,188326E+20	5,187994E+20	2,732325E+22	1,037632E+21	2,836088E+22
-1197	1,366215E+22	1,366142E+22	5,186860E+20	5,188299E+20	2,732357E+22	1,037516E+21	2,836109E+22
-1196	1,366138E+22	1,366182E+22	5,188278E+20	5,187154E+20	2,732320E+22	1,037543E+21	2,836074E+22
-1195	1,366158E+22	1,366161E+22	5,187688E+20	5,188589E+20	2,732319E+22	1,037628E+21	2,836081E+22
-1194	1,366173E+22	1,366088E+22	5,187444E+20	5,187990E+20	2,732261E+22	1,037543E+21	2,836015E+22
-1193	1,366051E+22	1,366126E+22	5,189241E+20	5,187595E+20	2,732177E+22	1,037684E+21	2,835946E+22
-1192	1,366061E+22	1,366041E+22	5,187869E+20	5,189293E+20	2,732103E+22	1,037716E+21	2,835874E+22
-1191	1,365990E+22	1,365963E+22	5,188556E+20	5,188291E+20	2,731953E+22	1,037685E+21	2,835721E+22
-1190	1,365903E+22	1,365972E+22	5,189536E+20	5,188905E+20	2,731874E+22	1,037844E+21	2,835659E+22
-1189	1,365961E+22	1,365875E+22	5,188046E+20	5,189799E+20	2,731836E+22	1,037785E+21	2,835615E+22
-1188	1,365887E+22	1,365883E+22	5,189441E+20	5,188350E+20	2,731770E+22	1,037779E+21	2,835548E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1187	1,365880E+22	1,365906E+22	5,189226E+20	5,189454E+20	2,731786E+22	1,037868E+21	2,835573E+22
-1186	1,365930E+22	1,365858E+22	5,188360E+20	5,189261E+20	2,731788E+22	1,037762E+21	2,835565E+22
-1185	1,365853E+22	1,365945E+22	5,189837E+20	5,188145E+20	2,731797E+22	1,037798E+21	2,835577E+22
-1184	1,365923E+22	1,365940E+22	5,188497E+20	5,189631E+20	2,731863E+22	1,037813E+21	2,835645E+22
-1183	1,365963E+22	1,365920E+22	5,188360E+20	5,188323E+20	2,731883E+22	1,037668E+21	2,835650E+22
-1182	1,365945E+22	1,366020E+22	5,189417E+20	5,188068E+20	2,731965E+22	1,037749E+21	2,835739E+22
-1181	1,366056E+22	1,366005E+22	5,187635E+20	5,189168E+20	2,732061E+22	1,037680E+21	2,835829E+22
-1180	1,366044E+22	1,366035E+22	5,188319E+20	5,187628E+20	2,732079E+22	1,037595E+21	2,835838E+22
-1179	1,366037E+22	1,366093E+22	5,188589E+20	5,188464E+20	2,732129E+22	1,037705E+21	2,835900E+22
-1178	1,366109E+22	1,366038E+22	5,187285E+20	5,188729E+20	2,732148E+22	1,037601E+21	2,835908E+22
-1177	1,366039E+22	1,366082E+22	5,188927E+20	5,187459E+20	2,732120E+22	1,037639E+21	2,835884E+22
-1176	1,366044E+22	1,366061E+22	5,188387E+20	5,189002E+20	2,732104E+22	1,037739E+21	2,835878E+22
-1175	1,366037E+22	1,365967E+22	5,187999E+20	5,188509E+20	2,732003E+22	1,037651E+21	2,835769E+22
-1174	1,365918E+22	1,365991E+22	5,189733E+20	5,188259E+20	2,731909E+22	1,037799E+21	2,835689E+22
-1173	1,365930E+22	1,365908E+22	5,188311E+20	5,189988E+20	2,731838E+22	1,037830E+21	2,835621E+22
-1172	1,365882E+22	1,365830E+22	5,188933E+20	5,188923E+20	2,731712E+22	1,037786E+21	2,835491E+22
-1171	1,365804E+22	1,365851E+22	5,189947E+20	5,189276E+20	2,731655E+22	1,037922E+21	2,835447E+22
-1170	1,365853E+22	1,365771E+22	5,188623E+20	5,190161E+20	2,731625E+22	1,037878E+21	2,835413E+22
-1169	1,365778E+22	1,365793E+22	5,190093E+20	5,188676E+20	2,731572E+22	1,037877E+21	2,835360E+22
-1168	1,365757E+22	1,365817E+22	5,189824E+20	5,189928E+20	2,731574E+22	1,037975E+21	2,835371E+22
-1167	1,365803E+22	1,365747E+22	5,188778E+20	5,189743E+20	2,731550E+22	1,037852E+21	2,835335E+22
-1166	1,365750E+22	1,365824E+22	5,190216E+20	5,188622E+20	2,731574E+22	1,037884E+21	2,835363E+22
-1165	1,365831E+22	1,365833E+22	5,188872E+20	5,190044E+20	2,731665E+22	1,037892E+21	2,835454E+22
-1164	1,365887E+22	1,365822E+22	5,188642E+20	5,188760E+20	2,731709E+22	1,037740E+21	2,835483E+22
-1163	1,365863E+22	1,365932E+22	5,189641E+20	5,188441E+20	2,731795E+22	1,037808E+21	2,835576E+22
-1162	1,365958E+22	1,365920E+22	5,187991E+20	5,189616E+20	2,731878E+22	1,037761E+21	2,835654E+22
-1161	1,365951E+22	1,365951E+22	5,188798E+20	5,188017E+20	2,731902E+22	1,037682E+21	2,835670E+22
-1160	1,365937E+22	1,366004E+22	5,189137E+20	5,188865E+20	2,731942E+22	1,037800E+21	2,835722E+22
-1159	1,365998E+22	1,365925E+22	5,187819E+20	5,189101E+20	2,731923E+22	1,037692E+21	2,835693E+22
-1158	1,365931E+22	1,365959E+22	5,189504E+20	5,187961E+20	2,731889E+22	1,037747E+21	2,835664E+22
-1157	1,365917E+22	1,365943E+22	5,188907E+20	5,189604E+20	2,731859E+22	1,037851E+21	2,835644E+22
-1156	1,365912E+22	1,365838E+22	5,188401E+20	5,189243E+20	2,731750E+22	1,037764E+21	2,835526E+22
-1155	1,365799E+22	1,365858E+22	5,190067E+20	5,188826E+20	2,731658E+22	1,037889E+21	2,835446E+22
-1154	1,365812E+22	1,365781E+22	5,188827E+20	5,190457E+20	2,731593E+22	1,037928E+21	2,835385E+22
-1153	1,365777E+22	1,365721E+22	5,189603E+20	5,189236E+20	2,731498E+22	1,037884E+21	2,835286E+22
-1152	1,365691E+22	1,365755E+22	5,190603E+20	5,189651E+20	2,731446E+22	1,038025E+21	2,835248E+22
-1151	1,365720E+22	1,365662E+22	5,189168E+20	5,190617E+20	2,731382E+22	1,037978E+21	2,835180E+22
-1150	1,365655E+22	1,365677E+22	5,190545E+20	5,189282E+20	2,731332E+22	1,037983E+21	2,835131E+22
-1149	1,365638E+22	1,365705E+22	5,190199E+20	5,190491E+20	2,731344E+22	1,038069E+21	2,835150E+22
-1148	1,365710E+22	1,365633E+22	5,189045E+20	5,190280E+20	2,731343E+22	1,037933E+21	2,835136E+22
-1147	1,365673E+22	1,365717E+22	5,190453E+20	5,188937E+20	2,731391E+22	1,037939E+21	2,835185E+22
-1146	1,365747E+22	1,365744E+22	5,189282E+20	5,190367E+20	2,731491E+22	1,037965E+21	2,835288E+22
-1145	1,365802E+22	1,365748E+22	5,189126E+20	5,189087E+20	2,731551E+22	1,037821E+21	2,835333E+22
-1144	1,365765E+22	1,365856E+22	5,190106E+20	5,188875E+20	2,731621E+22	1,037898E+21	2,835411E+22
-1143	1,365848E+22	1,365820E+22	5,188437E+20	5,190022E+20	2,731667E+22	1,037846E+21	2,835452E+22
-1142	1,365855E+22	1,365838E+22	5,189271E+20	5,188467E+20	2,731693E+22	1,037774E+21	2,835470E+22
-1141	1,365833E+22	1,365897E+22	5,189658E+20	5,189256E+20	2,731730E+22	1,037891E+21	2,835519E+22
-1140	1,365895E+22	1,365813E+22	5,188249E+20	5,189625E+20	2,731707E+22	1,037787E+21	2,835486E+22
-1139	1,365816E+22	1,365841E+22	5,189862E+20	5,188455E+20	2,731656E+22	1,037832E+21	2,835440E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1138	1,365787E+22	1,365825E+22	5,189390E+20	5,190176E+20	2,731611E+22	1,037957E+21	2,835407E+22
-1137	1,365793E+22	1,365722E+22	5,188972E+20	5,189757E+20	2,731515E+22	1,037873E+21	2,835302E+22
-1136	1,365681E+22	1,365743E+22	5,190644E+20	5,189303E+20	2,731425E+22	1,037995E+21	2,835224E+22
-1135	1,365689E+22	1,365655E+22	5,189439E+20	5,190889E+20	2,731343E+22	1,038033E+21	2,835146E+22
-1134	1,365663E+22	1,365596E+22	5,190195E+20	5,189784E+20	2,731259E+22	1,037998E+21	2,835058E+22
-1133	1,365562E+22	1,365643E+22	5,191111E+20	5,190228E+20	2,731204E+22	1,038134E+21	2,835018E+22
-1132	1,365601E+22	1,365542E+22	5,189526E+20	5,191280E+20	2,731143E+22	1,038081E+21	2,834951E+22
-1131	1,365549E+22	1,365556E+22	5,190798E+20	5,189752E+20	2,731105E+22	1,038055E+21	2,834910E+22
-1130	1,365538E+22	1,365598E+22	5,190609E+20	5,190840E+20	2,731136E+22	1,038145E+21	2,834950E+22
-1129	1,365626E+22	1,365545E+22	5,189573E+20	5,190509E+20	2,731172E+22	1,038008E+21	2,834972E+22
-1128	1,365586E+22	1,365643E+22	5,190925E+20	5,189227E+20	2,731229E+22	1,038015E+21	2,835031E+22
-1127	1,365642E+22	1,365656E+22	5,189737E+20	5,190734E+20	2,731298E+22	1,038047E+21	2,835103E+22
-1126	1,365706E+22	1,365652E+22	5,189530E+20	5,189599E+20	2,731358E+22	1,037913E+21	2,835150E+22
-1125	1,365665E+22	1,365761E+22	5,190491E+20	5,189340E+20	2,731426E+22	1,037983E+21	2,835225E+22
-1124	1,365758E+22	1,365714E+22	5,188784E+20	5,190484E+20	2,731472E+22	1,037927E+21	2,835265E+22
-1123	1,365768E+22	1,365729E+22	5,189612E+20	5,188840E+20	2,731497E+22	1,037845E+21	2,835281E+22
-1122	1,365725E+22	1,365793E+22	5,190166E+20	5,189675E+20	2,731519E+22	1,037984E+21	2,835317E+22
-1121	1,365777E+22	1,365713E+22	5,188824E+20	5,190122E+20	2,731491E+22	1,037895E+21	2,835280E+22
-1120	1,365692E+22	1,365730E+22	5,190357E+20	5,189038E+20	2,731422E+22	1,037940E+21	2,835216E+22
-1119	1,365655E+22	1,365689E+22	5,189924E+20	5,190699E+20	2,731344E+22	1,038062E+21	2,835150E+22
-1118	1,365680E+22	1,365585E+22	5,189531E+20	5,190299E+20	2,731265E+22	1,037983E+21	2,835064E+22
-1117	1,365565E+22	1,365621E+22	5,191210E+20	5,189780E+20	2,731186E+22	1,038099E+21	2,834996E+22
-1116	1,365573E+22	1,365535E+22	5,189923E+20	5,191461E+20	2,731108E+22	1,038138E+21	2,834922E+22
-1115	1,365543E+22	1,365479E+22	5,190556E+20	5,190327E+20	2,731022E+22	1,038088E+21	2,834831E+22
-1114	1,365436E+22	1,365531E+22	5,191564E+20	5,190744E+20	2,730967E+22	1,038231E+21	2,834790E+22
-1113	1,365490E+22	1,365440E+22	5,190053E+20	5,191683E+20	2,730930E+22	1,038174E+21	2,834748E+22
-1112	1,365448E+22	1,365456E+22	5,191285E+20	5,190080E+20	2,730904E+22	1,038137E+21	2,834718E+22
-1111	1,365434E+22	1,365490E+22	5,191164E+20	5,191127E+20	2,730924E+22	1,038229E+21	2,834747E+22
-1110	1,365532E+22	1,365447E+22	5,190077E+20	5,190952E+20	2,730979E+22	1,038103E+21	2,834789E+22
-1109	1,365481E+22	1,365555E+22	5,191323E+20	5,189743E+20	2,731036E+22	1,038107E+21	2,834846E+22
-1108	1,365547E+22	1,365557E+22	5,190035E+20	5,191317E+20	2,731104E+22	1,038135E+21	2,834917E+22
-1107	1,365620E+22	1,365547E+22	5,189746E+20	5,190006E+20	2,731167E+22	1,037975E+21	2,834965E+22
-1106	1,365575E+22	1,365665E+22	5,190905E+20	5,189649E+20	2,731240E+22	1,038055E+21	2,835045E+22
-1105	1,365669E+22	1,365628E+22	5,189328E+20	5,190735E+20	2,731297E+22	1,038006E+21	2,835098E+22
-1104	1,365661E+22	1,365641E+22	5,190115E+20	5,189230E+20	2,731302E+22	1,037935E+21	2,835096E+22
-1103	1,365596E+22	1,365682E+22	5,190700E+20	5,190178E+20	2,731278E+22	1,038088E+21	2,835086E+22
-1102	1,365657E+22	1,365589E+22	5,189328E+20	5,190770E+20	2,731246E+22	1,038010E+21	2,835047E+22
-1101	1,365571E+22	1,365606E+22	5,190814E+20	5,189633E+20	2,731177E+22	1,038045E+21	2,834982E+22
-1100	1,365549E+22	1,365557E+22	5,190369E+20	5,191258E+20	2,731106E+22	1,038163E+21	2,834922E+22
-1099	1,365577E+22	1,365459E+22	5,189957E+20	5,190758E+20	2,731036E+22	1,038072E+21	2,834843E+22
-1098	1,365444E+22	1,365511E+22	5,191770E+20	5,190272E+20	2,730956E+22	1,038204E+21	2,834776E+22
-1097	1,365446E+22	1,365434E+22	5,190551E+20	5,191959E+20	2,730880E+22	1,038251E+21	2,834705E+22
-1096	1,365415E+22	1,365371E+22	5,191097E+20	5,190847E+20	2,730786E+22	1,038194E+21	2,834605E+22
-1095	1,365305E+22	1,365403E+22	5,192124E+20	5,191166E+20	2,730709E+22	1,038329E+21	2,834542E+22
-1094	1,365382E+22	1,365318E+22	5,190603E+20	5,192108E+20	2,730700E+22	1,038271E+21	2,834527E+22
-1093	1,365345E+22	1,365351E+22	5,191747E+20	5,190490E+20	2,730695E+22	1,038224E+21	2,834518E+22
-1092	1,365339E+22	1,365387E+22	5,191527E+20	5,191633E+20	2,730726E+22	1,038316E+21	2,834557E+22
-1091	1,365440E+22	1,365351E+22	5,190305E+20	5,191441E+20	2,730791E+22	1,038175E+21	2,834609E+22
-1090	1,365388E+22	1,365466E+22	5,191631E+20	5,190200E+20	2,730854E+22	1,038183E+21	2,834672E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1089	1,365462E+22	1,365476E+22	5,190472E+20	5,191622E+20	2,730938E+22	1,038209E+21	2,834759E+22
-1088	1,365536E+22	1,365464E+22	5,190171E+20	5,190283E+20	2,731000E+22	1,038045E+21	2,834805E+22
-1087	1,365472E+22	1,365562E+22	5,191465E+20	5,189943E+20	2,731035E+22	1,038141E+21	2,834849E+22
-1086	1,365560E+22	1,365526E+22	5,189874E+20	5,191214E+20	2,731086E+22	1,038109E+21	2,834897E+22
-1085	1,365538E+22	1,365533E+22	5,190579E+20	5,189847E+20	2,731072E+22	1,038043E+21	2,834876E+22
-1084	1,365482E+22	1,365552E+22	5,191095E+20	5,190843E+20	2,731034E+22	1,038194E+21	2,834854E+22
-1083	1,365553E+22	1,365458E+22	5,189667E+20	5,191294E+20	2,731011E+22	1,038096E+21	2,834821E+22
-1082	1,365465E+22	1,365487E+22	5,191307E+20	5,190067E+20	2,730953E+22	1,038137E+21	2,834767E+22
-1081	1,365442E+22	1,365456E+22	5,191015E+20	5,191614E+20	2,730897E+22	1,038263E+21	2,834723E+22
-1080	1,365453E+22	1,365360E+22	5,190551E+20	5,191217E+20	2,730813E+22	1,038177E+21	2,834631E+22
-1079	1,365299E+22	1,365390E+22	5,192411E+20	5,190811E+20	2,730689E+22	1,038322E+21	2,834522E+22
-1078	1,365311E+22	1,365308E+22	5,191143E+20	5,192559E+20	2,730618E+22	1,038370E+21	2,834455E+22
-1077	1,365285E+22	1,365246E+22	5,191604E+20	5,191421E+20	2,730531E+22	1,038302E+21	2,834361E+22
-1076	1,365201E+22	1,365271E+22	5,192546E+20	5,191697E+20	2,730472E+22	1,038424E+21	2,834314E+22
-1075	1,365290E+22	1,365199E+22	5,190940E+20	5,192549E+20	2,730489E+22	1,038349E+21	2,834324E+22
-1074	1,365247E+22	1,365256E+22	5,192105E+20	5,190964E+20	2,730503E+22	1,038307E+21	2,834333E+22
-1073	1,365247E+22	1,365307E+22	5,191944E+20	5,192064E+20	2,730553E+22	1,038401E+21	2,834393E+22
-1072	1,365347E+22	1,365270E+22	5,190676E+20	5,191799E+20	2,730617E+22	1,038248E+21	2,834442E+22
-1071	1,365289E+22	1,365368E+22	5,192110E+20	5,190483E+20	2,730658E+22	1,038259E+21	2,834484E+22
-1070	1,365371E+22	1,365381E+22	5,191010E+20	5,191879E+20	2,730752E+22	1,038289E+21	2,834581E+22
-1069	1,365432E+22	1,365374E+22	5,190661E+20	5,190665E+20	2,730806E+22	1,038133E+21	2,834619E+22
-1068	1,365368E+22	1,365454E+22	5,191854E+20	5,190496E+20	2,730823E+22	1,038235E+21	2,834646E+22
-1067	1,365454E+22	1,365413E+22	5,190159E+20	5,191801E+20	2,730866E+22	1,038196E+21	2,834686E+22
-1066	1,365432E+22	1,365422E+22	5,190921E+20	5,190432E+20	2,730855E+22	1,038135E+21	2,834668E+22
-1065	1,365385E+22	1,365447E+22	5,191575E+20	5,191272E+20	2,730832E+22	1,038285E+21	2,834660E+22
-1064	1,365453E+22	1,365354E+22	5,190205E+20	5,191662E+20	2,730807E+22	1,038187E+21	2,834626E+22
-1063	1,365343E+22	1,365370E+22	5,191990E+20	5,190502E+20	2,730714E+22	1,038249E+21	2,834539E+22
-1062	1,365308E+22	1,365341E+22	5,191694E+20	5,192170E+20	2,730649E+22	1,038386E+21	2,834488E+22
-1061	1,365307E+22	1,365239E+22	5,191136E+20	5,191934E+20	2,730546E+22	1,038307E+21	2,834377E+22
-1060	1,365168E+22	1,365244E+22	5,192872E+20	5,191504E+20	2,730411E+22	1,038438E+21	2,834255E+22
-1059	1,365195E+22	1,365166E+22	5,191506E+20	5,193077E+20	2,730362E+22	1,038458E+21	2,834207E+22
-1058	1,365180E+22	1,365124E+22	5,192016E+20	5,191853E+20	2,730304E+22	1,038387E+21	2,834143E+22
-1057	1,365105E+22	1,365173E+22	5,193035E+20	5,192043E+20	2,730278E+22	1,038508E+21	2,834128E+22
-1056	1,365190E+22	1,365116E+22	5,191378E+20	5,192922E+20	2,730306E+22	1,038430E+21	2,834149E+22
-1055	1,365136E+22	1,365161E+22	5,192592E+20	5,191379E+20	2,730297E+22	1,038397E+21	2,834137E+22
-1054	1,365145E+22	1,365215E+22	5,192439E+20	5,192434E+20	2,730361E+22	1,038487E+21	2,834209E+22
-1053	1,365246E+22	1,365180E+22	5,191128E+20	5,192171E+20	2,730426E+22	1,038330E+21	2,834259E+22
-1052	1,365200E+22	1,365259E+22	5,192513E+20	5,190883E+20	2,730459E+22	1,038340E+21	2,834293E+22
-1051	1,365278E+22	1,365278E+22	5,191341E+20	5,192277E+20	2,730556E+22	1,038362E+21	2,834392E+22
-1050	1,365328E+22	1,365278E+22	5,191005E+20	5,191217E+20	2,730606E+22	1,038222E+21	2,834429E+22
-1049	1,365269E+22	1,365358E+22	5,192254E+20	5,191044E+20	2,730627E+22	1,038330E+21	2,834460E+22
-1048	1,365355E+22	1,365311E+22	5,190564E+20	5,192253E+20	2,730666E+22	1,038282E+21	2,834494E+22
-1047	1,365325E+22	1,365305E+22	5,191459E+20	5,190833E+20	2,730630E+22	1,038229E+21	2,834453E+22
-1046	1,365279E+22	1,365337E+22	5,192197E+20	5,191624E+20	2,730616E+22	1,038382E+21	2,834454E+22
-1045	1,365327E+22	1,365249E+22	5,190830E+20	5,192168E+20	2,730576E+22	1,038300E+21	2,834406E+22
-1044	1,365214E+22	1,365243E+22	5,192520E+20	5,191188E+20	2,730457E+22	1,038371E+21	2,834294E+22
-1043	1,365176E+22	1,365208E+22	5,192107E+20	5,192810E+20	2,730384E+22	1,038492E+21	2,834233E+22
-1042	1,365179E+22	1,365109E+22	5,191566E+20	5,192570E+20	2,730288E+22	1,038414E+21	2,834129E+22
-1041	1,365061E+22	1,365120E+22	5,193341E+20	5,191966E+20	2,730181E+22	1,038531E+21	2,834034E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-1040	1,365094E+22	1,365053E+22	5,192006E+20	5,193397E+20	2,730146E+22	1,038540E+21	2,834000E+22
-1039	1,365067E+22	1,365013E+22	5,192602E+20	5,192238E+20	2,730079E+22	1,038484E+21	2,833928E+22
-1038	1,364991E+22	1,365077E+22	5,193595E+20	5,192481E+20	2,730068E+22	1,038608E+21	2,833929E+22
-1037	1,365070E+22	1,365023E+22	5,191896E+20	5,193466E+20	2,730093E+22	1,038536E+21	2,833947E+22
-1036	1,365035E+22	1,365047E+22	5,192969E+20	5,191908E+20	2,730082E+22	1,038488E+21	2,833931E+22
-1035	1,365055E+22	1,365106E+22	5,192736E+20	5,192778E+20	2,730161E+22	1,038551E+21	2,834016E+22
-1034	1,365157E+22	1,365085E+22	5,191464E+20	5,192523E+20	2,730242E+22	1,038399E+21	2,834082E+22
-1033	1,365115E+22	1,365172E+22	5,192885E+20	5,191260E+20	2,730288E+22	1,038415E+21	2,834129E+22
-1032	1,365182E+22	1,365195E+22	5,191699E+20	5,192679E+20	2,730377E+22	1,038438E+21	2,834221E+22
-1031	1,365220E+22	1,365177E+22	5,191455E+20	5,191724E+20	2,730397E+22	1,038318E+21	2,834229E+22
-1030	1,365168E+22	1,365257E+22	5,192732E+20	5,191483E+20	2,730424E+22	1,038422E+21	2,834267E+22
-1029	1,365251E+22	1,365208E+22	5,191106E+20	5,192714E+20	2,730459E+22	1,038382E+21	2,834297E+22
-1028	1,365226E+22	1,365179E+22	5,191969E+20	5,191332E+20	2,730405E+22	1,038330E+21	2,834238E+22
-1027	1,365166E+22	1,365217E+22	5,192649E+20	5,192108E+20	2,730383E+22	1,038476E+21	2,834231E+22
-1026	1,365198E+22	1,365134E+22	5,191294E+20	5,192814E+20	2,730331E+22	1,038411E+21	2,834173E+22
-1025	1,365090E+22	1,365119E+22	5,193028E+20	5,191817E+20	2,730209E+22	1,038484E+21	2,834057E+22
-1024	1,365054E+22	1,365084E+22	5,192600E+20	5,193251E+20	2,730137E+22	1,038585E+21	2,833996E+22
-1023	1,365054E+22	1,364975E+22	5,192189E+20	5,192977E+20	2,730030E+22	1,038517E+21	2,833881E+22
-1022	1,364944E+22	1,365002E+22	5,193966E+20	5,192301E+20	2,729946E+22	1,038627E+21	2,833809E+22
-1021	1,364968E+22	1,364949E+22	5,192624E+20	5,193889E+20	2,729917E+22	1,038651E+21	2,833783E+22
-1020	1,364948E+22	1,364895E+22	5,193050E+20	5,192864E+20	2,729843E+22	1,038591E+21	2,833702E+22
-1019	1,364881E+22	1,364965E+22	5,193904E+20	5,193025E+20	2,729846E+22	1,038693E+21	2,833716E+22
-1018	1,364968E+22	1,364922E+22	5,192220E+20	5,193969E+20	2,729890E+22	1,038619E+21	2,833751E+22
-1017	1,364953E+22	1,364950E+22	5,193327E+20	5,192287E+20	2,729903E+22	1,038561E+21	2,833760E+22
-1016	1,364972E+22	1,365018E+22	5,193122E+20	5,192996E+20	2,729990E+22	1,038612E+21	2,833851E+22
-1015	1,365055E+22	1,364993E+22	5,191953E+20	5,192896E+20	2,730048E+22	1,038485E+21	2,833896E+22
-1014	1,365012E+22	1,365084E+22	5,193343E+20	5,191703E+20	2,730097E+22	1,038505E+21	2,833947E+22
-1013	1,365073E+22	1,365100E+22	5,192200E+20	5,193211E+20	2,730173E+22	1,038541E+21	2,834027E+22
-1012	1,365125E+22	1,365058E+22	5,191853E+20	5,192248E+20	2,730183E+22	1,038410E+21	2,834024E+22
-1011	1,365078E+22	1,365141E+22	5,193080E+20	5,191848E+20	2,730219E+22	1,038493E+21	2,834068E+22
-1010	1,365149E+22	1,365104E+22	5,191559E+20	5,193111E+20	2,730253E+22	1,038467E+21	2,834100E+22
-1009	1,365121E+22	1,365078E+22	5,192444E+20	5,191844E+20	2,730199E+22	1,038429E+21	2,834042E+22
-1008	1,365044E+22	1,365112E+22	5,193131E+20	5,192561E+20	2,730156E+22	1,038569E+21	2,834013E+22
-1007	1,365060E+22	1,365010E+22	5,191895E+20	5,193382E+20	2,730071E+22	1,038528E+21	2,833924E+22
-1006	1,364961E+22	1,364994E+22	5,193626E+20	5,192295E+20	2,729955E+22	1,038592E+21	2,833814E+22
-1005	1,364926E+22	1,364957E+22	5,193250E+20	5,193746E+20	2,729883E+22	1,038700E+21	2,833753E+22
-1004	1,364937E+22	1,364836E+22	5,192737E+20	5,193543E+20	2,729773E+22	1,038628E+21	2,833636E+22
-1003	1,364826E+22	1,364878E+22	5,194350E+20	5,192877E+20	2,729704E+22	1,038723E+21	2,833576E+22
-1002	1,364848E+22	1,364839E+22	5,193034E+20	5,194555E+20	2,729687E+22	1,038759E+21	2,833563E+22
-1001	1,364847E+22	1,364787E+22	5,193426E+20	5,193462E+20	2,729633E+22	1,038689E+21	2,833502E+22
-1000	1,364787E+22	1,364864E+22	5,194267E+20	5,193315E+20	2,729651E+22	1,038758E+21	2,833527E+22
-999	1,364868E+22	1,364821E+22	5,192737E+20	5,194223E+20	2,729689E+22	1,038696E+21	2,833558E+22
-998	1,364855E+22	1,364863E+22	5,193855E+20	5,192505E+20	2,729718E+22	1,038636E+21	2,833581E+22
-997	1,364864E+22	1,364935E+22	5,193668E+20	5,193405E+20	2,729799E+22	1,038707E+21	2,833669E+22
-996	1,364951E+22	1,364886E+22	5,192358E+20	5,193453E+20	2,729837E+22	1,038581E+21	2,833695E+22
-995	1,364916E+22	1,364977E+22	5,193597E+20	5,192217E+20	2,729893E+22	1,038581E+21	2,833752E+22
-994	1,364982E+22	1,365000E+22	5,192529E+20	5,193683E+20	2,729982E+22	1,038621E+21	2,833844E+22
-993	1,365047E+22	1,364957E+22	5,192236E+20	5,192653E+20	2,730003E+22	1,038489E+21	2,833852E+22
-992	1,364987E+22	1,365046E+22	5,193528E+20	5,192101E+20	2,730033E+22	1,038563E+21	2,833889E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-991	1,365026E+22	1,365003E+22	5,192168E+20	5,193555E+20	2,730029E+22	1,038572E+21	2,833887E+22
-990	1,364988E+22	1,364972E+22	5,193063E+20	5,192395E+20	2,729960E+22	1,038546E+21	2,833814E+22
-989	1,364905E+22	1,364991E+22	5,193780E+20	5,193199E+20	2,729896E+22	1,038698E+21	2,833765E+22
-988	1,364933E+22	1,364861E+22	5,192426E+20	5,194013E+20	2,729794E+22	1,038644E+21	2,833658E+22
-987	1,364846E+22	1,364850E+22	5,194021E+20	5,192808E+20	2,729696E+22	1,038683E+21	2,833564E+22
-986	1,364809E+22	1,364832E+22	5,193712E+20	5,194282E+20	2,729641E+22	1,038799E+21	2,833521E+22
-985	1,364828E+22	1,364723E+22	5,193171E+20	5,194158E+20	2,729551E+22	1,038733E+21	2,833424E+22
-984	1,364715E+22	1,364774E+22	5,194747E+20	5,193334E+20	2,729489E+22	1,038808E+21	2,833369E+22
-983	1,364728E+22	1,364734E+22	5,193592E+20	5,195028E+20	2,729462E+22	1,038862E+21	2,833348E+22
-982	1,364739E+22	1,364690E+22	5,193979E+20	5,193797E+20	2,729429E+22	1,038778E+21	2,833307E+22
-981	1,364681E+22	1,364766E+22	5,194880E+20	5,193625E+20	2,729447E+22	1,038850E+21	2,833332E+22
-980	1,364764E+22	1,364709E+22	5,193231E+20	5,194618E+20	2,729474E+22	1,038785E+21	2,833352E+22
-979	1,364753E+22	1,364758E+22	5,194144E+20	5,192990E+20	2,729511E+22	1,038713E+21	2,833382E+22
-978	1,364759E+22	1,364836E+22	5,194005E+20	5,193984E+20	2,729595E+22	1,038799E+21	2,833475E+22
-977	1,364867E+22	1,364787E+22	5,192657E+20	5,194012E+20	2,729654E+22	1,038667E+21	2,833521E+22
-976	1,364840E+22	1,364882E+22	5,193887E+20	5,192482E+20	2,729721E+22	1,038637E+21	2,833585E+22
-975	1,364890E+22	1,364905E+22	5,193059E+20	5,193942E+20	2,729795E+22	1,038700E+21	2,833665E+22
-974	1,364944E+22	1,364872E+22	5,192801E+20	5,192945E+20	2,729816E+22	1,038575E+21	2,833673E+22
-973	1,364863E+22	1,364952E+22	5,194158E+20	5,192614E+20	2,729815E+22	1,038677E+21	2,833683E+22
-972	1,364895E+22	1,364878E+22	5,192690E+20	5,194212E+20	2,729773E+22	1,038690E+21	2,833642E+22
-971	1,364863E+22	1,364837E+22	5,193438E+20	5,193068E+20	2,729700E+22	1,038651E+21	2,833565E+22
-970	1,364786E+22	1,364857E+22	5,194227E+20	5,193808E+20	2,729643E+22	1,038804E+21	2,833523E+22
-969	1,364832E+22	1,364729E+22	5,192888E+20	5,194578E+20	2,729560E+22	1,038747E+21	2,833435E+22
-968	1,364740E+22	1,364732E+22	5,194452E+20	5,193192E+20	2,729472E+22	1,038764E+21	2,833348E+22
-967	1,364681E+22	1,364721E+22	5,194320E+20	5,194802E+20	2,729403E+22	1,038912E+21	2,833294E+22
-966	1,364697E+22	1,364621E+22	5,193811E+20	5,194656E+20	2,729318E+22	1,038847E+21	2,833203E+22
-965	1,364588E+22	1,364667E+22	5,195418E+20	5,193840E+20	2,729255E+22	1,038926E+21	2,833147E+22
-964	1,364611E+22	1,364606E+22	5,194165E+20	5,195436E+20	2,729217E+22	1,038960E+21	2,833113E+22
-963	1,364630E+22	1,364571E+22	5,194383E+20	5,194165E+20	2,729201E+22	1,038855E+21	2,833087E+22
-962	1,364572E+22	1,364662E+22	5,195275E+20	5,194073E+20	2,729234E+22	1,038935E+21	2,833128E+22
-961	1,364667E+22	1,364610E+22	5,193541E+20	5,195183E+20	2,729277E+22	1,038872E+21	2,833165E+22
-960	1,364663E+22	1,364665E+22	5,194363E+20	5,193407E+20	2,729327E+22	1,038777E+21	2,833205E+22
-959	1,364666E+22	1,364744E+22	5,194421E+20	5,194412E+20	2,729409E+22	1,038883E+21	2,833298E+22
-958	1,364780E+22	1,364705E+22	5,193142E+20	5,194292E+20	2,729485E+22	1,038743E+21	2,833359E+22
-957	1,364749E+22	1,364795E+22	5,194473E+20	5,192816E+20	2,729545E+22	1,038729E+21	2,833418E+22
-956	1,364784E+22	1,364799E+22	5,193589E+20	5,194358E+20	2,729584E+22	1,038795E+21	2,833463E+22
-955	1,364827E+22	1,364762E+22	5,193173E+20	5,193547E+20	2,729589E+22	1,038672E+21	2,833457E+22
-954	1,364739E+22	1,364834E+22	5,194590E+20	5,193307E+20	2,729573E+22	1,038790E+21	2,833452E+22
-953	1,364786E+22	1,364750E+22	5,193090E+20	5,194872E+20	2,729536E+22	1,038796E+21	2,833416E+22
-952	1,364762E+22	1,364710E+22	5,193814E+20	5,193446E+20	2,729472E+22	1,038726E+21	2,833344E+22
-951	1,364672E+22	1,364735E+22	5,194838E+20	5,194187E+20	2,729407E+22	1,038903E+21	2,833297E+22
-950	1,364710E+22	1,364626E+22	5,193556E+20	5,194967E+20	2,729336E+22	1,038852E+21	2,833221E+22
-949	1,364608E+22	1,364626E+22	5,195147E+20	5,193752E+20	2,729233E+22	1,038890E+21	2,833122E+22
-948	1,364544E+22	1,364595E+22	5,194927E+20	5,195402E+20	2,729139E+22	1,039033E+21	2,833042E+22
-947	1,364572E+22	1,364494E+22	5,194237E+20	5,195256E+20	2,729066E+22	1,038949E+21	2,832961E+22
-946	1,364470E+22	1,364542E+22	5,195876E+20	5,194358E+20	2,729013E+22	1,039023E+21	2,832915E+22
-945	1,364513E+22	1,364488E+22	5,194571E+20	5,195908E+20	2,729000E+22	1,039048E+21	2,832905E+22
-944	1,364533E+22	1,364466E+22	5,194681E+20	5,194514E+20	2,728999E+22	1,038919E+21	2,832891E+22
-943	1,364463E+22	1,364564E+22	5,195711E+20	5,194573E+20	2,729027E+22	1,039028E+21	2,832930E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-942	1,364565E+22	1,364525E+22	5,194016E+20	5,195623E+20	2,729090E+22	1,038964E+21	2,832986E+22
-941	1,364571E+22	1,364575E+22	5,194851E+20	5,193838E+20	2,729146E+22	1,038869E+21	2,833033E+22
-940	1,364577E+22	1,364639E+22	5,194882E+20	5,194730E+20	2,729216E+22	1,038961E+21	2,833112E+22
-939	1,364691E+22	1,364606E+22	5,193506E+20	5,194621E+20	2,729297E+22	1,038813E+21	2,833178E+22
-938	1,364646E+22	1,364700E+22	5,194898E+20	5,193288E+20	2,729346E+22	1,038819E+21	2,833228E+22
-937	1,364680E+22	1,364697E+22	5,193968E+20	5,194935E+20	2,729376E+22	1,038890E+21	2,833265E+22
-936	1,364720E+22	1,364653E+22	5,193493E+20	5,194038E+20	2,729373E+22	1,038753E+21	2,833248E+22
-935	1,364625E+22	1,364717E+22	5,195106E+20	5,193825E+20	2,729342E+22	1,038893E+21	2,833232E+22
-934	1,364674E+22	1,364640E+22	5,193719E+20	5,195228E+20	2,729314E+22	1,038895E+21	2,833203E+22
-933	1,364648E+22	1,364596E+22	5,194506E+20	5,193885E+20	2,729244E+22	1,038839E+21	2,833128E+22
-932	1,364542E+22	1,364606E+22	5,195455E+20	5,194701E+20	2,729149E+22	1,039016E+21	2,833050E+22
-931	1,364571E+22	1,364500E+22	5,194056E+20	5,195647E+20	2,729072E+22	1,038970E+21	2,832969E+22
-930	1,364472E+22	1,364497E+22	5,195659E+20	5,194501E+20	2,728969E+22	1,039016E+21	2,832870E+22
-929	1,364429E+22	1,364462E+22	5,195367E+20	5,196019E+20	2,728890E+22	1,039139E+21	2,832804E+22
-928	1,364467E+22	1,364370E+22	5,194600E+20	5,195602E+20	2,728837E+22	1,039020E+21	2,832739E+22
-927	1,364360E+22	1,364429E+22	5,196385E+20	5,194723E+20	2,728789E+22	1,039111E+21	2,832700E+22
-926	1,364398E+22	1,364397E+22	5,195110E+20	5,196238E+20	2,728795E+22	1,039135E+21	2,832708E+22
-925	1,364422E+22	1,364376E+22	5,195201E+20	5,195012E+20	2,728798E+22	1,039021E+21	2,832700E+22
-924	1,364357E+22	1,364457E+22	5,196143E+20	5,195066E+20	2,728814E+22	1,039121E+21	2,832726E+22
-923	1,364473E+22	1,364424E+22	5,194362E+20	5,196081E+20	2,728897E+22	1,039044E+21	2,832802E+22
-922	1,364487E+22	1,364477E+22	5,195238E+20	5,194248E+20	2,728964E+22	1,038949E+21	2,832859E+22
-921	1,364500E+22	1,364542E+22	5,195241E+20	5,195095E+20	2,729042E+22	1,039034E+21	2,832946E+22
-920	1,364600E+22	1,364517E+22	5,193787E+20	5,194943E+20	2,729117E+22	1,038873E+21	2,833004E+22
-919	1,364532E+22	1,364604E+22	5,195372E+20	5,193816E+20	2,729136E+22	1,038919E+21	2,833028E+22
-918	1,364563E+22	1,364602E+22	5,194532E+20	5,195381E+20	2,729165E+22	1,038991E+21	2,833064E+22
-917	1,364610E+22	1,364543E+22	5,194098E+20	5,194524E+20	2,729152E+22	1,038862E+21	2,833039E+22
-916	1,364511E+22	1,364585E+22	5,195670E+20	5,194239E+20	2,729096E+22	1,038991E+21	2,832995E+22
-915	1,364558E+22	1,364515E+22	5,194207E+20	5,195719E+20	2,729073E+22	1,038993E+21	2,832972E+22
-914	1,364521E+22	1,364474E+22	5,194999E+20	5,194533E+20	2,728995E+22	1,038953E+21	2,832890E+22
-913	1,364420E+22	1,364481E+22	5,195868E+20	5,195403E+20	2,728901E+22	1,039127E+21	2,832814E+22
-912	1,364452E+22	1,364377E+22	5,194420E+20	5,196203E+20	2,728829E+22	1,039062E+21	2,832735E+22
-911	1,364350E+22	1,364374E+22	5,196206E+20	5,195051E+20	2,728723E+22	1,039126E+21	2,832636E+22
-910	1,364312E+22	1,364352E+22	5,196005E+20	5,196322E+20	2,728665E+22	1,039233E+21	2,832588E+22
-909	1,364353E+22	1,364261E+22	5,195251E+20	5,195999E+20	2,728615E+22	1,039125E+21	2,832527E+22
-908	1,364236E+22	1,364310E+22	5,196902E+20	5,195189E+20	2,728546E+22	1,039209E+21	2,832467E+22
-907	1,364279E+22	1,364285E+22	5,195524E+20	5,196819E+20	2,728563E+22	1,039234E+21	2,832487E+22
-906	1,364316E+22	1,364267E+22	5,195599E+20	5,195612E+20	2,728582E+22	1,039121E+21	2,832494E+22
-905	1,364276E+22	1,364350E+22	5,196452E+20	5,195517E+20	2,728626E+22	1,039197E+21	2,832545E+22
-904	1,364397E+22	1,364331E+22	5,194650E+20	5,196279E+20	2,728728E+22	1,039093E+21	2,832637E+22
-903	1,364397E+22	1,364393E+22	5,195682E+20	5,194567E+20	2,728790E+22	1,039025E+21	2,832693E+22
-902	1,364394E+22	1,364469E+22	5,195768E+20	5,195357E+20	2,728863E+22	1,039112E+21	2,832774E+22
-901	1,364487E+22	1,364430E+22	5,194323E+20	5,195430E+20	2,728918E+22	1,038975E+21	2,832815E+22
-900	1,364416E+22	1,364486E+22	5,195834E+20	5,194353E+20	2,728902E+22	1,039019E+21	2,832804E+22
-899	1,364452E+22	1,364480E+22	5,194965E+20	5,195901E+20	2,728932E+22	1,039087E+21	2,832841E+22
-898	1,364505E+22	1,364419E+22	5,194574E+20	5,195075E+20	2,728923E+22	1,038965E+21	2,832820E+22
-897	1,364413E+22	1,364459E+22	5,196059E+20	5,194779E+20	2,728872E+22	1,039084E+21	2,832781E+22
-896	1,364446E+22	1,364400E+22	5,194565E+20	5,196216E+20	2,728845E+22	1,039078E+21	2,832753E+22
-895	1,364393E+22	1,364358E+22	5,195528E+20	5,195206E+20	2,728751E+22	1,039073E+21	2,832658E+22
-894	1,364291E+22	1,364371E+22	5,196499E+20	5,195860E+20	2,728662E+22	1,039236E+21	2,832586E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-893	1,364331E+22	1,364260E+22	5,195105E+20	5,196652E+20	2,728590E+22	1,039176E+21	2,832508E+22
-892	1,364224E+22	1,364239E+22	5,196836E+20	5,195434E+20	2,728463E+22	1,039227E+21	2,832386E+22
-891	1,364185E+22	1,364229E+22	5,196550E+20	5,196755E+20	2,728414E+22	1,039330E+21	2,832347E+22
-890	1,364225E+22	1,364144E+22	5,195744E+20	5,196610E+20	2,728369E+22	1,039235E+21	2,832292E+22
-889	1,364128E+22	1,364191E+22	5,197206E+20	5,195828E+20	2,728319E+22	1,039303E+21	2,832249E+22
-888	1,364185E+22	1,364179E+22	5,195779E+20	5,197277E+20	2,728364E+22	1,039306E+21	2,832294E+22
-887	1,364226E+22	1,364171E+22	5,196004E+20	5,196036E+20	2,728397E+22	1,039204E+21	2,832317E+22
-886	1,364193E+22	1,364272E+22	5,196969E+20	5,195676E+20	2,728464E+22	1,039265E+21	2,832390E+22
-885	1,364307E+22	1,364253E+22	5,195203E+20	5,196540E+20	2,728560E+22	1,039174E+21	2,832477E+22
-884	1,364283E+22	1,364294E+22	5,196150E+20	5,195001E+20	2,728577E+22	1,039115E+21	2,832488E+22
-883	1,364277E+22	1,364364E+22	5,196179E+20	5,195917E+20	2,728641E+22	1,039210E+21	2,832562E+22
-882	1,364376E+22	1,364315E+22	5,194749E+20	5,196058E+20	2,728691E+22	1,039081E+21	2,832599E+22
-881	1,364328E+22	1,364361E+22	5,196133E+20	5,194875E+20	2,728688E+22	1,039101E+21	2,832599E+22
-880	1,364365E+22	1,364365E+22	5,195289E+20	5,196220E+20	2,728729E+22	1,039151E+21	2,832644E+22
-879	1,364399E+22	1,364314E+22	5,195059E+20	5,195540E+20	2,728713E+22	1,039060E+21	2,832619E+22
-878	1,364294E+22	1,364366E+22	5,196640E+20	5,195171E+20	2,728660E+22	1,039181E+21	2,832578E+22
-877	1,364319E+22	1,364296E+22	5,195222E+20	5,196750E+20	2,728615E+22	1,039197E+21	2,832535E+22
-876	1,364257E+22	1,364228E+22	5,196155E+20	5,195785E+20	2,728485E+22	1,039194E+21	2,832404E+22
-875	1,364160E+22	1,364239E+22	5,197100E+20	5,196362E+20	2,728398E+22	1,039346E+21	2,832333E+22
-874	1,364203E+22	1,364125E+22	5,195729E+20	5,197205E+20	2,728328E+22	1,039293E+21	2,832258E+22
-873	1,364107E+22	1,364103E+22	5,197251E+20	5,196014E+20	2,728210E+22	1,039327E+21	2,832143E+22
-872	1,364065E+22	1,364107E+22	5,196883E+20	5,197286E+20	2,728172E+22	1,039417E+21	2,832113E+22
-871	1,364107E+22	1,364032E+22	5,196178E+20	5,197274E+20	2,728139E+22	1,039345E+21	2,832073E+22
-870	1,364027E+22	1,364094E+22	5,197685E+20	5,196202E+20	2,728121E+22	1,039389E+21	2,832060E+22
-869	1,364096E+22	1,364088E+22	5,196341E+20	5,197571E+20	2,728184E+22	1,039391E+21	2,832123E+22
-868	1,364129E+22	1,364071E+22	5,196495E+20	5,196300E+20	2,728201E+22	1,039279E+21	2,832129E+22
-867	1,364087E+22	1,364180E+22	5,197418E+20	5,195989E+20	2,728267E+22	1,039341E+21	2,832201E+22
-866	1,364192E+22	1,364159E+22	5,195640E+20	5,197054E+20	2,728351E+22	1,039269E+21	2,832278E+22
-865	1,364183E+22	1,364184E+22	5,196409E+20	5,195600E+20	2,728368E+22	1,039201E+21	2,832288E+22
-864	1,364185E+22	1,364256E+22	5,196431E+20	5,196366E+20	2,728441E+22	1,039280E+21	2,832369E+22
-863	1,364286E+22	1,364211E+22	5,195167E+20	5,196537E+20	2,728497E+22	1,039170E+21	2,832414E+22
-862	1,364240E+22	1,364268E+22	5,196641E+20	5,195134E+20	2,728508E+22	1,039178E+21	2,832425E+22
-861	1,364264E+22	1,364273E+22	5,195892E+20	5,196585E+20	2,728537E+22	1,039248E+21	2,832462E+22
-860	1,364268E+22	1,364202E+22	5,195630E+20	5,196089E+20	2,728470E+22	1,039172E+21	2,832387E+22
-859	1,364158E+22	1,364245E+22	5,197228E+20	5,195784E+20	2,728403E+22	1,039301E+21	2,832333E+22
-858	1,364185E+22	1,364164E+22	5,195855E+20	5,197399E+20	2,728349E+22	1,039325E+21	2,832282E+22
-857	1,364139E+22	1,364084E+22	5,196627E+20	5,196383E+20	2,728223E+22	1,039301E+21	2,832153E+22
-856	1,364044E+22	1,364104E+22	5,197518E+20	5,196799E+20	2,728148E+22	1,039432E+21	2,832091E+22
-855	1,364076E+22	1,364003E+22	5,196233E+20	5,197781E+20	2,728079E+22	1,039401E+21	2,832019E+22
-854	1,363984E+22	1,363997E+22	5,197738E+20	5,196487E+20	2,727981E+22	1,039422E+21	2,831923E+22
-853	1,363953E+22	1,364002E+22	5,197425E+20	5,197787E+20	2,727954E+22	1,039521E+21	2,831906E+22
-852	1,363991E+22	1,363918E+22	5,196698E+20	5,197740E+20	2,727910E+22	1,039444E+21	2,831854E+22
-851	1,363926E+22	1,363990E+22	5,198189E+20	5,196552E+20	2,727916E+22	1,039474E+21	2,831863E+22
-850	1,363997E+22	1,363988E+22	5,196902E+20	5,197935E+20	2,727984E+22	1,039484E+21	2,831933E+22
-849	1,364032E+22	1,363969E+22	5,196822E+20	5,196755E+20	2,728001E+22	1,039358E+21	2,831937E+22
-848	1,363983E+22	1,364080E+22	5,197672E+20	5,196444E+20	2,728064E+22	1,039412E+21	2,832005E+22
-847	1,364085E+22	1,364061E+22	5,196007E+20	5,197628E+20	2,728146E+22	1,039363E+21	2,832082E+22
-846	1,364093E+22	1,364091E+22	5,196824E+20	5,195947E+20	2,728185E+22	1,039277E+21	2,832112E+22
-845	1,364102E+22	1,364162E+22	5,196972E+20	5,196646E+20	2,728264E+22	1,039362E+21	2,832200E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-844	1,364183E+22	1,364107E+22	5,195721E+20	5,196869E+20	2,728291E+22	1,039259E+21	2,832217E+22
-843	1,364125E+22	1,364167E+22	5,197166E+20	5,195567E+20	2,728292E+22	1,039273E+21	2,832219E+22
-842	1,364135E+22	1,364164E+22	5,196466E+20	5,197207E+20	2,728299E+22	1,039367E+21	2,832236E+22
-841	1,364148E+22	1,364073E+22	5,196023E+20	5,196818E+20	2,728221E+22	1,039284E+21	2,832149E+22
-840	1,364039E+22	1,364114E+22	5,197624E+20	5,196356E+20	2,728153E+22	1,039398E+21	2,832093E+22
-839	1,364066E+22	1,364037E+22	5,196396E+20	5,197964E+20	2,728103E+22	1,039436E+21	2,832047E+22
-838	1,364026E+22	1,363965E+22	5,197212E+20	5,196764E+20	2,727991E+22	1,039398E+21	2,831931E+22
-837	1,363922E+22	1,363989E+22	5,198132E+20	5,197247E+20	2,727911E+22	1,039538E+21	2,831865E+22
-836	1,363936E+22	1,363879E+22	5,196800E+20	5,198380E+20	2,727815E+22	1,039518E+21	2,831767E+22
-835	1,363856E+22	1,363874E+22	5,198259E+20	5,197053E+20	2,727730E+22	1,039531E+21	2,831683E+22
-834	1,363838E+22	1,363884E+22	5,198009E+20	5,198310E+20	2,727722E+22	1,039632E+21	2,831685E+22
-833	1,363896E+22	1,363801E+22	5,197101E+20	5,198163E+20	2,727697E+22	1,039526E+21	2,831650E+22
-832	1,363831E+22	1,363887E+22	5,198530E+20	5,196856E+20	2,727717E+22	1,039539E+21	2,831671E+22
-831	1,363889E+22	1,363898E+22	5,197312E+20	5,198369E+20	2,727787E+22	1,039568E+21	2,831744E+22
-830	1,363929E+22	1,363885E+22	5,197207E+20	5,197151E+20	2,727813E+22	1,039436E+21	2,831757E+22
-829	1,363888E+22	1,363990E+22	5,198107E+20	5,196875E+20	2,727879E+22	1,039498E+21	2,831829E+22
-828	1,363982E+22	1,363958E+22	5,196466E+20	5,198066E+20	2,727941E+22	1,039453E+21	2,831886E+22
-827	1,364002E+22	1,363989E+22	5,197291E+20	5,196311E+20	2,727992E+22	1,039360E+21	2,831928E+22
-826	1,364007E+22	1,364060E+22	5,197526E+20	5,197083E+20	2,728067E+22	1,039461E+21	2,832013E+22
-825	1,364080E+22	1,363998E+22	5,196085E+20	5,197440E+20	2,728078E+22	1,039353E+21	2,832013E+22
-824	1,364012E+22	1,364054E+22	5,197497E+20	5,196187E+20	2,728066E+22	1,039368E+21	2,832003E+22
-823	1,364014E+22	1,364047E+22	5,196945E+20	5,197845E+20	2,728061E+22	1,039479E+21	2,832009E+22
-822	1,364037E+22	1,363958E+22	5,196557E+20	5,197265E+20	2,727995E+22	1,039382E+21	2,831933E+22
-821	1,363932E+22	1,363994E+22	5,198247E+20	5,196717E+20	2,727926E+22	1,039496E+21	2,831876E+22
-820	1,363931E+22	1,363910E+22	5,197045E+20	5,198377E+20	2,727841E+22	1,039542E+21	2,831795E+22
-819	1,363887E+22	1,363842E+22	5,197801E+20	5,197271E+20	2,727730E+22	1,039507E+21	2,831680E+22
-818	1,363784E+22	1,363862E+22	5,198744E+20	5,197896E+20	2,727647E+22	1,039664E+21	2,831613E+22
-817	1,363813E+22	1,363747E+22	5,197232E+20	5,199054E+20	2,727560E+22	1,039629E+21	2,831523E+22
-816	1,363749E+22	1,363751E+22	5,198625E+20	5,197573E+20	2,727500E+22	1,039620E+21	2,831462E+22
-815	1,363735E+22	1,363775E+22	5,198493E+20	5,198747E+20	2,727510E+22	1,039724E+21	2,831483E+22
-814	1,363800E+22	1,363709E+22	5,197578E+20	5,198464E+20	2,727509E+22	1,039604E+21	2,831470E+22
-813	1,363728E+22	1,363797E+22	5,198997E+20	5,197230E+20	2,727525E+22	1,039623E+21	2,831487E+22
-812	1,363764E+22	1,363797E+22	5,197783E+20	5,198859E+20	2,727561E+22	1,039664E+21	2,831527E+22
-811	1,363819E+22	1,363780E+22	5,197646E+20	5,197632E+20	2,727600E+22	1,039528E+21	2,831552E+22
-810	1,363794E+22	1,363883E+22	5,198605E+20	5,197353E+20	2,727678E+22	1,039596E+21	2,831637E+22
-809	1,363901E+22	1,363848E+22	5,196820E+20	5,198493E+20	2,727750E+22	1,039531E+21	2,831703E+22
-808	1,363917E+22	1,363888E+22	5,197580E+20	5,196699E+20	2,727805E+22	1,039428E+21	2,831748E+22
-807	1,363904E+22	1,363968E+22	5,197913E+20	5,197574E+20	2,727872E+22	1,039549E+21	2,831827E+22
-806	1,363975E+22	1,363906E+22	5,196507E+20	5,197892E+20	2,727881E+22	1,039440E+21	2,831825E+22
-805	1,363905E+22	1,363950E+22	5,198027E+20	5,196654E+20	2,727855E+22	1,039468E+21	2,831802E+22
-804	1,363887E+22	1,363929E+22	5,197559E+20	5,198284E+20	2,727816E+22	1,039584E+21	2,831774E+22
-803	1,363915E+22	1,363834E+22	5,197210E+20	5,197683E+20	2,727749E+22	1,039489E+21	2,831698E+22
-802	1,363804E+22	1,363865E+22	5,198925E+20	5,197257E+20	2,727670E+22	1,039618E+21	2,831632E+22
-801	1,363797E+22	1,363774E+22	5,197508E+20	5,199051E+20	2,727571E+22	1,039656E+21	2,831537E+22
-800	1,363757E+22	1,363706E+22	5,198170E+20	5,197978E+20	2,727463E+22	1,039615E+21	2,831424E+22
-799	1,363662E+22	1,363735E+22	5,199192E+20	5,198554E+20	2,727397E+22	1,039775E+21	2,831374E+22
-798	1,363711E+22	1,363635E+22	5,197736E+20	5,199478E+20	2,727345E+22	1,039721E+21	2,831318E+22
-797	1,363653E+22	1,363647E+22	5,199173E+20	5,197890E+20	2,727300E+22	1,039706E+21	2,831271E+22
-796	1,363613E+22	1,363673E+22	5,199064E+20	5,199073E+20	2,727286E+22	1,039814E+21	2,831267E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-795	1,363677E+22	1,363611E+22	5,198081E+20	5,198886E+20	2,727288E+22	1,039697E+21	2,831258E+22
-794	1,363611E+22	1,363691E+22	5,199486E+20	5,197805E+20	2,727301E+22	1,039729E+21	2,831274E+22
-793	1,363661E+22	1,363682E+22	5,198101E+20	5,199416E+20	2,727344E+22	1,039752E+21	2,831319E+22
-792	1,363737E+22	1,363672E+22	5,197905E+20	5,198092E+20	2,727408E+22	1,039600E+21	2,831368E+22
-791	1,363717E+22	1,363785E+22	5,198976E+20	5,197730E+20	2,727502E+22	1,039671E+21	2,831470E+22
-790	1,363822E+22	1,363766E+22	5,197245E+20	5,198780E+20	2,727588E+22	1,039602E+21	2,831548E+22
-789	1,363823E+22	1,363805E+22	5,198005E+20	5,197092E+20	2,727628E+22	1,039510E+21	2,831579E+22
-788	1,363777E+22	1,363867E+22	5,198443E+20	5,198026E+20	2,727644E+22	1,039647E+21	2,831609E+22
-787	1,363853E+22	1,363796E+22	5,197083E+20	5,198343E+20	2,727649E+22	1,039543E+21	2,831604E+22
-786	1,363788E+22	1,363826E+22	5,198690E+20	5,197166E+20	2,727614E+22	1,039586E+21	2,831573E+22
-785	1,363768E+22	1,363794E+22	5,198079E+20	5,198778E+20	2,727563E+22	1,039686E+21	2,831531E+22
-784	1,363792E+22	1,363702E+22	5,197628E+20	5,198266E+20	2,727494E+22	1,039589E+21	2,831453E+22
-783	1,363673E+22	1,363738E+22	5,199339E+20	5,197938E+20	2,727411E+22	1,039728E+21	2,831384E+22
-782	1,363677E+22	1,363654E+22	5,197957E+20	5,199670E+20	2,727331E+22	1,039763E+21	2,831307E+22
-781	1,363647E+22	1,363588E+22	5,198654E+20	5,198522E+20	2,727235E+22	1,039718E+21	2,831207E+22
-780	1,363539E+22	1,363618E+22	5,199790E+20	5,198967E+20	2,727156E+22	1,039876E+21	2,831144E+22
-779	1,363596E+22	1,363524E+22	5,198398E+20	5,199816E+20	2,727121E+22	1,039821E+21	2,831103E+22
-778	1,363533E+22	1,363539E+22	5,199817E+20	5,198379E+20	2,727072E+22	1,039820E+21	2,831054E+22
-777	1,363487E+22	1,363557E+22	5,199473E+20	5,199635E+20	2,727044E+22	1,039911E+21	2,831035E+22
-776	1,363561E+22	1,363492E+22	5,198383E+20	5,199486E+20	2,727053E+22	1,039787E+21	2,831032E+22
-775	1,363513E+22	1,363579E+22	5,199798E+20	5,198328E+20	2,727092E+22	1,039813E+21	2,831073E+22
-774	1,363588E+22	1,363586E+22	5,198480E+20	5,199716E+20	2,727175E+22	1,039820E+21	2,831157E+22
-773	1,363665E+22	1,363587E+22	5,198317E+20	5,198300E+20	2,727252E+22	1,039662E+21	2,831218E+22
-772	1,363614E+22	1,363704E+22	5,199456E+20	5,197995E+20	2,727318E+22	1,039745E+21	2,831292E+22
-771	1,363710E+22	1,363683E+22	5,197771E+20	5,199128E+20	2,727393E+22	1,039690E+21	2,831362E+22
-770	1,363708E+22	1,363705E+22	5,198559E+20	5,197677E+20	2,727413E+22	1,039624E+21	2,831375E+22
-769	1,363661E+22	1,363747E+22	5,198865E+20	5,198582E+20	2,727408E+22	1,039745E+21	2,831382E+22
-768	1,363745E+22	1,363669E+22	5,197474E+20	5,198901E+20	2,727414E+22	1,039638E+21	2,831377E+22
-767	1,363682E+22	1,363699E+22	5,199133E+20	5,197714E+20	2,727381E+22	1,039685E+21	2,831349E+22
-766	1,363660E+22	1,363677E+22	5,198542E+20	5,199288E+20	2,727336E+22	1,039783E+21	2,831315E+22
-765	1,363674E+22	1,363585E+22	5,198087E+20	5,198850E+20	2,727259E+22	1,039694E+21	2,831228E+22
-764	1,363535E+22	1,363613E+22	5,199882E+20	5,198520E+20	2,727148E+22	1,039840E+21	2,831132E+22
-763	1,363551E+22	1,363533E+22	5,198619E+20	5,200142E+20	2,727084E+22	1,039876E+21	2,831072E+22
-762	1,363529E+22	1,363466E+22	5,199367E+20	5,199034E+20	2,726996E+22	1,039840E+21	2,830980E+22
-761	1,363416E+22	1,363492E+22	5,200351E+20	5,199376E+20	2,726908E+22	1,039973E+21	2,830906E+22
-760	1,363472E+22	1,363406E+22	5,198844E+20	5,200324E+20	2,726878E+22	1,039917E+21	2,830869E+22
-759	1,363409E+22	1,363422E+22	5,200203E+20	5,198954E+20	2,726831E+22	1,039916E+21	2,830823E+22
-758	1,363380E+22	1,363448E+22	5,199855E+20	5,200123E+20	2,726828E+22	1,039998E+21	2,830828E+22
-757	1,363471E+22	1,363391E+22	5,198742E+20	5,199894E+20	2,726862E+22	1,039864E+21	2,830848E+22
-756	1,363417E+22	1,363481E+22	5,200246E+20	5,198629E+20	2,726898E+22	1,039888E+21	2,830887E+22
-755	1,363500E+22	1,363501E+22	5,199053E+20	5,199948E+20	2,727001E+22	1,039900E+21	2,830991E+22
-754	1,363567E+22	1,363502E+22	5,198861E+20	5,198751E+20	2,727069E+22	1,039761E+21	2,831045E+22
-753	1,363500E+22	1,363602E+22	5,199832E+20	5,198512E+20	2,727102E+22	1,039834E+21	2,831086E+22
-752	1,363599E+22	1,363571E+22	5,198097E+20	5,199719E+20	2,727170E+22	1,039782E+21	2,831148E+22
-751	1,363605E+22	1,363587E+22	5,198918E+20	5,198255E+20	2,727192E+22	1,039717E+21	2,831164E+22
-750	1,363570E+22	1,363634E+22	5,199303E+20	5,198996E+20	2,727205E+22	1,039830E+21	2,831188E+22
-749	1,363648E+22	1,363560E+22	5,197932E+20	5,199283E+20	2,727208E+22	1,039721E+21	2,831180E+22
-748	1,363555E+22	1,363588E+22	5,199643E+20	5,198169E+20	2,727142E+22	1,039781E+21	2,831121E+22
-747	1,363530E+22	1,363565E+22	5,199163E+20	5,199771E+20	2,727095E+22	1,039893E+21	2,831084E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-746	1,363544E+22	1,363465E+22	5,198743E+20	5,199517E+20	2,727009E+22	1,039826E+21	2,830992E+22
-745	1,363408E+22	1,363480E+22	5,200418E+20	5,199090E+20	2,726888E+22	1,039951E+21	2,830883E+22
-744	1,363434E+22	1,363399E+22	5,199170E+20	5,200662E+20	2,726833E+22	1,039983E+21	2,830831E+22
-743	1,363410E+22	1,363342E+22	5,199906E+20	5,199565E+20	2,726752E+22	1,039947E+21	2,830747E+22
-742	1,363299E+22	1,363378E+22	5,200815E+20	5,199875E+20	2,726676E+22	1,040069E+21	2,830683E+22
-741	1,363349E+22	1,363292E+22	5,199253E+20	5,200842E+20	2,726641E+22	1,040009E+21	2,830642E+22
-740	1,363281E+22	1,363305E+22	5,200638E+20	5,199453E+20	2,726587E+22	1,040009E+21	2,830588E+22
-739	1,363276E+22	1,363342E+22	5,200418E+20	5,200462E+20	2,726618E+22	1,040088E+21	2,830627E+22
-738	1,363380E+22	1,363294E+22	5,199326E+20	5,200298E+20	2,726673E+22	1,039962E+21	2,830670E+22
-737	1,363322E+22	1,363382E+22	5,200644E+20	5,198985E+20	2,726704E+22	1,039963E+21	2,830700E+22
-736	1,363400E+22	1,363406E+22	5,199390E+20	5,200419E+20	2,726806E+22	1,039981E+21	2,830804E+22
-735	1,363464E+22	1,363406E+22	5,199152E+20	5,199321E+20	2,726870E+22	1,039847E+21	2,830854E+22
-734	1,363407E+22	1,363503E+22	5,200151E+20	5,199008E+20	2,726910E+22	1,039916E+21	2,830902E+22
-733	1,363508E+22	1,363470E+22	5,198463E+20	5,200100E+20	2,726979E+22	1,039856E+21	2,830964E+22
-732	1,363500E+22	1,363479E+22	5,199430E+20	5,198612E+20	2,726980E+22	1,039804E+21	2,830960E+22
-731	1,363464E+22	1,363531E+22	5,199977E+20	5,199309E+20	2,726995E+22	1,039929E+21	2,830988E+22
-730	1,363527E+22	1,363454E+22	5,198588E+20	5,199881E+20	2,726980E+22	1,039847E+21	2,830965E+22
-729	1,363418E+22	1,363459E+22	5,200125E+20	5,198801E+20	2,726877E+22	1,039893E+21	2,830867E+22
-728	1,363401E+22	1,363429E+22	5,199647E+20	5,200438E+20	2,726831E+22	1,040009E+21	2,830831E+22
-727	1,363425E+22	1,363331E+22	5,199248E+20	5,200123E+20	2,726756E+22	1,039937E+21	2,830749E+22
-726	1,363299E+22	1,363354E+22	5,200967E+20	5,199545E+20	2,726652E+22	1,040051E+21	2,830658E+22
-725	1,363316E+22	1,363284E+22	5,199697E+20	5,201055E+20	2,726600E+22	1,040075E+21	2,830607E+22
-724	1,363268E+22	1,363225E+22	5,200446E+20	5,200063E+20	2,726494E+22	1,040051E+21	2,830499E+22
-723	1,363164E+22	1,363264E+22	5,201414E+20	5,200353E+20	2,726428E+22	1,040177E+21	2,830446E+22
-722	1,363227E+22	1,363178E+22	5,199822E+20	5,201465E+20	2,726405E+22	1,040129E+21	2,830418E+22
-721	1,363172E+22	1,363183E+22	5,201024E+20	5,199939E+20	2,726355E+22	1,040096E+21	2,830365E+22
-720	1,363188E+22	1,363228E+22	5,200828E+20	5,200903E+20	2,726416E+22	1,040173E+21	2,830433E+22
-719	1,363291E+22	1,363197E+22	5,199708E+20	5,200737E+20	2,726488E+22	1,040045E+21	2,830493E+22
-718	1,363235E+22	1,363295E+22	5,200969E+20	5,199437E+20	2,726529E+22	1,040041E+21	2,830533E+22
-717	1,363303E+22	1,363318E+22	5,199712E+20	5,200820E+20	2,726621E+22	1,040053E+21	2,830627E+22
-716	1,363354E+22	1,363309E+22	5,199563E+20	5,199740E+20	2,726663E+22	1,039930E+21	2,830656E+22
-715	1,363310E+22	1,363405E+22	5,200744E+20	5,199291E+20	2,726716E+22	1,040004E+21	2,830716E+22
-714	1,363407E+22	1,363372E+22	5,199115E+20	5,200499E+20	2,726779E+22	1,039961E+21	2,830775E+22
-713	1,363386E+22	1,363367E+22	5,199909E+20	5,199052E+20	2,726753E+22	1,039896E+21	2,830742E+22
-712	1,363345E+22	1,363410E+22	5,200432E+20	5,199895E+20	2,726756E+22	1,040033E+21	2,830759E+22
-711	1,363402E+22	1,363331E+22	5,199018E+20	5,200569E+20	2,726733E+22	1,039959E+21	2,830729E+22
-710	1,363308E+22	1,363335E+22	5,200524E+20	5,199451E+20	2,726643E+22	1,039998E+21	2,830643E+22
-709	1,363291E+22	1,363307E+22	5,200112E+20	5,200899E+20	2,726598E+22	1,040101E+21	2,830608E+22
-708	1,363301E+22	1,363209E+22	5,199854E+20	5,200580E+20	2,726510E+22	1,040043E+21	2,830514E+22
-707	1,363173E+22	1,363239E+22	5,201694E+20	5,199941E+20	2,726412E+22	1,040164E+21	2,830428E+22
-706	1,363175E+22	1,363169E+22	5,200375E+20	5,201676E+20	2,726344E+22	1,040205E+21	2,830365E+22
-705	1,363124E+22	1,363089E+22	5,200914E+20	5,200707E+20	2,726213E+22	1,040162E+21	2,830230E+22
-704	1,363044E+22	1,363125E+22	5,201840E+20	5,200981E+20	2,726168E+22	1,040282E+21	2,830197E+22
-703	1,363125E+22	1,363056E+22	5,200245E+20	5,201986E+20	2,726180E+22	1,040223E+21	2,830203E+22
-702	1,363092E+22	1,363078E+22	5,201394E+20	5,200328E+20	2,726169E+22	1,040172E+21	2,830186E+22
-701	1,363101E+22	1,363141E+22	5,201195E+20	5,201176E+20	2,726242E+22	1,040237E+21	2,830266E+22
-700	1,363181E+22	1,363114E+22	5,200132E+20	5,201099E+20	2,726296E+22	1,040123E+21	2,830308E+22
-699	1,363128E+22	1,363212E+22	5,201512E+20	5,199779E+20	2,726340E+22	1,040129E+21	2,830353E+22
-698	1,363197E+22	1,363229E+22	5,200272E+20	5,201277E+20	2,726426E+22	1,040155E+21	2,830442E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-697	1,363247E+22	1,363197E+22	5,200007E+20	5,200153E+20	2,726443E+22	1,040016E+21	2,830445E+22
-696	1,363214E+22	1,363288E+22	5,201214E+20	5,199762E+20	2,726502E+22	1,040098E+21	2,830512E+22
-695	1,363303E+22	1,363261E+22	5,199543E+20	5,201051E+20	2,726564E+22	1,040059E+21	2,830570E+22
-694	1,363281E+22	1,363253E+22	5,200240E+20	5,199687E+20	2,726534E+22	1,039993E+21	2,830533E+22
-693	1,363234E+22	1,363295E+22	5,200769E+20	5,200443E+20	2,726528E+22	1,040121E+21	2,830541E+22
-692	1,363280E+22	1,363212E+22	5,199514E+20	5,201094E+20	2,726492E+22	1,040061E+21	2,830498E+22
-691	1,363196E+22	1,363220E+22	5,201229E+20	5,199830E+20	2,726416E+22	1,040106E+21	2,830427E+22
-690	1,363168E+22	1,363196E+22	5,200869E+20	5,201344E+20	2,726364E+22	1,040221E+21	2,830387E+22
-689	1,363158E+22	1,363082E+22	5,200443E+20	5,201100E+20	2,726240E+22	1,040154E+21	2,830256E+22
-688	1,363034E+22	1,363103E+22	5,202210E+20	5,200602E+20	2,726136E+22	1,040281E+21	2,830164E+22
-687	1,363039E+22	1,363035E+22	5,200826E+20	5,202360E+20	2,726074E+22	1,040319E+21	2,830106E+22
-686	1,363015E+22	1,362959E+22	5,201272E+20	5,201327E+20	2,725974E+22	1,040260E+21	2,830000E+22
-685	1,362949E+22	1,363008E+22	5,202211E+20	5,201355E+20	2,725958E+22	1,040357E+21	2,829993E+22
-684	1,363025E+22	1,362956E+22	5,200774E+20	5,202328E+20	2,725981E+22	1,040310E+21	2,830012E+22
-683	1,362994E+22	1,362996E+22	5,201995E+20	5,200628E+20	2,725989E+22	1,040262E+21	2,830015E+22
-682	1,362987E+22	1,363060E+22	5,201770E+20	5,201626E+20	2,726048E+22	1,040340E+21	2,830082E+22
-681	1,363059E+22	1,363010E+22	5,200541E+20	5,201580E+20	2,726069E+22	1,040212E+21	2,830091E+22
-680	1,363027E+22	1,363093E+22	5,201906E+20	5,200286E+20	2,726120E+22	1,040219E+21	2,830142E+22
-679	1,363099E+22	1,363118E+22	5,200682E+20	5,201712E+20	2,726217E+22	1,040239E+21	2,830241E+22
-678	1,363163E+22	1,363090E+22	5,200329E+20	5,200616E+20	2,726253E+22	1,040095E+21	2,830263E+22
-677	1,363122E+22	1,363187E+22	5,201504E+20	5,200163E+20	2,726308E+22	1,040167E+21	2,830325E+22
-676	1,363189E+22	1,363162E+22	5,199967E+20	5,201558E+20	2,726351E+22	1,040153E+21	2,830366E+22
-675	1,363172E+22	1,363153E+22	5,200790E+20	5,200151E+20	2,726324E+22	1,040094E+21	2,830334E+22
-674	1,363119E+22	1,363191E+22	5,201386E+20	5,200933E+20	2,726310E+22	1,040232E+21	2,830333E+22
-673	1,363156E+22	1,363086E+22	5,200105E+20	5,201545E+20	2,726243E+22	1,040165E+21	2,830259E+22
-672	1,363077E+22	1,363085E+22	5,201869E+20	5,200376E+20	2,726162E+22	1,040224E+21	2,830185E+22
-671	1,363032E+22	1,363069E+22	5,201449E+20	5,201945E+20	2,726100E+22	1,040339E+21	2,830134E+22
-670	1,363025E+22	1,362947E+22	5,200879E+20	5,201834E+20	2,725972E+22	1,040271E+21	2,830000E+22
-669	1,362907E+22	1,362965E+22	5,202571E+20	5,201189E+20	2,725872E+22	1,040376E+21	2,829910E+22
-668	1,362916E+22	1,362906E+22	5,201332E+20	5,202869E+20	2,725822E+22	1,040420E+21	2,829864E+22
-667	1,362912E+22	1,362850E+22	5,201908E+20	5,201650E+20	2,725762E+22	1,040356E+21	2,829798E+22
-666	1,362845E+22	1,362916E+22	5,202851E+20	5,201712E+20	2,725761E+22	1,040456E+21	2,829807E+22
-665	1,362903E+22	1,362854E+22	5,201296E+20	5,202726E+20	2,725757E+22	1,040402E+21	2,829798E+22
-664	1,362878E+22	1,362887E+22	5,202432E+20	5,201187E+20	2,725766E+22	1,040362E+21	2,829802E+22
-663	1,362874E+22	1,362954E+22	5,202132E+20	5,202159E+20	2,725828E+22	1,040429E+21	2,829871E+22
-662	1,362967E+22	1,362899E+22	5,200797E+20	5,202106E+20	2,725865E+22	1,040290E+21	2,829894E+22
-661	1,362947E+22	1,362985E+22	5,202162E+20	5,200624E+20	2,725932E+22	1,040279E+21	2,829960E+22
-660	1,363009E+22	1,363022E+22	5,201126E+20	5,202052E+20	2,726031E+22	1,040318E+21	2,830063E+22
-659	1,363070E+22	1,363006E+22	5,200863E+20	5,200973E+20	2,726076E+22	1,040184E+21	2,830094E+22
-658	1,363013E+22	1,363099E+22	5,202026E+20	5,200666E+20	2,726112E+22	1,040269E+21	2,830139E+22
-657	1,363065E+22	1,363047E+22	5,200461E+20	5,202063E+20	2,726113E+22	1,040252E+21	2,830138E+22
-656	1,363062E+22	1,363025E+22	5,201317E+20	5,200709E+20	2,726088E+22	1,040203E+21	2,830108E+22
-655	1,363003E+22	1,363068E+22	5,201956E+20	5,201389E+20	2,726070E+22	1,040335E+21	2,830104E+22
-654	1,363042E+22	1,362961E+22	5,200596E+20	5,202096E+20	2,726003E+22	1,040269E+21	2,830030E+22
-653	1,362951E+22	1,362959E+22	5,202291E+20	5,200907E+20	2,725910E+22	1,040320E+21	2,829942E+22
-652	1,362889E+22	1,362942E+22	5,201971E+20	5,202551E+20	2,725832E+22	1,040452E+21	2,829877E+22
-651	1,362897E+22	1,362826E+22	5,201478E+20	5,202393E+20	2,725723E+22	1,040387E+21	2,829762E+22
-650	1,362786E+22	1,362847E+22	5,203151E+20	5,201703E+20	2,725634E+22	1,040485E+21	2,829682E+22
-649	1,362796E+22	1,362780E+22	5,201928E+20	5,203301E+20	2,725577E+22	1,040523E+21	2,829629E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-648	1,362807E+22	1,362729E+22	5,202471E+20	5,202151E+20	2,725536E+22	1,040462E+21	2,829582E+22
-647	1,362725E+22	1,362810E+22	5,203332E+20	5,202213E+20	2,725535E+22	1,040554E+21	2,829590E+22
-646	1,362791E+22	1,362745E+22	5,201619E+20	5,203334E+20	2,725536E+22	1,040495E+21	2,829585E+22
-645	1,362776E+22	1,362774E+22	5,202672E+20	5,201645E+20	2,725550E+22	1,040432E+21	2,829593E+22
-644	1,362774E+22	1,362850E+22	5,202536E+20	5,202517E+20	2,725624E+22	1,040505E+21	2,829674E+22
-643	1,362882E+22	1,362810E+22	5,201334E+20	5,202337E+20	2,725693E+22	1,040367E+21	2,829729E+22
-642	1,362856E+22	1,362905E+22	5,202671E+20	5,200929E+20	2,725761E+22	1,040360E+21	2,829797E+22
-641	1,362897E+22	1,362926E+22	5,201620E+20	5,202444E+20	2,725823E+22	1,040406E+21	2,829863E+22
-640	1,362962E+22	1,362899E+22	5,201318E+20	5,201542E+20	2,725861E+22	1,040286E+21	2,829889E+22
-639	1,362899E+22	1,362990E+22	5,202464E+20	5,201204E+20	2,725889E+22	1,040367E+21	2,829926E+22
-638	1,362963E+22	1,362928E+22	5,200853E+20	5,202617E+20	2,725891E+22	1,040347E+21	2,829926E+22
-637	1,362961E+22	1,362903E+22	5,201725E+20	5,201168E+20	2,725864E+22	1,040289E+21	2,829893E+22
-636	1,362882E+22	1,362952E+22	5,202530E+20	5,201871E+20	2,725834E+22	1,040440E+21	2,829878E+22
-635	1,362912E+22	1,362851E+22	5,201243E+20	5,202625E+20	2,725763E+22	1,040387E+21	2,829802E+22
-634	1,362815E+22	1,362839E+22	5,202868E+20	5,201539E+20	2,725654E+22	1,040441E+21	2,829698E+22
-633	1,362748E+22	1,362798E+22	5,202548E+20	5,203117E+20	2,725546E+22	1,040567E+21	2,829603E+22
-632	1,362778E+22	1,362683E+22	5,202061E+20	5,202962E+20	2,725460E+22	1,040502E+21	2,829510E+22
-631	1,362671E+22	1,362722E+22	5,203690E+20	5,202169E+20	2,725393E+22	1,040586E+21	2,829452E+22
-630	1,362687E+22	1,362663E+22	5,202386E+20	5,203826E+20	2,725350E+22	1,040621E+21	2,829412E+22
-629	1,362694E+22	1,362620E+22	5,202808E+20	5,202635E+20	2,725314E+22	1,040544E+21	2,829368E+22
-628	1,362605E+22	1,362707E+22	5,203757E+20	5,202680E+20	2,725312E+22	1,040644E+21	2,829376E+22
-627	1,362684E+22	1,362651E+22	5,202122E+20	5,203699E+20	2,725335E+22	1,040582E+21	2,829393E+22
-626	1,362679E+22	1,362681E+22	5,203144E+20	5,201984E+20	2,725360E+22	1,040513E+21	2,829411E+22
-625	1,362672E+22	1,362744E+22	5,203071E+20	5,202815E+20	2,725416E+22	1,040589E+21	2,829475E+22
-624	1,362789E+22	1,362709E+22	5,201842E+20	5,202792E+20	2,725498E+22	1,040463E+21	2,829545E+22
-623	1,362749E+22	1,362810E+22	5,203068E+20	5,201461E+20	2,725559E+22	1,040453E+21	2,829604E+22
-622	1,362795E+22	1,362818E+22	5,201934E+20	5,203077E+20	2,725613E+22	1,040501E+21	2,829663E+22
-621	1,362866E+22	1,362784E+22	5,201572E+20	5,202054E+20	2,725651E+22	1,040363E+21	2,829687E+22
-620	1,362798E+22	1,362880E+22	5,202927E+20	5,201616E+20	2,725678E+22	1,040454E+21	2,829723E+22
-619	1,362862E+22	1,362830E+22	5,201482E+20	5,202935E+20	2,725692E+22	1,040442E+21	2,829736E+22
-618	1,362843E+22	1,362802E+22	5,202337E+20	5,201607E+20	2,725645E+22	1,040394E+21	2,829684E+22
-617	1,362738E+22	1,362827E+22	5,203153E+20	5,202406E+20	2,725565E+22	1,040556E+21	2,829621E+22
-616	1,362776E+22	1,362714E+22	5,201817E+20	5,203316E+20	2,725490E+22	1,040513E+21	2,829541E+22
-615	1,362679E+22	1,362701E+22	5,203360E+20	5,202167E+20	2,725380E+22	1,040553E+21	2,829435E+22
-614	1,362633E+22	1,362658E+22	5,202999E+20	5,203715E+20	2,725291E+22	1,040671E+21	2,829358E+22
-613	1,362673E+22	1,362553E+22	5,202496E+20	5,203425E+20	2,725225E+22	1,040592E+21	2,829284E+22
-612	1,362553E+22	1,362613E+22	5,204241E+20	5,202627E+20	2,725166E+22	1,040687E+21	2,829235E+22
-611	1,362565E+22	1,362569E+22	5,203007E+20	5,204272E+20	2,725134E+22	1,040728E+21	2,829207E+22
-610	1,362569E+22	1,362521E+22	5,203328E+20	5,203133E+20	2,725090E+22	1,040646E+21	2,829154E+22
-609	1,362478E+22	1,362587E+22	5,204285E+20	5,203099E+20	2,725066E+22	1,040738E+21	2,829139E+22
-608	1,362580E+22	1,362533E+22	5,202641E+20	5,204118E+20	2,725113E+22	1,040676E+21	2,829181E+22
-607	1,362579E+22	1,362576E+22	5,203587E+20	5,202375E+20	2,725155E+22	1,040596E+21	2,829215E+22
-606	1,362580E+22	1,362640E+22	5,203423E+20	5,203320E+20	2,725220E+22	1,040674E+21	2,829288E+22
-605	1,362695E+22	1,362611E+22	5,202081E+20	5,203305E+20	2,725306E+22	1,040539E+21	2,829360E+22
-604	1,362651E+22	1,362716E+22	5,203395E+20	5,201981E+20	2,725366E+22	1,040538E+21	2,829420E+22
-603	1,362702E+22	1,362731E+22	5,202416E+20	5,203443E+20	2,725433E+22	1,040586E+21	2,829491E+22
-602	1,362772E+22	1,362693E+22	5,202074E+20	5,202408E+20	2,725465E+22	1,040448E+21	2,829510E+22
-601	1,362685E+22	1,362766E+22	5,203569E+20	5,201955E+20	2,725451E+22	1,040552E+21	2,829506E+22
-600	1,362740E+22	1,362713E+22	5,202128E+20	5,203437E+20	2,725453E+22	1,040557E+21	2,829509E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-599	1,362704E+22	1,362681E+22	5,202872E+20	5,202265E+20	2,725385E+22	1,040514E+21	2,829436E+22
-598	1,362607E+22	1,362684E+22	5,203593E+20	5,203140E+20	2,725291E+22	1,040673E+21	2,829358E+22
-597	1,362657E+22	1,362570E+22	5,202193E+20	5,203924E+20	2,725227E+22	1,040612E+21	2,829288E+22
-596	1,362565E+22	1,362572E+22	5,203858E+20	5,202655E+20	2,725137E+22	1,040651E+21	2,829202E+22
-595	1,362523E+22	1,362551E+22	5,203657E+20	5,204076E+20	2,725074E+22	1,040773E+21	2,829152E+22
-594	1,362551E+22	1,362455E+22	5,203103E+20	5,203864E+20	2,725005E+22	1,040697E+21	2,829075E+22
-593	1,362411E+22	1,362497E+22	5,204862E+20	5,203128E+20	2,724907E+22	1,040799E+21	2,828987E+22
-592	1,362434E+22	1,362448E+22	5,203584E+20	5,204836E+20	2,724882E+22	1,040842E+21	2,828966E+22
-591	1,362444E+22	1,362402E+22	5,203784E+20	5,203682E+20	2,724846E+22	1,040747E+21	2,828921E+22
-590	1,362379E+22	1,362461E+22	5,204654E+20	5,203626E+20	2,724840E+22	1,040828E+21	2,828923E+22
-589	1,362494E+22	1,362420E+22	5,202944E+20	5,204557E+20	2,724914E+22	1,040750E+21	2,828989E+22
-588	1,362487E+22	1,362484E+22	5,203927E+20	5,202837E+20	2,724971E+22	1,040676E+21	2,829038E+22
-587	1,362490E+22	1,362561E+22	5,203864E+20	5,203751E+20	2,725051E+22	1,040762E+21	2,829127E+22
-586	1,362600E+22	1,362527E+22	5,202500E+20	5,203701E+20	2,725127E+22	1,040620E+21	2,829189E+22
-585	1,362544E+22	1,362610E+22	5,203925E+20	5,202322E+20	2,725155E+22	1,040625E+21	2,829217E+22
-584	1,362602E+22	1,362624E+22	5,203014E+20	5,203759E+20	2,725226E+22	1,040677E+21	2,829294E+22
-583	1,362656E+22	1,362587E+22	5,202635E+20	5,202825E+20	2,725244E+22	1,040546E+21	2,829298E+22
-582	1,362566E+22	1,362645E+22	5,204038E+20	5,202551E+20	2,725210E+22	1,040659E+21	2,829276E+22
-581	1,362615E+22	1,362586E+22	5,202494E+20	5,204072E+20	2,725201E+22	1,040657E+21	2,829267E+22
-580	1,362579E+22	1,362553E+22	5,203286E+20	5,202919E+20	2,725132E+22	1,040620E+21	2,829194E+22
-579	1,362494E+22	1,362564E+22	5,204131E+20	5,203641E+20	2,725058E+22	1,040777E+21	2,829136E+22
-578	1,362545E+22	1,362454E+22	5,202774E+20	5,204364E+20	2,725000E+22	1,040714E+21	2,829071E+22
-577	1,362439E+22	1,362446E+22	5,204555E+20	5,203112E+20	2,724885E+22	1,040767E+21	2,828962E+22
-576	1,362391E+22	1,362433E+22	5,204347E+20	5,204617E+20	2,724824E+22	1,040896E+21	2,828913E+22
-575	1,362405E+22	1,362336E+22	5,203677E+20	5,204541E+20	2,724741E+22	1,040822E+21	2,828823E+22
-574	1,362282E+22	1,362357E+22	5,205286E+20	5,203824E+20	2,724639E+22	1,040911E+21	2,828730E+22
-573	1,362322E+22	1,362314E+22	5,203911E+20	5,205352E+20	2,724636E+22	1,040926E+21	2,828728E+22
-572	1,362346E+22	1,362287E+22	5,204161E+20	5,204109E+20	2,724632E+22	1,040827E+21	2,828715E+22
-571	1,362292E+22	1,362369E+22	5,205139E+20	5,203934E+20	2,724661E+22	1,040907E+21	2,828751E+22
-570	1,362400E+22	1,362343E+22	5,203396E+20	5,204899E+20	2,724742E+22	1,040830E+21	2,828825E+22
-569	1,362379E+22	1,362391E+22	5,204407E+20	5,203238E+20	2,724770E+22	1,040764E+21	2,828846E+22
-568	1,362387E+22	1,362466E+22	5,204370E+20	5,204138E+20	2,724853E+22	1,040851E+21	2,828938E+22
-567	1,362494E+22	1,362432E+22	5,202957E+20	5,204115E+20	2,724926E+22	1,040707E+21	2,828996E+22
-566	1,362450E+22	1,362494E+22	5,204354E+20	5,202789E+20	2,724943E+22	1,040714E+21	2,829015E+22
-565	1,362501E+22	1,362512E+22	5,203404E+20	5,204199E+20	2,725013E+22	1,040760E+21	2,829089E+22
-564	1,362541E+22	1,362480E+22	5,203046E+20	5,203424E+20	2,725021E+22	1,040647E+21	2,829086E+22
-563	1,362450E+22	1,362535E+22	5,204515E+20	5,203155E+20	2,724985E+22	1,040767E+21	2,829062E+22
-562	1,362498E+22	1,362469E+22	5,202966E+20	5,204620E+20	2,724968E+22	1,040759E+21	2,829043E+22
-561	1,362456E+22	1,362418E+22	5,203866E+20	5,203405E+20	2,724874E+22	1,040727E+21	2,828947E+22
-560	1,362378E+22	1,362438E+22	5,204794E+20	5,204056E+20	2,724816E+22	1,040885E+21	2,828905E+22
-559	1,362414E+22	1,362338E+22	5,203431E+20	5,204890E+20	2,724752E+22	1,040832E+21	2,828836E+22
-558	1,362306E+22	1,362316E+22	5,205096E+20	5,203806E+20	2,724621E+22	1,040890E+21	2,828710E+22
-557	1,362257E+22	1,362301E+22	5,204767E+20	5,205259E+20	2,724558E+22	1,041003E+21	2,828659E+22
-556	1,362277E+22	1,362209E+22	5,204097E+20	5,205166E+20	2,724486E+22	1,040926E+21	2,828579E+22
-555	1,362177E+22	1,362239E+22	5,205758E+20	5,204266E+20	2,724416E+22	1,041002E+21	2,828516E+22
-554	1,362225E+22	1,362206E+22	5,204411E+20	5,205640E+20	2,724431E+22	1,041005E+21	2,828531E+22
-553	1,362237E+22	1,362180E+22	5,204741E+20	5,204437E+20	2,724417E+22	1,040918E+21	2,828509E+22
-552	1,362185E+22	1,362277E+22	5,205682E+20	5,204342E+20	2,724462E+22	1,041002E+21	2,828562E+22
-551	1,362282E+22	1,362251E+22	5,203892E+20	5,205428E+20	2,724534E+22	1,040932E+21	2,828627E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-550	1,362278E+22	1,362277E+22	5,204762E+20	5,203805E+20	2,724555E+22	1,040857E+21	2,828640E+22
-549	1,362295E+22	1,362355E+22	5,204670E+20	5,204524E+20	2,724649E+22	1,040919E+21	2,828741E+22
-548	1,362400E+22	1,362330E+22	5,203319E+20	5,204500E+20	2,724731E+22	1,040782E+21	2,828809E+22
-547	1,362357E+22	1,362399E+22	5,204807E+20	5,203193E+20	2,724757E+22	1,040800E+21	2,828837E+22
-546	1,362391E+22	1,362417E+22	5,203846E+20	5,204637E+20	2,724809E+22	1,040848E+21	2,828894E+22
-545	1,362415E+22	1,362365E+22	5,203571E+20	5,203991E+20	2,724780E+22	1,040756E+21	2,828856E+22
-544	1,362332E+22	1,362415E+22	5,205052E+20	5,203679E+20	2,724747E+22	1,040873E+21	2,828835E+22
-543	1,362378E+22	1,362349E+22	5,203545E+20	5,205162E+20	2,724726E+22	1,040871E+21	2,828814E+22
-542	1,362346E+22	1,362280E+22	5,204401E+20	5,203990E+20	2,724626E+22	1,040839E+21	2,828710E+22
-541	1,362259E+22	1,362310E+22	5,205280E+20	5,204583E+20	2,724569E+22	1,040986E+21	2,828668E+22
-540	1,362281E+22	1,362220E+22	5,203938E+20	5,205552E+20	2,724501E+22	1,040949E+21	2,828596E+22
-539	1,362178E+22	1,362193E+22	5,205645E+20	5,204435E+20	2,724371E+22	1,041008E+21	2,828472E+22
-538	1,362130E+22	1,362179E+22	5,205284E+20	5,205706E+20	2,724310E+22	1,041099E+21	2,828419E+22
-537	1,362152E+22	1,362078E+22	5,204699E+20	5,205567E+20	2,724229E+22	1,041027E+21	2,828332E+22
-536	1,362064E+22	1,362122E+22	5,206360E+20	5,204577E+20	2,724186E+22	1,041094E+21	2,828295E+22
-535	1,362106E+22	1,362106E+22	5,204992E+20	5,206084E+20	2,724212E+22	1,041108E+21	2,828323E+22
-534	1,362127E+22	1,362069E+22	5,205143E+20	5,205028E+20	2,724196E+22	1,041017E+21	2,828297E+22
-533	1,362082E+22	1,362170E+22	5,205957E+20	5,204872E+20	2,724252E+22	1,041083E+21	2,828360E+22
-532	1,362184E+22	1,362154E+22	5,204186E+20	5,205930E+20	2,724338E+22	1,041012E+21	2,828439E+22
-531	1,362197E+22	1,362182E+22	5,205119E+20	5,204206E+20	2,724378E+22	1,040932E+21	2,828472E+22
-530	1,362210E+22	1,362264E+22	5,205087E+20	5,204766E+20	2,724474E+22	1,040985E+21	2,828572E+22
-529	1,362293E+22	1,362231E+22	5,203857E+20	5,204882E+20	2,724524E+22	1,040874E+21	2,828611E+22
-528	1,362243E+22	1,362299E+22	5,205339E+20	5,203674E+20	2,724543E+22	1,040901E+21	2,828633E+22
-527	1,362267E+22	1,362308E+22	5,204397E+20	5,205242E+20	2,724575E+22	1,040964E+21	2,828671E+22
-526	1,362303E+22	1,362229E+22	5,204012E+20	5,204632E+20	2,724531E+22	1,040864E+21	2,828618E+22
-525	1,362228E+22	1,362283E+22	5,205441E+20	5,204163E+20	2,724511E+22	1,040960E+21	2,828607E+22
-524	1,362266E+22	1,362230E+22	5,204060E+20	5,205633E+20	2,724496E+22	1,040969E+21	2,828593E+22
-523	1,362232E+22	1,362170E+22	5,204971E+20	5,204525E+20	2,724401E+22	1,040950E+21	2,828496E+22
-522	1,362128E+22	1,362198E+22	5,205837E+20	5,205042E+20	2,724327E+22	1,041088E+21	2,828435E+22
-521	1,362133E+22	1,362091E+22	5,204596E+20	5,206113E+20	2,724224E+22	1,041071E+21	2,828331E+22
-520	1,362042E+22	1,362064E+22	5,206262E+20	5,204934E+20	2,724106E+22	1,041120E+21	2,828218E+22
-519	1,361999E+22	1,362051E+22	5,205913E+20	5,206203E+20	2,724050E+22	1,041212E+21	2,828171E+22
-518	1,362037E+22	1,361940E+22	5,205212E+20	5,206128E+20	2,723977E+22	1,041134E+21	2,828090E+22
-517	1,361956E+22	1,362002E+22	5,206706E+20	5,205114E+20	2,723958E+22	1,041182E+21	2,828076E+22
-516	1,361995E+22	1,362004E+22	5,205359E+20	5,206706E+20	2,723998E+22	1,041206E+21	2,828119E+22
-515	1,362032E+22	1,361970E+22	5,205490E+20	5,205596E+20	2,724002E+22	1,041109E+21	2,828113E+22
-514	1,361992E+22	1,362074E+22	5,206300E+20	5,205159E+20	2,724067E+22	1,041146E+21	2,828181E+22
-513	1,362087E+22	1,362055E+22	5,204697E+20	5,206173E+20	2,724142E+22	1,041087E+21	2,828251E+22
-512	1,362100E+22	1,362092E+22	5,205665E+20	5,204441E+20	2,724192E+22	1,041011E+21	2,828293E+22
-511	1,362096E+22	1,362177E+22	5,205666E+20	5,205188E+20	2,724272E+22	1,041085E+21	2,828381E+22
-510	1,362178E+22	1,362118E+22	5,204294E+20	5,205505E+20	2,724296E+22	1,040980E+21	2,828394E+22
-509	1,362135E+22	1,362180E+22	5,205636E+20	5,204271E+20	2,724315E+22	1,040991E+21	2,828414E+22
-508	1,362162E+22	1,362193E+22	5,204777E+20	5,205805E+20	2,724356E+22	1,041058E+21	2,828461E+22
-507	1,362212E+22	1,362113E+22	5,204466E+20	5,205115E+20	2,724325E+22	1,040958E+21	2,828421E+22
-506	1,362125E+22	1,362174E+22	5,205966E+20	5,204474E+20	2,724299E+22	1,041044E+21	2,828403E+22
-505	1,362134E+22	1,362117E+22	5,204739E+20	5,206111E+20	2,724251E+22	1,041085E+21	2,828359E+22
-504	1,362088E+22	1,362053E+22	5,205653E+20	5,205110E+20	2,724141E+22	1,041076E+21	2,828249E+22
-503	1,361977E+22	1,362070E+22	5,206510E+20	5,205713E+20	2,724047E+22	1,041222E+21	2,828170E+22
-502	1,361998E+22	1,361936E+22	5,205130E+20	5,206780E+20	2,723934E+22	1,041191E+21	2,828053E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-501	1,361924E+22	1,361917E+22	5,206652E+20	5,205459E+20	2,723840E+22	1,041211E+21	2,827961E+22
-500	1,361885E+22	1,361926E+22	5,206366E+20	5,206715E+20	2,723811E+22	1,041308E+21	2,827941E+22
-499	1,361933E+22	1,361832E+22	5,205638E+20	5,206691E+20	2,723765E+22	1,041233E+21	2,827888E+22
-498	1,361850E+22	1,361905E+22	5,207076E+20	5,205532E+20	2,723756E+22	1,041261E+21	2,827882E+22
-497	1,361881E+22	1,361904E+22	5,205885E+20	5,207140E+20	2,723785E+22	1,041302E+21	2,827915E+22
-496	1,361929E+22	1,361877E+22	5,206011E+20	5,205915E+20	2,723807E+22	1,041193E+21	2,827926E+22
-495	1,361889E+22	1,361981E+22	5,206880E+20	5,205477E+20	2,723870E+22	1,041236E+21	2,827993E+22
-494	1,361986E+22	1,361944E+22	5,205189E+20	5,206577E+20	2,723930E+22	1,041177E+21	2,828047E+22
-493	1,361997E+22	1,361986E+22	5,205993E+20	5,204956E+20	2,723983E+22	1,041095E+21	2,828092E+22
-492	1,361984E+22	1,362072E+22	5,206051E+20	5,205808E+20	2,724056E+22	1,041186E+21	2,828174E+22
-491	1,362081E+22	1,362009E+22	5,204665E+20	5,206134E+20	2,724090E+22	1,041080E+21	2,828198E+22
-490	1,362044E+22	1,362070E+22	5,205977E+20	5,204626E+20	2,724114E+22	1,041060E+21	2,828220E+22
-489	1,362055E+22	1,362080E+22	5,205368E+20	5,206136E+20	2,724135E+22	1,041150E+21	2,828250E+22
-488	1,362096E+22	1,362012E+22	5,205108E+20	5,205472E+20	2,724108E+22	1,041058E+21	2,828214E+22
-487	1,361989E+22	1,362067E+22	5,206664E+20	5,205025E+20	2,724056E+22	1,041169E+21	2,828173E+22
-486	1,361989E+22	1,361982E+22	5,205325E+20	5,206810E+20	2,723971E+22	1,041214E+21	2,828092E+22
-485	1,361952E+22	1,361910E+22	5,206078E+20	5,205827E+20	2,723862E+22	1,041190E+21	2,827981E+22
-484	1,361848E+22	1,361929E+22	5,206969E+20	5,206356E+20	2,723777E+22	1,041332E+21	2,827911E+22
-483	1,361891E+22	1,361801E+22	5,205602E+20	5,207355E+20	2,723692E+22	1,041296E+21	2,827821E+22
-482	1,361819E+22	1,361797E+22	5,207077E+20	5,205820E+20	2,723616E+22	1,041290E+21	2,827745E+22
-481	1,361762E+22	1,361817E+22	5,206966E+20	5,207190E+20	2,723580E+22	1,041416E+21	2,827721E+22
-480	1,361809E+22	1,361736E+22	5,206242E+20	5,207167E+20	2,723545E+22	1,041341E+21	2,827679E+22
-479	1,361729E+22	1,361805E+22	5,207681E+20	5,206036E+20	2,723535E+22	1,041372E+21	2,827672E+22
-478	1,361772E+22	1,361784E+22	5,206394E+20	5,207570E+20	2,723557E+22	1,041396E+21	2,827696E+22
-477	1,361830E+22	1,361765E+22	5,206374E+20	5,206284E+20	2,723595E+22	1,041266E+21	2,827722E+22
-476	1,361788E+22	1,361880E+22	5,207281E+20	5,205910E+20	2,723668E+22	1,041319E+21	2,827800E+22
-475	1,361889E+22	1,361847E+22	5,205539E+20	5,207118E+20	2,723736E+22	1,041266E+21	2,827863E+22
-474	1,361899E+22	1,361888E+22	5,206265E+20	5,205386E+20	2,723787E+22	1,041165E+21	2,827904E+22
-473	1,361880E+22	1,361969E+22	5,206509E+20	5,206285E+20	2,723849E+22	1,041279E+21	2,827977E+22
-472	1,361982E+22	1,361911E+22	5,205191E+20	5,206500E+20	2,723893E+22	1,041169E+21	2,828010E+22
-471	1,361940E+22	1,361968E+22	5,206598E+20	5,205043E+20	2,723909E+22	1,041164E+21	2,828025E+22
-470	1,361940E+22	1,361960E+22	5,205957E+20	5,206617E+20	2,723900E+22	1,041257E+21	2,828026E+22
-469	1,361969E+22	1,361890E+22	5,205559E+20	5,206122E+20	2,723860E+22	1,041168E+21	2,827976E+22
-468	1,361852E+22	1,361938E+22	5,207170E+20	5,205767E+20	2,723790E+22	1,041294E+21	2,827919E+22
-467	1,361865E+22	1,361844E+22	5,205794E+20	5,207512E+20	2,723709E+22	1,041331E+21	2,827842E+22
-466	1,361837E+22	1,361773E+22	5,206502E+20	5,206251E+20	2,723610E+22	1,041275E+21	2,827737E+22
-465	1,361726E+22	1,361797E+22	5,207606E+20	5,206755E+20	2,723523E+22	1,041436E+21	2,827667E+22
-464	1,361765E+22	1,361692E+22	5,206289E+20	5,207741E+20	2,723457E+22	1,041403E+21	2,827598E+22
-463	1,361687E+22	1,361692E+22	5,207743E+20	5,206375E+20	2,723379E+22	1,041412E+21	2,827520E+22
-462	1,361630E+22	1,361694E+22	5,207537E+20	5,207787E+20	2,723325E+22	1,041532E+21	2,827478E+22
-461	1,361692E+22	1,361617E+22	5,206635E+20	5,207751E+20	2,723309E+22	1,041439E+21	2,827452E+22
-460	1,361621E+22	1,361689E+22	5,208099E+20	5,206528E+20	2,723310E+22	1,041463E+21	2,827456E+22
-459	1,361680E+22	1,361674E+22	5,206793E+20	5,207998E+20	2,723355E+22	1,041479E+21	2,827503E+22
-458	1,361739E+22	1,361666E+22	5,206673E+20	5,206596E+20	2,723405E+22	1,041327E+21	2,827537E+22
-457	1,361679E+22	1,361783E+22	5,207740E+20	5,206387E+20	2,723462E+22	1,041413E+21	2,827603E+22
-456	1,361781E+22	1,361759E+22	5,206035E+20	5,207587E+20	2,723540E+22	1,041362E+21	2,827676E+22
-455	1,361799E+22	1,361790E+22	5,206766E+20	5,205880E+20	2,723589E+22	1,041265E+21	2,827716E+22
-454	1,361783E+22	1,361851E+22	5,206993E+20	5,206682E+20	2,723634E+22	1,041367E+21	2,827771E+22
-453	1,361885E+22	1,361800E+22	5,205604E+20	5,206897E+20	2,723685E+22	1,041250E+21	2,827810E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-452	1,361828E+22	1,361861E+22	5,207090E+20	5,205567E+20	2,723688E+22	1,041266E+21	2,827815E+22
-451	1,361822E+22	1,361848E+22	5,206424E+20	5,207237E+20	2,723670E+22	1,041366E+21	2,827807E+22
-450	1,361847E+22	1,361770E+22	5,205957E+20	5,206663E+20	2,723616E+22	1,041262E+21	2,827743E+22
-449	1,361721E+22	1,361808E+22	5,207751E+20	5,206337E+20	2,723529E+22	1,041409E+21	2,827670E+22
-448	1,361739E+22	1,361721E+22	5,206448E+20	5,207937E+20	2,723460E+22	1,041439E+21	2,827604E+22
-447	1,361713E+22	1,361649E+22	5,207199E+20	5,206743E+20	2,723362E+22	1,041394E+21	2,827501E+22
-446	1,361596E+22	1,361663E+22	5,208226E+20	5,207306E+20	2,723259E+22	1,041553E+21	2,827414E+22
-445	1,361632E+22	1,361567E+22	5,206790E+20	5,208420E+20	2,723199E+22	1,041521E+21	2,827351E+22
-444	1,361556E+22	1,361568E+22	5,208232E+20	5,207103E+20	2,723124E+22	1,041533E+21	2,827278E+22
-443	1,361522E+22	1,361569E+22	5,207950E+20	5,208376E+20	2,723091E+22	1,041633E+21	2,827254E+22
-442	1,361593E+22	1,361500E+22	5,206965E+20	5,208049E+20	2,723093E+22	1,041501E+21	2,827243E+22
-441	1,361517E+22	1,361583E+22	5,208588E+20	5,206848E+20	2,723100E+22	1,041544E+21	2,827254E+22
-440	1,361571E+22	1,361588E+22	5,207332E+20	5,208284E+20	2,723159E+22	1,041562E+21	2,827315E+22
-439	1,361628E+22	1,361578E+22	5,207193E+20	5,207085E+20	2,723206E+22	1,041428E+21	2,827349E+22
-438	1,361571E+22	1,361673E+22	5,208181E+20	5,206909E+20	2,723244E+22	1,041509E+21	2,827395E+22
-437	1,361685E+22	1,361651E+22	5,206390E+20	5,208091E+20	2,723336E+22	1,041448E+21	2,827481E+22
-436	1,361708E+22	1,361684E+22	5,207165E+20	5,206346E+20	2,723391E+22	1,041351E+21	2,827526E+22
-435	1,361698E+22	1,361744E+22	5,207401E+20	5,207093E+20	2,723442E+22	1,041449E+21	2,827587E+22
-434	1,361784E+22	1,361700E+22	5,205969E+20	5,207254E+20	2,723484E+22	1,041322E+21	2,827616E+22
-433	1,361701E+22	1,361753E+22	5,207655E+20	5,206154E+20	2,723454E+22	1,041381E+21	2,827592E+22
-432	1,361687E+22	1,361739E+22	5,207065E+20	5,207762E+20	2,723426E+22	1,041483E+21	2,827574E+22
-431	1,361717E+22	1,361645E+22	5,206611E+20	5,207261E+20	2,723362E+22	1,041387E+21	2,827501E+22
-430	1,361594E+22	1,361660E+22	5,208352E+20	5,206844E+20	2,723254E+22	1,041520E+21	2,827406E+22
-429	1,361616E+22	1,361584E+22	5,206982E+20	5,208474E+20	2,723200E+22	1,041546E+21	2,827354E+22
-428	1,361583E+22	1,361519E+22	5,207726E+20	5,207384E+20	2,723102E+22	1,041511E+21	2,827253E+22
-427	1,361471E+22	1,361537E+22	5,208669E+20	5,207987E+20	2,723008E+22	1,041666E+21	2,827175E+22
-426	1,361513E+22	1,361447E+22	5,207157E+20	5,208951E+20	2,722960E+22	1,041611E+21	2,827121E+22
-425	1,361436E+22	1,361450E+22	5,208752E+20	5,207622E+20	2,722886E+22	1,041637E+21	2,827050E+22
-424	1,361409E+22	1,361467E+22	5,208550E+20	5,208646E+20	2,722876E+22	1,041720E+21	2,827048E+22
-423	1,361485E+22	1,361399E+22	5,207575E+20	5,208401E+20	2,722885E+22	1,041598E+21	2,827044E+22
-422	1,361402E+22	1,361469E+22	5,209089E+20	5,207279E+20	2,722871E+22	1,041637E+21	2,827035E+22
-421	1,361457E+22	1,361482E+22	5,207731E+20	5,208847E+20	2,722940E+22	1,041658E+21	2,827105E+22
-420	1,361521E+22	1,361471E+22	5,207569E+20	5,207701E+20	2,722992E+22	1,041527E+21	2,827145E+22
-419	1,361489E+22	1,361563E+22	5,208480E+20	5,207410E+20	2,723052E+22	1,041589E+21	2,827211E+22
-418	1,361606E+22	1,361551E+22	5,206685E+20	5,208333E+20	2,723157E+22	1,041502E+21	2,827307E+22
-417	1,361613E+22	1,361589E+22	5,207650E+20	5,206703E+20	2,723203E+22	1,041435E+21	2,827346E+22
-416	1,361584E+22	1,361662E+22	5,207984E+20	5,207406E+20	2,723246E+22	1,041539E+21	2,827400E+22
-415	1,361658E+22	1,361603E+22	5,206569E+20	5,207811E+20	2,723261E+22	1,041438E+21	2,827405E+22
-414	1,361570E+22	1,361622E+22	5,208202E+20	5,206783E+20	2,723192E+22	1,041498E+21	2,827342E+22
-413	1,361562E+22	1,361603E+22	5,207562E+20	5,208358E+20	2,723165E+22	1,041592E+21	2,827324E+22
-412	1,361597E+22	1,361506E+22	5,207145E+20	5,207872E+20	2,723103E+22	1,041502E+21	2,827253E+22
-411	1,361486E+22	1,361521E+22	5,208790E+20	5,207420E+20	2,723007E+22	1,041621E+21	2,827169E+22
-410	1,361496E+22	1,361459E+22	5,207393E+20	5,208975E+20	2,722955E+22	1,041637E+21	2,827118E+22
-409	1,361449E+22	1,361399E+22	5,208284E+20	5,208057E+20	2,722849E+22	1,041634E+21	2,827012E+22
-408	1,361339E+22	1,361426E+22	5,209302E+20	5,208447E+20	2,722765E+22	1,041775E+21	2,826943E+22
-407	1,361390E+22	1,361332E+22	5,207823E+20	5,209400E+20	2,722722E+22	1,041722E+21	2,826895E+22
-406	1,361315E+22	1,361320E+22	5,209356E+20	5,207992E+20	2,722634E+22	1,041735E+21	2,826808E+22
-405	1,361289E+22	1,361349E+22	5,209072E+20	5,209038E+20	2,722638E+22	1,041811E+21	2,826819E+22
-404	1,361362E+22	1,361289E+22	5,208043E+20	5,208962E+20	2,722652E+22	1,041701E+21	2,826822E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-403	1,361298E+22	1,361356E+22	5,209380E+20	5,207895E+20	2,722654E+22	1,041727E+21	2,826826E+22
-402	1,361365E+22	1,361378E+22	5,207977E+20	5,209296E+20	2,722743E+22	1,041727E+21	2,826916E+22
-401	1,361432E+22	1,361373E+22	5,207953E+20	5,208154E+20	2,722805E+22	1,041611E+21	2,826966E+22
-400	1,361402E+22	1,361481E+22	5,208987E+20	5,207620E+20	2,722883E+22	1,041661E+21	2,827049E+22
-399	1,361512E+22	1,361468E+22	5,207260E+20	5,208652E+20	2,722980E+22	1,041591E+21	2,827139E+22
-398	1,361495E+22	1,361483E+22	5,208182E+20	5,207193E+20	2,722979E+22	1,041538E+21	2,827132E+22
-397	1,361458E+22	1,361549E+22	5,208478E+20	5,208019E+20	2,723007E+22	1,041650E+21	2,827172E+22
-396	1,361533E+22	1,361475E+22	5,207067E+20	5,208495E+20	2,723008E+22	1,041556E+21	2,827163E+22
-395	1,361464E+22	1,361480E+22	5,208581E+20	5,207373E+20	2,722945E+22	1,041595E+21	2,827104E+22
-394	1,361459E+22	1,361471E+22	5,207941E+20	5,208733E+20	2,722930E+22	1,041667E+21	2,827097E+22
-393	1,361479E+22	1,361386E+22	5,207692E+20	5,208378E+20	2,722864E+22	1,041607E+21	2,827025E+22
-392	1,361356E+22	1,361418E+22	5,209409E+20	5,207851E+20	2,722773E+22	1,041726E+21	2,826946E+22
-391	1,361362E+22	1,361350E+22	5,208078E+20	5,209548E+20	2,722712E+22	1,041763E+21	2,826888E+22
-390	1,361310E+22	1,361267E+22	5,208918E+20	5,208657E+20	2,722577E+22	1,041757E+21	2,826753E+22
-389	1,361209E+22	1,361296E+22	5,209877E+20	5,208949E+20	2,722505E+22	1,041883E+21	2,826693E+22
-388	1,361266E+22	1,361202E+22	5,208405E+20	5,209913E+20	2,722468E+22	1,041832E+21	2,826651E+22
-387	1,361205E+22	1,361190E+22	5,209748E+20	5,208529E+20	2,722396E+22	1,041828E+21	2,826578E+22
-386	1,361177E+22	1,361235E+22	5,209381E+20	5,209522E+20	2,722412E+22	1,041890E+21	2,826601E+22
-385	1,361249E+22	1,361184E+22	5,208451E+20	5,209604E+20	2,722433E+22	1,041806E+21	2,826614E+22
-384	1,361200E+22	1,361264E+22	5,209811E+20	5,208297E+20	2,722464E+22	1,041811E+21	2,826645E+22
-383	1,361279E+22	1,361288E+22	5,208501E+20	5,209628E+20	2,722567E+22	1,041813E+21	2,826749E+22
-382	1,361339E+22	1,361272E+22	5,208450E+20	5,208447E+20	2,722611E+22	1,041690E+21	2,826780E+22
-381	1,361300E+22	1,361385E+22	5,209477E+20	5,207940E+20	2,722685E+22	1,041742E+21	2,826859E+22
-380	1,361392E+22	1,361369E+22	5,207765E+20	5,209164E+20	2,722761E+22	1,041693E+21	2,826930E+22
-379	1,361385E+22	1,361365E+22	5,208521E+20	5,207842E+20	2,722750E+22	1,041636E+21	2,826914E+22
-378	1,361349E+22	1,361427E+22	5,208805E+20	5,208520E+20	2,722776E+22	1,041732E+21	2,826949E+22
-377	1,361423E+22	1,361355E+22	5,207549E+20	5,209049E+20	2,722778E+22	1,041660E+21	2,826944E+22
-376	1,361359E+22	1,361370E+22	5,209145E+20	5,207700E+20	2,722728E+22	1,041684E+21	2,826897E+22
-375	1,361345E+22	1,361362E+22	5,208606E+20	5,209156E+20	2,722707E+22	1,041776E+21	2,826885E+22
-374	1,361338E+22	1,361262E+22	5,208329E+20	5,208978E+20	2,722600E+22	1,041731E+21	2,826773E+22
-373	1,361211E+22	1,361289E+22	5,210027E+20	5,208516E+20	2,722500E+22	1,041854E+21	2,826686E+22
-372	1,361220E+22	1,361214E+22	5,208724E+20	5,210231E+20	2,722434E+22	1,041896E+21	2,826624E+22
-371	1,361190E+22	1,361121E+22	5,209382E+20	5,209269E+20	2,722312E+22	1,041865E+21	2,826498E+22
-370	1,361094E+22	1,361162E+22	5,210280E+20	5,209354E+20	2,722257E+22	1,041963E+21	2,826453E+22
-369	1,361143E+22	1,361085E+22	5,208891E+20	5,210449E+20	2,722227E+22	1,041934E+21	2,826421E+22
-368	1,361086E+22	1,361091E+22	5,210210E+20	5,208968E+20	2,722177E+22	1,041918E+21	2,826368E+22
-367	1,361070E+22	1,361137E+22	5,209901E+20	5,210022E+20	2,722207E+22	1,041992E+21	2,826406E+22
-366	1,361141E+22	1,361076E+22	5,208948E+20	5,210069E+20	2,722217E+22	1,041902E+21	2,826407E+22
-365	1,361106E+22	1,361164E+22	5,210282E+20	5,208650E+20	2,722270E+22	1,041893E+21	2,826459E+22
-364	1,361185E+22	1,361189E+22	5,209041E+20	5,209975E+20	2,722374E+22	1,041902E+21	2,826565E+22
-363	1,361245E+22	1,361168E+22	5,208800E+20	5,208893E+20	2,722413E+22	1,041769E+21	2,826590E+22
-362	1,361193E+22	1,361285E+22	5,209772E+20	5,208404E+20	2,722478E+22	1,041818E+21	2,826659E+22
-361	1,361275E+22	1,361264E+22	5,208188E+20	5,209779E+20	2,722539E+22	1,041797E+21	2,826718E+22
-360	1,361278E+22	1,361261E+22	5,208993E+20	5,208275E+20	2,722539E+22	1,041727E+21	2,826712E+22
-359	1,361251E+22	1,361317E+22	5,209395E+20	5,208894E+20	2,722567E+22	1,041829E+21	2,826750E+22
-358	1,361307E+22	1,361234E+22	5,208159E+20	5,209461E+20	2,722540E+22	1,041762E+21	2,826716E+22
-357	1,361233E+22	1,361253E+22	5,209716E+20	5,208194E+20	2,722487E+22	1,041791E+21	2,826666E+22
-356	1,361205E+22	1,361241E+22	5,209226E+20	5,209821E+20	2,722445E+22	1,041905E+21	2,826636E+22
-355	1,361208E+22	1,361125E+22	5,208777E+20	5,209748E+20	2,722333E+22	1,041852E+21	2,826518E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-354	1,361086E+22	1,361152E+22	5,210440E+20	5,209119E+20	2,722238E+22	1,041956E+21	2,826434E+22
-353	1,361095E+22	1,361083E+22	5,209274E+20	5,210810E+20	2,722178E+22	1,042008E+21	2,826379E+22
-352	1,361074E+22	1,361003E+22	5,209961E+20	5,209657E+20	2,722078E+22	1,041962E+21	2,826274E+22
-351	1,360976E+22	1,361050E+22	5,210889E+20	5,209788E+20	2,722026E+22	1,042068E+21	2,826233E+22
-350	1,361008E+22	1,360966E+22	5,209463E+20	5,211020E+20	2,721974E+22	1,042048E+21	2,826179E+22
-349	1,360965E+22	1,360974E+22	5,210706E+20	5,209510E+20	2,721939E+22	1,042022E+21	2,826141E+22
-348	1,360960E+22	1,361024E+22	5,210455E+20	5,210520E+20	2,721984E+22	1,042098E+21	2,826193E+22
-347	1,361053E+22	1,360963E+22	5,209313E+20	5,210481E+20	2,722016E+22	1,041979E+21	2,826214E+22
-346	1,361017E+22	1,361063E+22	5,210607E+20	5,208928E+20	2,722079E+22	1,041954E+21	2,826275E+22
-345	1,361078E+22	1,361101E+22	5,209472E+20	5,210389E+20	2,722179E+22	1,041986E+21	2,826378E+22
-344	1,361136E+22	1,361084E+22	5,209223E+20	5,209301E+20	2,722220E+22	1,041852E+21	2,826405E+22
-343	1,361088E+22	1,361187E+22	5,210266E+20	5,208885E+20	2,722276E+22	1,041915E+21	2,826467E+22
-342	1,361159E+22	1,361150E+22	5,208702E+20	5,210282E+20	2,722309E+22	1,041898E+21	2,826499E+22
-341	1,361173E+22	1,361144E+22	5,209497E+20	5,208721E+20	2,722317E+22	1,041822E+21	2,826499E+22
-340	1,361141E+22	1,361198E+22	5,209997E+20	5,209392E+20	2,722339E+22	1,041939E+21	2,826533E+22
-339	1,361193E+22	1,361108E+22	5,208587E+20	5,210095E+20	2,722301E+22	1,041868E+21	2,826488E+22
-338	1,361109E+22	1,361128E+22	5,210104E+20	5,208862E+20	2,722237E+22	1,041897E+21	2,826427E+22
-337	1,361072E+22	1,361115E+22	5,209751E+20	5,210535E+20	2,722187E+22	1,042029E+21	2,826389E+22
-336	1,361086E+22	1,361002E+22	5,209347E+20	5,210257E+20	2,722088E+22	1,041960E+21	2,826285E+22
-335	1,360972E+22	1,361027E+22	5,211092E+20	5,209520E+20	2,722000E+22	1,042061E+21	2,826206E+22
-334	1,360959E+22	1,360953E+22	5,209956E+20	5,211207E+20	2,721912E+22	1,042116E+21	2,826124E+22
-333	1,360936E+22	1,360882E+22	5,210565E+20	5,210137E+20	2,721818E+22	1,042070E+21	2,826025E+22
-332	1,360840E+22	1,360927E+22	5,211489E+20	5,210405E+20	2,721767E+22	1,042189E+21	2,825986E+22
-331	1,360890E+22	1,360838E+22	5,209868E+20	5,211672E+20	2,721728E+22	1,042154E+21	2,825944E+22
-330	1,360865E+22	1,360858E+22	5,211005E+20	5,210002E+20	2,721723E+22	1,042101E+21	2,825933E+22
-329	1,360866E+22	1,360921E+22	5,210882E+20	5,210933E+20	2,721787E+22	1,042181E+21	2,826005E+22
-328	1,360964E+22	1,360877E+22	5,209758E+20	5,210743E+20	2,721841E+22	1,042050E+21	2,826046E+22
-327	1,360920E+22	1,360978E+22	5,211081E+20	5,209288E+20	2,721898E+22	1,042037E+21	2,826102E+22
-326	1,360953E+22	1,361002E+22	5,209971E+20	5,210883E+20	2,721955E+22	1,042085E+21	2,826164E+22
-325	1,361021E+22	1,360976E+22	5,209687E+20	5,209836E+20	2,721997E+22	1,041952E+21	2,826192E+22
-324	1,360984E+22	1,361069E+22	5,210792E+20	5,209425E+20	2,722053E+22	1,042022E+21	2,826255E+22
-323	1,361067E+22	1,361025E+22	5,209094E+20	5,210779E+20	2,722092E+22	1,041987E+21	2,826291E+22
-322	1,361076E+22	1,361027E+22	5,209825E+20	5,209167E+20	2,722104E+22	1,041899E+21	2,826294E+22
-321	1,361025E+22	1,361091E+22	5,210444E+20	5,209952E+20	2,722115E+22	1,042040E+21	2,826319E+22
-320	1,361073E+22	1,361005E+22	5,209090E+20	5,210630E+20	2,722078E+22	1,041972E+21	2,826275E+22
-319	1,360989E+22	1,361013E+22	5,210717E+20	5,209407E+20	2,722002E+22	1,042012E+21	2,826204E+22
-318	1,360934E+22	1,360987E+22	5,210442E+20	5,211022E+20	2,721921E+22	1,042146E+21	2,826135E+22
-317	1,360956E+22	1,360870E+22	5,210040E+20	5,210699E+20	2,721826E+22	1,042074E+21	2,826033E+22
-316	1,360837E+22	1,360891E+22	5,211808E+20	5,210045E+20	2,721728E+22	1,042185E+21	2,825947E+22
-315	1,360823E+22	1,360815E+22	5,210430E+20	5,211868E+20	2,721638E+22	1,042230E+21	2,825861E+22
-314	1,360805E+22	1,360747E+22	5,210917E+20	5,210827E+20	2,721552E+22	1,042174E+21	2,825769E+22
-313	1,360719E+22	1,360803E+22	5,211908E+20	5,211069E+20	2,721522E+22	1,042298E+21	2,825752E+22
-312	1,360793E+22	1,360731E+22	5,210329E+20	5,212085E+20	2,721524E+22	1,042241E+21	2,825749E+22
-311	1,360778E+22	1,360760E+22	5,211504E+20	5,210292E+20	2,721538E+22	1,042180E+21	2,825756E+22
-310	1,360754E+22	1,360826E+22	5,211430E+20	5,211210E+20	2,721580E+22	1,042264E+21	2,825806E+22
-309	1,360847E+22	1,360786E+22	5,210243E+20	5,211121E+20	2,721632E+22	1,042136E+21	2,825846E+22
-308	1,360803E+22	1,360875E+22	5,211584E+20	5,209855E+20	2,721678E+22	1,042144E+21	2,825892E+22
-307	1,360848E+22	1,360885E+22	5,210304E+20	5,211470E+20	2,721733E+22	1,042177E+21	2,825951E+22
-306	1,360930E+22	1,360861E+22	5,209959E+20	5,210348E+20	2,721791E+22	1,042031E+21	2,825994E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-305	1,360896E+22	1,360960E+22	5,211180E+20	5,209886E+20	2,721857E+22	1,042107E+21	2,826067E+22
-304	1,360978E+22	1,360931E+22	5,209564E+20	5,211133E+20	2,721908E+22	1,042070E+21	2,826115E+22
-303	1,360974E+22	1,360932E+22	5,210331E+20	5,209628E+20	2,721906E+22	1,041996E+21	2,826106E+22
-302	1,360888E+22	1,360978E+22	5,211059E+20	5,210468E+20	2,721866E+22	1,042153E+21	2,826082E+22
-301	1,360938E+22	1,360884E+22	5,209742E+20	5,211156E+20	2,721821E+22	1,042090E+21	2,826030E+22
-300	1,360859E+22	1,360878E+22	5,211433E+20	5,209985E+20	2,721737E+22	1,042142E+21	2,825951E+22
-299	1,360804E+22	1,360841E+22	5,210999E+20	5,211550E+20	2,721645E+22	1,042255E+21	2,825871E+22
-298	1,360825E+22	1,360731E+22	5,210484E+20	5,211285E+20	2,721555E+22	1,042177E+21	2,825773E+22
-297	1,360701E+22	1,360759E+22	5,212241E+20	5,210724E+20	2,721460E+22	1,042297E+21	2,825690E+22
-296	1,360700E+22	1,360694E+22	5,210888E+20	5,212474E+20	2,721394E+22	1,042336E+21	2,825628E+22
-295	1,360697E+22	1,360632E+22	5,211386E+20	5,211357E+20	2,721329E+22	1,042274E+21	2,825557E+22
-294	1,360603E+22	1,360689E+22	5,212464E+20	5,211464E+20	2,721293E+22	1,042393E+21	2,825532E+22
-293	1,360688E+22	1,360628E+22	5,210937E+20	5,212385E+20	2,721316E+22	1,042332E+21	2,825549E+22
-292	1,360668E+22	1,360658E+22	5,212109E+20	5,210726E+20	2,721326E+22	1,042284E+21	2,825555E+22
-291	1,360637E+22	1,360716E+22	5,211823E+20	5,211732E+20	2,721353E+22	1,042355E+21	2,825588E+22
-290	1,360734E+22	1,360673E+22	5,210526E+20	5,211719E+20	2,721407E+22	1,042225E+21	2,825629E+22
-289	1,360702E+22	1,360762E+22	5,211902E+20	5,210429E+20	2,721464E+22	1,042233E+21	2,825687E+22
-288	1,360768E+22	1,360784E+22	5,210704E+20	5,211828E+20	2,721552E+22	1,042253E+21	2,825777E+22
-287	1,360852E+22	1,360766E+22	5,210420E+20	5,210610E+20	2,721618E+22	1,042103E+21	2,825828E+22
-286	1,360785E+22	1,360867E+22	5,211733E+20	5,210196E+20	2,721651E+22	1,042193E+21	2,825871E+22
-285	1,360855E+22	1,360834E+22	5,210162E+20	5,211540E+20	2,721689E+22	1,042170E+21	2,825907E+22
-284	1,360843E+22	1,360817E+22	5,210972E+20	5,210274E+20	2,721660E+22	1,042125E+21	2,825873E+22
-283	1,360758E+22	1,360845E+22	5,211543E+20	5,211098E+20	2,721603E+22	1,042264E+21	2,825829E+22
-282	1,360815E+22	1,360744E+22	5,210178E+20	5,211770E+20	2,721559E+22	1,042195E+21	2,825779E+22
-281	1,360739E+22	1,360739E+22	5,211930E+20	5,210585E+20	2,721477E+22	1,042252E+21	2,825702E+22
-280	1,360685E+22	1,360715E+22	5,211510E+20	5,212070E+20	2,721400E+22	1,042358E+21	2,825636E+22
-279	1,360699E+22	1,360608E+22	5,210984E+20	5,211878E+20	2,721307E+22	1,042286E+21	2,825536E+22
-278	1,360560E+22	1,360632E+22	5,212794E+20	5,211322E+20	2,721192E+22	1,042412E+21	2,825433E+22
-277	1,360575E+22	1,360572E+22	5,211527E+20	5,212957E+20	2,721148E+22	1,042448E+21	2,825393E+22
-276	1,360585E+22	1,360513E+22	5,212054E+20	5,211844E+20	2,721098E+22	1,042390E+21	2,825337E+22
-275	1,360492E+22	1,360570E+22	5,212963E+20	5,211839E+20	2,721062E+22	1,042480E+21	2,825310E+22
-274	1,360573E+22	1,360519E+22	5,211332E+20	5,212834E+20	2,721092E+22	1,042417E+21	2,825334E+22
-273	1,360551E+22	1,360552E+22	5,212466E+20	5,211292E+20	2,721103E+22	1,042376E+21	2,825341E+22
-272	1,360533E+22	1,360616E+22	5,212197E+20	5,212215E+20	2,721148E+22	1,042441E+21	2,825392E+22
-271	1,360645E+22	1,360575E+22	5,210902E+20	5,212142E+20	2,721220E+22	1,042304E+21	2,825450E+22
-270	1,360606E+22	1,360660E+22	5,212364E+20	5,210753E+20	2,721266E+22	1,042312E+21	2,825498E+22
-269	1,360675E+22	1,360690E+22	5,211299E+20	5,212082E+20	2,721365E+22	1,042338E+21	2,825599E+22
-268	1,360748E+22	1,360671E+22	5,210999E+20	5,211095E+20	2,721419E+22	1,042209E+21	2,825640E+22
-267	1,360663E+22	1,360754E+22	5,212154E+20	5,210772E+20	2,721417E+22	1,042293E+21	2,825646E+22
-266	1,360732E+22	1,360712E+22	5,210546E+20	5,212205E+20	2,721443E+22	1,042275E+21	2,825671E+22
-265	1,360725E+22	1,360687E+22	5,211400E+20	5,210949E+20	2,721412E+22	1,042235E+21	2,825636E+22
-264	1,360652E+22	1,360718E+22	5,212045E+20	5,211571E+20	2,721370E+22	1,042362E+21	2,825606E+22
-263	1,360706E+22	1,360622E+22	5,210708E+20	5,212184E+20	2,721327E+22	1,042289E+21	2,825556E+22
-262	1,360600E+22	1,360614E+22	5,212506E+20	5,211057E+20	2,721214E+22	1,042356E+21	2,825450E+22
-261	1,360545E+22	1,360593E+22	5,212173E+20	5,212577E+20	2,721138E+22	1,042475E+21	2,825385E+22
-260	1,360563E+22	1,360481E+22	5,211663E+20	5,212563E+20	2,721043E+22	1,042423E+21	2,825286E+22
-259	1,360431E+22	1,360497E+22	5,213303E+20	5,211910E+20	2,720928E+22	1,042521E+21	2,825180E+22
-258	1,360461E+22	1,360443E+22	5,212027E+20	5,213485E+20	2,720904E+22	1,042551E+21	2,825159E+22
-257	1,360473E+22	1,360394E+22	5,212547E+20	5,212353E+20	2,720867E+22	1,042490E+21	2,825116E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-256	1,360383E+22	1,360466E+22	5,213408E+20	5,212283E+20	2,720849E+22	1,042569E+21	2,825106E+22
-255	1,360458E+22	1,360417E+22	5,211743E+20	5,213297E+20	2,720875E+22	1,042504E+21	2,825126E+22
-254	1,360426E+22	1,360443E+22	5,212916E+20	5,211776E+20	2,720869E+22	1,042469E+21	2,825116E+22
-253	1,360430E+22	1,360510E+22	5,212749E+20	5,212573E+20	2,720941E+22	1,042532E+21	2,825194E+22
-252	1,360551E+22	1,360473E+22	5,211484E+20	5,212563E+20	2,721024E+22	1,042405E+21	2,825265E+22
-251	1,360510E+22	1,360555E+22	5,212755E+20	5,211136E+20	2,721065E+22	1,042389E+21	2,825304E+22
-250	1,360572E+22	1,360588E+22	5,211654E+20	5,212572E+20	2,721160E+22	1,042423E+21	2,825403E+22
-249	1,360636E+22	1,360567E+22	5,211343E+20	5,211715E+20	2,721202E+22	1,042306E+21	2,825433E+22
-248	1,360559E+22	1,360646E+22	5,212547E+20	5,211320E+20	2,721205E+22	1,042387E+21	2,825444E+22
-247	1,360627E+22	1,360601E+22	5,210993E+20	5,212644E+20	2,721228E+22	1,042364E+21	2,825464E+22
-246	1,360606E+22	1,360567E+22	5,211988E+20	5,211374E+20	2,721172E+22	1,042336E+21	2,825406E+22
-245	1,360532E+22	1,360599E+22	5,212773E+20	5,211934E+20	2,721131E+22	1,042471E+21	2,825378E+22
-244	1,360571E+22	1,360501E+22	5,211423E+20	5,212812E+20	2,721072E+22	1,042423E+21	2,825314E+22
-243	1,360455E+22	1,360475E+22	5,212999E+20	5,211746E+20	2,720930E+22	1,042475E+21	2,825177E+22
-242	1,360409E+22	1,360451E+22	5,212654E+20	5,213304E+20	2,720860E+22	1,042596E+21	2,825120E+22
-241	1,360440E+22	1,360345E+22	5,212158E+20	5,213227E+20	2,720785E+22	1,042539E+21	2,825039E+22
-240	1,360326E+22	1,360373E+22	5,213827E+20	5,212360E+20	2,720699E+22	1,042619E+21	2,824961E+22
-239	1,360351E+22	1,360334E+22	5,212559E+20	5,213825E+20	2,720685E+22	1,042638E+21	2,824949E+22
-238	1,360339E+22	1,360287E+22	5,213080E+20	5,212782E+20	2,720626E+22	1,042586E+21	2,824885E+22
-237	1,360253E+22	1,360360E+22	5,213996E+20	5,212709E+20	2,720613E+22	1,042671E+21	2,824880E+22
-236	1,360339E+22	1,360309E+22	5,212291E+20	5,213891E+20	2,720648E+22	1,042618E+21	2,824910E+22
-235	1,360321E+22	1,360324E+22	5,213261E+20	5,212268E+20	2,720644E+22	1,042553E+21	2,824899E+22
-234	1,360344E+22	1,360397E+22	5,213129E+20	5,213027E+20	2,720741E+22	1,042616E+21	2,825003E+22
-233	1,360464E+22	1,360373E+22	5,211865E+20	5,213020E+20	2,720838E+22	1,042489E+21	2,825086E+22
-232	1,360421E+22	1,360463E+22	5,213101E+20	5,211599E+20	2,720885E+22	1,042470E+21	2,825132E+22
-231	1,360470E+22	1,360496E+22	5,212036E+20	5,213006E+20	2,720965E+22	1,042504E+21	2,825216E+22
-230	1,360515E+22	1,360460E+22	5,211825E+20	5,212199E+20	2,720975E+22	1,042402E+21	2,825216E+22
-229	1,360447E+22	1,360535E+22	5,213211E+20	5,211680E+20	2,720983E+22	1,042489E+21	2,825232E+22
-228	1,360510E+22	1,360486E+22	5,211711E+20	5,213105E+20	2,720996E+22	1,042482E+21	2,825245E+22
-227	1,360476E+22	1,360437E+22	5,212528E+20	5,211877E+20	2,720913E+22	1,042441E+21	2,825157E+22
-226	1,360398E+22	1,360465E+22	5,213273E+20	5,212592E+20	2,720863E+22	1,042587E+21	2,825121E+22
-225	1,360433E+22	1,360366E+22	5,211902E+20	5,213579E+20	2,720799E+22	1,042548E+21	2,825054E+22
-224	1,360336E+22	1,360343E+22	5,213437E+20	5,212441E+20	2,720679E+22	1,042588E+21	2,824937E+22
-223	1,360297E+22	1,360325E+22	5,213147E+20	5,213782E+20	2,720621E+22	1,042693E+21	2,824890E+22
-222	1,360315E+22	1,360223E+22	5,212782E+20	5,213665E+20	2,720538E+22	1,042645E+21	2,824803E+22
-221	1,360203E+22	1,360262E+22	5,214540E+20	5,212715E+20	2,720465E+22	1,042725E+21	2,824738E+22
-220	1,360214E+22	1,360225E+22	5,213231E+20	5,214383E+20	2,720439E+22	1,042761E+21	2,824715E+22
-219	1,360200E+22	1,360160E+22	5,213515E+20	5,213396E+20	2,720359E+22	1,042691E+21	2,824628E+22
-218	1,360138E+22	1,360228E+22	5,214384E+20	5,213330E+20	2,720366E+22	1,042771E+21	2,824643E+22
-217	1,360241E+22	1,360191E+22	5,212674E+20	5,214415E+20	2,720432E+22	1,042709E+21	2,824703E+22
-216	1,360246E+22	1,360221E+22	5,213595E+20	5,212641E+20	2,720467E+22	1,042624E+21	2,824730E+22
-215	1,360262E+22	1,360311E+22	5,213495E+20	5,213283E+20	2,720573E+22	1,042678E+21	2,824840E+22
-214	1,360354E+22	1,360290E+22	5,212312E+20	5,213383E+20	2,720645E+22	1,042570E+21	2,824902E+22
-213	1,360310E+22	1,360375E+22	5,213679E+20	5,211978E+20	2,720686E+22	1,042566E+21	2,824942E+22
-212	1,360354E+22	1,360398E+22	5,212651E+20	5,213512E+20	2,720752E+22	1,042616E+21	2,825014E+22
-211	1,360397E+22	1,360338E+22	5,212299E+20	5,212702E+20	2,720736E+22	1,042500E+21	2,824986E+22
-210	1,360339E+22	1,360404E+22	5,213719E+20	5,212230E+20	2,720743E+22	1,042595E+21	2,825003E+22
-209	1,360393E+22	1,360361E+22	5,212198E+20	5,213728E+20	2,720754E+22	1,042593E+21	2,825013E+22
-208	1,360359E+22	1,360310E+22	5,212930E+20	5,212558E+20	2,720669E+22	1,042549E+21	2,824924E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-207	1,360274E+22	1,360338E+22	5,213694E+20	5,213194E+20	2,720612E+22	1,042689E+21	2,824881E+22
-206	1,360300E+22	1,360236E+22	5,212461E+20	5,214164E+20	2,720537E+22	1,042662E+21	2,824803E+22
-205	1,360215E+22	1,360219E+22	5,214167E+20	5,212854E+20	2,720434E+22	1,042702E+21	2,824704E+22
-204	1,360171E+22	1,360209E+22	5,213917E+20	5,214228E+20	2,720380E+22	1,042814E+21	2,824661E+22
-203	1,360175E+22	1,360096E+22	5,213361E+20	5,214152E+20	2,720270E+22	1,042751E+21	2,824545E+22
-202	1,360066E+22	1,360130E+22	5,215041E+20	5,213339E+20	2,720196E+22	1,042838E+21	2,824480E+22
-201	1,360081E+22	1,360097E+22	5,213669E+20	5,215033E+20	2,720177E+22	1,042870E+21	2,824464E+22
-200	1,360094E+22	1,360036E+22	5,213845E+20	5,213987E+20	2,720130E+22	1,042783E+21	2,824409E+22
-199	1,360049E+22	1,360118E+22	5,214733E+20	5,213691E+20	2,720167E+22	1,042842E+21	2,824452E+22
-198	1,360147E+22	1,360094E+22	5,213178E+20	5,214735E+20	2,720241E+22	1,042791E+21	2,824520E+22
-197	1,360153E+22	1,360140E+22	5,214177E+20	5,212915E+20	2,720293E+22	1,042709E+21	2,824564E+22
-196	1,360151E+22	1,360230E+22	5,214067E+20	5,213740E+20	2,720381E+22	1,042781E+21	2,824659E+22
-195	1,360230E+22	1,360183E+22	5,212727E+20	5,213910E+20	2,720413E+22	1,042664E+21	2,824680E+22
-194	1,360202E+22	1,360252E+22	5,214103E+20	5,212580E+20	2,720455E+22	1,042668E+21	2,824721E+22
-193	1,360247E+22	1,360277E+22	5,213109E+20	5,214022E+20	2,720524E+22	1,042713E+21	2,824795E+22
-192	1,360303E+22	1,360220E+22	5,212697E+20	5,213216E+20	2,720523E+22	1,042591E+21	2,824782E+22
-191	1,360235E+22	1,360289E+22	5,214105E+20	5,212662E+20	2,720524E+22	1,042677E+21	2,824791E+22
-190	1,360262E+22	1,360246E+22	5,212710E+20	5,214274E+20	2,720508E+22	1,042698E+21	2,824778E+22
-189	1,360233E+22	1,360196E+22	5,213541E+20	5,213081E+20	2,720429E+22	1,042662E+21	2,824695E+22
-188	1,360146E+22	1,360220E+22	5,214358E+20	5,213750E+20	2,720367E+22	1,042811E+21	2,824648E+22
-187	1,360168E+22	1,360102E+22	5,213074E+20	5,214672E+20	2,720270E+22	1,042775E+21	2,824548E+22
-186	1,360093E+22	1,360080E+22	5,214812E+20	5,213421E+20	2,720173E+22	1,042823E+21	2,824455E+22
-185	1,360034E+22	1,360080E+22	5,214501E+20	5,214804E+20	2,720114E+22	1,042931E+21	2,824407E+22
-184	1,360044E+22	1,359966E+22	5,213788E+20	5,214843E+20	2,720010E+22	1,042863E+21	2,824296E+22
-183	1,359942E+22	1,359999E+22	5,215394E+20	5,213902E+20	2,719940E+22	1,042930E+21	2,824233E+22
-182	1,359961E+22	1,359974E+22	5,214150E+20	5,215527E+20	2,719935E+22	1,042968E+21	2,824232E+22
-181	1,359997E+22	1,359932E+22	5,214429E+20	5,214290E+20	2,719929E+22	1,042872E+21	2,824216E+22
-180	1,359953E+22	1,360029E+22	5,215332E+20	5,214027E+20	2,719982E+22	1,042936E+21	2,824276E+22
-179	1,360034E+22	1,359997E+22	5,213655E+20	5,215122E+20	2,720031E+22	1,042878E+21	2,824319E+22
-178	1,360044E+22	1,360036E+22	5,214590E+20	5,213482E+20	2,720079E+22	1,042807E+21	2,824360E+22
-177	1,360038E+22	1,360125E+22	5,214445E+20	5,214291E+20	2,720163E+22	1,042874E+21	2,824450E+22
-176	1,360135E+22	1,360071E+22	5,213020E+20	5,214455E+20	2,720206E+22	1,042748E+21	2,824481E+22
-175	1,360114E+22	1,360139E+22	5,214437E+20	5,212958E+20	2,720253E+22	1,042740E+21	2,824527E+22
-174	1,360145E+22	1,360170E+22	5,213622E+20	5,214400E+20	2,720314E+22	1,042802E+21	2,824595E+22
-173	1,360194E+22	1,360120E+22	5,213307E+20	5,213613E+20	2,720314E+22	1,042692E+21	2,824583E+22
-172	1,360109E+22	1,360185E+22	5,214697E+20	5,213233E+20	2,720294E+22	1,042793E+21	2,824573E+22
-171	1,360124E+22	1,360116E+22	5,213261E+20	5,214868E+20	2,720239E+22	1,042813E+21	2,824520E+22
-170	1,360111E+22	1,360054E+22	5,214115E+20	5,213726E+20	2,720165E+22	1,042784E+21	2,824443E+22
-169	1,360020E+22	1,360086E+22	5,214963E+20	5,214259E+20	2,720107E+22	1,042922E+21	2,824399E+22
-168	1,360047E+22	1,359971E+22	5,213603E+20	5,215226E+20	2,720018E+22	1,042883E+21	2,824306E+22
-167	1,359962E+22	1,359953E+22	5,215280E+20	5,213940E+20	2,719915E+22	1,042922E+21	2,824207E+22
-166	1,359887E+22	1,359954E+22	5,215046E+20	5,215388E+20	2,719841E+22	1,043043E+21	2,824146E+22
-165	1,359913E+22	1,359846E+22	5,214387E+20	5,215379E+20	2,719758E+22	1,042977E+21	2,824056E+22
-164	1,359824E+22	1,359883E+22	5,215940E+20	5,214421E+20	2,719707E+22	1,043036E+21	2,824011E+22
-163	1,359848E+22	1,359852E+22	5,214682E+20	5,215959E+20	2,719700E+22	1,043064E+21	2,824006E+22
-162	1,359902E+22	1,359818E+22	5,214935E+20	5,214777E+20	2,719720E+22	1,042971E+21	2,824017E+22
-161	1,359845E+22	1,359930E+22	5,215777E+20	5,214490E+20	2,719775E+22	1,043027E+21	2,824077E+22
-160	1,359930E+22	1,359897E+22	5,213975E+20	5,215690E+20	2,719827E+22	1,042966E+21	2,824123E+22
-159	1,359945E+22	1,359927E+22	5,214855E+20	5,213943E+20	2,719872E+22	1,042880E+21	2,824160E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-158	1,359934E+22	1,360019E+22	5,214885E+20	5,214668E+20	2,719953E+22	1,042955E+21	2,824248E+22
-157	1,360042E+22	1,359976E+22	5,213585E+20	5,214720E+20	2,720018E+22	1,042831E+21	2,824301E+22
-156	1,360013E+22	1,360046E+22	5,214999E+20	5,213310E+20	2,720059E+22	1,042831E+21	2,824342E+22
-155	1,360020E+22	1,360060E+22	5,214162E+20	5,214845E+20	2,720080E+22	1,042901E+21	2,824370E+22
-154	1,360072E+22	1,359998E+22	5,213816E+20	5,214260E+20	2,720071E+22	1,042808E+21	2,824351E+22
-153	1,359982E+22	1,360061E+22	5,215179E+20	5,213853E+20	2,720042E+22	1,042903E+21	2,824332E+22
-152	1,360010E+22	1,359985E+22	5,213700E+20	5,215497E+20	2,719995E+22	1,042920E+21	2,824287E+22
-151	1,360000E+22	1,359922E+22	5,214577E+20	5,214235E+20	2,719922E+22	1,042881E+21	2,824210E+22
-150	1,359892E+22	1,359963E+22	5,215580E+20	5,214752E+20	2,719854E+22	1,043033E+21	2,824158E+22
-149	1,359911E+22	1,359856E+22	5,214282E+20	5,215745E+20	2,719767E+22	1,043003E+21	2,824067E+22
-148	1,359819E+22	1,359830E+22	5,215881E+20	5,214584E+20	2,719649E+22	1,043046E+21	2,823954E+22
-147	1,359742E+22	1,359811E+22	5,215607E+20	5,215990E+20	2,719553E+22	1,043160E+21	2,823869E+22
-146	1,359796E+22	1,359704E+22	5,214937E+20	5,215976E+20	2,719500E+22	1,043091E+21	2,823809E+22
-145	1,359716E+22	1,359762E+22	5,216438E+20	5,214871E+20	2,719478E+22	1,043131E+21	2,823791E+22
-144	1,359751E+22	1,359742E+22	5,215110E+20	5,216423E+20	2,719493E+22	1,043153E+21	2,823808E+22
-143	1,359798E+22	1,359718E+22	5,215262E+20	5,215191E+20	2,719516E+22	1,043045E+21	2,823821E+22
-142	1,359730E+22	1,359835E+22	5,216192E+20	5,214916E+20	2,719565E+22	1,043111E+21	2,823876E+22
-141	1,359824E+22	1,359806E+22	5,214485E+20	5,216028E+20	2,719630E+22	1,043051E+21	2,823935E+22
-140	1,359844E+22	1,359834E+22	5,215350E+20	5,214317E+20	2,719678E+22	1,042967E+21	2,823975E+22
-139	1,359827E+22	1,359908E+22	5,215439E+20	5,215007E+20	2,719735E+22	1,043045E+21	2,824039E+22
-138	1,359941E+22	1,359865E+22	5,214131E+20	5,215217E+20	2,719806E+22	1,042935E+21	2,824099E+22
-137	1,359897E+22	1,359938E+22	5,215436E+20	5,213883E+20	2,719835E+22	1,042932E+21	2,824128E+22
-136	1,359906E+22	1,359939E+22	5,214525E+20	5,215539E+20	2,719845E+22	1,043006E+21	2,824145E+22
-135	1,359962E+22	1,359871E+22	5,214143E+20	5,214858E+20	2,719833E+22	1,042900E+21	2,824123E+22
-134	1,359866E+22	1,359937E+22	5,215700E+20	5,214347E+20	2,719803E+22	1,043005E+21	2,824104E+22
-133	1,359897E+22	1,359873E+22	5,214395E+20	5,215864E+20	2,719770E+22	1,043026E+21	2,824073E+22
-132	1,359872E+22	1,359811E+22	5,215250E+20	5,214723E+20	2,719683E+22	1,042997E+21	2,823983E+22
-131	1,359738E+22	1,359831E+22	5,216231E+20	5,215313E+20	2,719569E+22	1,043154E+21	2,823885E+22
-130	1,359768E+22	1,359714E+22	5,214884E+20	5,216463E+20	2,719482E+22	1,043135E+21	2,823796E+22
-129	1,359681E+22	1,359690E+22	5,216382E+20	5,215216E+20	2,719371E+22	1,043160E+21	2,823687E+22
-128	1,359630E+22	1,359673E+22	5,216054E+20	5,216577E+20	2,719302E+22	1,043263E+21	2,823629E+22
-127	1,359697E+22	1,359580E+22	5,215350E+20	5,216409E+20	2,719277E+22	1,043176E+21	2,823595E+22
-126	1,359608E+22	1,359658E+22	5,216949E+20	5,215271E+20	2,719265E+22	1,043222E+21	2,823588E+22
-125	1,359639E+22	1,359657E+22	5,215691E+20	5,216807E+20	2,719295E+22	1,043250E+21	2,823620E+22
-124	1,359681E+22	1,359628E+22	5,215751E+20	5,215662E+20	2,719308E+22	1,043141E+21	2,823623E+22
-123	1,359608E+22	1,359721E+22	5,216695E+20	5,215338E+20	2,719329E+22	1,043203E+21	2,823649E+22
-122	1,359721E+22	1,359691E+22	5,214995E+20	5,216460E+20	2,719412E+22	1,043145E+21	2,823727E+22
-121	1,359742E+22	1,359726E+22	5,215800E+20	5,214722E+20	2,719469E+22	1,043052E+21	2,823774E+22
-120	1,359731E+22	1,359799E+22	5,215820E+20	5,215529E+20	2,719530E+22	1,043135E+21	2,823843E+22
-119	1,359838E+22	1,359758E+22	5,214421E+20	5,215767E+20	2,719596E+22	1,043019E+21	2,823898E+22
-118	1,359785E+22	1,359831E+22	5,215813E+20	5,214460E+20	2,719616E+22	1,043027E+21	2,823919E+22
-117	1,359799E+22	1,359838E+22	5,215057E+20	5,215985E+20	2,719637E+22	1,043104E+21	2,823948E+22
-116	1,359854E+22	1,359766E+22	5,214707E+20	5,215312E+20	2,719620E+22	1,043002E+21	2,823920E+22
-115	1,359742E+22	1,359811E+22	5,216395E+20	5,214770E+20	2,719552E+22	1,043116E+21	2,823864E+22
-114	1,359765E+22	1,359746E+22	5,215112E+20	5,216408E+20	2,719511E+22	1,043152E+21	2,823826E+22
-113	1,359723E+22	1,359682E+22	5,215859E+20	5,215399E+20	2,719405E+22	1,043126E+21	2,823718E+22
-112	1,359599E+22	1,359681E+22	5,216718E+20	5,216065E+20	2,719281E+22	1,043278E+21	2,823608E+22
-111	1,359640E+22	1,359566E+22	5,215297E+20	5,217088E+20	2,719206E+22	1,043238E+21	2,823529E+22
-110	1,359564E+22	1,359557E+22	5,216861E+20	5,215714E+20	2,719121E+22	1,043258E+21	2,823447E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-109	1,359522E+22	1,359565E+22	5,216693E+20	5,216911E+20	2,719087E+22	1,043360E+21	2,823423E+22
-108	1,359581E+22	1,359487E+22	5,215939E+20	5,216806E+20	2,719068E+22	1,043275E+21	2,823395E+22
-107	1,359473E+22	1,359550E+22	5,217530E+20	5,215728E+20	2,719023E+22	1,043326E+21	2,823356E+22
-106	1,359514E+22	1,359544E+22	5,216242E+20	5,217337E+20	2,719058E+22	1,043358E+21	2,823394E+22
-105	1,359562E+22	1,359516E+22	5,216176E+20	5,216187E+20	2,719078E+22	1,043236E+21	2,823402E+22
-104	1,359513E+22	1,359599E+22	5,217041E+20	5,215865E+20	2,719112E+22	1,043291E+21	2,823441E+22
-103	1,359635E+22	1,359579E+22	5,215303E+20	5,216898E+20	2,719214E+22	1,043220E+21	2,823536E+22
-102	1,359648E+22	1,359629E+22	5,216153E+20	5,215195E+20	2,719277E+22	1,043135E+21	2,823591E+22
-101	1,359633E+22	1,359712E+22	5,216298E+20	5,215986E+20	2,719345E+22	1,043228E+21	2,823668E+22
-100	1,359733E+22	1,359664E+22	5,214887E+20	5,216260E+20	2,719397E+22	1,043115E+21	2,823709E+22
-99	1,359668E+22	1,359714E+22	5,216382E+20	5,214906E+20	2,719382E+22	1,043129E+21	2,823695E+22
-98	1,359690E+22	1,359719E+22	5,215717E+20	5,216395E+20	2,719409E+22	1,043211E+21	2,823730E+22
-97	1,359729E+22	1,359648E+22	5,215342E+20	5,215775E+20	2,719377E+22	1,043112E+21	2,823688E+22
-96	1,359612E+22	1,359679E+22	5,216947E+20	5,215391E+20	2,719290E+22	1,043234E+21	2,823614E+22
-95	1,359627E+22	1,359610E+22	5,215546E+20	5,217062E+20	2,719237E+22	1,043261E+21	2,823563E+22
-94	1,359583E+22	1,359543E+22	5,216321E+20	5,216080E+20	2,719127E+22	1,043240E+21	2,823451E+22
-93	1,359476E+22	1,359554E+22	5,217282E+20	5,216594E+20	2,719030E+22	1,043388E+21	2,823368E+22
-92	1,359525E+22	1,359446E+22	5,215883E+20	5,217554E+20	2,718971E+22	1,043344E+21	2,823305E+22
-91	1,359440E+22	1,359432E+22	5,217524E+20	5,216154E+20	2,718872E+22	1,043368E+21	2,823209E+22
-90	1,359399E+22	1,359451E+22	5,217354E+20	5,217412E+20	2,718850E+22	1,043477E+21	2,823198E+22
-89	1,359444E+22	1,359377E+22	5,216472E+20	5,217417E+20	2,718821E+22	1,043389E+21	2,823160E+22
-88	1,359352E+22	1,359421E+22	5,217917E+20	5,216391E+20	2,718774E+22	1,043431E+21	2,823117E+22
-87	1,359408E+22	1,359418E+22	5,216546E+20	5,217828E+20	2,718827E+22	1,043437E+21	2,823170E+22
-86	1,359466E+22	1,359405E+22	5,216532E+20	5,216599E+20	2,718871E+22	1,043313E+21	2,823203E+22
-85	1,359428E+22	1,359508E+22	5,217521E+20	5,216173E+20	2,718936E+22	1,043369E+21	2,823272E+22
-84	1,359539E+22	1,359499E+22	5,215768E+20	5,217264E+20	2,719038E+22	1,043303E+21	2,823368E+22
-83	1,359535E+22	1,359531E+22	5,216653E+20	5,215642E+20	2,719066E+22	1,043229E+21	2,823389E+22
-82	1,359524E+22	1,359608E+22	5,216852E+20	5,216434E+20	2,719132E+22	1,043329E+21	2,823465E+22
-81	1,359618E+22	1,359559E+22	5,215413E+20	5,216733E+20	2,719176E+22	1,043215E+21	2,823498E+22
-80	1,359564E+22	1,359586E+22	5,216882E+20	5,215444E+20	2,719150E+22	1,043233E+21	2,823473E+22
-79	1,359576E+22	1,359593E+22	5,216198E+20	5,216873E+20	2,719169E+22	1,043307E+21	2,823499E+22
-78	1,359600E+22	1,359528E+22	5,215825E+20	5,216412E+20	2,719127E+22	1,043224E+21	2,823450E+22
-77	1,359480E+22	1,359556E+22	5,217497E+20	5,216033E+20	2,719036E+22	1,043353E+21	2,823371E+22
-76	1,359494E+22	1,359481E+22	5,216076E+20	5,217674E+20	2,718975E+22	1,043375E+21	2,823312E+22
-75	1,359449E+22	1,359398E+22	5,216926E+20	5,216622E+20	2,718848E+22	1,043355E+21	2,823183E+22
-74	1,359356E+22	1,359419E+22	5,217953E+20	5,217046E+20	2,718775E+22	1,043500E+21	2,823125E+22
-73	1,359396E+22	1,359328E+22	5,216540E+20	5,218062E+20	2,718724E+22	1,043460E+21	2,823070E+22
-72	1,359313E+22	1,359306E+22	5,218035E+20	5,216803E+20	2,718619E+22	1,043484E+21	2,822967E+22
-71	1,359271E+22	1,359329E+22	5,217750E+20	5,217998E+20	2,718600E+22	1,043575E+21	2,822957E+22
-70	1,359322E+22	1,359259E+22	5,216844E+20	5,217997E+20	2,718581E+22	1,043484E+21	2,822929E+22
-69	1,359252E+22	1,359313E+22	5,218355E+20	5,216808E+20	2,718564E+22	1,043516E+21	2,822916E+22
-68	1,359315E+22	1,359319E+22	5,217013E+20	5,218127E+20	2,718635E+22	1,043514E+21	2,822986E+22
-67	1,359364E+22	1,359302E+22	5,217089E+20	5,216929E+20	2,718666E+22	1,043402E+21	2,823006E+22
-66	1,359327E+22	1,359415E+22	5,218073E+20	5,216589E+20	2,718742E+22	1,043466E+21	2,823089E+22
-65	1,359423E+22	1,359405E+22	5,216281E+20	5,217799E+20	2,718828E+22	1,043408E+21	2,823169E+22
-64	1,359430E+22	1,359412E+22	5,217035E+20	5,216256E+20	2,718841E+22	1,043329E+21	2,823174E+22
-63	1,359425E+22	1,359489E+22	5,217185E+20	5,216883E+20	2,718913E+22	1,043407E+21	2,823254E+22
-62	1,359514E+22	1,359445E+22	5,215826E+20	5,217172E+20	2,718959E+22	1,043300E+21	2,823289E+22
-61	1,359458E+22	1,359480E+22	5,217422E+20	5,215893E+20	2,718939E+22	1,043331E+21	2,823272E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-60	1,359451E+22	1,359487E+22	5,216729E+20	5,217357E+20	2,718938E+22	1,043409E+21	2,823279E+22
-59	1,359457E+22	1,359398E+22	5,216424E+20	5,217030E+20	2,718854E+22	1,043345E+21	2,823189E+22
-58	1,359348E+22	1,359421E+22	5,218092E+20	5,216621E+20	2,718769E+22	1,043471E+21	2,823116E+22
-57	1,359361E+22	1,359347E+22	5,216684E+20	5,218263E+20	2,718709E+22	1,043495E+21	2,823058E+22
-56	1,359333E+22	1,359253E+22	5,217469E+20	5,217240E+20	2,718586E+22	1,043471E+21	2,822933E+22
-55	1,359238E+22	1,359288E+22	5,218440E+20	5,217568E+20	2,718526E+22	1,043601E+21	2,822886E+22
-54	1,359265E+22	1,359211E+22	5,217044E+20	5,218686E+20	2,718476E+22	1,043573E+21	2,822833E+22
-53	1,359188E+22	1,359191E+22	5,218564E+20	5,217408E+20	2,718379E+22	1,043597E+21	2,822739E+22
-52	1,359148E+22	1,359214E+22	5,218243E+20	5,218438E+20	2,718362E+22	1,043668E+21	2,822729E+22
-51	1,359201E+22	1,359136E+22	5,217413E+20	5,218389E+20	2,718337E+22	1,043580E+21	2,822695E+22
-50	1,359148E+22	1,359200E+22	5,218944E+20	5,217103E+20	2,718347E+22	1,043605E+21	2,822708E+22
-49	1,359203E+22	1,359223E+22	5,217595E+20	5,218525E+20	2,718426E+22	1,043612E+21	2,822787E+22
-48	1,359258E+22	1,359193E+22	5,217481E+20	5,217503E+20	2,718451E+22	1,043498E+21	2,822801E+22
-47	1,359222E+22	1,359307E+22	5,218356E+20	5,217126E+20	2,718529E+22	1,043548E+21	2,822883E+22
-46	1,359321E+22	1,359302E+22	5,216588E+20	5,218331E+20	2,718623E+22	1,043492E+21	2,822973E+22
-45	1,359342E+22	1,359310E+22	5,217426E+20	5,216705E+20	2,718653E+22	1,043413E+21	2,822994E+22
-44	1,359330E+22	1,359390E+22	5,217660E+20	5,217176E+20	2,718720E+22	1,043484E+21	2,823068E+22
-43	1,359396E+22	1,359336E+22	5,216433E+20	5,217588E+20	2,718732E+22	1,043402E+21	2,823072E+22
-42	1,359332E+22	1,359367E+22	5,218040E+20	5,216422E+20	2,718699E+22	1,043446E+21	2,823044E+22
-41	1,359310E+22	1,359364E+22	5,217346E+20	5,218012E+20	2,718674E+22	1,043536E+21	2,823028E+22
-40	1,359329E+22	1,359248E+22	5,216915E+20	5,217751E+20	2,718576E+22	1,043467E+21	2,822923E+22
-39	1,359231E+22	1,359275E+22	5,218510E+20	5,217175E+20	2,718506E+22	1,043568E+21	2,822863E+22
-38	1,359243E+22	1,359219E+22	5,217208E+20	5,218788E+20	2,718462E+22	1,043600E+21	2,822822E+22
-37	1,359216E+22	1,359138E+22	5,218053E+20	5,217780E+20	2,718354E+22	1,043583E+21	2,822712E+22
-36	1,359106E+22	1,359179E+22	5,218998E+20	5,218028E+20	2,718285E+22	1,043703E+21	2,822656E+22
-35	1,359119E+22	1,359087E+22	5,217697E+20	5,219222E+20	2,718206E+22	1,043692E+21	2,822575E+22
-34	1,359057E+22	1,359068E+22	5,219181E+20	5,217886E+20	2,718125E+22	1,043707E+21	2,822496E+22
-33	1,359022E+22	1,359094E+22	5,218847E+20	5,218894E+20	2,718116E+22	1,043774E+21	2,822494E+22
-32	1,359093E+22	1,359005E+22	5,217892E+20	5,218913E+20	2,718098E+22	1,043681E+21	2,822466E+22
-31	1,359048E+22	1,359086E+22	5,219253E+20	5,217605E+20	2,718134E+22	1,043686E+21	2,822502E+22
-30	1,359098E+22	1,359123E+22	5,217931E+20	5,219116E+20	2,718221E+22	1,043705E+21	2,822591E+22
-29	1,359164E+22	1,359097E+22	5,217822E+20	5,218067E+20	2,718261E+22	1,043589E+21	2,822620E+22
-28	1,359131E+22	1,359211E+22	5,218709E+20	5,217452E+20	2,718342E+22	1,043616E+21	2,822703E+22
-27	1,359220E+22	1,359198E+22	5,217124E+20	5,218612E+20	2,718418E+22	1,043574E+21	2,822775E+22
-26	1,359241E+22	1,359212E+22	5,218031E+20	5,216991E+20	2,718453E+22	1,043502E+21	2,822803E+22
-25	1,359206E+22	1,359291E+22	5,218304E+20	5,217622E+20	2,718497E+22	1,043593E+21	2,822856E+22
-24	1,359267E+22	1,359210E+22	5,216938E+20	5,218257E+20	2,718477E+22	1,043519E+21	2,822829E+22
-23	1,359207E+22	1,359232E+22	5,218403E+20	5,217082E+20	2,718439E+22	1,043549E+21	2,822794E+22
-22	1,359188E+22	1,359232E+22	5,217776E+20	5,218649E+20	2,718419E+22	1,043643E+21	2,822784E+22
-21	1,359222E+22	1,359119E+22	5,217414E+20	5,218324E+20	2,718342E+22	1,043574E+21	2,822699E+22
-20	1,359120E+22	1,359155E+22	5,219065E+20	5,217556E+20	2,718275E+22	1,043662E+21	2,822641E+22
-19	1,359107E+22	1,359100E+22	5,217932E+20	5,219290E+20	2,718207E+22	1,043722E+21	2,822579E+22
-18	1,359072E+22	1,359020E+22	5,218772E+20	5,218360E+20	2,718092E+22	1,043713E+21	2,822463E+22
-17	1,358953E+22	1,359053E+22	5,219685E+20	5,218671E+20	2,718006E+22	1,043836E+21	2,822390E+22
-16	1,358984E+22	1,358937E+22	5,218210E+20	5,219873E+20	2,717921E+22	1,043808E+21	2,822302E+22
-15	1,358941E+22	1,358925E+22	5,219545E+20	5,218388E+20	2,717866E+22	1,043793E+21	2,822246E+22
-14	1,358914E+22	1,358973E+22	5,219268E+20	5,219371E+20	2,717887E+22	1,043864E+21	2,822274E+22
-13	1,358996E+22	1,358905E+22	5,218297E+20	5,219425E+20	2,717900E+22	1,043772E+21	2,822277E+22
-12	1,358948E+22	1,358996E+22	5,219594E+20	5,217993E+20	2,717944E+22	1,043759E+21	2,822320E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
-11	1,358989E+22	1,359027E+22	5,218438E+20	5,219532E+20	2,718016E+22	1,043797E+21	2,822396E+22
-10	1,359064E+22	1,359005E+22	5,218337E+20	5,218399E+20	2,718069E+22	1,043674E+21	2,822436E+22
-9	1,359027E+22	1,359116E+22	5,219297E+20	5,217790E+20	2,718143E+22	1,043709E+21	2,822514E+22
-8	1,359115E+22	1,359083E+22	5,217644E+20	5,219040E+20	2,718198E+22	1,043668E+21	2,822565E+22
-7	1,359130E+22	1,359098E+22	5,218418E+20	5,217540E+20	2,718228E+22	1,043596E+21	2,822588E+22
-6	1,359083E+22	1,359176E+22	5,218731E+20	5,218304E+20	2,718259E+22	1,043704E+21	2,822629E+22
-5	1,359154E+22	1,359088E+22	5,217362E+20	5,218971E+20	2,718242E+22	1,043633E+21	2,822605E+22
-4	1,359100E+22	1,359107E+22	5,218793E+20	5,217543E+20	2,718207E+22	1,043634E+21	2,822571E+22
-3	1,359069E+22	1,359104E+22	5,218420E+20	5,219055E+20	2,718173E+22	1,043747E+21	2,822548E+22
-2	1,359099E+22	1,359006E+22	5,218136E+20	5,218725E+20	2,718105E+22	1,043686E+21	2,822474E+22
-1	1,358977E+22	1,359042E+22	5,219816E+20	5,218113E+20	2,718019E+22	1,043793E+21	2,822398E+22
1	1,358957E+22	1,358960E+22	5,218562E+20	5,219986E+20	2,717916E+22	1,043855E+21	2,822302E+22
2	1,358931E+22	1,358876E+22	5,219209E+20	5,219075E+20	2,717807E+22	1,043828E+21	2,822190E+22
3	1,358822E+22	1,358912E+22	5,220125E+20	5,219305E+20	2,717734E+22	1,043943E+21	2,822129E+22
4	1,358877E+22	1,358806E+22	5,218662E+20	5,220422E+20	2,717683E+22	1,043908E+21	2,822074E+22
5	1,358842E+22	1,358811E+22	5,219946E+20	5,218713E+20	2,717653E+22	1,043866E+21	2,822040E+22
6	1,358800E+22	1,358870E+22	5,219850E+20	5,219793E+20	2,717670E+22	1,043964E+21	2,822067E+22
7	1,358881E+22	1,358815E+22	5,218882E+20	5,219867E+20	2,717696E+22	1,043875E+21	2,822083E+22
8	1,358832E+22	1,358900E+22	5,220166E+20	5,218483E+20	2,717733E+22	1,043865E+21	2,822119E+22
9	1,358883E+22	1,358911E+22	5,218924E+20	5,219975E+20	2,717794E+22	1,043890E+21	2,822183E+22
10	1,358966E+22	1,358892E+22	5,218691E+20	5,218797E+20	2,717859E+22	1,043749E+21	2,822234E+22
11	1,358923E+22	1,359011E+22	5,219721E+20	5,218250E+20	2,717933E+22	1,043797E+21	2,822313E+22
12	1,359010E+22	1,358981E+22	5,218047E+20	5,219616E+20	2,717991E+22	1,043766E+21	2,822368E+22
13	1,359020E+22	1,358991E+22	5,218760E+20	5,218034E+20	2,718011E+22	1,043679E+21	2,822379E+22
14	1,358965E+22	1,359058E+22	5,219272E+20	5,218846E+20	2,718023E+22	1,043812E+21	2,822404E+22
15	1,359041E+22	1,358975E+22	5,217962E+20	5,219419E+20	2,718015E+22	1,043738E+21	2,822389E+22
16	1,358982E+22	1,358990E+22	5,219468E+20	5,218023E+20	2,717972E+22	1,043749E+21	2,822347E+22
17	1,358945E+22	1,358971E+22	5,219053E+20	5,219593E+20	2,717916E+22	1,043865E+21	2,822303E+22
18	1,358964E+22	1,358875E+22	5,218640E+20	5,219398E+20	2,717839E+22	1,043804E+21	2,822220E+22
19	1,358832E+22	1,358907E+22	5,220353E+20	5,218871E+20	2,717739E+22	1,043922E+21	2,822131E+22
20	1,358825E+22	1,358820E+22	5,219063E+20	5,220693E+20	2,717645E+22	1,043976E+21	2,822043E+22
21	1,358812E+22	1,358739E+22	5,219638E+20	5,219509E+20	2,717550E+22	1,043915E+21	2,821942E+22
22	1,358701E+22	1,358781E+22	5,220748E+20	5,219693E+20	2,717483E+22	1,044044E+21	2,821887E+22
23	1,358758E+22	1,358700E+22	5,219329E+20	5,220777E+20	2,717457E+22	1,044011E+21	2,821859E+22
24	1,358717E+22	1,358713E+22	5,220566E+20	5,219217E+20	2,717430E+22	1,043978E+21	2,821828E+22
25	1,358678E+22	1,358754E+22	5,220369E+20	5,220360E+20	2,717432E+22	1,044073E+21	2,821839E+22
26	1,358771E+22	1,358702E+22	5,219232E+20	5,220422E+20	2,717473E+22	1,043965E+21	2,821870E+22
27	1,358730E+22	1,358791E+22	5,220534E+20	5,218986E+20	2,717521E+22	1,043952E+21	2,821916E+22
28	1,358795E+22	1,358805E+22	5,219310E+20	5,220410E+20	2,717600E+22	1,043972E+21	2,821997E+22
29	1,358876E+22	1,358795E+22	5,219018E+20	5,219128E+20	2,717671E+22	1,043815E+21	2,822052E+22
30	1,358811E+22	1,358909E+22	5,220240E+20	5,218737E+20	2,717721E+22	1,043898E+21	2,822110E+22
31	1,358892E+22	1,358884E+22	5,218618E+20	5,220123E+20	2,717776E+22	1,043874E+21	2,822163E+22
32	1,358905E+22	1,358880E+22	5,219315E+20	5,218598E+20	2,717785E+22	1,043791E+21	2,822164E+22
33	1,358852E+22	1,358923E+22	5,219809E+20	5,219331E+20	2,717775E+22	1,043914E+21	2,822166E+22
34	1,358930E+22	1,358848E+22	5,218435E+20	5,219897E+20	2,717778E+22	1,043833E+21	2,822161E+22
35	1,358859E+22	1,358869E+22	5,220016E+20	5,218597E+20	2,717728E+22	1,043861E+21	2,822114E+22
36	1,358816E+22	1,358850E+22	5,219593E+20	5,220241E+20	2,717665E+22	1,043983E+21	2,822064E+22
37	1,358830E+22	1,358748E+22	5,219106E+20	5,219960E+20	2,717578E+22	1,043907E+21	2,821969E+22
38	1,358691E+22	1,358771E+22	5,220981E+20	5,219453E+20	2,717462E+22	1,044043E+21	2,821866E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
39	1,358692E+22	1,358694E+22	5,219742E+20	5,221128E+20	2,717386E+22	1,044087E+21	2,821794E+22
40	1,358684E+22	1,358613E+22	5,220327E+20	5,219997E+20	2,717297E+22	1,044032E+21	2,821700E+22
41	1,358575E+22	1,358647E+22	5,221351E+20	5,220226E+20	2,717222E+22	1,044158E+21	2,821638E+22
42	1,358633E+22	1,358580E+22	5,219788E+20	5,221432E+20	2,717213E+22	1,044122E+21	2,821625E+22
43	1,358595E+22	1,358596E+22	5,220986E+20	5,219920E+20	2,717191E+22	1,044091E+21	2,821600E+22
44	1,358577E+22	1,358638E+22	5,220733E+20	5,220944E+20	2,717215E+22	1,044168E+21	2,821632E+22
45	1,358680E+22	1,358594E+22	5,219534E+20	5,220703E+20	2,717275E+22	1,044024E+21	2,821677E+22
46	1,358634E+22	1,358689E+22	5,221042E+20	5,219286E+20	2,717323E+22	1,044033E+21	2,821726E+22
47	1,358688E+22	1,358721E+22	5,219891E+20	5,220669E+20	2,717409E+22	1,044056E+21	2,821815E+22
48	1,358758E+22	1,358705E+22	5,219583E+20	5,219617E+20	2,717463E+22	1,043920E+21	2,821855E+22
49	1,358694E+22	1,358791E+22	5,220717E+20	5,219308E+20	2,717486E+22	1,044003E+21	2,821886E+22
50	1,358784E+22	1,358764E+22	5,219006E+20	5,220695E+20	2,717548E+22	1,043970E+21	2,821945E+22
51	1,358800E+22	1,358759E+22	5,219740E+20	5,219142E+20	2,717559E+22	1,043888E+21	2,821948E+22
52	1,358756E+22	1,358803E+22	5,220266E+20	5,219813E+20	2,717559E+22	1,044008E+21	2,821960E+22
53	1,358820E+22	1,358736E+22	5,218877E+20	5,220303E+20	2,717556E+22	1,043918E+21	2,821947E+22
54	1,358723E+22	1,358752E+22	5,220661E+20	5,219221E+20	2,717474E+22	1,043988E+21	2,821873E+22
55	1,358669E+22	1,358732E+22	5,220298E+20	5,220803E+20	2,717401E+22	1,044110E+21	2,821812E+22
56	1,358689E+22	1,358615E+22	5,219796E+20	5,220600E+20	2,717304E+22	1,044040E+21	2,821708E+22
57	1,358557E+22	1,358614E+22	5,221588E+20	5,220002E+20	2,717171E+22	1,044159E+21	2,821587E+22
58	1,358566E+22	1,358551E+22	5,220269E+20	5,221672E+20	2,717117E+22	1,044194E+21	2,821536E+22
59	1,358556E+22	1,358484E+22	5,220825E+20	5,220627E+20	2,717040E+22	1,044145E+21	2,821455E+22
60	1,358457E+22	1,358527E+22	5,221768E+20	5,220885E+20	2,716984E+22	1,044265E+21	2,821410E+22
61	1,358522E+22	1,358469E+22	5,220140E+20	5,221927E+20	2,716991E+22	1,044207E+21	2,821411E+22
62	1,358485E+22	1,358486E+22	5,221480E+20	5,220392E+20	2,716971E+22	1,044187E+21	2,821390E+22
63	1,358472E+22	1,358544E+22	5,221317E+20	5,221170E+20	2,717016E+22	1,044249E+21	2,821441E+22
64	1,358578E+22	1,358500E+22	5,220119E+20	5,221021E+20	2,717078E+22	1,044114E+21	2,821489E+22
65	1,358521E+22	1,358577E+22	5,221556E+20	5,219703E+20	2,717098E+22	1,044126E+21	2,821511E+22
66	1,358572E+22	1,358614E+22	5,220312E+20	5,221238E+20	2,717186E+22	1,044155E+21	2,821602E+22
67	1,358645E+22	1,358591E+22	5,219980E+20	5,220273E+20	2,717236E+22	1,044025E+21	2,821638E+22
68	1,358601E+22	1,358671E+22	5,221048E+20	5,219882E+20	2,717272E+22	1,044093E+21	2,821681E+22
69	1,358694E+22	1,358651E+22	5,219350E+20	5,221014E+20	2,717346E+22	1,044036E+21	2,821749E+22
70	1,358695E+22	1,358650E+22	5,220292E+20	5,219557E+20	2,717346E+22	1,043985E+21	2,821744E+22
71	1,358631E+22	1,358708E+22	5,220930E+20	5,220171E+20	2,717339E+22	1,044110E+21	2,821750E+22
72	1,358680E+22	1,358627E+22	5,219554E+20	5,220906E+20	2,717307E+22	1,044046E+21	2,821712E+22
73	1,358577E+22	1,358608E+22	5,221286E+20	5,219907E+20	2,717185E+22	1,044119E+21	2,821597E+22
74	1,358531E+22	1,358586E+22	5,220825E+20	5,221461E+20	2,717117E+22	1,044229E+21	2,821540E+22
75	1,358558E+22	1,358468E+22	5,220333E+20	5,221259E+20	2,717025E+22	1,044159E+21	2,821441E+22
76	1,358445E+22	1,358471E+22	5,222036E+20	5,220606E+20	2,716916E+22	1,044264E+21	2,821343E+22
77	1,358449E+22	1,358427E+22	5,220698E+20	5,222150E+20	2,716876E+22	1,044285E+21	2,821305E+22
78	1,358428E+22	1,358369E+22	5,221390E+20	5,221251E+20	2,716798E+22	1,044264E+21	2,821224E+22
79	1,358332E+22	1,358424E+22	5,222381E+20	5,221309E+20	2,716755E+22	1,044369E+21	2,821192E+22
80	1,358404E+22	1,358362E+22	5,220769E+20	5,222340E+20	2,716766E+22	1,044311E+21	2,821197E+22
81	1,358371E+22	1,358364E+22	5,222032E+20	5,220745E+20	2,716736E+22	1,044278E+21	2,821163E+22
82	1,358360E+22	1,358434E+22	5,221804E+20	5,221532E+20	2,716794E+22	1,044334E+21	2,821227E+22
83	1,358459E+22	1,358396E+22	5,220566E+20	5,221546E+20	2,716855E+22	1,044211E+21	2,821276E+22
84	1,358418E+22	1,358466E+22	5,221855E+20	5,220317E+20	2,716884E+22	1,044217E+21	2,821306E+22
85	1,358476E+22	1,358507E+22	5,220581E+20	5,221700E+20	2,716983E+22	1,044228E+21	2,821406E+22
86	1,358549E+22	1,358486E+22	5,220395E+20	5,220770E+20	2,717035E+22	1,044116E+21	2,821447E+22
87	1,358506E+22	1,358578E+22	5,221585E+20	5,220153E+20	2,717084E+22	1,044174E+21	2,821501E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
88	1,358591E+22	1,358556E+22	5,219977E+20	5,221392E+20	2,717147E+22	1,044137E+21	2,821561E+22
89	1,358569E+22	1,358532E+22	5,220888E+20	5,220115E+20	2,717101E+22	1,044100E+21	2,821511E+22
90	1,358493E+22	1,358584E+22	5,221485E+20	5,220845E+20	2,717076E+22	1,044233E+21	2,821500E+22
91	1,358539E+22	1,358488E+22	5,220103E+20	5,221664E+20	2,717027E+22	1,044177E+21	2,821445E+22
92	1,358458E+22	1,358456E+22	5,221725E+20	5,220573E+20	2,716913E+22	1,044230E+21	2,821336E+22
93	1,358418E+22	1,358444E+22	5,221264E+20	5,221873E+20	2,716862E+22	1,044314E+21	2,821293E+22
94	1,358434E+22	1,358339E+22	5,220935E+20	5,221766E+20	2,716773E+22	1,044270E+21	2,821200E+22
95	1,358311E+22	1,358364E+22	5,222685E+20	5,221020E+20	2,716675E+22	1,044370E+21	2,821112E+22
96	1,358314E+22	1,358318E+22	5,221381E+20	5,222712E+20	2,716633E+22	1,044409E+21	2,821074E+22
97	1,358292E+22	1,358240E+22	5,221998E+20	5,221828E+20	2,716531E+22	1,044383E+21	2,820969E+22
98	1,358207E+22	1,358300E+22	5,222909E+20	5,221784E+20	2,716507E+22	1,044469E+21	2,820954E+22
99	1,358286E+22	1,358240E+22	5,221298E+20	5,222808E+20	2,716527E+22	1,044411E+21	2,820968E+22
100	1,358270E+22	1,358243E+22	5,222402E+20	5,221247E+20	2,716513E+22	1,044365E+21	2,820949E+22
101	1,358255E+22	1,358327E+22	5,222108E+20	5,221979E+20	2,716582E+22	1,044409E+21	2,821023E+22
102	1,358347E+22	1,358294E+22	5,220977E+20	5,222176E+20	2,716641E+22	1,044315E+21	2,821073E+22
103	1,358318E+22	1,358372E+22	5,222290E+20	5,220747E+20	2,716690E+22	1,044304E+21	2,821120E+22
104	1,358385E+22	1,358409E+22	5,221106E+20	5,222084E+20	2,716795E+22	1,044319E+21	2,821227E+22
105	1,358450E+22	1,358375E+22	5,220916E+20	5,221122E+20	2,716825E+22	1,044204E+21	2,821245E+22
106	1,358398E+22	1,358473E+22	5,222111E+20	5,220540E+20	2,716871E+22	1,044265E+21	2,821297E+22
107	1,358462E+22	1,358448E+22	5,220536E+20	5,221955E+20	2,716909E+22	1,044249E+21	2,821334E+22
108	1,358446E+22	1,358406E+22	5,221315E+20	5,220837E+20	2,716852E+22	1,044215E+21	2,821274E+22
109	1,358371E+22	1,358451E+22	5,221896E+20	5,221393E+20	2,716822E+22	1,044329E+21	2,821254E+22
110	1,358414E+22	1,358356E+22	5,220660E+20	5,222261E+20	2,716770E+22	1,044292E+21	2,821199E+22
111	1,358339E+22	1,358333E+22	5,222333E+20	5,220943E+20	2,716672E+22	1,044328E+21	2,821104E+22
112	1,358294E+22	1,358323E+22	5,221967E+20	5,222320E+20	2,716617E+22	1,044429E+21	2,821060E+22
113	1,358290E+22	1,358209E+22	5,221594E+20	5,222377E+20	2,716500E+22	1,044397E+21	2,820939E+22
114	1,358167E+22	1,358236E+22	5,223280E+20	5,221690E+20	2,716403E+22	1,044497E+21	2,820853E+22
115	1,358175E+22	1,358186E+22	5,221993E+20	5,223388E+20	2,716361E+22	1,044538E+21	2,820814E+22
116	1,358178E+22	1,358102E+22	5,222420E+20	5,222420E+20	2,716280E+22	1,044484E+21	2,820728E+22
117	1,358101E+22	1,358175E+22	5,223275E+20	5,222135E+20	2,716275E+22	1,044541E+21	2,820729E+22
118	1,358172E+22	1,358132E+22	5,221768E+20	5,223273E+20	2,716304E+22	1,044504E+21	2,820754E+22
119	1,358156E+22	1,358151E+22	5,222858E+20	5,221639E+20	2,716307E+22	1,044450E+21	2,820752E+22
120	1,358149E+22	1,358232E+22	5,222628E+20	5,222467E+20	2,716382E+22	1,044510E+21	2,820832E+22
121	1,358240E+22	1,358185E+22	5,221460E+20	5,222674E+20	2,716425E+22	1,044413E+21	2,820866E+22
122	1,358222E+22	1,358268E+22	5,222733E+20	5,221154E+20	2,716490E+22	1,044389E+21	2,820929E+22
123	1,358288E+22	1,358305E+22	5,221644E+20	5,222483E+20	2,716593E+22	1,044413E+21	2,821034E+22
124	1,358354E+22	1,358264E+22	5,221321E+20	5,221612E+20	2,716618E+22	1,044293E+21	2,821047E+22
125	1,358285E+22	1,358365E+22	5,222503E+20	5,221027E+20	2,716650E+22	1,044353E+21	2,821086E+22
126	1,358332E+22	1,358333E+22	5,221063E+20	5,222604E+20	2,716665E+22	1,044367E+21	2,821101E+22
127	1,358320E+22	1,358288E+22	5,221884E+20	5,221337E+20	2,716608E+22	1,044322E+21	2,821040E+22
128	1,358253E+22	1,358325E+22	5,222543E+20	5,221855E+20	2,716578E+22	1,044440E+21	2,821022E+22
129	1,358283E+22	1,358217E+22	5,221319E+20	5,222742E+20	2,716500E+22	1,044406E+21	2,820940E+22
130	1,358204E+22	1,358203E+22	5,222932E+20	5,221477E+20	2,716406E+22	1,044441E+21	2,820850E+22
131	1,358147E+22	1,358194E+22	5,222606E+20	5,223002E+20	2,716342E+22	1,044561E+21	2,820798E+22
132	1,358157E+22	1,358070E+22	5,222063E+20	5,223153E+20	2,716227E+22	1,044522E+21	2,820679E+22
133	1,358043E+22	1,358102E+22	5,223685E+20	5,222272E+20	2,716145E+22	1,044596E+21	2,820605E+22
134	1,358053E+22	1,358060E+22	5,222523E+20	5,223931E+20	2,716113E+22	1,044645E+21	2,820578E+22
135	1,358066E+22	1,357992E+22	5,222970E+20	5,222762E+20	2,716058E+22	1,044573E+21	2,820515E+22
136	1,357990E+22	1,358070E+22	5,223854E+20	5,222526E+20	2,716060E+22	1,044638E+21	2,820524E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
137	1,358044E+22	1,358021E+22	5,222312E+20	5,223807E+20	2,716065E+22	1,044612E+21	2,820526E+22
138	1,358040E+22	1,358042E+22	5,223310E+20	5,222192E+20	2,716082E+22	1,044550E+21	2,820537E+22
139	1,358043E+22	1,358121E+22	5,223144E+20	5,222991E+20	2,716165E+22	1,044614E+21	2,820626E+22
140	1,358156E+22	1,358072E+22	5,221820E+20	5,223125E+20	2,716228E+22	1,044494E+21	2,820677E+22
141	1,358136E+22	1,358164E+22	5,223076E+20	5,221446E+20	2,716301E+22	1,044452E+21	2,820746E+22
142	1,358178E+22	1,358212E+22	5,222135E+20	5,222900E+20	2,716391E+22	1,044504E+21	2,820841E+22
143	1,358236E+22	1,358174E+22	5,221808E+20	5,222052E+20	2,716410E+22	1,044386E+21	2,820849E+22
144	1,358165E+22	1,358257E+22	5,223077E+20	5,221562E+20	2,716422E+22	1,044464E+21	2,820869E+22
145	1,358199E+22	1,358205E+22	5,221646E+20	5,223170E+20	2,716404E+22	1,044482E+21	2,820853E+22
146	1,358199E+22	1,358155E+22	5,222434E+20	5,221861E+20	2,716354E+22	1,044430E+21	2,820797E+22
147	1,358130E+22	1,358189E+22	5,223184E+20	5,222411E+20	2,716318E+22	1,044560E+21	2,820774E+22
148	1,358161E+22	1,358079E+22	5,221801E+20	5,223424E+20	2,716241E+22	1,044523E+21	2,820693E+22
149	1,358073E+22	1,358071E+22	5,223351E+20	5,222160E+20	2,716144E+22	1,044551E+21	2,820599E+22
150	1,358010E+22	1,358065E+22	5,223160E+20	5,223732E+20	2,716075E+22	1,044689E+21	2,820544E+22
151	1,358031E+22	1,357948E+22	5,222641E+20	5,223664E+20	2,715979E+22	1,044630E+21	2,820442E+22
152	1,357929E+22	1,357978E+22	5,224326E+20	5,222663E+20	2,715907E+22	1,044699E+21	2,820377E+22
153	1,357921E+22	1,357935E+22	5,223184E+20	5,224301E+20	2,715856E+22	1,044748E+21	2,820331E+22
154	1,357934E+22	1,357876E+22	5,223539E+20	5,223210E+20	2,715811E+22	1,044675E+21	2,820278E+22
155	1,357860E+22	1,357954E+22	5,224428E+20	5,223121E+20	2,715814E+22	1,044755E+21	2,820290E+22
156	1,357934E+22	1,357899E+22	5,222702E+20	5,224446E+20	2,715833E+22	1,044715E+21	2,820304E+22
157	1,357946E+22	1,357930E+22	5,223591E+20	5,222664E+20	2,715876E+22	1,044626E+21	2,820339E+22
158	1,357953E+22	1,358020E+22	5,223557E+20	5,223401E+20	2,715973E+22	1,044696E+21	2,820443E+22
159	1,358065E+22	1,357985E+22	5,222282E+20	5,223380E+20	2,716050E+22	1,044566E+21	2,820507E+22
160	1,358037E+22	1,358077E+22	5,223591E+20	5,221828E+20	2,716114E+22	1,044542E+21	2,820568E+22
161	1,358047E+22	1,358108E+22	5,222694E+20	5,223423E+20	2,716155E+22	1,044612E+21	2,820616E+22
162	1,358109E+22	1,358057E+22	5,222327E+20	5,222655E+20	2,716166E+22	1,044498E+21	2,820615E+22
163	1,358046E+22	1,358125E+22	5,223656E+20	5,222175E+20	2,716170E+22	1,044583E+21	2,820629E+22
164	1,358093E+22	1,358064E+22	5,222088E+20	5,223742E+20	2,716157E+22	1,044583E+21	2,820615E+22
165	1,358090E+22	1,358024E+22	5,222821E+20	5,222350E+20	2,716114E+22	1,044517E+21	2,820566E+22
166	1,358002E+22	1,358069E+22	5,223693E+20	5,223006E+20	2,716071E+22	1,044670E+21	2,820538E+22
167	1,358030E+22	1,357968E+22	5,222370E+20	5,223992E+20	2,715998E+22	1,044636E+21	2,820461E+22
168	1,357946E+22	1,357950E+22	5,223993E+20	5,222748E+20	2,715895E+22	1,044674E+21	2,820363E+22
169	1,357867E+22	1,357934E+22	5,223855E+20	5,224243E+20	2,715801E+22	1,044810E+21	2,820282E+22
170	1,357900E+22	1,357816E+22	5,223304E+20	5,224124E+20	2,715717E+22	1,044743E+21	2,820191E+22
171	1,357798E+22	1,357846E+22	5,225017E+20	5,223164E+20	2,715643E+22	1,044818E+21	2,820125E+22
172	1,357794E+22	1,357804E+22	5,223654E+20	5,224915E+20	2,715598E+22	1,044857E+21	2,820084E+22
173	1,357812E+22	1,357752E+22	5,223871E+20	5,223846E+20	2,715564E+22	1,044772E+21	2,820042E+22
174	1,357745E+22	1,357837E+22	5,224827E+20	5,223764E+20	2,715582E+22	1,044859E+21	2,820068E+22
175	1,357841E+22	1,357798E+22	5,223124E+20	5,224850E+20	2,715640E+22	1,044797E+21	2,820120E+22
176	1,357865E+22	1,357833E+22	5,224053E+20	5,222948E+20	2,715698E+22	1,044700E+21	2,820168E+22
177	1,357846E+22	1,357925E+22	5,224101E+20	5,223665E+20	2,715771E+22	1,044777E+21	2,820248E+22
178	1,357950E+22	1,357893E+22	5,222783E+20	5,223754E+20	2,715843E+22	1,044654E+21	2,820308E+22
179	1,357914E+22	1,357969E+22	5,224143E+20	5,222420E+20	2,715883E+22	1,044656E+21	2,820349E+22
180	1,357932E+22	1,357983E+22	5,223087E+20	5,224061E+20	2,715915E+22	1,044715E+21	2,820387E+22
181	1,358004E+22	1,357930E+22	5,222650E+20	5,223227E+20	2,715934E+22	1,044588E+21	2,820393E+22
182	1,357943E+22	1,358001E+22	5,224099E+20	5,222705E+20	2,715943E+22	1,044680E+21	2,820411E+22
183	1,357989E+22	1,357953E+22	5,222619E+20	5,224154E+20	2,715942E+22	1,044677E+21	2,820409E+22
184	1,357975E+22	1,357913E+22	5,223395E+20	5,222861E+20	2,715888E+22	1,044626E+21	2,820351E+22
185	1,357855E+22	1,357946E+22	5,224357E+20	5,223596E+20	2,715801E+22	1,044795E+21	2,820280E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
186	1,357885E+22	1,357838E+22	5,223057E+20	5,224595E+20	2,715723E+22	1,044765E+21	2,820200E+22
187	1,357808E+22	1,357809E+22	5,224733E+20	5,223381E+20	2,715617E+22	1,044811E+21	2,820098E+22
188	1,357737E+22	1,357785E+22	5,224427E+20	5,224778E+20	2,715522E+22	1,044921E+21	2,820014E+22
189	1,357770E+22	1,357679E+22	5,223760E+20	5,224666E+20	2,715449E+22	1,044843E+21	2,819934E+22
190	1,357665E+22	1,357718E+22	5,225449E+20	5,223802E+20	2,715382E+22	1,044925E+21	2,819875E+22
191	1,357672E+22	1,357688E+22	5,224104E+20	5,225473E+20	2,715361E+22	1,044958E+21	2,819856E+22
192	1,357709E+22	1,357643E+22	5,224307E+20	5,224348E+20	2,715352E+22	1,044866E+21	2,819838E+22
193	1,357637E+22	1,357730E+22	5,225334E+20	5,224142E+20	2,715366E+22	1,044948E+21	2,819861E+22
194	1,357743E+22	1,357700E+22	5,223682E+20	5,225133E+20	2,715444E+22	1,044882E+21	2,819932E+22
195	1,357763E+22	1,357736E+22	5,224636E+20	5,223356E+20	2,715498E+22	1,044799E+21	2,819978E+22
196	1,357734E+22	1,357818E+22	5,224503E+20	5,224168E+20	2,715552E+22	1,044867E+21	2,820039E+22
197	1,357835E+22	1,357782E+22	5,223093E+20	5,224356E+20	2,715617E+22	1,044745E+21	2,820091E+22
198	1,357805E+22	1,357850E+22	5,224510E+20	5,223049E+20	2,715655E+22	1,044756E+21	2,820130E+22
199	1,357838E+22	1,357871E+22	5,223534E+20	5,224479E+20	2,715709E+22	1,044801E+21	2,820189E+22
200	1,357912E+22	1,357821E+22	5,223151E+20	5,223578E+20	2,715733E+22	1,044673E+21	2,820201E+22
201	1,357820E+22	1,357890E+22	5,224695E+20	5,223091E+20	2,715710E+22	1,044779E+21	2,820188E+22
202	1,357855E+22	1,357844E+22	5,223268E+20	5,224646E+20	2,715699E+22	1,044791E+21	2,820178E+22
203	1,357834E+22	1,357788E+22	5,224101E+20	5,223568E+20	2,715621E+22	1,044767E+21	2,820098E+22
204	1,357717E+22	1,357804E+22	5,224904E+20	5,224270E+20	2,715521E+22	1,044917E+21	2,820013E+22
205	1,357756E+22	1,357693E+22	5,223531E+20	5,225221E+20	2,715450E+22	1,044875E+21	2,819937E+22
206	1,357681E+22	1,357666E+22	5,225263E+20	5,223983E+20	2,715346E+22	1,044925E+21	2,819839E+22
207	1,357614E+22	1,357659E+22	5,224953E+20	5,225272E+20	2,715273E+22	1,045022E+21	2,819775E+22
208	1,357646E+22	1,357558E+22	5,224262E+20	5,225225E+20	2,715204E+22	1,044949E+21	2,819698E+22
209	1,357526E+22	1,357594E+22	5,225983E+20	5,224379E+20	2,715120E+22	1,045036E+21	2,819624E+22
210	1,357554E+22	1,357572E+22	5,224701E+20	5,225949E+20	2,715125E+22	1,045065E+21	2,819632E+22
211	1,357603E+22	1,357529E+22	5,224921E+20	5,224806E+20	2,715133E+22	1,044973E+21	2,819630E+22
212	1,357537E+22	1,357617E+22	5,225788E+20	5,224486E+20	2,715153E+22	1,045027E+21	2,819656E+22
213	1,357637E+22	1,357598E+22	5,224056E+20	5,225525E+20	2,715236E+22	1,044958E+21	2,819732E+22
214	1,357647E+22	1,357635E+22	5,225006E+20	5,223910E+20	2,715282E+22	1,044892E+21	2,819771E+22
215	1,357626E+22	1,357718E+22	5,224904E+20	5,224665E+20	2,715344E+22	1,044957E+21	2,819840E+22
216	1,357737E+22	1,357678E+22	5,223504E+20	5,224823E+20	2,715414E+22	1,044833E+21	2,819898E+22
217	1,357697E+22	1,357738E+22	5,225002E+20	5,223457E+20	2,715435E+22	1,044846E+21	2,819920E+22
218	1,357734E+22	1,357763E+22	5,224160E+20	5,224814E+20	2,715497E+22	1,044897E+21	2,819987E+22
219	1,357798E+22	1,357711E+22	5,223801E+20	5,224124E+20	2,715510E+22	1,044792E+21	2,819989E+22
220	1,357691E+22	1,357765E+22	5,225182E+20	5,223727E+20	2,715456E+22	1,044891E+21	2,819945E+22
221	1,357720E+22	1,357711E+22	5,223729E+20	5,225369E+20	2,715431E+22	1,044910E+21	2,819922E+22
222	1,357704E+22	1,357647E+22	5,224589E+20	5,224317E+20	2,715351E+22	1,044891E+21	2,819840E+22
223	1,357598E+22	1,357668E+22	5,225446E+20	5,224775E+20	2,715266E+22	1,045022E+21	2,819769E+22
224	1,357638E+22	1,357564E+22	5,224102E+20	5,225636E+20	2,715202E+22	1,044974E+21	2,819699E+22
225	1,357537E+22	1,357537E+22	5,225872E+20	5,224439E+20	2,715075E+22	1,045031E+21	2,819578E+22
226	1,357471E+22	1,357536E+22	5,225622E+20	5,225766E+20	2,715007E+22	1,045139E+21	2,819521E+22
227	1,357509E+22	1,357434E+22	5,224930E+20	5,225895E+20	2,714943E+22	1,045082E+21	2,819451E+22
228	1,357405E+22	1,357464E+22	5,226437E+20	5,224955E+20	2,714868E+22	1,045139E+21	2,819382E+22
229	1,357449E+22	1,357451E+22	5,225133E+20	5,226447E+20	2,714900E+22	1,045158E+21	2,819415E+22
230	1,357503E+22	1,357418E+22	5,225354E+20	5,225276E+20	2,714921E+22	1,045063E+21	2,819427E+22
231	1,357438E+22	1,357521E+22	5,226207E+20	5,224869E+20	2,714958E+22	1,045108E+21	2,819469E+22
232	1,357529E+22	1,357505E+22	5,224453E+20	5,225961E+20	2,715034E+22	1,045041E+21	2,819538E+22
233	1,357523E+22	1,357529E+22	5,225463E+20	5,224427E+20	2,715053E+22	1,044989E+21	2,819551E+22
234	1,357519E+22	1,357611E+22	5,225470E+20	5,225092E+20	2,715130E+22	1,045056E+21	2,819635E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
235	1,357637E+22	1,357567E+22	5,224116E+20	5,225302E+20	2,715204E+22	1,044942E+21	2,819698E+22
236	1,357595E+22	1,357620E+22	5,225433E+20	5,223887E+20	2,715216E+22	1,044932E+21	2,819709E+22
237	1,357624E+22	1,357649E+22	5,224570E+20	5,225336E+20	2,715272E+22	1,044991E+21	2,819771E+22
238	1,357673E+22	1,357594E+22	5,224224E+20	5,224799E+20	2,715266E+22	1,044902E+21	2,819757E+22
239	1,357571E+22	1,357646E+22	5,225653E+20	5,224334E+20	2,715217E+22	1,044999E+21	2,819717E+22
240	1,357601E+22	1,357588E+22	5,224252E+20	5,225864E+20	2,715190E+22	1,045012E+21	2,819691E+22
241	1,357570E+22	1,357516E+22	5,225237E+20	5,224794E+20	2,715086E+22	1,045003E+21	2,819586E+22
242	1,357468E+22	1,357539E+22	5,226210E+20	5,225165E+20	2,715007E+22	1,045138E+21	2,819521E+22
243	1,357496E+22	1,357436E+22	5,224853E+20	5,226256E+20	2,714931E+22	1,045111E+21	2,819442E+22
244	1,357390E+22	1,357396E+22	5,226374E+20	5,225126E+20	2,714786E+22	1,045150E+21	2,819301E+22
245	1,357336E+22	1,357395E+22	5,226091E+20	5,226493E+20	2,714730E+22	1,045258E+21	2,819256E+22
246	1,357389E+22	1,357300E+22	5,225394E+20	5,226566E+20	2,714690E+22	1,045196E+21	2,819209E+22
247	1,357306E+22	1,357346E+22	5,226894E+20	5,225391E+20	2,714652E+22	1,045228E+21	2,819175E+22
248	1,357349E+22	1,357349E+22	5,225618E+20	5,226746E+20	2,714698E+22	1,045236E+21	2,819222E+22
249	1,357378E+22	1,357321E+22	5,225855E+20	5,225668E+20	2,714699E+22	1,045152E+21	2,819214E+22
250	1,357314E+22	1,357423E+22	5,226785E+20	5,225275E+20	2,714737E+22	1,045206E+21	2,819258E+22
251	1,357411E+22	1,357402E+22	5,225026E+20	5,226539E+20	2,714813E+22	1,045157E+21	2,819328E+22
252	1,357418E+22	1,357409E+22	5,225824E+20	5,224939E+20	2,714827E+22	1,045076E+21	2,819335E+22
253	1,357427E+22	1,357492E+22	5,225869E+20	5,225572E+20	2,714919E+22	1,045144E+21	2,819434E+22
254	1,357543E+22	1,357458E+22	5,224524E+20	5,225810E+20	2,715001E+22	1,045033E+21	2,819504E+22
255	1,357498E+22	1,357518E+22	5,225823E+20	5,224382E+20	2,715016E+22	1,045020E+21	2,819518E+22
256	1,357511E+22	1,357546E+22	5,225018E+20	5,225822E+20	2,715056E+22	1,045084E+21	2,819565E+22
257	1,357539E+22	1,357477E+22	5,224783E+20	5,225360E+20	2,715016E+22	1,045014E+21	2,819518E+22
258	1,357445E+22	1,357523E+22	5,226377E+20	5,224774E+20	2,714967E+22	1,045115E+21	2,819479E+22
259	1,357472E+22	1,357462E+22	5,225029E+20	5,226374E+20	2,714933E+22	1,045140E+21	2,819448E+22
260	1,357431E+22	1,357375E+22	5,225820E+20	5,225330E+20	2,714806E+22	1,045115E+21	2,819318E+22
261	1,357326E+22	1,357398E+22	5,226739E+20	5,225835E+20	2,714724E+22	1,045257E+21	2,819250E+22
262	1,357352E+22	1,357295E+22	5,225344E+20	5,227045E+20	2,714647E+22	1,045239E+21	2,819171E+22
263	1,357268E+22	1,357261E+22	5,226796E+20	5,225821E+20	2,714529E+22	1,045262E+21	2,819056E+22
264	1,357226E+22	1,357272E+22	5,226549E+20	5,226979E+20	2,714498E+22	1,045353E+21	2,819033E+22
265	1,357272E+22	1,357185E+22	5,225971E+20	5,226983E+20	2,714457E+22	1,045295E+21	2,818986E+22
266	1,357195E+22	1,357244E+22	5,227569E+20	5,225704E+20	2,714438E+22	1,045327E+21	2,818971E+22
267	1,357225E+22	1,357250E+22	5,226282E+20	5,227230E+20	2,714475E+22	1,045351E+21	2,819010E+22
268	1,357247E+22	1,357204E+22	5,226281E+20	5,226241E+20	2,714451E+22	1,045252E+21	2,818976E+22
269	1,357202E+22	1,357297E+22	5,227160E+20	5,225899E+20	2,714500E+22	1,045306E+21	2,819030E+22
270	1,357311E+22	1,357281E+22	5,225403E+20	5,227090E+20	2,714592E+22	1,045249E+21	2,819117E+22
271	1,357339E+22	1,357302E+22	5,226159E+20	5,225333E+20	2,714640E+22	1,045149E+21	2,819155E+22
272	1,357341E+22	1,357398E+22	5,226269E+20	5,225850E+20	2,714739E+22	1,045212E+21	2,819260E+22
273	1,357425E+22	1,357366E+22	5,225032E+20	5,226212E+20	2,714790E+22	1,045124E+21	2,819303E+22
274	1,357376E+22	1,357420E+22	5,226466E+20	5,224827E+20	2,714796E+22	1,045129E+21	2,819309E+22
275	1,357381E+22	1,357436E+22	5,225712E+20	5,226395E+20	2,714817E+22	1,045211E+21	2,819338E+22
276	1,357408E+22	1,357343E+22	5,225318E+20	5,225943E+20	2,714751E+22	1,045126E+21	2,819263E+22
277	1,357323E+22	1,357378E+22	5,226935E+20	5,225385E+20	2,714701E+22	1,045232E+21	2,819224E+22
278	1,357341E+22	1,357322E+22	5,225566E+20	5,227031E+20	2,714663E+22	1,045260E+21	2,819189E+22
279	1,357304E+22	1,357239E+22	5,226256E+20	5,226040E+20	2,714543E+22	1,045230E+21	2,819066E+22
280	1,357195E+22	1,357264E+22	5,227186E+20	5,226477E+20	2,714459E+22	1,045366E+21	2,818996E+22
281	1,357215E+22	1,357163E+22	5,225919E+20	5,227680E+20	2,714378E+22	1,045360E+21	2,818914E+22
282	1,357150E+22	1,357138E+22	5,227502E+20	5,226243E+20	2,714288E+22	1,045374E+21	2,818825E+22
283	1,357108E+22	1,357160E+22	5,227307E+20	5,227385E+20	2,714268E+22	1,045469E+21	2,818815E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
284	1,357143E+22	1,357066E+22	5,226520E+20	5,227396E+20	2,714209E+22	1,045392E+21	2,818748E+22
285	1,357065E+22	1,357123E+22	5,228046E+20	5,226259E+20	2,714188E+22	1,045431E+21	2,818731E+22
286	1,357095E+22	1,357132E+22	5,226696E+20	5,227845E+20	2,714227E+22	1,045454E+21	2,818772E+22
287	1,357144E+22	1,357087E+22	5,226586E+20	5,226813E+20	2,714231E+22	1,045340E+21	2,818765E+22
288	1,357116E+22	1,357189E+22	5,227493E+20	5,226271E+20	2,714305E+22	1,045376E+21	2,818843E+22
289	1,357218E+22	1,357183E+22	5,225899E+20	5,227426E+20	2,714401E+22	1,045333E+21	2,818934E+22
290	1,357246E+22	1,357214E+22	5,226745E+20	5,225619E+20	2,714460E+22	1,045236E+21	2,818984E+22
291	1,357228E+22	1,357311E+22	5,226876E+20	5,226327E+20	2,714539E+22	1,045320E+21	2,819071E+22
292	1,357294E+22	1,357252E+22	5,225493E+20	5,226795E+20	2,714546E+22	1,045229E+21	2,819069E+22
293	1,357257E+22	1,357288E+22	5,226951E+20	5,225515E+20	2,714545E+22	1,045247E+21	2,819069E+22
294	1,357261E+22	1,357302E+22	5,226218E+20	5,226991E+20	2,714563E+22	1,045321E+21	2,819095E+22
295	1,357300E+22	1,357210E+22	5,225767E+20	5,226512E+20	2,714510E+22	1,045228E+21	2,819033E+22
296	1,357207E+22	1,357250E+22	5,227387E+20	5,225864E+20	2,714456E+22	1,045325E+21	2,818989E+22
297	1,357198E+22	1,357196E+22	5,226140E+20	5,227617E+20	2,714395E+22	1,045376E+21	2,818932E+22
298	1,357168E+22	1,357116E+22	5,226924E+20	5,226599E+20	2,714284E+22	1,045352E+21	2,818819E+22
299	1,357062E+22	1,357140E+22	5,227888E+20	5,227060E+20	2,714203E+22	1,045495E+21	2,818752E+22
300	1,357081E+22	1,357028E+22	5,226541E+20	5,228195E+20	2,714109E+22	1,045474E+21	2,818656E+22
301	1,357031E+22	1,357003E+22	5,228111E+20	5,226792E+20	2,714033E+22	1,045490E+21	2,818582E+22
302	1,356977E+22	1,357035E+22	5,227866E+20	5,227904E+20	2,714012E+22	1,045577E+21	2,818570E+22
303	1,357018E+22	1,356946E+22	5,226916E+20	5,228016E+20	2,713964E+22	1,045493E+21	2,818514E+22
304	1,356947E+22	1,357001E+22	5,228385E+20	5,226791E+20	2,713948E+22	1,045518E+21	2,818500E+22
305	1,356978E+22	1,357015E+22	5,227157E+20	5,228339E+20	2,713993E+22	1,045550E+21	2,818548E+22
306	1,357050E+22	1,356985E+22	5,227140E+20	5,227130E+20	2,714035E+22	1,045427E+21	2,818578E+22
307	1,357023E+22	1,357098E+22	5,228076E+20	5,226617E+20	2,714121E+22	1,045469E+21	2,818668E+22
308	1,357107E+22	1,357084E+22	5,226378E+20	5,227818E+20	2,714191E+22	1,045420E+21	2,818733E+22
309	1,357135E+22	1,357106E+22	5,227172E+20	5,226212E+20	2,714241E+22	1,045338E+21	2,818775E+22
310	1,357108E+22	1,357198E+22	5,227295E+20	5,226921E+20	2,714306E+22	1,045422E+21	2,818848E+22
311	1,357189E+22	1,357132E+22	5,225827E+20	5,227405E+20	2,714321E+22	1,045323E+21	2,818853E+22
312	1,357156E+22	1,357164E+22	5,227348E+20	5,225975E+20	2,714320E+22	1,045332E+21	2,818854E+22
313	1,357145E+22	1,357182E+22	5,226804E+20	5,227434E+20	2,714327E+22	1,045424E+21	2,818869E+22
314	1,357179E+22	1,357096E+22	5,226459E+20	5,226946E+20	2,714275E+22	1,045341E+21	2,818809E+22
315	1,357069E+22	1,357133E+22	5,228059E+20	5,226472E+20	2,714202E+22	1,045453E+21	2,818748E+22
316	1,357050E+22	1,357056E+22	5,226734E+20	5,228269E+20	2,714106E+22	1,045500E+21	2,818656E+22
317	1,357036E+22	1,356966E+22	5,227514E+20	5,227294E+20	2,714003E+22	1,045481E+21	2,818551E+22
318	1,356933E+22	1,357002E+22	5,228475E+20	5,227601E+20	2,713935E+22	1,045608E+21	2,818496E+22
319	1,356963E+22	1,356897E+22	5,227051E+20	5,228723E+20	2,713861E+22	1,045577E+21	2,818418E+22
320	1,356905E+22	1,356881E+22	5,228568E+20	5,227260E+20	2,713787E+22	1,045583E+21	2,818345E+22
321	1,356835E+22	1,356919E+22	5,228396E+20	5,228436E+20	2,713754E+22	1,045683E+21	2,818322E+22
322	1,356891E+22	1,356834E+22	5,227490E+20	5,228507E+20	2,713725E+22	1,045600E+21	2,818285E+22
323	1,356835E+22	1,356892E+22	5,228908E+20	5,227291E+20	2,713727E+22	1,045620E+21	2,818289E+22
324	1,356871E+22	1,356898E+22	5,227643E+20	5,228756E+20	2,713769E+22	1,045640E+21	2,818333E+22
325	1,356960E+22	1,356874E+22	5,227610E+20	5,227604E+20	2,713834E+22	1,045521E+21	2,818386E+22
326	1,356920E+22	1,356999E+22	5,228495E+20	5,227083E+20	2,713919E+22	1,045558E+21	2,818475E+22
327	1,357004E+22	1,356982E+22	5,226699E+20	5,228396E+20	2,713987E+22	1,045510E+21	2,818538E+22
328	1,357031E+22	1,356997E+22	5,227481E+20	5,226741E+20	2,714028E+22	1,045422E+21	2,818570E+22
329	1,356995E+22	1,357085E+22	5,227797E+20	5,227367E+20	2,714080E+22	1,045516E+21	2,818632E+22
330	1,357085E+22	1,357026E+22	5,226471E+20	5,227723E+20	2,714111E+22	1,045419E+21	2,818652E+22
331	1,357043E+22	1,357056E+22	5,228006E+20	5,226371E+20	2,714100E+22	1,045438E+21	2,818643E+22
332	1,357004E+22	1,357057E+22	5,227425E+20	5,227915E+20	2,714061E+22	1,045534E+21	2,818614E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
333	1,357040E+22	1,356961E+22	5,227029E+20	5,227662E+20	2,714001E+22	1,045469E+21	2,818548E+22
334	1,356927E+22	1,356993E+22	5,228577E+20	5,227163E+20	2,713920E+22	1,045574E+21	2,818478E+22
335	1,356926E+22	1,356915E+22	5,227199E+20	5,228956E+20	2,713842E+22	1,045615E+21	2,818403E+22
336	1,356921E+22	1,356830E+22	5,227993E+20	5,227831E+20	2,713751E+22	1,045582E+21	2,818309E+22
337	1,356804E+22	1,356876E+22	5,229096E+20	5,228074E+20	2,713680E+22	1,045717E+21	2,818252E+22
338	1,356831E+22	1,356786E+22	5,227733E+20	5,229186E+20	2,713616E+22	1,045692E+21	2,818186E+22
339	1,356766E+22	1,356766E+22	5,229167E+20	5,227867E+20	2,713532E+22	1,045703E+21	2,818102E+22
340	1,356694E+22	1,356783E+22	5,228932E+20	5,229021E+20	2,713477E+22	1,045795E+21	2,818057E+22
341	1,356779E+22	1,356700E+22	5,227988E+20	5,229107E+20	2,713479E+22	1,045709E+21	2,818050E+22
342	1,356734E+22	1,356774E+22	5,229342E+20	5,227728E+20	2,713508E+22	1,045707E+21	2,818079E+22
343	1,356784E+22	1,356792E+22	5,228020E+20	5,229197E+20	2,713577E+22	1,045722E+21	2,818149E+22
344	1,356864E+22	1,356780E+22	5,227921E+20	5,227999E+20	2,713644E+22	1,045592E+21	2,818203E+22
345	1,356808E+22	1,356907E+22	5,228932E+20	5,227518E+20	2,713715E+22	1,045645E+21	2,818279E+22
346	1,356896E+22	1,356891E+22	5,227256E+20	5,228750E+20	2,713787E+22	1,045601E+21	2,818347E+22
347	1,356923E+22	1,356898E+22	5,228041E+20	5,227170E+20	2,713822E+22	1,045521E+21	2,818374E+22
348	1,356878E+22	1,356965E+22	5,228389E+20	5,227764E+20	2,713843E+22	1,045615E+21	2,818404E+22
349	1,356971E+22	1,356900E+22	5,227067E+20	5,228271E+20	2,713871E+22	1,045534E+21	2,818424E+22
350	1,356913E+22	1,356933E+22	5,228493E+20	5,226987E+20	2,713846E+22	1,045548E+21	2,818401E+22
351	1,356878E+22	1,356923E+22	5,227835E+20	5,228665E+20	2,713800E+22	1,045650E+21	2,818365E+22
352	1,356917E+22	1,356822E+22	5,227414E+20	5,228340E+20	2,713739E+22	1,045575E+21	2,818296E+22
353	1,356802E+22	1,356860E+22	5,229129E+20	5,227731E+20	2,713661E+22	1,045686E+21	2,818230E+22
354	1,356807E+22	1,356796E+22	5,227923E+20	5,229352E+20	2,713603E+22	1,045728E+21	2,818175E+22
355	1,356791E+22	1,356716E+22	5,228698E+20	5,228313E+20	2,713507E+22	1,045701E+21	2,818077E+22
356	1,356650E+22	1,356745E+22	5,229749E+20	5,228598E+20	2,713396E+22	1,045835E+21	2,817979E+22
357	1,356686E+22	1,356648E+22	5,228328E+20	5,229870E+20	2,713334E+22	1,045820E+21	2,817916E+22
358	1,356629E+22	1,356630E+22	5,229633E+20	5,228493E+20	2,713259E+22	1,045813E+21	2,817840E+22
359	1,356587E+22	1,356651E+22	5,229327E+20	5,229606E+20	2,713238E+22	1,045893E+21	2,817827E+22
360	1,356688E+22	1,356583E+22	5,228360E+20	5,229534E+20	2,713271E+22	1,045789E+21	2,817850E+22
361	1,356637E+22	1,356676E+22	5,229820E+20	5,228095E+20	2,713313E+22	1,045792E+21	2,817892E+22
362	1,356681E+22	1,356713E+22	5,228602E+20	5,229533E+20	2,713394E+22	1,045813E+21	2,817975E+22
363	1,356751E+22	1,356693E+22	5,228425E+20	5,228465E+20	2,713444E+22	1,045689E+21	2,818013E+22
364	1,356682E+22	1,356792E+22	5,229457E+20	5,227971E+20	2,713474E+22	1,045743E+21	2,818049E+22
365	1,356786E+22	1,356771E+22	5,227788E+20	5,229239E+20	2,713557E+22	1,045703E+21	2,818127E+22
366	1,356813E+22	1,356779E+22	5,228525E+20	5,227632E+20	2,713592E+22	1,045616E+21	2,818154E+22
367	1,356772E+22	1,356843E+22	5,228818E+20	5,228328E+20	2,713614E+22	1,045715E+21	2,818186E+22
368	1,356856E+22	1,356780E+22	5,227424E+20	5,228870E+20	2,713636E+22	1,045629E+21	2,818199E+22
369	1,356787E+22	1,356811E+22	5,228928E+20	5,227622E+20	2,713598E+22	1,045655E+21	2,818164E+22
370	1,356758E+22	1,356808E+22	5,228428E+20	5,229174E+20	2,713565E+22	1,045760E+21	2,818141E+22
371	1,356797E+22	1,356705E+22	5,228038E+20	5,228860E+20	2,713502E+22	1,045690E+21	2,818071E+22
372	1,356668E+22	1,356726E+22	5,229855E+20	5,228190E+20	2,713394E+22	1,045804E+21	2,817975E+22
373	1,356672E+22	1,356663E+22	5,228665E+20	5,229905E+20	2,713335E+22	1,045857E+21	2,817920E+22
374	1,356640E+22	1,356584E+22	5,229310E+20	5,228973E+20	2,713224E+22	1,045828E+21	2,817807E+22
375	1,356511E+22	1,356600E+22	5,230218E+20	5,229358E+20	2,713111E+22	1,045958E+21	2,817706E+22
376	1,356560E+22	1,356505E+22	5,228722E+20	5,230503E+20	2,713065E+22	1,045923E+21	2,817657E+22
377	1,356518E+22	1,356503E+22	5,230078E+20	5,228984E+20	2,713021E+22	1,045906E+21	2,817611E+22
378	1,356491E+22	1,356549E+22	5,229937E+20	5,229897E+20	2,713040E+22	1,045983E+21	2,817638E+22
379	1,356583E+22	1,356497E+22	5,228933E+20	5,229876E+20	2,713080E+22	1,045881E+21	2,817668E+22
380	1,356511E+22	1,356576E+22	5,230361E+20	5,228512E+20	2,713088E+22	1,045887E+21	2,817676E+22
381	1,356561E+22	1,356605E+22	5,229136E+20	5,230046E+20	2,713166E+22	1,045918E+21	2,817758E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
382	1,356632E+22	1,356583E+22	5,228843E+20	5,228996E+20	2,713215E+22	1,045784E+21	2,817794E+22
383	1,356585E+22	1,356669E+22	5,229811E+20	5,228526E+20	2,713255E+22	1,045834E+21	2,817838E+22
384	1,356693E+22	1,356654E+22	5,228131E+20	5,229704E+20	2,713347E+22	1,045784E+21	2,817925E+22
385	1,356710E+22	1,356672E+22	5,228933E+20	5,228136E+20	2,713382E+22	1,045707E+21	2,817952E+22
386	1,356662E+22	1,356743E+22	5,229363E+20	5,228819E+20	2,713405E+22	1,045818E+21	2,817987E+22
387	1,356735E+22	1,356673E+22	5,227968E+20	5,229448E+20	2,713409E+22	1,045742E+21	2,817983E+22
388	1,356656E+22	1,356679E+22	5,229543E+20	5,228164E+20	2,713335E+22	1,045771E+21	2,817912E+22
389	1,356635E+22	1,356674E+22	5,229132E+20	5,229671E+20	2,713309E+22	1,045880E+21	2,817897E+22
390	1,356663E+22	1,356576E+22	5,228706E+20	5,229378E+20	2,713240E+22	1,045808E+21	2,817820E+22
391	1,356533E+22	1,356588E+22	5,230436E+20	5,228834E+20	2,713120E+22	1,045927E+21	2,817713E+22
392	1,356528E+22	1,356526E+22	5,229145E+20	5,230563E+20	2,713053E+22	1,045971E+21	2,817650E+22
393	1,356496E+22	1,356445E+22	5,229804E+20	5,229655E+20	2,712940E+22	1,045946E+21	2,817535E+22
394	1,356386E+22	1,356472E+22	5,230798E+20	5,229879E+20	2,712858E+22	1,046068E+21	2,817465E+22
395	1,356448E+22	1,356388E+22	5,229288E+20	5,230969E+20	2,712836E+22	1,046026E+21	2,817438E+22
396	1,356401E+22	1,356381E+22	5,230684E+20	5,229384E+20	2,712782E+22	1,046007E+21	2,817382E+22
397	1,356378E+22	1,356441E+22	5,230547E+20	5,230350E+20	2,712819E+22	1,046090E+21	2,817428E+22
398	1,356456E+22	1,356396E+22	5,229419E+20	5,230425E+20	2,712852E+22	1,045984E+21	2,817450E+22
399	1,356398E+22	1,356457E+22	5,230719E+20	5,229161E+20	2,712854E+22	1,045988E+21	2,817453E+22
400	1,356458E+22	1,356486E+22	5,229439E+20	5,230544E+20	2,712944E+22	1,045998E+21	2,817544E+22
401	1,356536E+22	1,356471E+22	5,229205E+20	5,229428E+20	2,713007E+22	1,045863E+21	2,817594E+22
402	1,356497E+22	1,356573E+22	5,230328E+20	5,228845E+20	2,713070E+22	1,045917E+21	2,817662E+22
403	1,356590E+22	1,356565E+22	5,228648E+20	5,230096E+20	2,713155E+22	1,045874E+21	2,817742E+22
404	1,356584E+22	1,356562E+22	5,229478E+20	5,228632E+20	2,713146E+22	1,045811E+21	2,817727E+22
405	1,356540E+22	1,356625E+22	5,229957E+20	5,229362E+20	2,713165E+22	1,045932E+21	2,817758E+22
406	1,356607E+22	1,356553E+22	5,228534E+20	5,230018E+20	2,713160E+22	1,045855E+21	2,817746E+22
407	1,356541E+22	1,356541E+22	5,230078E+20	5,228801E+20	2,713082E+22	1,045888E+21	2,817671E+22
408	1,356515E+22	1,356539E+22	5,229671E+20	5,230197E+20	2,713054E+22	1,045987E+21	2,817653E+22
409	1,356528E+22	1,356449E+22	5,229258E+20	5,230019E+20	2,712977E+22	1,045928E+21	2,817570E+22
410	1,356395E+22	1,356461E+22	5,231042E+20	5,229464E+20	2,712856E+22	1,046051E+21	2,817461E+22
411	1,356386E+22	1,356394E+22	5,229716E+20	5,231187E+20	2,712779E+22	1,046090E+21	2,817388E+22
412	1,356356E+22	1,356298E+22	5,230395E+20	5,230221E+20	2,712655E+22	1,046062E+21	2,817261E+22
413	1,356268E+22	1,356336E+22	5,231435E+20	5,230341E+20	2,712604E+22	1,046178E+21	2,817222E+22
414	1,356327E+22	1,356272E+22	5,229904E+20	5,231433E+20	2,712599E+22	1,046134E+21	2,817212E+22
415	1,356286E+22	1,356263E+22	5,231140E+20	5,229968E+20	2,712549E+22	1,046111E+21	2,817160E+22
416	1,356260E+22	1,356329E+22	5,230908E+20	5,230876E+20	2,712589E+22	1,046178E+21	2,817207E+22
417	1,356341E+22	1,356288E+22	5,229765E+20	5,230961E+20	2,712628E+22	1,046073E+21	2,817235E+22
418	1,356300E+22	1,356354E+22	5,231155E+20	5,229565E+20	2,712654E+22	1,046072E+21	2,817261E+22
419	1,356363E+22	1,356389E+22	5,229919E+20	5,230854E+20	2,712753E+22	1,046077E+21	2,817361E+22
420	1,356430E+22	1,356364E+22	5,229772E+20	5,229783E+20	2,712795E+22	1,045955E+21	2,817390E+22
421	1,356390E+22	1,356471E+22	5,230908E+20	5,229299E+20	2,712861E+22	1,046021E+21	2,817463E+22
422	1,356465E+22	1,356460E+22	5,229186E+20	5,230695E+20	2,712926E+22	1,045988E+21	2,817524E+22
423	1,356468E+22	1,356432E+22	5,229891E+20	5,229346E+20	2,712900E+22	1,045924E+21	2,817493E+22
424	1,356430E+22	1,356494E+22	5,230349E+20	5,229917E+20	2,712924E+22	1,046027E+21	2,817527E+22
425	1,356494E+22	1,356427E+22	5,229019E+20	5,230530E+20	2,712921E+22	1,045955E+21	2,817516E+22
426	1,356425E+22	1,356424E+22	5,230713E+20	5,229283E+20	2,712849E+22	1,046000E+21	2,817449E+22
427	1,356379E+22	1,356424E+22	5,230276E+20	5,230701E+20	2,712803E+22	1,046098E+21	2,817413E+22
428	1,356371E+22	1,356309E+22	5,229909E+20	5,230652E+20	2,712681E+22	1,046056E+21	2,817286E+22
429	1,356252E+22	1,356316E+22	5,231669E+20	5,230082E+20	2,712569E+22	1,046175E+21	2,817186E+22
430	1,356248E+22	1,356255E+22	5,230320E+20	5,231785E+20	2,712503E+22	1,046210E+21	2,817124E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
431	1,356241E+22	1,356154E+22	5,230902E+20	5,230837E+20	2,712395E+22	1,046174E+21	2,817012E+22
432	1,356158E+22	1,356210E+22	5,231890E+20	5,230830E+20	2,712368E+22	1,046272E+21	2,816996E+22
433	1,356207E+22	1,356164E+22	5,230372E+20	5,231992E+20	2,712370E+22	1,046236E+21	2,816994E+22
434	1,356170E+22	1,356161E+22	5,231634E+20	5,230515E+20	2,712332E+22	1,046215E+21	2,816953E+22
435	1,356145E+22	1,356225E+22	5,231371E+20	5,231292E+20	2,712370E+22	1,046266E+21	2,816996E+22
436	1,356224E+22	1,356171E+22	5,230293E+20	5,231343E+20	2,712395E+22	1,046164E+21	2,817011E+22
437	1,356200E+22	1,356244E+22	5,231713E+20	5,229890E+20	2,712444E+22	1,046160E+21	2,817060E+22
438	1,356253E+22	1,356291E+22	5,230485E+20	5,231260E+20	2,712544E+22	1,046175E+21	2,817161E+22
439	1,356323E+22	1,356253E+22	5,230173E+20	5,230392E+20	2,712577E+22	1,046057E+21	2,817182E+22
440	1,356282E+22	1,356356E+22	5,231227E+20	5,229884E+20	2,712638E+22	1,046111E+21	2,817249E+22
441	1,356355E+22	1,356348E+22	5,229556E+20	5,231286E+20	2,712703E+22	1,046084E+21	2,817311E+22
442	1,356371E+22	1,356320E+22	5,230347E+20	5,229857E+20	2,712691E+22	1,046020E+21	2,817293E+22
443	1,356323E+22	1,356383E+22	5,230895E+20	5,230265E+20	2,712706E+22	1,046116E+21	2,817317E+22
444	1,356363E+22	1,356305E+22	5,229693E+20	5,230984E+20	2,712669E+22	1,046068E+21	2,817275E+22
445	1,356287E+22	1,356298E+22	5,231407E+20	5,229847E+20	2,712585E+22	1,046125E+21	2,817198E+22
446	1,356223E+22	1,356291E+22	5,230945E+20	5,231386E+20	2,712515E+22	1,046233E+21	2,817138E+22
447	1,356232E+22	1,356151E+22	5,230430E+20	5,231429E+20	2,712383E+22	1,046186E+21	2,817002E+22
448	1,356129E+22	1,356164E+22	5,232093E+20	5,230679E+20	2,712293E+22	1,046277E+21	2,816920E+22
449	1,356130E+22	1,356122E+22	5,230838E+20	5,232316E+20	2,712252E+22	1,046315E+21	2,816884E+22
450	1,356128E+22	1,356042E+22	5,231474E+20	5,231329E+20	2,712170E+22	1,046280E+21	2,816798E+22
451	1,356032E+22	1,356109E+22	5,232428E+20	5,231240E+20	2,712141E+22	1,046367E+21	2,816778E+22
452	1,356067E+22	1,356049E+22	5,230984E+20	5,232487E+20	2,712115E+22	1,046347E+21	2,816750E+22
453	1,356045E+22	1,356045E+22	5,232209E+20	5,230986E+20	2,712091E+22	1,046320E+21	2,816723E+22
454	1,356024E+22	1,356112E+22	5,231928E+20	5,231751E+20	2,712137E+22	1,046368E+21	2,816773E+22
455	1,356122E+22	1,356046E+22	5,230735E+20	5,231870E+20	2,712168E+22	1,046261E+21	2,816794E+22
456	1,356106E+22	1,356131E+22	5,232030E+20	5,230384E+20	2,712238E+22	1,046241E+21	2,816862E+22
457	1,356150E+22	1,356190E+22	5,230843E+20	5,231837E+20	2,712340E+22	1,046268E+21	2,816967E+22
458	1,356224E+22	1,356154E+22	5,230559E+20	5,230974E+20	2,712377E+22	1,046153E+21	2,816993E+22
459	1,356182E+22	1,356253E+22	5,231617E+20	5,230284E+20	2,712435E+22	1,046190E+21	2,817054E+22
460	1,356243E+22	1,356232E+22	5,230137E+20	5,231640E+20	2,712475E+22	1,046178E+21	2,817092E+22
461	1,356259E+22	1,356208E+22	5,231018E+20	5,230215E+20	2,712468E+22	1,046123E+21	2,817080E+22
462	1,356188E+22	1,356272E+22	5,231606E+20	5,230738E+20	2,712460E+22	1,046234E+21	2,817083E+22
463	1,356221E+22	1,356170E+22	5,230258E+20	5,231686E+20	2,712391E+22	1,046194E+21	2,817010E+22
464	1,356148E+22	1,356153E+22	5,231835E+20	5,230558E+20	2,712301E+22	1,046239E+21	2,816925E+22
465	1,356089E+22	1,356147E+22	5,231412E+20	5,232071E+20	2,712236E+22	1,046348E+21	2,816871E+22
466	1,356116E+22	1,356016E+22	5,230954E+20	5,232037E+20	2,712133E+22	1,046299E+21	2,816763E+22
467	1,356016E+22	1,356040E+22	5,232636E+20	5,231083E+20	2,712056E+22	1,046372E+21	2,816693E+22
468	1,355998E+22	1,356003E+22	5,231547E+20	5,232795E+20	2,712000E+22	1,046434E+21	2,816644E+22
469	1,355992E+22	1,355929E+22	5,232154E+20	5,231883E+20	2,711921E+22	1,046404E+21	2,816562E+22
470	1,355887E+22	1,355992E+22	5,233064E+20	5,231850E+20	2,711879E+22	1,046491E+21	2,816528E+22
471	1,355940E+22	1,355910E+22	5,231455E+20	5,233125E+20	2,711850E+22	1,046458E+21	2,816496E+22
472	1,355939E+22	1,355912E+22	5,232548E+20	5,231474E+20	2,711851E+22	1,046402E+21	2,816491E+22
473	1,355924E+22	1,355997E+22	5,232340E+20	5,232198E+20	2,711921E+22	1,046454E+21	2,816567E+22
474	1,356030E+22	1,355949E+22	5,231143E+20	5,232344E+20	2,711980E+22	1,046349E+21	2,816614E+22
475	1,356006E+22	1,356041E+22	5,232378E+20	5,230762E+20	2,712047E+22	1,046314E+21	2,816678E+22
476	1,356037E+22	1,356089E+22	5,231364E+20	5,232272E+20	2,712126E+22	1,046364E+21	2,816762E+22
477	1,356117E+22	1,356054E+22	5,231105E+20	5,231364E+20	2,712171E+22	1,046247E+21	2,816796E+22
478	1,356068E+22	1,356149E+22	5,232243E+20	5,230681E+20	2,712218E+22	1,046292E+21	2,816847E+22
479	1,356129E+22	1,356107E+22	5,230713E+20	5,232126E+20	2,712236E+22	1,046284E+21	2,816865E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
480	1,356138E+22	1,356083E+22	5,231486E+20	5,230811E+20	2,712221E+22	1,046230E+21	2,816844E+22
481	1,356051E+22	1,356144E+22	5,232103E+20	5,231462E+20	2,712196E+22	1,046356E+21	2,816831E+22
482	1,356091E+22	1,356035E+22	5,230749E+20	5,232455E+20	2,712126E+22	1,046320E+21	2,816758E+22
483	1,356024E+22	1,356015E+22	5,232268E+20	5,231096E+20	2,712039E+22	1,046336E+21	2,816673E+22
484	1,355960E+22	1,356007E+22	5,232065E+20	5,232551E+20	2,711967E+22	1,046462E+21	2,816613E+22
485	1,355991E+22	1,355894E+22	5,231683E+20	5,232480E+20	2,711884E+22	1,046416E+21	2,816526E+22
486	1,355875E+22	1,355926E+22	5,233372E+20	5,231635E+20	2,711800E+22	1,046501E+21	2,816450E+22
487	1,355853E+22	1,355868E+22	5,232166E+20	5,233466E+20	2,711721E+22	1,046563E+21	2,816378E+22
488	1,355857E+22	1,355794E+22	5,232586E+20	5,232555E+20	2,711651E+22	1,046514E+21	2,816303E+22
489	1,355763E+22	1,355860E+22	5,233474E+20	5,232437E+20	2,711624E+22	1,046591E+21	2,816283E+22
490	1,355837E+22	1,355789E+22	5,231882E+20	5,233620E+20	2,711626E+22	1,046550E+21	2,816281E+22
491	1,355846E+22	1,355805E+22	5,232920E+20	5,231768E+20	2,711651E+22	1,046469E+21	2,816298E+22
492	1,355817E+22	1,355897E+22	5,232903E+20	5,232583E+20	2,711714E+22	1,046549E+21	2,816369E+22
493	1,355919E+22	1,355861E+22	5,231718E+20	5,232784E+20	2,711781E+22	1,046450E+21	2,816426E+22
494	1,355891E+22	1,355945E+22	5,232935E+20	5,231276E+20	2,711836E+22	1,046421E+21	2,816478E+22
495	1,355929E+22	1,355969E+22	5,231846E+20	5,232772E+20	2,711898E+22	1,046462E+21	2,816544E+22
496	1,356017E+22	1,355935E+22	5,231483E+20	5,231823E+20	2,711952E+22	1,046331E+21	2,816585E+22
497	1,355958E+22	1,356035E+22	5,232716E+20	5,231177E+20	2,711993E+22	1,046389E+21	2,816632E+22
498	1,356013E+22	1,355997E+22	5,231195E+20	5,232717E+20	2,712010E+22	1,046391E+21	2,816649E+22
499	1,356013E+22	1,355965E+22	5,231903E+20	5,231360E+20	2,711978E+22	1,046326E+21	2,816611E+22
500	1,355916E+22	1,356011E+22	5,232704E+20	5,232069E+20	2,711927E+22	1,046477E+21	2,816574E+22
501	1,355963E+22	1,355907E+22	5,231391E+20	5,232999E+20	2,711870E+22	1,046439E+21	2,816514E+22
502	1,355897E+22	1,355886E+22	5,232953E+20	5,231640E+20	2,711783E+22	1,046459E+21	2,816429E+22
503	1,355834E+22	1,355867E+22	5,232722E+20	5,233127E+20	2,711701E+22	1,046585E+21	2,816359E+22
504	1,355858E+22	1,355762E+22	5,232221E+20	5,233134E+20	2,711620E+22	1,046536E+21	2,816274E+22
505	1,355730E+22	1,355795E+22	5,233920E+20	5,232356E+20	2,711525E+22	1,046628E+21	2,816188E+22
506	1,355722E+22	1,355736E+22	5,232668E+20	5,234141E+20	2,711458E+22	1,046681E+21	2,816126E+22
507	1,355739E+22	1,355663E+22	5,232994E+20	5,232970E+20	2,711401E+22	1,046596E+21	2,816061E+22
508	1,355646E+22	1,355734E+22	5,234064E+20	5,232801E+20	2,711380E+22	1,046687E+21	2,816049E+22
509	1,355725E+22	1,355687E+22	5,232518E+20	5,233940E+20	2,711413E+22	1,046646E+21	2,816077E+22
510	1,355727E+22	1,355712E+22	5,233504E+20	5,232230E+20	2,711439E+22	1,046573E+21	2,816096E+22
511	1,355700E+22	1,355786E+22	5,233397E+20	5,233146E+20	2,711485E+22	1,046654E+21	2,816151E+22
512	1,355812E+22	1,355750E+22	5,232062E+20	5,233352E+20	2,711561E+22	1,046541E+21	2,816216E+22
513	1,355789E+22	1,355833E+22	5,233301E+20	5,231815E+20	2,711622E+22	1,046512E+21	2,816273E+22
514	1,355837E+22	1,355860E+22	5,232258E+20	5,233235E+20	2,711697E+22	1,046549E+21	2,816352E+22
515	1,355920E+22	1,355830E+22	5,231862E+20	5,232187E+20	2,711750E+22	1,046405E+21	2,816390E+22
516	1,355838E+22	1,355924E+22	5,233293E+20	5,231707E+20	2,711761E+22	1,046500E+21	2,816411E+22
517	1,355881E+22	1,355888E+22	5,231824E+20	5,233288E+20	2,711769E+22	1,046511E+21	2,816420E+22
518	1,355881E+22	1,355841E+22	5,232517E+20	5,232015E+20	2,711722E+22	1,046453E+21	2,816367E+22
519	1,355791E+22	1,355861E+22	5,233290E+20	5,232651E+20	2,711652E+22	1,046594E+21	2,816312E+22
520	1,355845E+22	1,355767E+22	5,231925E+20	5,233545E+20	2,711611E+22	1,046547E+21	2,816266E+22
521	1,355770E+22	1,355755E+22	5,233530E+20	5,232230E+20	2,711525E+22	1,046576E+21	2,816182E+22
522	1,355700E+22	1,355742E+22	5,233297E+20	5,233760E+20	2,711442E+22	1,046706E+21	2,816113E+22
523	1,355720E+22	1,355636E+22	5,232703E+20	5,233685E+20	2,711356E+22	1,046639E+21	2,816020E+22
524	1,355588E+22	1,355660E+22	5,234541E+20	5,232921E+20	2,711249E+22	1,046746E+21	2,815923E+22
525	1,355590E+22	1,355614E+22	5,233324E+20	5,234557E+20	2,711204E+22	1,046788E+21	2,815882E+22
526	1,355616E+22	1,355543E+22	5,233637E+20	5,233430E+20	2,711159E+22	1,046707E+21	2,815830E+22
527	1,355530E+22	1,355606E+22	5,234624E+20	5,233301E+20	2,711136E+22	1,046793E+21	2,815815E+22
528	1,355612E+22	1,355575E+22	5,232939E+20	5,234549E+20	2,711188E+22	1,046749E+21	2,815862E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
529	1,355613E+22	1,355602E+22	5,233871E+20	5,232900E+20	2,711216E+22	1,046677E+21	2,815883E+22
530	1,355603E+22	1,355675E+22	5,233736E+20	5,233726E+20	2,711279E+22	1,046746E+21	2,815953E+22
531	1,355723E+22	1,355644E+22	5,232348E+20	5,233661E+20	2,711367E+22	1,046601E+21	2,816027E+22
532	1,355691E+22	1,355728E+22	5,233825E+20	5,232151E+20	2,711419E+22	1,046598E+21	2,816079E+22
533	1,355727E+22	1,355770E+22	5,232887E+20	5,233530E+20	2,711497E+22	1,046642E+21	2,816161E+22
534	1,355794E+22	1,355732E+22	5,232488E+20	5,232713E+20	2,711526E+22	1,046520E+21	2,816178E+22
535	1,355709E+22	1,355794E+22	5,233851E+20	5,232338E+20	2,711503E+22	1,046619E+21	2,816165E+22
536	1,355759E+22	1,355753E+22	5,232284E+20	5,233930E+20	2,711512E+22	1,046621E+21	2,816174E+22
537	1,355760E+22	1,355704E+22	5,232995E+20	5,232628E+20	2,711464E+22	1,046562E+21	2,816121E+22
538	1,355682E+22	1,355729E+22	5,233792E+20	5,233199E+20	2,711411E+22	1,046699E+21	2,816081E+22
539	1,355725E+22	1,355644E+22	5,232428E+20	5,233988E+20	2,711369E+22	1,046642E+21	2,816033E+22
540	1,355627E+22	1,355631E+22	5,234221E+20	5,232866E+20	2,711258E+22	1,046709E+21	2,815929E+22
541	1,355548E+22	1,355622E+22	5,234031E+20	5,234329E+20	2,711170E+22	1,046836E+21	2,815854E+22
542	1,355573E+22	1,355503E+22	5,233389E+20	5,234332E+20	2,711076E+22	1,046772E+21	2,815753E+22
543	1,355455E+22	1,355506E+22	5,235125E+20	5,233481E+20	2,710960E+22	1,046861E+21	2,815647E+22
544	1,355469E+22	1,355475E+22	5,233820E+20	5,235077E+20	2,710943E+22	1,046890E+21	2,815632E+22
545	1,355496E+22	1,355421E+22	5,234093E+20	5,234008E+20	2,710917E+22	1,046810E+21	2,815598E+22
546	1,355422E+22	1,355494E+22	5,235003E+20	5,233914E+20	2,710915E+22	1,046892E+21	2,815604E+22
547	1,355508E+22	1,355471E+22	5,233262E+20	5,235007E+20	2,710980E+22	1,046827E+21	2,815662E+22
548	1,355510E+22	1,355499E+22	5,234325E+20	5,233367E+20	2,711009E+22	1,046769E+21	2,815686E+22
549	1,355503E+22	1,355585E+22	5,234293E+20	5,233966E+20	2,711088E+22	1,046826E+21	2,815771E+22
550	1,355622E+22	1,355552E+22	5,232939E+20	5,233991E+20	2,711174E+22	1,046693E+21	2,815843E+22
551	1,355580E+22	1,355614E+22	5,234389E+20	5,232589E+20	2,711194E+22	1,046698E+21	2,815864E+22
552	1,355605E+22	1,355659E+22	5,233374E+20	5,234119E+20	2,711263E+22	1,046749E+21	2,815938E+22
553	1,355668E+22	1,355609E+22	5,232932E+20	5,233427E+20	2,711277E+22	1,046636E+21	2,815941E+22
554	1,355599E+22	1,355659E+22	5,234230E+20	5,232991E+20	2,711259E+22	1,046722E+21	2,815931E+22
555	1,355655E+22	1,355625E+22	5,232672E+20	5,234337E+20	2,711280E+22	1,046701E+21	2,815950E+22
556	1,355645E+22	1,355580E+22	5,233596E+20	5,233100E+20	2,711225E+22	1,046670E+21	2,815892E+22
557	1,355549E+22	1,355623E+22	5,234510E+20	5,233594E+20	2,711171E+22	1,046810E+21	2,815852E+22
558	1,355577E+22	1,355529E+22	5,233158E+20	5,234610E+20	2,711106E+22	1,046777E+21	2,815784E+22
559	1,355474E+22	1,355483E+22	5,234885E+20	5,233577E+20	2,710957E+22	1,046846E+21	2,815642E+22
560	1,355405E+22	1,355474E+22	5,234574E+20	5,234995E+20	2,710879E+22	1,046957E+21	2,815575E+22
561	1,355440E+22	1,355356E+22	5,233904E+20	5,234979E+20	2,710796E+22	1,046888E+21	2,815485E+22
562	1,355345E+22	1,355365E+22	5,235551E+20	5,234058E+20	2,710710E+22	1,046961E+21	2,815406E+22
563	1,355360E+22	1,355355E+22	5,234216E+20	5,235517E+20	2,710716E+22	1,046973E+21	2,815413E+22
564	1,355377E+22	1,355314E+22	5,234613E+20	5,234587E+20	2,710690E+22	1,046920E+21	2,815382E+22
565	1,355305E+22	1,355400E+22	5,235575E+20	5,234330E+20	2,710705E+22	1,046991E+21	2,815404E+22
566	1,355399E+22	1,355372E+22	5,233859E+20	5,235414E+20	2,710771E+22	1,046927E+21	2,815464E+22
567	1,355404E+22	1,355381E+22	5,234866E+20	5,233728E+20	2,710785E+22	1,046859E+21	2,815471E+22
568	1,355397E+22	1,355476E+22	5,234786E+20	5,234318E+20	2,710873E+22	1,046910E+21	2,815564E+22
569	1,355501E+22	1,355445E+22	5,233410E+20	5,234501E+20	2,710946E+22	1,046791E+21	2,815625E+22
570	1,355468E+22	1,355499E+22	5,234733E+20	5,233233E+20	2,710967E+22	1,046797E+21	2,815647E+22
571	1,355496E+22	1,355540E+22	5,233696E+20	5,234629E+20	2,711036E+22	1,046833E+21	2,815719E+22
572	1,355557E+22	1,355490E+22	5,233400E+20	5,233999E+20	2,711047E+22	1,046740E+21	2,815721E+22
573	1,355491E+22	1,355551E+22	5,234808E+20	5,233348E+20	2,711043E+22	1,046816E+21	2,815724E+22
574	1,355540E+22	1,355515E+22	5,233352E+20	5,234786E+20	2,711055E+22	1,046814E+21	2,815737E+22
575	1,355512E+22	1,355451E+22	5,234256E+20	5,233706E+20	2,710963E+22	1,046796E+21	2,815642E+22
576	1,355403E+22	1,355491E+22	5,235114E+20	5,234291E+20	2,710893E+22	1,046941E+21	2,815587E+22
577	1,355426E+22	1,355385E+22	5,233745E+20	5,235388E+20	2,710811E+22	1,046913E+21	2,815503E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
578	1,355346E+22	1,355327E+22	5,235344E+20	5,234280E+20	2,710673E+22	1,046962E+21	2,815370E+22
579	1,355287E+22	1,355329E+22	5,235012E+20	5,235420E+20	2,710616E+22	1,047043E+21	2,815320E+22
580	1,355318E+22	1,355227E+22	5,234492E+20	5,235481E+20	2,710545E+22	1,046997E+21	2,815245E+22
581	1,355218E+22	1,355262E+22	5,236170E+20	5,234445E+20	2,710480E+22	1,047062E+21	2,815187E+22
582	1,355234E+22	1,355256E+22	5,234875E+20	5,236046E+20	2,710489E+22	1,047092E+21	2,815199E+22
583	1,355251E+22	1,355193E+22	5,235186E+20	5,235124E+20	2,710445E+22	1,047031E+21	2,815148E+22
584	1,355190E+22	1,355285E+22	5,236063E+20	5,234770E+20	2,710475E+22	1,047083E+21	2,815183E+22
585	1,355288E+22	1,355259E+22	5,234335E+20	5,235847E+20	2,710547E+22	1,047018E+21	2,815249E+22
586	1,355307E+22	1,355265E+22	5,235225E+20	5,234212E+20	2,710573E+22	1,046944E+21	2,815267E+22
587	1,355294E+22	1,355372E+22	5,235110E+20	5,234746E+20	2,710665E+22	1,046986E+21	2,815364E+22
588	1,355385E+22	1,355342E+22	5,233852E+20	5,235139E+20	2,710727E+22	1,046899E+21	2,815417E+22
589	1,355358E+22	1,355397E+22	5,235205E+20	5,233717E+20	2,710755E+22	1,046892E+21	2,815444E+22
590	1,355393E+22	1,355431E+22	5,234259E+20	5,235091E+20	2,710824E+22	1,046935E+21	2,815518E+22
591	1,355448E+22	1,355363E+22	5,233967E+20	5,234434E+20	2,710811E+22	1,046840E+21	2,815495E+22
592	1,355374E+22	1,355433E+22	5,235387E+20	5,233797E+20	2,710807E+22	1,046918E+21	2,815499E+22
593	1,355401E+22	1,355395E+22	5,233971E+20	5,235387E+20	2,710796E+22	1,046936E+21	2,815490E+22
594	1,355376E+22	1,355315E+22	5,234754E+20	5,234472E+20	2,710691E+22	1,046923E+21	2,815384E+22
595	1,355268E+22	1,355350E+22	5,235569E+20	5,234886E+20	2,710618E+22	1,047046E+21	2,815323E+22
596	1,355290E+22	1,355245E+22	5,234328E+20	5,236020E+20	2,710535E+22	1,047035E+21	2,815238E+22
597	1,355220E+22	1,355200E+22	5,235974E+20	5,234685E+20	2,710420E+22	1,047066E+21	2,815126E+22
598	1,355163E+22	1,355206E+22	5,235732E+20	5,235867E+20	2,710369E+22	1,047160E+21	2,815085E+22
599	1,355179E+22	1,355100E+22	5,235161E+20	5,236066E+20	2,710279E+22	1,047123E+21	2,814991E+22
600	1,355083E+22	1,355140E+22	5,236724E+20	5,235085E+20	2,710223E+22	1,047181E+21	2,814941E+22
601	1,355101E+22	1,355130E+22	5,235432E+20	5,236691E+20	2,710230E+22	1,047212E+21	2,814952E+22
602	1,355145E+22	1,355064E+22	5,235546E+20	5,235700E+20	2,710209E+22	1,047125E+21	2,814922E+22
603	1,355093E+22	1,355167E+22	5,236387E+20	5,235085E+20	2,710260E+22	1,047147E+21	2,814975E+22
604	1,355180E+22	1,355157E+22	5,234796E+20	5,236263E+20	2,710337E+22	1,047106E+21	2,815048E+22
605	1,355196E+22	1,355178E+22	5,235700E+20	5,234586E+20	2,710374E+22	1,047029E+21	2,815076E+22
606	1,355183E+22	1,355276E+22	5,235657E+20	5,235250E+20	2,710459E+22	1,047091E+21	2,815168E+22
607	1,355272E+22	1,355226E+22	5,234367E+20	5,235684E+20	2,710498E+22	1,047005E+21	2,815198E+22
608	1,355254E+22	1,355282E+22	5,235659E+20	5,234187E+20	2,710536E+22	1,046985E+21	2,815235E+22
609	1,355286E+22	1,355314E+22	5,234816E+20	5,235548E+20	2,710600E+22	1,047036E+21	2,815304E+22
610	1,355344E+22	1,355242E+22	5,234418E+20	5,234996E+20	2,710585E+22	1,046941E+21	2,815280E+22
611	1,355253E+22	1,355315E+22	5,235841E+20	5,234332E+20	2,710567E+22	1,047017E+21	2,815269E+22
612	1,355260E+22	1,355272E+22	5,234568E+20	5,236095E+20	2,710532E+22	1,047066E+21	2,815239E+22
613	1,355238E+22	1,355189E+22	5,235391E+20	5,235039E+20	2,710427E+22	1,047043E+21	2,815131E+22
614	1,355140E+22	1,355215E+22	5,236263E+20	5,235405E+20	2,710355E+22	1,047167E+21	2,815071E+22
615	1,355154E+22	1,355098E+22	5,235018E+20	5,236525E+20	2,710252E+22	1,047154E+21	2,814967E+22
616	1,355083E+22	1,355065E+22	5,236579E+20	5,235207E+20	2,710148E+22	1,047179E+21	2,814866E+22
617	1,355018E+22	1,355078E+22	5,236351E+20	5,236520E+20	2,710096E+22	1,047287E+21	2,814825E+22
618	1,355050E+22	1,354965E+22	5,235605E+20	5,236811E+20	2,710016E+22	1,047242E+21	2,814740E+22
619	1,354966E+22	1,355014E+22	5,237086E+20	5,235624E+20	2,709980E+22	1,047271E+21	2,814707E+22
620	1,354988E+22	1,355014E+22	5,235917E+20	5,237185E+20	2,710002E+22	1,047310E+21	2,814733E+22
621	1,355041E+22	1,354964E+22	5,236054E+20	5,235995E+20	2,710006E+22	1,047205E+21	2,814726E+22
622	1,354991E+22	1,355070E+22	5,236953E+20	5,235441E+20	2,710061E+22	1,047239E+21	2,814785E+22
623	1,355057E+22	1,355051E+22	5,235341E+20	5,236764E+20	2,710109E+22	1,047211E+21	2,814830E+22
624	1,355079E+22	1,355069E+22	5,236157E+20	5,235151E+20	2,710149E+22	1,047131E+21	2,814862E+22
625	1,355073E+22	1,355159E+22	5,236174E+20	5,235818E+20	2,710232E+22	1,047199E+21	2,814952E+22
626	1,355180E+22	1,355103E+22	5,234742E+20	5,236212E+20	2,710283E+22	1,047095E+21	2,814993E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
627	1,355162E+22	1,355168E+22	5,236020E+20	5,234553E+20	2,710330E+22	1,047057E+21	2,815036E+22
628	1,355170E+22	1,355211E+22	5,235361E+20	5,236024E+20	2,710381E+22	1,047138E+21	2,815094E+22
629	1,355215E+22	1,355144E+22	5,234996E+20	5,235493E+20	2,710358E+22	1,047049E+21	2,815063E+22
630	1,355120E+22	1,355196E+22	5,236513E+20	5,234924E+20	2,710316E+22	1,047144E+21	2,815031E+22
631	1,355113E+22	1,355132E+22	5,235239E+20	5,236707E+20	2,710245E+22	1,047195E+21	2,814964E+22
632	1,355103E+22	1,355044E+22	5,235983E+20	5,235619E+20	2,710148E+22	1,047160E+21	2,814864E+22
633	1,355005E+22	1,355067E+22	5,236923E+20	5,235988E+20	2,710072E+22	1,047291E+21	2,814801E+22
634	1,355028E+22	1,354954E+22	5,235516E+20	5,237221E+20	2,709981E+22	1,047274E+21	2,814709E+22
635	1,354954E+22	1,354933E+22	5,236985E+20	5,235862E+20	2,709887E+22	1,047285E+21	2,814616E+22
636	1,354884E+22	1,354953E+22	5,236888E+20	5,237227E+20	2,709837E+22	1,047412E+21	2,814578E+22
637	1,354929E+22	1,354851E+22	5,236156E+20	5,237292E+20	2,709781E+22	1,047345E+21	2,814515E+22
638	1,354858E+22	1,354899E+22	5,237685E+20	5,235987E+20	2,709757E+22	1,047367E+21	2,814494E+22
639	1,354866E+22	1,354897E+22	5,236549E+20	5,237505E+20	2,709764E+22	1,047405E+21	2,814504E+22
640	1,354919E+22	1,354858E+22	5,236588E+20	5,236394E+20	2,709777E+22	1,047298E+21	2,814507E+22
641	1,354865E+22	1,354961E+22	5,237500E+20	5,236005E+20	2,709826E+22	1,047350E+21	2,814561E+22
642	1,354949E+22	1,354932E+22	5,235706E+20	5,237426E+20	2,709882E+22	1,047313E+21	2,814613E+22
643	1,354985E+22	1,354956E+22	5,236414E+20	5,235656E+20	2,709941E+22	1,047207E+21	2,814661E+22
644	1,354980E+22	1,355053E+22	5,236589E+20	5,236285E+20	2,710034E+22	1,047287E+21	2,814762E+22
645	1,355087E+22	1,355010E+22	5,235250E+20	5,236511E+20	2,710097E+22	1,047176E+21	2,814815E+22
646	1,355058E+22	1,355073E+22	5,236618E+20	5,234976E+20	2,710131E+22	1,047159E+21	2,814847E+22
647	1,355031E+22	1,355098E+22	5,236005E+20	5,236579E+20	2,710129E+22	1,047258E+21	2,814855E+22
648	1,355074E+22	1,355015E+22	5,235589E+20	5,236154E+20	2,710089E+22	1,047174E+21	2,814806E+22
649	1,354984E+22	1,355051E+22	5,237142E+20	5,235603E+20	2,710034E+22	1,047275E+21	2,814762E+22
650	1,354992E+22	1,354977E+22	5,235719E+20	5,237343E+20	2,709969E+22	1,047306E+21	2,814699E+22
651	1,354984E+22	1,354901E+22	5,236406E+20	5,236140E+20	2,709885E+22	1,047255E+21	2,814610E+22
652	1,354873E+22	1,354938E+22	5,237467E+20	5,236597E+20	2,709811E+22	1,047406E+21	2,814552E+22
653	1,354892E+22	1,354840E+22	5,236115E+20	5,237786E+20	2,709732E+22	1,047390E+21	2,814471E+22
654	1,354826E+22	1,354813E+22	5,237625E+20	5,236442E+20	2,709640E+22	1,047407E+21	2,814380E+22
655	1,354745E+22	1,354825E+22	5,237562E+20	5,237712E+20	2,709570E+22	1,047527E+21	2,814323E+22
656	1,354804E+22	1,354727E+22	5,236771E+20	5,237715E+20	2,709531E+22	1,047449E+21	2,814276E+22
657	1,354735E+22	1,354774E+22	5,238321E+20	5,236448E+20	2,709509E+22	1,047477E+21	2,814257E+22
658	1,354748E+22	1,354774E+22	5,236984E+20	5,238081E+20	2,709522E+22	1,047506E+21	2,814273E+22
659	1,354804E+22	1,354742E+22	5,236887E+20	5,237013E+20	2,709546E+22	1,047390E+21	2,814285E+22
660	1,354755E+22	1,354848E+22	5,237880E+20	5,236667E+20	2,709603E+22	1,047455E+21	2,814348E+22
661	1,354858E+22	1,354833E+22	5,236133E+20	5,237859E+20	2,709690E+22	1,047399E+21	2,814430E+22
662	1,354905E+22	1,354856E+22	5,236887E+20	5,235971E+20	2,709761E+22	1,047286E+21	2,814489E+22
663	1,354871E+22	1,354952E+22	5,237173E+20	5,236567E+20	2,709823E+22	1,047374E+21	2,814560E+22
664	1,354966E+22	1,354911E+22	5,235798E+20	5,236915E+20	2,709878E+22	1,047271E+21	2,814605E+22
665	1,354924E+22	1,354956E+22	5,237238E+20	5,235606E+20	2,709880E+22	1,047284E+21	2,814608E+22
666	1,354902E+22	1,354962E+22	5,236471E+20	5,237272E+20	2,709864E+22	1,047374E+21	2,814601E+22
667	1,354954E+22	1,354876E+22	5,235969E+20	5,236782E+20	2,709830E+22	1,047275E+21	2,814558E+22
668	1,354866E+22	1,354913E+22	5,237634E+20	5,236194E+20	2,709778E+22	1,047383E+21	2,814517E+22
669	1,354876E+22	1,354854E+22	5,236299E+20	5,237793E+20	2,709730E+22	1,047409E+21	2,814471E+22
670	1,354861E+22	1,354782E+22	5,237022E+20	5,236669E+20	2,709643E+22	1,047369E+21	2,814380E+22
671	1,354722E+22	1,354812E+22	5,238156E+20	5,237202E+20	2,709534E+22	1,047536E+21	2,814287E+22
672	1,354747E+22	1,354709E+22	5,236801E+20	5,238405E+20	2,709456E+22	1,047521E+21	2,814208E+22
673	1,354690E+22	1,354675E+22	5,238326E+20	5,237068E+20	2,709364E+22	1,047539E+21	2,814118E+22
674	1,354622E+22	1,354683E+22	5,238077E+20	5,238238E+20	2,709305E+22	1,047632E+21	2,814068E+22
675	1,354684E+22	1,354599E+22	5,237171E+20	5,238205E+20	2,709282E+22	1,047538E+21	2,814036E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
676	1,354611E+22	1,354657E+22	5,238732E+20	5,237043E+20	2,709269E+22	1,047577E+21	2,814026E+22
677	1,354633E+22	1,354669E+22	5,237430E+20	5,238592E+20	2,709303E+22	1,047602E+21	2,814063E+22
678	1,354705E+22	1,354639E+22	5,237327E+20	5,237492E+20	2,709345E+22	1,047482E+21	2,814093E+22
679	1,354651E+22	1,354742E+22	5,238370E+20	5,237048E+20	2,709393E+22	1,047542E+21	2,814147E+22
680	1,354760E+22	1,354732E+22	5,236677E+20	5,238154E+20	2,709492E+22	1,047483E+21	2,814241E+22
681	1,354801E+22	1,354754E+22	5,237475E+20	5,236396E+20	2,709555E+22	1,047387E+21	2,814294E+22
682	1,354758E+22	1,354840E+22	5,237610E+20	5,237089E+20	2,709598E+22	1,047470E+21	2,814345E+22
683	1,354843E+22	1,354795E+22	5,236163E+20	5,237546E+20	2,709638E+22	1,047371E+21	2,814375E+22
684	1,354801E+22	1,354827E+22	5,237686E+20	5,236308E+20	2,709628E+22	1,047399E+21	2,814368E+22
685	1,354790E+22	1,354837E+22	5,236988E+20	5,237760E+20	2,709627E+22	1,047475E+21	2,814374E+22
686	1,354847E+22	1,354751E+22	5,236535E+20	5,237203E+20	2,709598E+22	1,047374E+21	2,814335E+22
687	1,354731E+22	1,354786E+22	5,238281E+20	5,236632E+20	2,709517E+22	1,047491E+21	2,814266E+22
688	1,354733E+22	1,354732E+22	5,236992E+20	5,238332E+20	2,709465E+22	1,047532E+21	2,814218E+22
689	1,354712E+22	1,354649E+22	5,237742E+20	5,237414E+20	2,709361E+22	1,047516E+21	2,814112E+22
690	1,354581E+22	1,354666E+22	5,238695E+20	5,237911E+20	2,709246E+22	1,047661E+21	2,814013E+22
691	1,354618E+22	1,354567E+22	5,237257E+20	5,239040E+20	2,709186E+22	1,047630E+21	2,813948E+22
692	1,354567E+22	1,354537E+22	5,238837E+20	5,237660E+20	2,709103E+22	1,047650E+21	2,813868E+22
693	1,354505E+22	1,354565E+22	5,238603E+20	5,238676E+20	2,709070E+22	1,047728E+21	2,813843E+22
694	1,354568E+22	1,354488E+22	5,237664E+20	5,238698E+20	2,709056E+22	1,047636E+21	2,813819E+22
695	1,354479E+22	1,354542E+22	5,239251E+20	5,237573E+20	2,709021E+22	1,047682E+21	2,813789E+22
696	1,354520E+22	1,354559E+22	5,237985E+20	5,239058E+20	2,709079E+22	1,047704E+21	2,813849E+22
697	1,354604E+22	1,354528E+22	5,237892E+20	5,237946E+20	2,709132E+22	1,047584E+21	2,813891E+22
698	1,354557E+22	1,354630E+22	5,238790E+20	5,237403E+20	2,709186E+22	1,047619E+21	2,813948E+22
699	1,354659E+22	1,354631E+22	5,237048E+20	5,238535E+20	2,709290E+22	1,047558E+21	2,814046E+22
700	1,354684E+22	1,354652E+22	5,237878E+20	5,236972E+20	2,709336E+22	1,047485E+21	2,814085E+22
701	1,354641E+22	1,354737E+22	5,238071E+20	5,237612E+20	2,709379E+22	1,047568E+21	2,814135E+22
702	1,354733E+22	1,354682E+22	5,236638E+20	5,238056E+20	2,709415E+22	1,047469E+21	2,814162E+22
703	1,354679E+22	1,354702E+22	5,238239E+20	5,236777E+20	2,709381E+22	1,047502E+21	2,814132E+22
704	1,354673E+22	1,354712E+22	5,237652E+20	5,238163E+20	2,709385E+22	1,047581E+21	2,814143E+22
705	1,354720E+22	1,354626E+22	5,237232E+20	5,237803E+20	2,709345E+22	1,047504E+21	2,814096E+22
706	1,354594E+22	1,354650E+22	5,238790E+20	5,237336E+20	2,709245E+22	1,047613E+21	2,814006E+22
707	1,354592E+22	1,354594E+22	5,237479E+20	5,239109E+20	2,709186E+22	1,047659E+21	2,813952E+22
708	1,354577E+22	1,354506E+22	5,238265E+20	5,238209E+20	2,709083E+22	1,047647E+21	2,813848E+22
709	1,354461E+22	1,354530E+22	5,239256E+20	5,238410E+20	2,708991E+22	1,047767E+21	2,813767E+22
710	1,354500E+22	1,354440E+22	5,237847E+20	5,239414E+20	2,708940E+22	1,047726E+21	2,813713E+22
711	1,354427E+22	1,354413E+22	5,239448E+20	5,238067E+20	2,708840E+22	1,047751E+21	2,813615E+22
712	1,354365E+22	1,354447E+22	5,239256E+20	5,239125E+20	2,708813E+22	1,047838E+21	2,813597E+22
713	1,354434E+22	1,354370E+22	5,238302E+20	5,239333E+20	2,708804E+22	1,047763E+21	2,813581E+22
714	1,354366E+22	1,354417E+22	5,239649E+20	5,238134E+20	2,708782E+22	1,047778E+21	2,813560E+22
715	1,354423E+22	1,354444E+22	5,238363E+20	5,239535E+20	2,708866E+22	1,047790E+21	2,813645E+22
716	1,354510E+22	1,354422E+22	5,238293E+20	5,238407E+20	2,708932E+22	1,047670E+21	2,813699E+22
717	1,354462E+22	1,354537E+22	5,239218E+20	5,237765E+20	2,708998E+22	1,047698E+21	2,813768E+22
718	1,354551E+22	1,354539E+22	5,237487E+20	5,238961E+20	2,709090E+22	1,047645E+21	2,813854E+22
719	1,354554E+22	1,354543E+22	5,238388E+20	5,237530E+20	2,709097E+22	1,047592E+21	2,813856E+22
720	1,354522E+22	1,354619E+22	5,238680E+20	5,238109E+20	2,709141E+22	1,047679E+21	2,813909E+22
721	1,354619E+22	1,354557E+22	5,237277E+20	5,238622E+20	2,709176E+22	1,047590E+21	2,813935E+22
722	1,354566E+22	1,354568E+22	5,238694E+20	5,237290E+20	2,709134E+22	1,047598E+21	2,813894E+22
723	1,354553E+22	1,354585E+22	5,238108E+20	5,238747E+20	2,709138E+22	1,047686E+21	2,813906E+22
724	1,354585E+22	1,354498E+22	5,237729E+20	5,238536E+20	2,709083E+22	1,047626E+21	2,813846E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
725	1,354465E+22	1,354524E+22	5,239336E+20	5,237975E+20	2,708989E+22	1,047731E+21	2,813762E+22
726	1,354467E+22	1,354466E+22	5,238060E+20	5,239626E+20	2,708933E+22	1,047769E+21	2,813710E+22
727	1,354437E+22	1,354371E+22	5,238942E+20	5,238692E+20	2,708808E+22	1,047763E+21	2,813584E+22
728	1,354327E+22	1,354401E+22	5,240009E+20	5,238790E+20	2,708727E+22	1,047880E+21	2,813515E+22
729	1,354360E+22	1,354313E+22	5,238584E+20	5,239987E+20	2,708673E+22	1,047857E+21	2,813458E+22
730	1,354285E+22	1,354277E+22	5,239920E+20	5,238721E+20	2,708562E+22	1,047864E+21	2,813349E+22
731	1,354238E+22	1,354314E+22	5,239689E+20	5,239825E+20	2,708552E+22	1,047951E+21	2,813348E+22
732	1,354322E+22	1,354244E+22	5,238717E+20	5,239992E+20	2,708566E+22	1,047871E+21	2,813353E+22
733	1,354277E+22	1,354307E+22	5,240049E+20	5,238543E+20	2,708585E+22	1,047859E+21	2,813370E+22
734	1,354333E+22	1,354348E+22	5,238815E+20	5,239794E+20	2,708682E+22	1,047861E+21	2,813468E+22
735	1,354392E+22	1,354330E+22	5,238791E+20	5,238761E+20	2,708722E+22	1,047755E+21	2,813497E+22
736	1,354340E+22	1,354441E+22	5,239802E+20	5,238174E+20	2,708781E+22	1,047798E+21	2,813561E+22
737	1,354427E+22	1,354432E+22	5,238090E+20	5,239557E+20	2,708859E+22	1,047765E+21	2,813635E+22
738	1,354441E+22	1,354416E+22	5,238781E+20	5,238116E+20	2,708856E+22	1,047690E+21	2,813625E+22
739	1,354421E+22	1,354490E+22	5,239110E+20	5,238658E+20	2,708911E+22	1,047777E+21	2,813689E+22
740	1,354514E+22	1,354434E+22	5,237748E+20	5,239206E+20	2,708949E+22	1,047695E+21	2,813718E+22
741	1,354460E+22	1,354453E+22	5,239152E+20	5,237821E+20	2,708912E+22	1,047697E+21	2,813682E+22
742	1,354428E+22	1,354471E+22	5,238639E+20	5,239275E+20	2,708899E+22	1,047791E+21	2,813678E+22
743	1,354439E+22	1,354372E+22	5,238361E+20	5,239155E+20	2,708811E+22	1,047752E+21	2,813586E+22
744	1,354327E+22	1,354390E+22	5,240103E+20	5,238469E+20	2,708717E+22	1,047857E+21	2,813503E+22
745	1,354327E+22	1,354331E+22	5,238870E+20	5,240156E+20	2,708658E+22	1,047903E+21	2,813449E+22
746	1,354295E+22	1,354225E+22	5,239535E+20	5,239234E+20	2,708520E+22	1,047877E+21	2,813308E+22
747	1,354184E+22	1,354259E+22	5,240533E+20	5,239440E+20	2,708443E+22	1,047997E+21	2,813243E+22
748	1,354216E+22	1,354176E+22	5,239065E+20	5,240759E+20	2,708393E+22	1,047982E+21	2,813191E+22
749	1,354167E+22	1,354148E+22	5,240311E+20	5,239378E+20	2,708315E+22	1,047969E+21	2,813112E+22
750	1,354137E+22	1,354198E+22	5,240112E+20	5,240277E+20	2,708335E+22	1,048039E+21	2,813138E+22
751	1,354214E+22	1,354137E+22	5,239244E+20	5,240370E+20	2,708350E+22	1,047961E+21	2,813147E+22
752	1,354175E+22	1,354211E+22	5,240674E+20	5,238818E+20	2,708386E+22	1,047949E+21	2,813181E+22
753	1,354217E+22	1,354256E+22	5,239449E+20	5,240247E+20	2,708474E+22	1,047970E+21	2,813271E+22
754	1,354267E+22	1,354218E+22	5,239201E+20	5,239340E+20	2,708485E+22	1,047854E+21	2,813270E+22
755	1,354227E+22	1,354318E+22	5,240198E+20	5,238834E+20	2,708545E+22	1,047903E+21	2,813336E+22
756	1,354322E+22	1,354308E+22	5,238504E+20	5,240160E+20	2,708629E+22	1,047866E+21	2,813416E+22
757	1,354353E+22	1,354299E+22	5,239168E+20	5,238554E+20	2,708652E+22	1,047772E+21	2,813429E+22
758	1,354326E+22	1,354383E+22	5,239568E+20	5,238977E+20	2,708709E+22	1,047855E+21	2,813495E+22
759	1,354384E+22	1,354329E+22	5,238327E+20	5,239659E+20	2,708712E+22	1,047799E+21	2,813492E+22
760	1,354324E+22	1,354342E+22	5,239849E+20	5,238330E+20	2,708667E+22	1,047818E+21	2,813448E+22
761	1,354287E+22	1,354349E+22	5,239391E+20	5,239902E+20	2,708636E+22	1,047929E+21	2,813429E+22
762	1,354299E+22	1,354228E+22	5,238937E+20	5,239790E+20	2,708527E+22	1,047873E+21	2,813314E+22
763	1,354198E+22	1,354240E+22	5,240688E+20	5,239107E+20	2,708438E+22	1,047979E+21	2,813236E+22
764	1,354191E+22	1,354187E+22	5,239435E+20	5,240811E+20	2,708377E+22	1,048025E+21	2,813180E+22
765	1,354165E+22	1,354090E+22	5,239989E+20	5,239914E+20	2,708255E+22	1,047990E+21	2,813054E+22
766	1,354054E+22	1,354127E+22	5,240985E+20	5,240062E+20	2,708182E+22	1,048105E+21	2,812992E+22
767	1,354082E+22	1,354048E+22	5,239625E+20	5,241383E+20	2,708130E+22	1,048101E+21	2,812940E+22
768	1,354055E+22	1,354030E+22	5,240943E+20	5,239792E+20	2,708085E+22	1,048073E+21	2,812893E+22
769	1,354029E+22	1,354091E+22	5,240800E+20	5,240657E+20	2,708120E+22	1,048146E+21	2,812934E+22
770	1,354098E+22	1,354027E+22	5,239741E+20	5,240747E+20	2,708124E+22	1,048049E+21	2,812929E+22
771	1,354057E+22	1,354100E+22	5,241130E+20	5,239338E+20	2,708157E+22	1,048047E+21	2,812962E+22
772	1,354092E+22	1,354146E+22	5,239883E+20	5,240843E+20	2,708238E+22	1,048073E+21	2,813045E+22
773	1,354164E+22	1,354105E+22	5,239531E+20	5,239909E+20	2,708268E+22	1,047944E+21	2,813063E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
774	1,354135E+22	1,354206E+22	5,240569E+20	5,239231E+20	2,708340E+22	1,047980E+21	2,813138E+22
775	1,354218E+22	1,354201E+22	5,239028E+20	5,240544E+20	2,708419E+22	1,047957E+21	2,813215E+22
776	1,354250E+22	1,354198E+22	5,239786E+20	5,238888E+20	2,708448E+22	1,047867E+21	2,813235E+22
777	1,354203E+22	1,354283E+22	5,240231E+20	5,239507E+20	2,708485E+22	1,047974E+21	2,813283E+22
778	1,354244E+22	1,354204E+22	5,238851E+20	5,240317E+20	2,708447E+22	1,047917E+21	2,813239E+22
779	1,354193E+22	1,354200E+22	5,240394E+20	5,239102E+20	2,708393E+22	1,047950E+21	2,813187E+22
780	1,354155E+22	1,354204E+22	5,239950E+20	5,240567E+20	2,708359E+22	1,048052E+21	2,813164E+22
781	1,354180E+22	1,354086E+22	5,239430E+20	5,240383E+20	2,708266E+22	1,047981E+21	2,813064E+22
782	1,354073E+22	1,354105E+22	5,241188E+20	5,239587E+20	2,708178E+22	1,048078E+21	2,812986E+22
783	1,354042E+22	1,354056E+22	5,240036E+20	5,241393E+20	2,708098E+22	1,048143E+21	2,812912E+22
784	1,354025E+22	1,353964E+22	5,240656E+20	5,240470E+20	2,707988E+22	1,048113E+21	2,812800E+22
785	1,353923E+22	1,354005E+22	5,241661E+20	5,240654E+20	2,707928E+22	1,048231E+21	2,812751E+22
786	1,353957E+22	1,353918E+22	5,240194E+20	5,241895E+20	2,707875E+22	1,048209E+21	2,812696E+22
787	1,353948E+22	1,353905E+22	5,241492E+20	5,240307E+20	2,707853E+22	1,048180E+21	2,812671E+22
788	1,353913E+22	1,353978E+22	5,241321E+20	5,241112E+20	2,707890E+22	1,048243E+21	2,812715E+22
789	1,353984E+22	1,353920E+22	5,240115E+20	5,241283E+20	2,707904E+22	1,048140E+21	2,812718E+22
790	1,353945E+22	1,353990E+22	5,241470E+20	5,239839E+20	2,707935E+22	1,048131E+21	2,812748E+22
791	1,353974E+22	1,354032E+22	5,240352E+20	5,241338E+20	2,708007E+22	1,048169E+21	2,812823E+22
792	1,354065E+22	1,354000E+22	5,240086E+20	5,240256E+20	2,708065E+22	1,048034E+21	2,812869E+22
793	1,354038E+22	1,354106E+22	5,241164E+20	5,239612E+20	2,708144E+22	1,048078E+21	2,812952E+22
794	1,354104E+22	1,354091E+22	5,239534E+20	5,240973E+20	2,708195E+22	1,048051E+21	2,813000E+22
795	1,354131E+22	1,354082E+22	5,240258E+20	5,239528E+20	2,708213E+22	1,047979E+21	2,813011E+22
796	1,354072E+22	1,354159E+22	5,240712E+20	5,240159E+20	2,708231E+22	1,048087E+21	2,813040E+22
797	1,354127E+22	1,354074E+22	5,239260E+20	5,240975E+20	2,708201E+22	1,048024E+21	2,813003E+22
798	1,354080E+22	1,354066E+22	5,240866E+20	5,239617E+20	2,708146E+22	1,048048E+21	2,812951E+22
799	1,354025E+22	1,354074E+22	5,240594E+20	5,241046E+20	2,708098E+22	1,048164E+21	2,812915E+22
800	1,354048E+22	1,353962E+22	5,240158E+20	5,240850E+20	2,708010E+22	1,048101E+21	2,812820E+22
801	1,353928E+22	1,353980E+22	5,241886E+20	5,240219E+20	2,707908E+22	1,048211E+21	2,812729E+22
802	1,353890E+22	1,353913E+22	5,240641E+20	5,242078E+20	2,707803E+22	1,048272E+21	2,812630E+22
803	1,353894E+22	1,353815E+22	5,241239E+20	5,241180E+20	2,707710E+22	1,048242E+21	2,812534E+22
804	1,353799E+22	1,353870E+22	5,242224E+20	5,241187E+20	2,707669E+22	1,048341E+21	2,812503E+22
805	1,353849E+22	1,353796E+22	5,240668E+20	5,242368E+20	2,707644E+22	1,048304E+21	2,812475E+22
806	1,353832E+22	1,353794E+22	5,241922E+20	5,240709E+20	2,707625E+22	1,048263E+21	2,812451E+22
807	1,353777E+22	1,353872E+22	5,241827E+20	5,241589E+20	2,707649E+22	1,048342E+21	2,812483E+22
808	1,353861E+22	1,353815E+22	5,240666E+20	5,241736E+20	2,707676E+22	1,048240E+21	2,812500E+22
809	1,353835E+22	1,353883E+22	5,241987E+20	5,240339E+20	2,707718E+22	1,048233E+21	2,812542E+22
810	1,353869E+22	1,353915E+22	5,240825E+20	5,241768E+20	2,707784E+22	1,048259E+21	2,812610E+22
811	1,353974E+22	1,353885E+22	5,240552E+20	5,240757E+20	2,707858E+22	1,048131E+21	2,812672E+22
812	1,353933E+22	1,354000E+22	5,241598E+20	5,240109E+20	2,707933E+22	1,048171E+21	2,812751E+22
813	1,353996E+22	1,353984E+22	5,239895E+20	5,241580E+20	2,707980E+22	1,048148E+21	2,812794E+22
814	1,354019E+22	1,353965E+22	5,240635E+20	5,240114E+20	2,707984E+22	1,048075E+21	2,812791E+22
815	1,353947E+22	1,354036E+22	5,241269E+20	5,240679E+20	2,707983E+22	1,048195E+21	2,812803E+22
816	1,354008E+22	1,353955E+22	5,239955E+20	5,241360E+20	2,707963E+22	1,048131E+21	2,812776E+22
817	1,353954E+22	1,353946E+22	5,241587E+20	5,240080E+20	2,707900E+22	1,048167E+21	2,812717E+22
818	1,353875E+22	1,353938E+22	5,241261E+20	5,241568E+20	2,707813E+22	1,048283E+21	2,812641E+22
819	1,353901E+22	1,353820E+22	5,240778E+20	5,241600E+20	2,707721E+22	1,048238E+21	2,812545E+22
820	1,353782E+22	1,353835E+22	5,242425E+20	5,240932E+20	2,707617E+22	1,048336E+21	2,812450E+22
821	1,353765E+22	1,353771E+22	5,241114E+20	5,242759E+20	2,707536E+22	1,048387E+21	2,812375E+22
822	1,353783E+22	1,353684E+22	5,241691E+20	5,241691E+20	2,707466E+22	1,048338E+21	2,812300E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
823	1,353677E+22	1,353750E+22	5,242808E+20	5,241606E+20	2,707427E+22	1,048441E+21	2,812271E+22
824	1,353725E+22	1,353693E+22	5,241317E+20	5,242753E+20	2,707418E+22	1,048407E+21	2,812258E+22
825	1,353701E+22	1,353690E+22	5,242497E+20	5,241264E+20	2,707391E+22	1,048376E+21	2,812228E+22
826	1,353642E+22	1,353746E+22	5,242334E+20	5,242153E+20	2,707388E+22	1,048449E+21	2,812233E+22
827	1,353753E+22	1,353687E+22	5,241134E+20	5,242336E+20	2,707440E+22	1,048347E+21	2,812275E+22
828	1,353737E+22	1,353765E+22	5,242392E+20	5,240784E+20	2,707503E+22	1,048318E+21	2,812334E+22
829	1,353784E+22	1,353807E+22	5,241197E+20	5,242202E+20	2,707592E+22	1,048340E+21	2,812426E+22
830	1,353878E+22	1,353787E+22	5,240886E+20	5,241161E+20	2,707664E+22	1,048205E+21	2,812485E+22
831	1,353814E+22	1,353902E+22	5,242073E+20	5,240581E+20	2,707716E+22	1,048265E+21	2,812542E+22
832	1,353877E+22	1,353885E+22	5,240503E+20	5,242000E+20	2,707762E+22	1,048250E+21	2,812587E+22
833	1,353899E+22	1,353856E+22	5,241262E+20	5,240634E+20	2,707755E+22	1,048190E+21	2,812574E+22
834	1,353818E+22	1,353905E+22	5,241923E+20	5,241151E+20	2,707722E+22	1,048307E+21	2,812553E+22
835	1,353883E+22	1,353816E+22	5,240619E+20	5,241955E+20	2,707700E+22	1,048257E+21	2,812525E+22
836	1,353813E+22	1,353809E+22	5,242148E+20	5,240724E+20	2,707622E+22	1,048287E+21	2,812450E+22
837	1,353739E+22	1,353794E+22	5,241718E+20	5,242345E+20	2,707533E+22	1,048406E+21	2,812373E+22
838	1,353768E+22	1,353673E+22	5,241206E+20	5,242317E+20	2,707441E+22	1,048352E+21	2,812276E+22
839	1,353651E+22	1,353696E+22	5,242971E+20	5,241534E+20	2,707347E+22	1,048450E+21	2,812192E+22
840	1,353647E+22	1,353651E+22	5,241821E+20	5,243152E+20	2,707297E+22	1,048497E+21	2,812147E+22
841	1,353658E+22	1,353573E+22	5,242377E+20	5,242134E+20	2,707231E+22	1,048451E+21	2,812076E+22
842	1,353532E+22	1,353628E+22	5,243432E+20	5,242066E+20	2,707160E+22	1,048550E+21	2,812015E+22
843	1,353587E+22	1,353566E+22	5,241885E+20	5,243374E+20	2,707153E+22	1,048526E+21	2,812006E+22
844	1,353571E+22	1,353563E+22	5,242937E+20	5,241851E+20	2,707134E+22	1,048479E+21	2,811982E+22
845	1,353542E+22	1,353621E+22	5,242694E+20	5,242715E+20	2,707163E+22	1,048541E+21	2,812017E+22
846	1,353666E+22	1,353576E+22	5,241479E+20	5,242756E+20	2,707242E+22	1,048423E+21	2,812085E+22
847	1,353644E+22	1,353668E+22	5,242830E+20	5,241158E+20	2,707312E+22	1,048399E+21	2,812152E+22
848	1,353683E+22	1,353726E+22	5,241767E+20	5,242542E+20	2,707409E+22	1,048431E+21	2,812252E+22
849	1,353763E+22	1,353699E+22	5,241423E+20	5,241676E+20	2,707462E+22	1,048310E+21	2,812293E+22
850	1,353685E+22	1,353783E+22	5,242650E+20	5,241093E+20	2,707467E+22	1,048374E+21	2,812305E+22
851	1,353759E+22	1,353757E+22	5,241107E+20	5,242551E+20	2,707516E+22	1,048366E+21	2,812353E+22
852	1,353779E+22	1,353726E+22	5,241812E+20	5,241153E+20	2,707504E+22	1,048296E+21	2,812334E+22
853	1,353699E+22	1,353769E+22	5,242419E+20	5,241746E+20	2,707468E+22	1,048417E+21	2,812310E+22
854	1,353753E+22	1,353685E+22	5,241040E+20	5,242592E+20	2,707438E+22	1,048363E+21	2,812275E+22
855	1,353672E+22	1,353674E+22	5,242628E+20	5,241399E+20	2,707346E+22	1,048403E+21	2,812187E+22
856	1,353608E+22	1,353668E+22	5,242353E+20	5,242891E+20	2,707275E+22	1,048524E+21	2,812128E+22
857	1,353642E+22	1,353551E+22	5,241860E+20	5,242872E+20	2,707193E+22	1,048473E+21	2,812041E+22
858	1,353517E+22	1,353561E+22	5,243683E+20	5,241997E+20	2,707078E+22	1,048568E+21	2,811935E+22
859	1,353516E+22	1,353521E+22	5,242553E+20	5,243676E+20	2,707037E+22	1,048623E+21	2,811899E+22
860	1,353513E+22	1,353448E+22	5,242963E+20	5,242734E+20	2,706961E+22	1,048570E+21	2,811818E+22
861	1,353399E+22	1,353492E+22	5,243871E+20	5,242775E+20	2,706891E+22	1,048665E+21	2,811757E+22
862	1,353467E+22	1,353432E+22	5,242245E+20	5,243983E+20	2,706899E+22	1,048623E+21	2,811761E+22
863	1,353463E+22	1,353441E+22	5,243335E+20	5,242334E+20	2,706905E+22	1,048567E+21	2,811761E+22
864	1,353451E+22	1,353523E+22	5,243261E+20	5,243009E+20	2,706975E+22	1,048627E+21	2,811837E+22
865	1,353568E+22	1,353492E+22	5,242036E+20	5,243105E+20	2,707060E+22	1,048514E+21	2,811911E+22
866	1,353523E+22	1,353570E+22	5,243373E+20	5,241583E+20	2,707094E+22	1,048496E+21	2,811943E+22
867	1,353564E+22	1,353618E+22	5,242332E+20	5,243074E+20	2,707182E+22	1,048541E+21	2,812036E+22
868	1,353639E+22	1,353583E+22	5,241890E+20	5,242236E+20	2,707222E+22	1,048413E+21	2,812064E+22
869	1,353580E+22	1,353653E+22	5,243050E+20	5,241693E+20	2,707233E+22	1,048474E+21	2,812080E+22
870	1,353654E+22	1,353629E+22	5,241512E+20	5,243052E+20	2,707283E+22	1,048456E+21	2,812129E+22
871	1,353661E+22	1,353605E+22	5,242287E+20	5,241700E+20	2,707266E+22	1,048399E+21	2,812105E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
872	1,353575E+22	1,353656E+22	5,243028E+20	5,242273E+20	2,707232E+22	1,048530E+21	2,812085E+22
873	1,353619E+22	1,353566E+22	5,241651E+20	5,243238E+20	2,707185E+22	1,048489E+21	2,812034E+22
874	1,353530E+22	1,353532E+22	5,243275E+20	5,242004E+20	2,707062E+22	1,048528E+21	2,811915E+22
875	1,353479E+22	1,353526E+22	5,243073E+20	5,243441E+20	2,707005E+22	1,048651E+21	2,811870E+22
876	1,353507E+22	1,353418E+22	5,242537E+20	5,243388E+20	2,706925E+22	1,048592E+21	2,811785E+22
877	1,353384E+22	1,353425E+22	5,244253E+20	5,242608E+20	2,706809E+22	1,048686E+21	2,811678E+22
878	1,353374E+22	1,353390E+22	5,243030E+20	5,244283E+20	2,706764E+22	1,048731E+21	2,811637E+22
879	1,353371E+22	1,353317E+22	5,243424E+20	5,243390E+20	2,706688E+22	1,048681E+21	2,811556E+22
880	1,353279E+22	1,353372E+22	5,244412E+20	5,243273E+20	2,706651E+22	1,048769E+21	2,811528E+22
881	1,353362E+22	1,353324E+22	5,242777E+20	5,244440E+20	2,706686E+22	1,048722E+21	2,811558E+22
882	1,353358E+22	1,353326E+22	5,243898E+20	5,242703E+20	2,706684E+22	1,048660E+21	2,811550E+22
883	1,353350E+22	1,353420E+22	5,243856E+20	5,243427E+20	2,706771E+22	1,048728E+21	2,811643E+22
884	1,353449E+22	1,353395E+22	5,242511E+20	5,243616E+20	2,706845E+22	1,048613E+21	2,811706E+22
885	1,353412E+22	1,353453E+22	5,243741E+20	5,242238E+20	2,706865E+22	1,048598E+21	2,811724E+22
886	1,353457E+22	1,353498E+22	5,242667E+20	5,243604E+20	2,706954E+22	1,048627E+21	2,811817E+22
887	1,353535E+22	1,353465E+22	5,242287E+20	5,242717E+20	2,707000E+22	1,048500E+21	2,811850E+22
888	1,353480E+22	1,353546E+22	5,243628E+20	5,242051E+20	2,707026E+22	1,048568E+21	2,811883E+22
889	1,353538E+22	1,353527E+22	5,242102E+20	5,243487E+20	2,707065E+22	1,048559E+21	2,811921E+22
890	1,353520E+22	1,353481E+22	5,242897E+20	5,242246E+20	2,707001E+22	1,048514E+21	2,811852E+22
891	1,353439E+22	1,353523E+22	5,243685E+20	5,242891E+20	2,706963E+22	1,048658E+21	2,811828E+22
892	1,353478E+22	1,353432E+22	5,242269E+20	5,243872E+20	2,706911E+22	1,048614E+21	2,811772E+22
893	1,353407E+22	1,353385E+22	5,243832E+20	5,242691E+20	2,706793E+22	1,048652E+21	2,811658E+22
894	1,353354E+22	1,353387E+22	5,243622E+20	5,243994E+20	2,706741E+22	1,048762E+21	2,811617E+22
895	1,353370E+22	1,353288E+22	5,243092E+20	5,244019E+20	2,706658E+22	1,048711E+21	2,811529E+22
896	1,353246E+22	1,353302E+22	5,244859E+20	5,243217E+20	2,706548E+22	1,048808E+21	2,811429E+22
897	1,353234E+22	1,353264E+22	5,243603E+20	5,244897E+20	2,706499E+22	1,048850E+21	2,811384E+22
898	1,353236E+22	1,353178E+22	5,243999E+20	5,243946E+20	2,706414E+22	1,048795E+21	2,811293E+22
899	1,353171E+22	1,353242E+22	5,245015E+20	5,243722E+20	2,706413E+22	1,048874E+21	2,811300E+22
900	1,353250E+22	1,353213E+22	5,243353E+20	5,244853E+20	2,706464E+22	1,048821E+21	2,811346E+22
901	1,353254E+22	1,353216E+22	5,244298E+20	5,243236E+20	2,706470E+22	1,048753E+21	2,811346E+22
902	1,353239E+22	1,353315E+22	5,244192E+20	5,243914E+20	2,706554E+22	1,048811E+21	2,811435E+22
903	1,353335E+22	1,353291E+22	5,242857E+20	5,244136E+20	2,706626E+22	1,048699E+21	2,811496E+22
904	1,353312E+22	1,353352E+22	5,244205E+20	5,242658E+20	2,706664E+22	1,048686E+21	2,811533E+22
905	1,353356E+22	1,353398E+22	5,243188E+20	5,243952E+20	2,706754E+22	1,048714E+21	2,811626E+22
906	1,353421E+22	1,353350E+22	5,242896E+20	5,243114E+20	2,706771E+22	1,048601E+21	2,811632E+22
907	1,353365E+22	1,353430E+22	5,244261E+20	5,242547E+20	2,706795E+22	1,048681E+21	2,811663E+22
908	1,353401E+22	1,353410E+22	5,242691E+20	5,244128E+20	2,706811E+22	1,048682E+21	2,811679E+22
909	1,353393E+22	1,353338E+22	5,243350E+20	5,243031E+20	2,706731E+22	1,048638E+21	2,811595E+22
910	1,353317E+22	1,353381E+22	5,244115E+20	5,243527E+20	2,706698E+22	1,048764E+21	2,811574E+22
911	1,353356E+22	1,353297E+22	5,242786E+20	5,244461E+20	2,706653E+22	1,048725E+21	2,811526E+22
912	1,353286E+22	1,353263E+22	5,244501E+20	5,243200E+20	2,706548E+22	1,048770E+21	2,811425E+22
913	1,353215E+22	1,353271E+22	5,244275E+20	5,244497E+20	2,706486E+22	1,048877E+21	2,811374E+22
914	1,353212E+22	1,353151E+22	5,243771E+20	5,244624E+20	2,706362E+22	1,048839E+21	2,811246E+22
915	1,353103E+22	1,353159E+22	5,245507E+20	5,243818E+20	2,706262E+22	1,048933E+21	2,811155E+22
916	1,353099E+22	1,353129E+22	5,244184E+20	5,245462E+20	2,706228E+22	1,048965E+21	2,811125E+22
917	1,353126E+22	1,353039E+22	5,244453E+20	5,244530E+20	2,706165E+22	1,048898E+21	2,811055E+22
918	1,353069E+22	1,353123E+22	5,245419E+20	5,244174E+20	2,706193E+22	1,048959E+21	2,811089E+22
919	1,353141E+22	1,353113E+22	5,243780E+20	5,245355E+20	2,706254E+22	1,048913E+21	2,811145E+22
920	1,353146E+22	1,353124E+22	5,244766E+20	5,243735E+20	2,706270E+22	1,048850E+21	2,811155E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
921	1,353128E+22	1,353218E+22	5,244658E+20	5,244325E+20	2,706346E+22	1,048898E+21	2,811236E+22
922	1,353218E+22	1,353175E+22	5,243389E+20	5,244529E+20	2,706394E+22	1,048792E+21	2,811273E+22
923	1,353210E+22	1,353237E+22	5,244794E+20	5,243028E+20	2,706446E+22	1,048782E+21	2,811324E+22
924	1,353239E+22	1,353290E+22	5,243788E+20	5,244383E+20	2,706529E+22	1,048817E+21	2,811411E+22
925	1,353303E+22	1,353229E+22	5,243338E+20	5,243769E+20	2,706532E+22	1,048711E+21	2,811403E+22
926	1,353243E+22	1,353304E+22	5,244614E+20	5,243209E+20	2,706547E+22	1,048782E+21	2,811425E+22
927	1,353278E+22	1,353282E+22	5,243105E+20	5,244808E+20	2,706560E+22	1,048791E+21	2,811439E+22
928	1,353283E+22	1,353216E+22	5,243866E+20	5,243621E+20	2,706498E+22	1,048749E+21	2,811373E+22
929	1,353202E+22	1,353260E+22	5,244721E+20	5,243936E+20	2,706462E+22	1,048866E+21	2,811349E+22
930	1,353219E+22	1,353168E+22	5,243529E+20	5,244932E+20	2,706387E+22	1,048846E+21	2,811272E+22
931	1,353144E+22	1,353132E+22	5,245251E+20	5,243770E+20	2,706276E+22	1,048902E+21	2,811166E+22
932	1,353054E+22	1,353135E+22	5,244973E+20	5,245163E+20	2,706189E+22	1,049014E+21	2,811090E+22
933	1,353069E+22	1,352993E+22	5,244283E+20	5,245406E+20	2,706062E+22	1,048969E+21	2,810959E+22
934	1,352981E+22	1,353008E+22	5,245900E+20	5,244415E+20	2,705989E+22	1,049032E+21	2,810892E+22
935	1,352987E+22	1,352999E+22	5,244659E+20	5,245970E+20	2,705987E+22	1,049063E+21	2,810893E+22
936	1,353024E+22	1,352935E+22	5,244980E+20	5,244958E+20	2,705959E+22	1,048994E+21	2,810858E+22
937	1,352955E+22	1,353032E+22	5,245917E+20	5,244531E+20	2,705987E+22	1,049045E+21	2,810892E+22
938	1,353010E+22	1,353009E+22	5,244358E+20	5,245798E+20	2,706019E+22	1,049016E+21	2,810921E+22
939	1,353028E+22	1,353015E+22	5,245322E+20	5,244193E+20	2,706043E+22	1,048952E+21	2,810938E+22
940	1,353010E+22	1,353109E+22	5,245202E+20	5,244770E+20	2,706120E+22	1,048997E+21	2,811019E+22
941	1,353117E+22	1,353051E+22	5,243817E+20	5,245071E+20	2,706168E+22	1,048889E+21	2,811057E+22
942	1,353112E+22	1,353119E+22	5,245130E+20	5,243548E+20	2,706231E+22	1,048868E+21	2,811118E+22
943	1,353130E+22	1,353181E+22	5,244174E+20	5,245000E+20	2,706311E+22	1,048917E+21	2,811202E+22
944	1,353194E+22	1,353120E+22	5,243779E+20	5,244413E+20	2,706314E+22	1,048819E+21	2,811196E+22
945	1,353132E+22	1,353191E+22	5,245074E+20	5,243701E+20	2,706322E+22	1,048878E+21	2,811210E+22
946	1,353155E+22	1,353154E+22	5,243755E+20	5,245243E+20	2,706309E+22	1,048900E+21	2,811199E+22
947	1,353162E+22	1,353090E+22	5,244612E+20	5,244043E+20	2,706252E+22	1,048865E+21	2,811138E+22
948	1,353058E+22	1,353139E+22	5,245484E+20	5,244423E+20	2,706197E+22	1,048991E+21	2,811096E+22
949	1,353067E+22	1,353024E+22	5,244138E+20	5,245637E+20	2,706092E+22	1,048977E+21	2,810990E+22
950	1,352994E+22	1,352982E+22	5,245720E+20	5,244495E+20	2,705976E+22	1,049021E+21	2,810878E+22
951	1,352912E+22	1,352987E+22	5,245453E+20	5,245859E+20	2,705899E+22	1,049131E+21	2,810812E+22
952	1,352950E+22	1,352859E+22	5,244804E+20	5,246012E+20	2,705809E+22	1,049082E+21	2,810717E+22
953	1,352872E+22	1,352888E+22	5,246410E+20	5,244808E+20	2,705759E+22	1,049122E+21	2,810672E+22
954	1,352864E+22	1,352885E+22	5,245329E+20	5,246399E+20	2,705749E+22	1,049173E+21	2,810666E+22
955	1,352900E+22	1,352831E+22	5,245617E+20	5,245452E+20	2,705731E+22	1,049107E+21	2,810642E+22
956	1,352820E+22	1,352925E+22	5,246504E+20	5,245085E+20	2,705746E+22	1,049159E+21	2,810661E+22
957	1,352891E+22	1,352879E+22	5,244787E+20	5,246413E+20	2,705770E+22	1,049120E+21	2,810682E+22
958	1,352926E+22	1,352888E+22	5,245630E+20	5,244704E+20	2,705814E+22	1,049033E+21	2,810718E+22
959	1,352912E+22	1,352995E+22	5,245598E+20	5,245237E+20	2,705907E+22	1,049083E+21	2,810815E+22
960	1,353023E+22	1,352954E+22	5,244255E+20	5,245556E+20	2,705977E+22	1,048981E+21	2,810875E+22
961	1,353008E+22	1,353023E+22	5,245526E+20	5,243950E+20	2,706031E+22	1,048948E+21	2,810926E+22
962	1,353007E+22	1,353072E+22	5,244760E+20	5,245470E+20	2,706079E+22	1,049023E+21	2,810981E+22
963	1,353078E+22	1,353008E+22	5,244386E+20	5,244874E+20	2,706087E+22	1,048926E+21	2,810979E+22
964	1,353006E+22	1,353074E+22	5,245751E+20	5,244159E+20	2,706080E+22	1,048991E+21	2,810979E+22
965	1,353031E+22	1,353019E+22	5,244379E+20	5,245791E+20	2,706050E+22	1,049017E+21	2,810951E+22
966	1,353031E+22	1,352955E+22	5,245139E+20	5,244675E+20	2,705987E+22	1,048981E+21	2,810885E+22
967	1,352912E+22	1,353003E+22	5,246026E+20	5,245160E+20	2,705915E+22	1,049119E+21	2,810827E+22
968	1,352927E+22	1,352886E+22	5,244677E+20	5,246413E+20	2,705813E+22	1,049109E+21	2,810724E+22
969	1,352863E+22	1,352839E+22	5,246180E+20	5,245058E+20	2,705702E+22	1,049124E+21	2,810615E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
970	1,352781E+22	1,352844E+22	5,246108E+20	5,246349E+20	2,705625E+22	1,049246E+21	2,810550E+22
971	1,352829E+22	1,352736E+22	5,245514E+20	5,246442E+20	2,705564E+22	1,049196E+21	2,810484E+22
972	1,352738E+22	1,352778E+22	5,247100E+20	5,245303E+20	2,705517E+22	1,049240E+21	2,810441E+22
973	1,352731E+22	1,352761E+22	5,245886E+20	5,247028E+20	2,705491E+22	1,049291E+21	2,810420E+22
974	1,352774E+22	1,352707E+22	5,245995E+20	5,246084E+20	2,705481E+22	1,049208E+21	2,810401E+22
975	1,352705E+22	1,352803E+22	5,246873E+20	5,245651E+20	2,705508E+22	1,049252E+21	2,810433E+22
976	1,352794E+22	1,352768E+22	5,245199E+20	5,246879E+20	2,705562E+22	1,049208E+21	2,810483E+22
977	1,352836E+22	1,352787E+22	5,246023E+20	5,244995E+20	2,705623E+22	1,049102E+21	2,810533E+22
978	1,352807E+22	1,352894E+22	5,246191E+20	5,245613E+20	2,705701E+22	1,049180E+21	2,810619E+22
979	1,352908E+22	1,352860E+22	5,244870E+20	5,246017E+20	2,705768E+22	1,049089E+21	2,810677E+22
980	1,352884E+22	1,352919E+22	5,246103E+20	5,244513E+20	2,705803E+22	1,049062E+21	2,810710E+22
981	1,352890E+22	1,352939E+22	5,245269E+20	5,246051E+20	2,705829E+22	1,049132E+21	2,810742E+22
982	1,352967E+22	1,352877E+22	5,244814E+20	5,245417E+20	2,705844E+22	1,049023E+21	2,810747E+22
983	1,352886E+22	1,352947E+22	5,246281E+20	5,244714E+20	2,705833E+22	1,049099E+21	2,810743E+22
984	1,352903E+22	1,352899E+22	5,244942E+20	5,246405E+20	2,705801E+22	1,049135E+21	2,810715E+22
985	1,352893E+22	1,352829E+22	5,245636E+20	5,245262E+20	2,705721E+22	1,049090E+21	2,810630E+22
986	1,352763E+22	1,352859E+22	5,246680E+20	5,245800E+20	2,705622E+22	1,049248E+21	2,810547E+22
987	1,352790E+22	1,352748E+22	5,245352E+20	5,246992E+20	2,705537E+22	1,049234E+21	2,810461E+22
988	1,352731E+22	1,352705E+22	5,246845E+20	5,245614E+20	2,705436E+22	1,049246E+21	2,810360E+22
989	1,352657E+22	1,352702E+22	5,246732E+20	5,246925E+20	2,705359E+22	1,049366E+21	2,810296E+22
990	1,352704E+22	1,352610E+22	5,246016E+20	5,247071E+20	2,705314E+22	1,049309E+21	2,810245E+22
991	1,352605E+22	1,352658E+22	5,247592E+20	5,245979E+20	2,705263E+22	1,049357E+21	2,810199E+22
992	1,352609E+22	1,352642E+22	5,246367E+20	5,247656E+20	2,705252E+22	1,049402E+21	2,810192E+22
993	1,352665E+22	1,352588E+22	5,246383E+20	5,246467E+20	2,705253E+22	1,049285E+21	2,810181E+22
994	1,352595E+22	1,352685E+22	5,247449E+20	5,245985E+20	2,705280E+22	1,049343E+21	2,810214E+22
995	1,352688E+22	1,352671E+22	5,245819E+20	5,247175E+20	2,705359E+22	1,049299E+21	2,810289E+22
996	1,352719E+22	1,352694E+22	5,246595E+20	5,245434E+20	2,705413E+22	1,049203E+21	2,810333E+22
997	1,352688E+22	1,352780E+22	5,246685E+20	5,246195E+20	2,705468E+22	1,049288E+21	2,810397E+22
998	1,352797E+22	1,352743E+22	5,245237E+20	5,246629E+20	2,705540E+22	1,049187E+21	2,810458E+22
999	1,352775E+22	1,352800E+22	5,246493E+20	5,245107E+20	2,705575E+22	1,049160E+21	2,810491E+22
1000	1,352790E+22	1,352824E+22	5,245735E+20	5,246559E+20	2,705614E+22	1,049229E+21	2,810536E+22
1001	1,352861E+22	1,352763E+22	5,245269E+20	5,245823E+20	2,705624E+22	1,049109E+21	2,810535E+22
1002	1,352755E+22	1,352825E+22	5,246943E+20	5,245266E+20	2,705581E+22	1,049221E+21	2,810503E+22
1003	1,352758E+22	1,352778E+22	5,245641E+20	5,247008E+20	2,705536E+22	1,049265E+21	2,810463E+22
1004	1,352745E+22	1,352693E+22	5,246302E+20	5,245964E+20	2,705438E+22	1,049227E+21	2,810360E+22
1005	1,352628E+22	1,352698E+22	5,247275E+20	5,246464E+20	2,705326E+22	1,049374E+21	2,810263E+22
1006	1,352666E+22	1,352599E+22	5,245887E+20	5,247596E+20	2,705265E+22	1,049348E+21	2,810200E+22
1007	1,352605E+22	1,352571E+22	5,247404E+20	5,246211E+20	2,705176E+22	1,049361E+21	2,810113E+22
1008	1,352530E+22	1,352583E+22	5,247306E+20	5,247516E+20	2,705112E+22	1,049482E+21	2,810061E+22
1009	1,352571E+22	1,352494E+22	5,246503E+20	5,247566E+20	2,705066E+22	1,049407E+21	2,810006E+22
1010	1,352469E+22	1,352533E+22	5,248199E+20	5,246494E+20	2,705002E+22	1,049469E+21	2,809949E+22
1011	1,352482E+22	1,352528E+22	5,247003E+20	5,248031E+20	2,705010E+22	1,049503E+21	2,809960E+22
1012	1,352547E+22	1,352477E+22	5,246978E+20	5,246898E+20	2,705023E+22	1,049388E+21	2,809962E+22
1013	1,352486E+22	1,352560E+22	5,247972E+20	5,246473E+20	2,705047E+22	1,049444E+21	2,809991E+22
1014	1,352580E+22	1,352561E+22	5,246223E+20	5,247769E+20	2,705141E+22	1,049399E+21	2,810081E+22
1015	1,352608E+22	1,352584E+22	5,246945E+20	5,246105E+20	2,705192E+22	1,049305E+21	2,810123E+22
1016	1,352589E+22	1,352668E+22	5,247037E+20	5,246806E+20	2,705257E+22	1,049384E+21	2,810195E+22
1017	1,352703E+22	1,352632E+22	5,245563E+20	5,246994E+20	2,705336E+22	1,049256E+21	2,810261E+22
1018	1,352671E+22	1,352686E+22	5,247070E+20	5,245496E+20	2,705357E+22	1,049257E+21	2,810283E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1019	1,352671E+22	1,352723E+22	5,246437E+20	5,246889E+20	2,705394E+22	1,049333E+21	2,810328E+22
1020	1,352722E+22	1,352655E+22	5,245952E+20	5,246387E+20	2,705377E+22	1,049234E+21	2,810301E+22
1021	1,352611E+22	1,352682E+22	5,247554E+20	5,245958E+20	2,705294E+22	1,049351E+21	2,810229E+22
1022	1,352621E+22	1,352631E+22	5,246143E+20	5,247726E+20	2,705253E+22	1,049387E+21	2,810191E+22
1023	1,352614E+22	1,352545E+22	5,246802E+20	5,246642E+20	2,705159E+22	1,049344E+21	2,810094E+22
1024	1,352513E+22	1,352560E+22	5,247808E+20	5,247051E+20	2,705073E+22	1,049486E+21	2,810022E+22
1025	1,352548E+22	1,352474E+22	5,246426E+20	5,248039E+20	2,705022E+22	1,049446E+21	2,809967E+22
1026	1,352465E+22	1,352449E+22	5,248104E+20	5,246801E+20	2,704915E+22	1,049491E+21	2,809864E+22
1027	1,352383E+22	1,352469E+22	5,248024E+20	5,248042E+20	2,704852E+22	1,049607E+21	2,809813E+22
1028	1,352428E+22	1,352369E+22	5,247148E+20	5,248166E+20	2,704797E+22	1,049531E+21	2,809750E+22
1029	1,352342E+22	1,352386E+22	5,248734E+20	5,247036E+20	2,704728E+22	1,049577E+21	2,809686E+22
1030	1,352370E+22	1,352397E+22	5,247455E+20	5,248521E+20	2,704767E+22	1,049598E+21	2,809726E+22
1031	1,352435E+22	1,352361E+22	5,247394E+20	5,247433E+20	2,704796E+22	1,049483E+21	2,809744E+22
1032	1,352385E+22	1,352455E+22	5,248332E+20	5,247053E+20	2,704840E+22	1,049539E+21	2,809794E+22
1033	1,352480E+22	1,352459E+22	5,246547E+20	5,248213E+20	2,704939E+22	1,049476E+21	2,809887E+22
1034	1,352504E+22	1,352479E+22	5,247409E+20	5,246579E+20	2,704984E+22	1,049399E+21	2,809923E+22
1035	1,352486E+22	1,352573E+22	5,247608E+20	5,247079E+20	2,705059E+22	1,049469E+21	2,810006E+22
1036	1,352594E+22	1,352534E+22	5,246183E+20	5,247363E+20	2,705128E+22	1,049355E+21	2,810064E+22
1037	1,352553E+22	1,352563E+22	5,247683E+20	5,246004E+20	2,705115E+22	1,049369E+21	2,810052E+22
1038	1,352539E+22	1,352601E+22	5,246980E+20	5,247532E+20	2,705140E+22	1,049451E+21	2,810085E+22
1039	1,352582E+22	1,352521E+22	5,246463E+20	5,247171E+20	2,705103E+22	1,049363E+21	2,810039E+22
1040	1,352489E+22	1,352535E+22	5,248006E+20	5,246682E+20	2,705024E+22	1,049469E+21	2,809971E+22
1041	1,352505E+22	1,352490E+22	5,246597E+20	5,248201E+20	2,704995E+22	1,049480E+21	2,809943E+22
1042	1,352490E+22	1,352411E+22	5,247441E+20	5,247153E+20	2,704901E+22	1,049459E+21	2,809847E+22
1043	1,352375E+22	1,352446E+22	5,248552E+20	5,247459E+20	2,704821E+22	1,049601E+21	2,809781E+22
1044	1,352397E+22	1,352359E+22	5,247168E+20	5,248649E+20	2,704756E+22	1,049582E+21	2,809714E+22
1045	1,352314E+22	1,352305E+22	5,248753E+20	5,247499E+20	2,704618E+22	1,049625E+21	2,809581E+22
1046	1,352243E+22	1,352326E+22	5,248544E+20	5,248678E+20	2,704569E+22	1,049722E+21	2,809541E+22
1047	1,352301E+22	1,352229E+22	5,247616E+20	5,248769E+20	2,704530E+22	1,049638E+21	2,809494E+22
1048	1,352240E+22	1,352255E+22	5,249124E+20	5,247566E+20	2,704494E+22	1,049669E+21	2,809461E+22
1049	1,352271E+22	1,352287E+22	5,247830E+20	5,248902E+20	2,704558E+22	1,049673E+21	2,809525E+22
1050	1,352324E+22	1,352261E+22	5,247887E+20	5,247958E+20	2,704586E+22	1,049585E+21	2,809544E+22
1051	1,352273E+22	1,352366E+22	5,248882E+20	5,247461E+20	2,704639E+22	1,049634E+21	2,809603E+22
1052	1,352372E+22	1,352363E+22	5,247116E+20	5,248649E+20	2,704734E+22	1,049577E+21	2,809692E+22
1053	1,352399E+22	1,352359E+22	5,247934E+20	5,246999E+20	2,704758E+22	1,049493E+21	2,809708E+22
1054	1,352380E+22	1,352460E+22	5,248118E+20	5,247477E+20	2,704840E+22	1,049559E+21	2,809796E+22
1055	1,352471E+22	1,352422E+22	5,246698E+20	5,247896E+20	2,704892E+22	1,049459E+21	2,809838E+22
1056	1,352431E+22	1,352442E+22	5,248118E+20	5,246683E+20	2,704873E+22	1,049480E+21	2,809821E+22
1057	1,352417E+22	1,352473E+22	5,247388E+20	5,248085E+20	2,704890E+22	1,049547E+21	2,809844E+22
1058	1,352455E+22	1,352387E+22	5,247006E+20	5,247799E+20	2,704842E+22	1,049480E+21	2,809790E+22
1059	1,352367E+22	1,352413E+22	5,248619E+20	5,247108E+20	2,704780E+22	1,049573E+21	2,809737E+22
1060	1,352380E+22	1,352367E+22	5,247311E+20	5,248699E+20	2,704747E+22	1,049601E+21	2,809707E+22
1061	1,352352E+22	1,352273E+22	5,248130E+20	5,247778E+20	2,704626E+22	1,049591E+21	2,809585E+22
1062	1,352228E+22	1,352313E+22	5,249167E+20	5,248149E+20	2,704541E+22	1,049732E+21	2,809514E+22
1063	1,352244E+22	1,352217E+22	5,247754E+20	5,249410E+20	2,704462E+22	1,049716E+21	2,809433E+22
1064	1,352186E+22	1,352154E+22	5,249208E+20	5,248196E+20	2,704340E+22	1,049740E+21	2,809314E+22
1065	1,352128E+22	1,352187E+22	5,248962E+20	5,249079E+20	2,704315E+22	1,049804E+21	2,809295E+22
1066	1,352184E+22	1,352107E+22	5,248177E+20	5,249222E+20	2,704291E+22	1,049740E+21	2,809265E+22
1067	1,352122E+22	1,352158E+22	5,249704E+20	5,247907E+20	2,704280E+22	1,049761E+21	2,809256E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1068	1,352150E+22	1,352193E+22	5,248446E+20	5,249397E+20	2,704344E+22	1,049784E+21	2,809322E+22
1069	1,352205E+22	1,352147E+22	5,248415E+20	5,248503E+20	2,704351E+22	1,049692E+21	2,809320E+22
1070	1,352164E+22	1,352254E+22	5,249334E+20	5,247925E+20	2,704419E+22	1,049726E+21	2,809391E+22
1071	1,352264E+22	1,352252E+22	5,247586E+20	5,249100E+20	2,704516E+22	1,049669E+21	2,809483E+22
1072	1,352304E+22	1,352243E+22	5,248331E+20	5,247509E+20	2,704547E+22	1,049584E+21	2,809506E+22
1073	1,352273E+22	1,352351E+22	5,248511E+20	5,247910E+20	2,704624E+22	1,049642E+21	2,809588E+22
1074	1,352345E+22	1,352311E+22	5,247199E+20	5,248552E+20	2,704656E+22	1,049575E+21	2,809613E+22
1075	1,352305E+22	1,352327E+22	5,248653E+20	5,247225E+20	2,704632E+22	1,049588E+21	2,809591E+22
1076	1,352297E+22	1,352348E+22	5,248001E+20	5,248630E+20	2,704644E+22	1,049663E+21	2,809611E+22
1077	1,352333E+22	1,352244E+22	5,247617E+20	5,248321E+20	2,704578E+22	1,049594E+21	2,809537E+22
1078	1,352241E+22	1,352282E+22	5,249229E+20	5,247613E+20	2,704523E+22	1,049684E+21	2,809491E+22
1079	1,352236E+22	1,352240E+22	5,247968E+20	5,249321E+20	2,704476E+22	1,049729E+21	2,809449E+22
1080	1,352212E+22	1,352136E+22	5,248669E+20	5,248548E+20	2,704347E+22	1,049722E+21	2,809319E+22
1081	1,352090E+22	1,352173E+22	5,249647E+20	5,248728E+20	2,704263E+22	1,049838E+21	2,809246E+22
1082	1,352106E+22	1,352079E+22	5,248337E+20	5,250014E+20	2,704185E+22	1,049835E+21	2,809169E+22
1083	1,352059E+22	1,352031E+22	5,249818E+20	5,248581E+20	2,704090E+22	1,049840E+21	2,809074E+22
1084	1,352009E+22	1,352070E+22	5,249639E+20	5,249510E+20	2,704079E+22	1,049915E+21	2,809070E+22
1085	1,352057E+22	1,351986E+22	5,248795E+20	5,249777E+20	2,704043E+22	1,049857E+21	2,809029E+22
1086	1,351999E+22	1,352046E+22	5,250197E+20	5,248519E+20	2,704045E+22	1,049872E+21	2,809032E+22
1087	1,352030E+22	1,352076E+22	5,248955E+20	5,250012E+20	2,704106E+22	1,049897E+21	2,809096E+22
1088	1,352107E+22	1,352026E+22	5,248757E+20	5,249068E+20	2,704133E+22	1,049783E+21	2,809112E+22
1089	1,352074E+22	1,352142E+22	5,249656E+20	5,248229E+20	2,704216E+22	1,049789E+21	2,809195E+22
1090	1,352157E+22	1,352149E+22	5,248076E+20	5,249490E+20	2,704306E+22	1,049757E+21	2,809282E+22
1091	1,352187E+22	1,352153E+22	5,248853E+20	5,247894E+20	2,704341E+22	1,049675E+21	2,809308E+22
1092	1,352152E+22	1,352248E+22	5,249111E+20	5,248450E+20	2,704399E+22	1,049756E+21	2,809375E+22
1093	1,352218E+22	1,352182E+22	5,247771E+20	5,249163E+20	2,704399E+22	1,049693E+21	2,809369E+22
1094	1,352189E+22	1,352197E+22	5,249142E+20	5,247770E+20	2,704386E+22	1,049691E+21	2,809355E+22
1095	1,352177E+22	1,352217E+22	5,248590E+20	5,249153E+20	2,704393E+22	1,049774E+21	2,809371E+22
1096	1,352219E+22	1,352112E+22	5,248130E+20	5,248940E+20	2,704331E+22	1,049707E+21	2,809302E+22
1097	1,352113E+22	1,352156E+22	5,249741E+20	5,248170E+20	2,704268E+22	1,049791E+21	2,809248E+22
1098	1,352086E+22	1,352112E+22	5,248621E+20	5,250040E+20	2,704199E+22	1,049866E+21	2,809185E+22
1099	1,352065E+22	1,352006E+22	5,249331E+20	5,249149E+20	2,704071E+22	1,049848E+21	2,809056E+22
1100	1,351955E+22	1,352034E+22	5,250332E+20	5,249279E+20	2,703989E+22	1,049961E+21	2,808985E+22
1101	1,351970E+22	1,351931E+22	5,249000E+20	5,250539E+20	2,703901E+22	1,049954E+21	2,808896E+22
1102	1,351930E+22	1,351899E+22	5,250385E+20	5,249089E+20	2,703828E+22	1,049947E+21	2,808823E+22
1103	1,351874E+22	1,351948E+22	5,250231E+20	5,250119E+20	2,703823E+22	1,050035E+21	2,808826E+22
1104	1,351939E+22	1,351862E+22	5,249213E+20	5,250479E+20	2,703801E+22	1,049969E+21	2,808798E+22
1105	1,351892E+22	1,351929E+22	5,250526E+20	5,249011E+20	2,703820E+22	1,049954E+21	2,808816E+22
1106	1,351925E+22	1,351969E+22	5,249400E+20	5,250471E+20	2,703894E+22	1,049987E+21	2,808892E+22
1107	1,352008E+22	1,351931E+22	5,249239E+20	5,249339E+20	2,703940E+22	1,049858E+21	2,808925E+22
1108	1,351973E+22	1,352047E+22	5,250231E+20	5,248575E+20	2,704021E+22	1,049881E+21	2,809009E+22
1109	1,352034E+22	1,352043E+22	5,248652E+20	5,249987E+20	2,704077E+22	1,049864E+21	2,809063E+22
1110	1,352064E+22	1,352040E+22	5,249345E+20	5,248498E+20	2,704105E+22	1,049784E+21	2,809083E+22
1111	1,352030E+22	1,352121E+22	5,249662E+20	5,249081E+20	2,704151E+22	1,049874E+21	2,809139E+22
1112	1,352115E+22	1,352046E+22	5,248187E+20	5,249783E+20	2,704161E+22	1,049797E+21	2,809140E+22
1113	1,352087E+22	1,352070E+22	5,249542E+20	5,248199E+20	2,704157E+22	1,049774E+21	2,809134E+22
1114	1,352053E+22	1,352101E+22	5,249181E+20	5,249674E+20	2,704153E+22	1,049886E+21	2,809142E+22
1115	1,352080E+22	1,352005E+22	5,248770E+20	5,249471E+20	2,704085E+22	1,049824E+21	2,809068E+22
1116	1,351969E+22	1,352031E+22	5,250458E+20	5,248812E+20	2,704001E+22	1,049927E+21	2,808993E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1117	1,351932E+22	1,351966E+22	5,249329E+20	5,250687E+20	2,703897E+22	1,050002E+21	2,808897E+22
1118	1,351926E+22	1,351858E+22	5,249939E+20	5,249757E+20	2,703785E+22	1,049970E+21	2,808782E+22
1119	1,351821E+22	1,351885E+22	5,250987E+20	5,249852E+20	2,703706E+22	1,050084E+21	2,808714E+22
1120	1,351849E+22	1,351790E+22	5,249501E+20	5,251202E+20	2,703638E+22	1,050070E+21	2,808645E+22
1121	1,351810E+22	1,351774E+22	5,250757E+20	5,249681E+20	2,703584E+22	1,050044E+21	2,808588E+22
1122	1,351748E+22	1,351831E+22	5,250732E+20	5,250775E+20	2,703579E+22	1,050151E+21	2,808594E+22
1123	1,351824E+22	1,351758E+22	5,249722E+20	5,250923E+20	2,703582E+22	1,050064E+21	2,808589E+22
1124	1,351792E+22	1,351822E+22	5,251079E+20	5,249357E+20	2,703614E+22	1,050044E+21	2,808618E+22
1125	1,351811E+22	1,351858E+22	5,250010E+20	5,250765E+20	2,703669E+22	1,050077E+21	2,808677E+22
1126	1,351892E+22	1,351829E+22	5,249767E+20	5,249716E+20	2,703721E+22	1,049948E+21	2,808716E+22
1127	1,351847E+22	1,351938E+22	5,250790E+20	5,249132E+20	2,703785E+22	1,049992E+21	2,808784E+22
1128	1,351919E+22	1,351921E+22	5,249048E+20	5,250680E+20	2,703840E+22	1,049973E+21	2,808837E+22
1129	1,351960E+22	1,351918E+22	5,249637E+20	5,249053E+20	2,703878E+22	1,049869E+21	2,808865E+22
1130	1,351926E+22	1,352003E+22	5,250111E+20	5,249616E+20	2,703929E+22	1,049973E+21	2,808926E+22
1131	1,352010E+22	1,351940E+22	5,248734E+20	5,250170E+20	2,703950E+22	1,049890E+21	2,808939E+22
1132	1,351974E+22	1,351961E+22	5,250191E+20	5,248692E+20	2,703935E+22	1,049888E+21	2,808924E+22
1133	1,351907E+22	1,351978E+22	5,249888E+20	5,250284E+20	2,703884E+22	1,050017E+21	2,808886E+22
1134	1,351931E+22	1,351869E+22	5,249425E+20	5,250183E+20	2,703800E+22	1,049961E+21	2,808797E+22
1135	1,351823E+22	1,351879E+22	5,251141E+20	5,249531E+20	2,703702E+22	1,050067E+21	2,808709E+22
1136	1,351804E+22	1,351805E+22	5,249839E+20	5,251351E+20	2,703609E+22	1,050119E+21	2,808621E+22
1137	1,351803E+22	1,351711E+22	5,250379E+20	5,250268E+20	2,703514E+22	1,050065E+21	2,808520E+22
1138	1,351689E+22	1,351756E+22	5,251527E+20	5,250438E+20	2,703446E+22	1,050196E+21	2,808465E+22
1139	1,351716E+22	1,351680E+22	5,250087E+20	5,251726E+20	2,703396E+22	1,050181E+21	2,808415E+22
1140	1,351687E+22	1,351662E+22	5,251354E+20	5,250219E+20	2,703349E+22	1,050157E+21	2,808365E+22
1141	1,351619E+22	1,351712E+22	5,251354E+20	5,251220E+20	2,703331E+22	1,050257E+21	2,808357E+22
1142	1,351708E+22	1,351645E+22	5,250275E+20	5,251304E+20	2,703353E+22	1,050158E+21	2,808369E+22
1143	1,351678E+22	1,351707E+22	5,251671E+20	5,249780E+20	2,703385E+22	1,050145E+21	2,808400E+22
1144	1,351701E+22	1,351742E+22	5,250432E+20	5,251304E+20	2,703443E+22	1,050174E+21	2,808461E+22
1145	1,351781E+22	1,351719E+22	5,250070E+20	5,250308E+20	2,703500E+22	1,050038E+21	2,808504E+22
1146	1,351735E+22	1,351824E+22	5,251178E+20	5,249820E+20	2,703559E+22	1,050100E+21	2,808569E+22
1147	1,351819E+22	1,351814E+22	5,249491E+20	5,251171E+20	2,703633E+22	1,050066E+21	2,808640E+22
1148	1,351871E+22	1,351808E+22	5,250123E+20	5,249455E+20	2,703679E+22	1,049958E+21	2,808675E+22
1149	1,351811E+22	1,351889E+22	5,250731E+20	5,249970E+20	2,703700E+22	1,050070E+21	2,808707E+22
1150	1,351883E+22	1,351832E+22	5,249359E+20	5,250630E+20	2,703715E+22	1,049999E+21	2,808715E+22
1151	1,351831E+22	1,351835E+22	5,250895E+20	5,249364E+20	2,703666E+22	1,050026E+21	2,808669E+22
1152	1,351765E+22	1,351833E+22	5,250441E+20	5,251019E+20	2,703598E+22	1,050146E+21	2,808612E+22
1153	1,351799E+22	1,351722E+22	5,249856E+20	5,250843E+20	2,703520E+22	1,050070E+21	2,808527E+22
1154	1,351693E+22	1,351730E+22	5,251663E+20	5,250153E+20	2,703423E+22	1,050182E+21	2,808441E+22
1155	1,351678E+22	1,351676E+22	5,250443E+20	5,251811E+20	2,703354E+22	1,050225E+21	2,808377E+22
1156	1,351678E+22	1,351589E+22	5,251003E+20	5,250784E+20	2,703267E+22	1,050179E+21	2,808285E+22
1157	1,351542E+22	1,351632E+22	5,252204E+20	5,251024E+20	2,703173E+22	1,050323E+21	2,808206E+22
1158	1,351577E+22	1,351556E+22	5,250744E+20	5,252331E+20	2,703134E+22	1,050308E+21	2,808164E+22
1159	1,351558E+22	1,351531E+22	5,251994E+20	5,250818E+20	2,703089E+22	1,050281E+21	2,808117E+22
1160	1,351507E+22	1,351579E+22	5,251809E+20	5,251716E+20	2,703086E+22	1,050353E+21	2,808121E+22
1161	1,351600E+22	1,351526E+22	5,250620E+20	5,251735E+20	2,703125E+22	1,050236E+21	2,808149E+22
1162	1,351562E+22	1,351597E+22	5,252063E+20	5,250338E+20	2,703159E+22	1,050240E+21	2,808183E+22
1163	1,351588E+22	1,351644E+22	5,250867E+20	5,251809E+20	2,703231E+22	1,050268E+21	2,808258E+22
1164	1,351680E+22	1,351615E+22	5,250511E+20	5,250819E+20	2,703295E+22	1,050133E+21	2,808309E+22
1165	1,351628E+22	1,351713E+22	5,251679E+20	5,250255E+20	2,703341E+22	1,050193E+21	2,808361E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1166	1,351720E+22	1,351706E+22	5,250060E+20	5,251520E+20	2,703426E+22	1,050158E+21	2,808442E+22
1167	1,351763E+22	1,351697E+22	5,250761E+20	5,249918E+20	2,703460E+22	1,050068E+21	2,808467E+22
1168	1,351693E+22	1,351769E+22	5,251229E+20	5,250527E+20	2,703463E+22	1,050176E+21	2,808480E+22
1169	1,351750E+22	1,351707E+22	5,249797E+20	5,251287E+20	2,703458E+22	1,050108E+21	2,808469E+22
1170	1,351693E+22	1,351698E+22	5,251417E+20	5,250132E+20	2,703391E+22	1,050155E+21	2,808407E+22
1171	1,351637E+22	1,351697E+22	5,251012E+20	5,251565E+20	2,703334E+22	1,050258E+21	2,808360E+22
1172	1,351679E+22	1,351585E+22	5,250462E+20	5,251315E+20	2,703264E+22	1,050178E+21	2,808282E+22
1173	1,351553E+22	1,351594E+22	5,252334E+20	5,250609E+20	2,703147E+22	1,050294E+21	2,808176E+22
1174	1,351534E+22	1,351549E+22	5,251145E+20	5,252348E+20	2,703083E+22	1,050349E+21	2,808118E+22
1175	1,351529E+22	1,351458E+22	5,251713E+20	5,251505E+20	2,702988E+22	1,050322E+21	2,808020E+22
1176	1,351406E+22	1,351491E+22	5,252710E+20	5,251713E+20	2,702897E+22	1,050442E+21	2,807941E+22
1177	1,351457E+22	1,351423E+22	5,251154E+20	5,252917E+20	2,702879E+22	1,050407E+21	2,807920E+22
1178	1,351444E+22	1,351404E+22	5,252440E+20	5,251377E+20	2,702848E+22	1,050382E+21	2,807886E+22
1179	1,351399E+22	1,351471E+22	5,252293E+20	5,252100E+20	2,702870E+22	1,050439E+21	2,807914E+22
1180	1,351492E+22	1,351425E+22	5,251086E+20	5,252184E+20	2,702918E+22	1,050327E+21	2,807950E+22
1181	1,351437E+22	1,351489E+22	5,252574E+20	5,250852E+20	2,702926E+22	1,050343E+21	2,807960E+22
1182	1,351477E+22	1,351536E+22	5,251431E+20	5,252291E+20	2,703012E+22	1,050372E+21	2,808050E+22
1183	1,351578E+22	1,351502E+22	5,251081E+20	5,251306E+20	2,703080E+22	1,050239E+21	2,808104E+22
1184	1,351532E+22	1,351593E+22	5,252111E+20	5,250661E+20	2,703125E+22	1,050277E+21	2,808153E+22
1185	1,351615E+22	1,351598E+22	5,250460E+20	5,251933E+20	2,703212E+22	1,050239E+21	2,808236E+22
1186	1,351638E+22	1,351586E+22	5,251221E+20	5,250539E+20	2,703224E+22	1,050176E+21	2,808242E+22
1187	1,351563E+22	1,351657E+22	5,251766E+20	5,251092E+20	2,703220E+22	1,050286E+21	2,808249E+22
1188	1,351624E+22	1,351583E+22	5,250347E+20	5,251854E+20	2,703207E+22	1,050220E+21	2,808229E+22
1189	1,351555E+22	1,351560E+22	5,252036E+20	5,250667E+20	2,703115E+22	1,050270E+21	2,808142E+22
1190	1,351507E+22	1,351559E+22	5,251713E+20	5,252029E+20	2,703066E+22	1,050374E+21	2,808104E+22
1191	1,351543E+22	1,351447E+22	5,251193E+20	5,251944E+20	2,702990E+22	1,050314E+21	2,808021E+22
1192	1,351414E+22	1,351452E+22	5,252850E+20	5,251327E+20	2,702866E+22	1,050418E+21	2,807908E+22
1193	1,351394E+22	1,351411E+22	5,251622E+20	5,253123E+20	2,702806E+22	1,050475E+21	2,807853E+22
1194	1,351395E+22	1,351318E+22	5,252208E+20	5,252300E+20	2,702714E+22	1,050451E+21	2,807759E+22
1195	1,351290E+22	1,351363E+22	5,253222E+20	5,252200E+20	2,702653E+22	1,050542E+21	2,807707E+22
1196	1,351348E+22	1,351304E+22	5,251699E+20	5,253253E+20	2,702652E+22	1,050495E+21	2,807702E+22
1197	1,351316E+22	1,351291E+22	5,253032E+20	5,251734E+20	2,702606E+22	1,050477E+21	2,807654E+22
1198	1,351271E+22	1,351364E+22	5,252933E+20	5,252500E+20	2,702635E+22	1,050543E+21	2,807689E+22
1199	1,351364E+22	1,351315E+22	5,251716E+20	5,252782E+20	2,702679E+22	1,050450E+21	2,807724E+22
1200	1,351328E+22	1,351368E+22	5,252941E+20	5,251418E+20	2,702696E+22	1,050436E+21	2,807740E+22
1201	1,351381E+22	1,351420E+22	5,251781E+20	5,252773E+20	2,702801E+22	1,050455E+21	2,807847E+22
1202	1,351483E+22	1,351393E+22	5,251473E+20	5,251797E+20	2,702875E+22	1,050327E+21	2,807908E+22
1203	1,351435E+22	1,351496E+22	5,252568E+20	5,251038E+20	2,702932E+22	1,050361E+21	2,807968E+22
1204	1,351502E+22	1,351501E+22	5,250961E+20	5,252375E+20	2,703003E+22	1,050334E+21	2,808036E+22
1205	1,351499E+22	1,351471E+22	5,251809E+20	5,251143E+20	2,702970E+22	1,050295E+21	2,807999E+22
1206	1,351430E+22	1,351528E+22	5,252437E+20	5,251654E+20	2,702959E+22	1,050409E+21	2,808000E+22
1207	1,351495E+22	1,351445E+22	5,251038E+20	5,252481E+20	2,702940E+22	1,050352E+21	2,807975E+22
1208	1,351431E+22	1,351410E+22	5,252527E+20	5,251237E+20	2,702841E+22	1,050376E+21	2,807879E+22
1209	1,351378E+22	1,351420E+22	5,252205E+20	5,252637E+20	2,702798E+22	1,050484E+21	2,807847E+22
1210	1,351402E+22	1,351313E+22	5,251712E+20	5,252714E+20	2,702715E+22	1,050443E+21	2,807759E+22
1211	1,351280E+22	1,351324E+22	5,253400E+20	5,251986E+20	2,702603E+22	1,050539E+21	2,807657E+22
1212	1,351269E+22	1,351285E+22	5,252209E+20	5,253653E+20	2,702553E+22	1,050586E+21	2,807612E+22
1213	1,351260E+22	1,351189E+22	5,252871E+20	5,252763E+20	2,702449E+22	1,050563E+21	2,807505E+22
1214	1,351163E+22	1,351241E+22	5,253954E+20	5,252537E+20	2,702404E+22	1,050649E+21	2,807469E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1215	1,351215E+22	1,351187E+22	5,252415E+20	5,253751E+20	2,702402E+22	1,050617E+21	2,807463E+22
1216	1,351182E+22	1,351164E+22	5,253481E+20	5,252337E+20	2,702346E+22	1,050582E+21	2,807404E+22
1217	1,351149E+22	1,351240E+22	5,253331E+20	5,253179E+20	2,702389E+22	1,050651E+21	2,807454E+22
1218	1,351256E+22	1,351193E+22	5,252094E+20	5,253457E+20	2,702449E+22	1,050555E+21	2,807504E+22
1219	1,351242E+22	1,351259E+22	5,253301E+20	5,251842E+20	2,702501E+22	1,050514E+21	2,807552E+22
1220	1,351296E+22	1,351323E+22	5,252220E+20	5,253042E+20	2,702619E+22	1,050526E+21	2,807671E+22
1221	1,351366E+22	1,351298E+22	5,251998E+20	5,252161E+20	2,702663E+22	1,050416E+21	2,807705E+22
1222	1,351310E+22	1,351397E+22	5,253201E+20	5,251472E+20	2,702707E+22	1,050467E+21	2,807753E+22
1223	1,351367E+22	1,351386E+22	5,251631E+20	5,252999E+20	2,702754E+22	1,050463E+21	2,807800E+22
1224	1,351373E+22	1,351332E+22	5,252267E+20	5,251797E+20	2,702706E+22	1,050406E+21	2,807746E+22
1225	1,351315E+22	1,351386E+22	5,252900E+20	5,252270E+20	2,702702E+22	1,050517E+21	2,807753E+22
1226	1,351376E+22	1,351307E+22	5,251542E+20	5,253135E+20	2,702683E+22	1,050468E+21	2,807730E+22
1227	1,351314E+22	1,351284E+22	5,253016E+20	5,251813E+20	2,702598E+22	1,050483E+21	2,807647E+22
1228	1,351249E+22	1,351299E+22	5,252773E+20	5,253200E+20	2,702548E+22	1,050597E+21	2,807608E+22
1229	1,351252E+22	1,351185E+22	5,252397E+20	5,253366E+20	2,702437E+22	1,050576E+21	2,807494E+22
1230	1,351142E+22	1,351190E+22	5,254176E+20	5,252499E+20	2,702332E+22	1,050668E+21	2,807398E+22
1231	1,351130E+22	1,351151E+22	5,253019E+20	5,254165E+20	2,702281E+22	1,050718E+21	2,807353E+22
1232	1,351125E+22	1,351048E+22	5,253424E+20	5,253271E+20	2,702173E+22	1,050670E+21	2,807240E+22
1233	1,351029E+22	1,351106E+22	5,254436E+20	5,253127E+20	2,702135E+22	1,050756E+21	2,807211E+22
1234	1,351078E+22	1,351059E+22	5,252856E+20	5,254476E+20	2,702137E+22	1,050733E+21	2,807211E+22
1235	1,351070E+22	1,351045E+22	5,253832E+20	5,252951E+20	2,702114E+22	1,050678E+21	2,807182E+22
1236	1,351055E+22	1,351130E+22	5,253724E+20	5,253609E+20	2,702185E+22	1,050733E+21	2,807258E+22
1237	1,351154E+22	1,351090E+22	5,252596E+20	5,253822E+20	2,702245E+22	1,050642E+21	2,807309E+22
1238	1,351146E+22	1,351164E+22	5,253906E+20	5,252109E+20	2,702310E+22	1,050601E+21	2,807370E+22
1239	1,351183E+22	1,351231E+22	5,252872E+20	5,253474E+20	2,702414E+22	1,050635E+21	2,807477E+22
1240	1,351240E+22	1,351185E+22	5,252433E+20	5,252758E+20	2,702425E+22	1,050519E+21	2,807477E+22
1241	1,351188E+22	1,351269E+22	5,253643E+20	5,252179E+20	2,702457E+22	1,050582E+21	2,807516E+22
1242	1,351248E+22	1,351252E+22	5,252082E+20	5,253691E+20	2,702500E+22	1,050577E+21	2,807558E+22
1243	1,351270E+22	1,351202E+22	5,252695E+20	5,252317E+20	2,702473E+22	1,050501E+21	2,807523E+22
1244	1,351209E+22	1,351264E+22	5,253421E+20	5,252658E+20	2,702474E+22	1,050608E+21	2,807535E+22
1245	1,351237E+22	1,351188E+22	5,252201E+20	5,253641E+20	2,702425E+22	1,050584E+21	2,807484E+22
1246	1,351169E+22	1,351164E+22	5,253772E+20	5,252364E+20	2,702333E+22	1,050614E+21	2,807395E+22
1247	1,351099E+22	1,351170E+22	5,253566E+20	5,253864E+20	2,702269E+22	1,050743E+21	2,807343E+22
1248	1,351106E+22	1,351036E+22	5,252988E+20	5,254027E+20	2,702141E+22	1,050702E+21	2,807212E+22
1249	1,351009E+22	1,351040E+22	5,254742E+20	5,253140E+20	2,702049E+22	1,050788E+21	2,807128E+22
1250	1,350996E+22	1,351008E+22	5,253566E+20	5,254793E+20	2,702004E+22	1,050836E+21	2,807088E+22
1251	1,350999E+22	1,350919E+22	5,253860E+20	5,253890E+20	2,701918E+22	1,050775E+21	2,806996E+22
1252	1,350907E+22	1,350984E+22	5,254866E+20	5,253696E+20	2,701891E+22	1,050856E+21	2,806977E+22
1253	1,350951E+22	1,350940E+22	5,253387E+20	5,255071E+20	2,701890E+22	1,050846E+21	2,806975E+22
1254	1,350966E+22	1,350934E+22	5,254408E+20	5,253347E+20	2,701900E+22	1,050775E+21	2,806977E+22
1255	1,350956E+22	1,351028E+22	5,254360E+20	5,253966E+20	2,701984E+22	1,050833E+21	2,807067E+22
1256	1,351048E+22	1,350985E+22	5,253062E+20	5,254172E+20	2,702032E+22	1,050723E+21	2,807105E+22
1257	1,351034E+22	1,351058E+22	5,254351E+20	5,252627E+20	2,702092E+22	1,050698E+21	2,807162E+22
1258	1,351056E+22	1,351121E+22	5,253323E+20	5,254092E+20	2,702177E+22	1,050741E+21	2,807251E+22
1259	1,351129E+22	1,351069E+22	5,252800E+20	5,253375E+20	2,702198E+22	1,050617E+21	2,807260E+22
1260	1,351087E+22	1,351149E+22	5,254067E+20	5,252636E+20	2,702236E+22	1,050670E+21	2,807303E+22
1261	1,351134E+22	1,351134E+22	5,252668E+20	5,254136E+20	2,702268E+22	1,050680E+21	2,807336E+22
1262	1,351157E+22	1,351088E+22	5,253372E+20	5,252701E+20	2,702245E+22	1,050607E+21	2,807306E+22
1263	1,351076E+22	1,351150E+22	5,254150E+20	5,253223E+20	2,702226E+22	1,050737E+21	2,807299E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1264	1,351089E+22	1,351054E+22	5,252775E+20	5,254355E+20	2,702143E+22	1,050713E+21	2,807214E+22
1265	1,351029E+22	1,351014E+22	5,254345E+20	5,253188E+20	2,702044E+22	1,050753E+21	2,807119E+22
1266	1,350960E+22	1,351019E+22	5,254140E+20	5,254573E+20	2,701979E+22	1,050871E+21	2,807066E+22
1267	1,350985E+22	1,350892E+22	5,253484E+20	5,254612E+20	2,701877E+22	1,050810E+21	2,806958E+22
1268	1,350886E+22	1,350906E+22	5,255250E+20	5,253583E+20	2,701792E+22	1,050883E+21	2,806880E+22
1269	1,350849E+22	1,350884E+22	5,254172E+20	5,255323E+20	2,701733E+22	1,050950E+21	2,806828E+22
1270	1,350862E+22	1,350799E+22	5,254509E+20	5,254406E+20	2,701661E+22	1,050891E+21	2,806751E+22
1271	1,350781E+22	1,350867E+22	5,255513E+20	5,254260E+20	2,701648E+22	1,050977E+21	2,806746E+22
1272	1,350835E+22	1,350816E+22	5,253890E+20	5,255565E+20	2,701652E+22	1,050946E+21	2,806746E+22
1273	1,350868E+22	1,350816E+22	5,254879E+20	5,253839E+20	2,701684E+22	1,050872E+21	2,806771E+22
1274	1,350849E+22	1,350920E+22	5,254826E+20	5,254412E+20	2,701770E+22	1,050924E+21	2,806862E+22
1275	1,350941E+22	1,350884E+22	5,253418E+20	5,254679E+20	2,701825E+22	1,050810E+21	2,806906E+22
1276	1,350924E+22	1,350952E+22	5,254728E+20	5,253146E+20	2,701876E+22	1,050787E+21	2,806955E+22
1277	1,350934E+22	1,351006E+22	5,253847E+20	5,254629E+20	2,701940E+22	1,050848E+21	2,807024E+22
1278	1,351021E+22	1,350955E+22	5,253404E+20	5,253789E+20	2,701976E+22	1,050719E+21	2,807048E+22
1279	1,350980E+22	1,351035E+22	5,254696E+20	5,253082E+20	2,702015E+22	1,050778E+21	2,807093E+22
1280	1,351009E+22	1,351008E+22	5,253211E+20	5,254624E+20	2,702017E+22	1,050784E+21	2,807096E+22
1281	1,351027E+22	1,350959E+22	5,253886E+20	5,253394E+20	2,701986E+22	1,050728E+21	2,807059E+22
1282	1,350934E+22	1,351016E+22	5,254677E+20	5,253940E+20	2,701949E+22	1,050862E+21	2,807035E+22
1283	1,350961E+22	1,350916E+22	5,253244E+20	5,255057E+20	2,701877E+22	1,050830E+21	2,806960E+22
1284	1,350909E+22	1,350875E+22	5,254866E+20	5,253734E+20	2,701784E+22	1,050860E+21	2,806870E+22
1285	1,350824E+22	1,350885E+22	5,254813E+20	5,255052E+20	2,701708E+22	1,050986E+21	2,806807E+22
1286	1,350850E+22	1,350767E+22	5,254227E+20	5,255053E+20	2,701617E+22	1,050928E+21	2,806710E+22
1287	1,350742E+22	1,350782E+22	5,255948E+20	5,254179E+20	2,701525E+22	1,051013E+21	2,806626E+22
1288	1,350701E+22	1,350745E+22	5,254752E+20	5,255987E+20	2,701446E+22	1,051074E+21	2,806553E+22
1289	1,350738E+22	1,350659E+22	5,255024E+20	5,255117E+20	2,701397E+22	1,051014E+21	2,806499E+22
1290	1,350668E+22	1,350738E+22	5,255992E+20	5,254800E+20	2,701406E+22	1,051079E+21	2,806514E+22
1291	1,350741E+22	1,350703E+22	5,254301E+20	5,256004E+20	2,701444E+22	1,051031E+21	2,806547E+22
1292	1,350768E+22	1,350715E+22	5,255278E+20	5,254187E+20	2,701482E+22	1,050946E+21	2,806577E+22
1293	1,350723E+22	1,350825E+22	5,255340E+20	5,254838E+20	2,701548E+22	1,051018E+21	2,806650E+22
1294	1,350820E+22	1,350786E+22	5,253984E+20	5,255109E+20	2,701606E+22	1,050909E+21	2,806697E+22
1295	1,350809E+22	1,350843E+22	5,255286E+20	5,253665E+20	2,701653E+22	1,050895E+21	2,806742E+22
1296	1,350821E+22	1,350882E+22	5,254338E+20	5,255102E+20	2,701703E+22	1,050944E+21	2,806797E+22
1297	1,350921E+22	1,350829E+22	5,253891E+20	5,254342E+20	2,701750E+22	1,050823E+21	2,806832E+22
1298	1,350867E+22	1,350915E+22	5,255163E+20	5,253630E+20	2,701782E+22	1,050879E+21	2,806870E+22
1299	1,350893E+22	1,350890E+22	5,253629E+20	5,255271E+20	2,701784E+22	1,050890E+21	2,806873E+22
1300	1,350904E+22	1,350833E+22	5,254336E+20	5,254036E+20	2,701738E+22	1,050837E+21	2,806821E+22
1301	1,350797E+22	1,350884E+22	5,255299E+20	5,254521E+20	2,701681E+22	1,050982E+21	2,806779E+22
1302	1,350831E+22	1,350787E+22	5,253988E+20	5,255488E+20	2,701619E+22	1,050948E+21	2,806714E+22
1303	1,350775E+22	1,350746E+22	5,255635E+20	5,254223E+20	2,701521E+22	1,050986E+21	2,806620E+22
1304	1,350670E+22	1,350743E+22	5,255489E+20	5,255580E+20	2,701414E+22	1,051107E+21	2,806524E+22
1305	1,350699E+22	1,350623E+22	5,254836E+20	5,255804E+20	2,701322E+22	1,051064E+21	2,806429E+22
1306	1,350596E+22	1,350638E+22	5,256453E+20	5,254912E+20	2,701234E+22	1,051137E+21	2,806348E+22
1307	1,350583E+22	1,350608E+22	5,255183E+20	5,256661E+20	2,701191E+22	1,051184E+21	2,806309E+22
1308	1,350636E+22	1,350537E+22	5,255435E+20	5,255597E+20	2,701173E+22	1,051103E+21	2,806283E+22
1309	1,350558E+22	1,350629E+22	5,256533E+20	5,255167E+20	2,701187E+22	1,051170E+21	2,806304E+22
1310	1,350628E+22	1,350610E+22	5,254927E+20	5,256313E+20	2,701239E+22	1,051124E+21	2,806351E+22
1311	1,350646E+22	1,350621E+22	5,255835E+20	5,254699E+20	2,701267E+22	1,051053E+21	2,806372E+22
1312	1,350592E+22	1,350705E+22	5,255835E+20	5,255395E+20	2,701297E+22	1,051123E+21	2,806409E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1313	1,350709E+22	1,350659E+22	5,254446E+20	5,255736E+20	2,701368E+22	1,051018E+21	2,806470E+22
1314	1,350708E+22	1,350719E+22	5,255691E+20	5,254157E+20	2,701427E+22	1,050985E+21	2,806525E+22
1315	1,350731E+22	1,350766E+22	5,254731E+20	5,255561E+20	2,701497E+22	1,051029E+21	2,806600E+22
1316	1,350819E+22	1,350723E+22	5,254279E+20	5,254780E+20	2,701541E+22	1,050906E+21	2,806632E+22
1317	1,350737E+22	1,350808E+22	5,255695E+20	5,254150E+20	2,701545E+22	1,050984E+21	2,806643E+22
1318	1,350762E+22	1,350781E+22	5,254306E+20	5,255753E+20	2,701544E+22	1,051006E+21	2,806644E+22
1319	1,350773E+22	1,350713E+22	5,255026E+20	5,254631E+20	2,701487E+22	1,050966E+21	2,806583E+22
1320	1,350657E+22	1,350742E+22	5,255982E+20	5,255046E+20	2,701399E+22	1,051103E+21	2,806509E+22
1321	1,350697E+22	1,350642E+22	5,254666E+20	5,256121E+20	2,701339E+22	1,051079E+21	2,806447E+22
1322	1,350628E+22	1,350603E+22	5,256212E+20	5,254884E+20	2,701231E+22	1,051110E+21	2,806342E+22
1323	1,350532E+22	1,350599E+22	5,255964E+20	5,256353E+20	2,701132E+22	1,051232E+21	2,806255E+22
1324	1,350568E+22	1,350480E+22	5,255283E+20	5,256518E+20	2,701048E+22	1,051180E+21	2,806167E+22
1325	1,350469E+22	1,350504E+22	5,256977E+20	5,255506E+20	2,700973E+22	1,051248E+21	2,806098E+22
1326	1,350473E+22	1,350494E+22	5,255843E+20	5,257023E+20	2,700967E+22	1,051287E+21	2,806096E+22
1327	1,350522E+22	1,350434E+22	5,256074E+20	5,255979E+20	2,700956E+22	1,051205E+21	2,806076E+22
1328	1,350425E+22	1,350517E+22	5,257109E+20	5,255557E+20	2,700942E+22	1,051267E+21	2,806069E+22
1329	1,350498E+22	1,350495E+22	5,255463E+20	5,256876E+20	2,700993E+22	1,051234E+21	2,806117E+22
1330	1,350519E+22	1,350501E+22	5,256265E+20	5,255274E+20	2,701019E+22	1,051154E+21	2,806135E+22
1331	1,350492E+22	1,350583E+22	5,256192E+20	5,255961E+20	2,701075E+22	1,051215E+21	2,806197E+22
1332	1,350620E+22	1,350546E+22	5,254800E+20	5,256180E+20	2,701166E+22	1,051098E+21	2,806276E+22
1333	1,350610E+22	1,350616E+22	5,256142E+20	5,254560E+20	2,701225E+22	1,051070E+21	2,806332E+22
1334	1,350624E+22	1,350675E+22	5,255337E+20	5,255926E+20	2,701299E+22	1,051126E+21	2,806412E+22
1335	1,350695E+22	1,350626E+22	5,254877E+20	5,255354E+20	2,701320E+22	1,051023E+21	2,806423E+22
1336	1,350597E+22	1,350679E+22	5,256316E+20	5,254756E+20	2,701276E+22	1,051107E+21	2,806387E+22
1337	1,350632E+22	1,350641E+22	5,254952E+20	5,256402E+20	2,701273E+22	1,051135E+21	2,806387E+22
1338	1,350641E+22	1,350571E+22	5,255614E+20	5,255236E+20	2,701212E+22	1,051085E+21	2,806320E+22
1339	1,350531E+22	1,350597E+22	5,256517E+20	5,255674E+20	2,701128E+22	1,051219E+21	2,806250E+22
1340	1,350561E+22	1,350504E+22	5,255150E+20	5,256761E+20	2,701065E+22	1,051191E+21	2,806184E+22
1341	1,350481E+22	1,350465E+22	5,256728E+20	5,255559E+20	2,700946E+22	1,051229E+21	2,806069E+22
1342	1,350397E+22	1,350470E+22	5,256625E+20	5,256895E+20	2,700866E+22	1,051352E+21	2,806002E+22
1343	1,350443E+22	1,350359E+22	5,255925E+20	5,257072E+20	2,700802E+22	1,051300E+21	2,805932E+22
1344	1,350341E+22	1,350374E+22	5,257628E+20	5,255940E+20	2,700715E+22	1,051357E+21	2,805851E+22
1345	1,350353E+22	1,350372E+22	5,256520E+20	5,257496E+20	2,700725E+22	1,051402E+21	2,805865E+22
1346	1,350390E+22	1,350320E+22	5,256605E+20	5,256504E+20	2,700709E+22	1,051311E+21	2,805841E+22
1347	1,350302E+22	1,350395E+22	5,257510E+20	5,256206E+20	2,700698E+22	1,051372E+21	2,805835E+22
1348	1,350384E+22	1,350373E+22	5,255808E+20	5,257459E+20	2,700757E+22	1,051327E+21	2,805890E+22
1349	1,350414E+22	1,350383E+22	5,256646E+20	5,255767E+20	2,700797E+22	1,051241E+21	2,805921E+22
1350	1,350403E+22	1,350483E+22	5,256751E+20	5,256267E+20	2,700886E+22	1,051302E+21	2,806016E+22
1351	1,350523E+22	1,350457E+22	5,255361E+20	5,256558E+20	2,700980E+22	1,051192E+21	2,806099E+22
1352	1,350487E+22	1,350511E+22	5,256690E+20	5,255017E+20	2,700998E+22	1,051171E+21	2,806115E+22
1353	1,350499E+22	1,350560E+22	5,255924E+20	5,256524E+20	2,701059E+22	1,051245E+21	2,806184E+22
1354	1,350563E+22	1,350501E+22	5,255391E+20	5,255987E+20	2,701064E+22	1,051138E+21	2,806177E+22
1355	1,350483E+22	1,350541E+22	5,256784E+20	5,255418E+20	2,701025E+22	1,051220E+21	2,806147E+22
1356	1,350518E+22	1,350505E+22	5,255438E+20	5,256938E+20	2,701022E+22	1,051238E+21	2,806146E+22
1357	1,350512E+22	1,350439E+22	5,256171E+20	5,255806E+20	2,700951E+22	1,051198E+21	2,806071E+22
1358	1,350397E+22	1,350474E+22	5,257178E+20	5,256211E+20	2,700872E+22	1,051339E+21	2,806006E+22
1359	1,350416E+22	1,350377E+22	5,255804E+20	5,257439E+20	2,700794E+22	1,051324E+21	2,805926E+22
1360	1,350333E+22	1,350317E+22	5,257372E+20	5,256196E+20	2,700650E+22	1,051357E+21	2,805786E+22
1361	1,350268E+22	1,350326E+22	5,257318E+20	5,257473E+20	2,700594E+22	1,051479E+21	2,805742E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1362	1,350313E+22	1,350228E+22	5,256564E+20	5,257566E+20	2,700541E+22	1,051413E+21	2,805682E+22
1363	1,350220E+22	1,350246E+22	5,258152E+20	5,256491E+20	2,700465E+22	1,051464E+21	2,805612E+22
1364	1,350221E+22	1,350253E+22	5,256971E+20	5,258031E+20	2,700474E+22	1,051500E+21	2,805624E+22
1365	1,350254E+22	1,350201E+22	5,257036E+20	5,257112E+20	2,700455E+22	1,051415E+21	2,805597E+22
1366	1,350188E+22	1,350283E+22	5,258023E+20	5,256683E+20	2,700470E+22	1,051471E+21	2,805617E+22
1367	1,350282E+22	1,350269E+22	5,256310E+20	5,257920E+20	2,700551E+22	1,051423E+21	2,805693E+22
1368	1,350311E+22	1,350270E+22	5,257159E+20	5,256158E+20	2,700581E+22	1,051332E+21	2,805714E+22
1369	1,350305E+22	1,350377E+22	5,257323E+20	5,256710E+20	2,700682E+22	1,051403E+21	2,805822E+22
1370	1,350406E+22	1,350357E+22	5,255850E+20	5,257091E+20	2,700762E+22	1,051294E+21	2,805892E+22
1371	1,350374E+22	1,350391E+22	5,257097E+20	5,255711E+20	2,700766E+22	1,051281E+21	2,805894E+22
1372	1,350385E+22	1,350436E+22	5,256336E+20	5,257108E+20	2,700821E+22	1,051344E+21	2,805955E+22
1373	1,350448E+22	1,350374E+22	5,255852E+20	5,256533E+20	2,700822E+22	1,051239E+21	2,805946E+22
1374	1,350371E+22	1,350421E+22	5,257434E+20	5,255815E+20	2,700792E+22	1,051325E+21	2,805924E+22
1375	1,350388E+22	1,350391E+22	5,256095E+20	5,257406E+20	2,700779E+22	1,051350E+21	2,805914E+22
1376	1,350359E+22	1,350304E+22	5,256830E+20	5,256383E+20	2,700663E+22	1,051321E+21	2,805795E+22
1377	1,350250E+22	1,350331E+22	5,257870E+20	5,256880E+20	2,700581E+22	1,051475E+21	2,805729E+22
1378	1,350270E+22	1,350236E+22	5,256439E+20	5,258109E+20	2,700506E+22	1,051455E+21	2,805651E+22
1379	1,350209E+22	1,350170E+22	5,257902E+20	5,256888E+20	2,700379E+22	1,051479E+21	2,805527E+22
1380	1,350148E+22	1,350191E+22	5,257842E+20	5,257999E+20	2,700340E+22	1,051584E+21	2,805498E+22
1381	1,350184E+22	1,350106E+22	5,257091E+20	5,258128E+20	2,700289E+22	1,051522E+21	2,805441E+22
1382	1,350090E+22	1,350134E+22	5,258734E+20	5,257020E+20	2,700225E+22	1,051575E+21	2,805382E+22
1383	1,350089E+22	1,350140E+22	5,257513E+20	5,258604E+20	2,700229E+22	1,051612E+21	2,805390E+22
1384	1,350125E+22	1,350071E+22	5,257561E+20	5,257656E+20	2,700196E+22	1,051522E+21	2,805348E+22
1385	1,350086E+22	1,350158E+22	5,258572E+20	5,257155E+20	2,700244E+22	1,051573E+21	2,805402E+22
1386	1,350180E+22	1,350160E+22	5,256846E+20	5,258326E+20	2,700340E+22	1,051517E+21	2,805491E+22
1387	1,350216E+22	1,350162E+22	5,257549E+20	5,256671E+20	2,700378E+22	1,051422E+21	2,805520E+22
1388	1,350198E+22	1,350273E+22	5,257683E+20	5,257192E+20	2,700472E+22	1,051487E+21	2,805621E+22
1389	1,350287E+22	1,350250E+22	5,256252E+20	5,257633E+20	2,700536E+22	1,051389E+21	2,805675E+22
1390	1,350266E+22	1,350284E+22	5,257621E+20	5,256182E+20	2,700550E+22	1,051380E+21	2,805688E+22
1391	1,350272E+22	1,350326E+22	5,256917E+20	5,257517E+20	2,700598E+22	1,051443E+21	2,805742E+22
1392	1,350320E+22	1,350247E+22	5,256514E+20	5,256986E+20	2,700567E+22	1,051350E+21	2,805702E+22
1393	1,350243E+22	1,350290E+22	5,258126E+20	5,256361E+20	2,700533E+22	1,051449E+21	2,805678E+22
1394	1,350239E+22	1,350260E+22	5,256731E+20	5,258086E+20	2,700498E+22	1,051482E+21	2,805646E+22
1395	1,350220E+22	1,350152E+22	5,257320E+20	5,257224E+20	2,700372E+22	1,051454E+21	2,805518E+22
1396	1,350120E+22	1,350180E+22	5,258323E+20	5,257579E+20	2,700300E+22	1,051590E+21	2,805459E+22
1397	1,350144E+22	1,350096E+22	5,256966E+20	5,258737E+20	2,700239E+22	1,051570E+21	2,805397E+22
1398	1,350090E+22	1,350047E+22	5,258553E+20	5,257384E+20	2,700137E+22	1,051594E+21	2,805296E+22
1399	1,350014E+22	1,350079E+22	5,258478E+20	5,258458E+20	2,700093E+22	1,051694E+21	2,805262E+22
1400	1,350031E+22	1,349977E+22	5,257725E+20	5,258687E+20	2,700008E+22	1,051641E+21	2,805172E+22
1401	1,349954E+22	1,350000E+22	5,259345E+20	5,257601E+20	2,699954E+22	1,051695E+21	2,805123E+22
1402	1,349961E+22	1,350014E+22	5,258061E+20	5,259142E+20	2,699975E+22	1,051720E+21	2,805147E+22
1403	1,350026E+22	1,349941E+22	5,257971E+20	5,258211E+20	2,699967E+22	1,051618E+21	2,805129E+22
1404	1,349995E+22	1,350046E+22	5,258950E+20	5,257581E+20	2,700041E+22	1,051653E+21	2,805207E+22
1405	1,350079E+22	1,350064E+22	5,257254E+20	5,258796E+20	2,700143E+22	1,051605E+21	2,805304E+22
1406	1,350110E+22	1,350072E+22	5,258018E+20	5,257150E+20	2,700183E+22	1,051517E+21	2,805334E+22
1407	1,350085E+22	1,350177E+22	5,258171E+20	5,257631E+20	2,700262E+22	1,051580E+21	2,805420E+22
1408	1,350164E+22	1,350130E+22	5,256810E+20	5,258074E+20	2,700294E+22	1,051488E+21	2,805443E+22
1409	1,350155E+22	1,350160E+22	5,258257E+20	5,256624E+20	2,700315E+22	1,051488E+21	2,805464E+22
1410	1,350146E+22	1,350207E+22	5,257566E+20	5,257982E+20	2,700353E+22	1,051555E+21	2,805508E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1411	1,350192E+22	1,350113E+22	5,257009E+20	5,257675E+20	2,700306E+22	1,051468E+21	2,805453E+22
1412	1,350110E+22	1,350153E+22	5,258534E+20	5,257066E+20	2,700263E+22	1,051560E+21	2,805419E+22
1413	1,350103E+22	1,350120E+22	5,257195E+20	5,258821E+20	2,700223E+22	1,051602E+21	2,805383E+22
1414	1,350100E+22	1,350020E+22	5,257877E+20	5,257852E+20	2,700120E+22	1,051573E+21	2,805277E+22
1415	1,350000E+22	1,350055E+22	5,258934E+20	5,258033E+20	2,700055E+22	1,051697E+21	2,805225E+22
1416	1,350006E+22	1,349964E+22	5,257706E+20	5,259207E+20	2,699970E+22	1,051691E+21	2,805139E+22
1417	1,349952E+22	1,349919E+22	5,259298E+20	5,257939E+20	2,699871E+22	1,051724E+21	2,805043E+22
1418	1,349858E+22	1,349951E+22	5,259163E+20	5,259077E+20	2,699809E+22	1,051824E+21	2,804992E+22
1419	1,349893E+22	1,349831E+22	5,258221E+20	5,259435E+20	2,699724E+22	1,051766E+21	2,804901E+22
1420	1,349839E+22	1,349858E+22	5,259707E+20	5,258180E+20	2,699697E+22	1,051789E+21	2,804876E+22
1421	1,349856E+22	1,349889E+22	5,258497E+20	5,259621E+20	2,699745E+22	1,051812E+21	2,804926E+22
1422	1,349931E+22	1,349844E+22	5,258456E+20	5,258595E+20	2,699775E+22	1,051705E+21	2,804945E+22
1423	1,349889E+22	1,349959E+22	5,259416E+20	5,257913E+20	2,699849E+22	1,051733E+21	2,805022E+22
1424	1,349951E+22	1,349963E+22	5,257817E+20	5,259227E+20	2,699914E+22	1,051704E+21	2,805085E+22
1425	1,349993E+22	1,349963E+22	5,258583E+20	5,257644E+20	2,699956E+22	1,051623E+21	2,805118E+22
1426	1,349963E+22	1,350064E+22	5,258734E+20	5,258104E+20	2,700027E+22	1,051684E+21	2,805196E+22
1427	1,350056E+22	1,350001E+22	5,257263E+20	5,258654E+20	2,700057E+22	1,051592E+21	2,805216E+22
1428	1,350049E+22	1,350032E+22	5,258649E+20	5,257182E+20	2,700081E+22	1,051583E+21	2,805239E+22
1429	1,350025E+22	1,350085E+22	5,258012E+20	5,258626E+20	2,700110E+22	1,051664E+21	2,805277E+22
1430	1,350070E+22	1,349994E+22	5,257507E+20	5,258370E+20	2,700064E+22	1,051588E+21	2,805222E+22
1431	1,349984E+22	1,350028E+22	5,259036E+20	5,257645E+20	2,700012E+22	1,051668E+21	2,805179E+22
1432	1,349969E+22	1,349981E+22	5,257870E+20	5,259348E+20	2,699951E+22	1,051722E+21	2,805123E+22
1433	1,349974E+22	1,349886E+22	5,258642E+20	5,258334E+20	2,699861E+22	1,051698E+21	2,805031E+22
1434	1,349856E+22	1,349931E+22	5,259717E+20	5,258511E+20	2,699787E+22	1,051823E+21	2,804969E+22
1435	1,349858E+22	1,349824E+22	5,258334E+20	5,259874E+20	2,699682E+22	1,051821E+21	2,804864E+22
1436	1,349803E+22	1,349775E+22	5,259783E+20	5,258632E+20	2,699578E+22	1,051842E+21	2,804762E+22
1437	1,349719E+22	1,349809E+22	5,259623E+20	5,259749E+20	2,699528E+22	1,051937E+21	2,804721E+22
1438	1,349778E+22	1,349703E+22	5,258704E+20	5,260007E+20	2,699481E+22	1,051871E+21	2,804668E+22
1439	1,349737E+22	1,349746E+22	5,260160E+20	5,258543E+20	2,699483E+22	1,051870E+21	2,804670E+22
1440	1,349745E+22	1,349781E+22	5,259113E+20	5,259996E+20	2,699527E+22	1,051911E+21	2,804718E+22
1441	1,349820E+22	1,349747E+22	5,259053E+20	5,259037E+20	2,699567E+22	1,051809E+21	2,804748E+22
1442	1,349763E+22	1,349861E+22	5,259980E+20	5,258428E+20	2,699624E+22	1,051841E+21	2,804808E+22
1443	1,349835E+22	1,349840E+22	5,258240E+20	5,259843E+20	2,699675E+22	1,051808E+21	2,804856E+22
1444	1,349891E+22	1,349837E+22	5,258907E+20	5,258195E+20	2,699728E+22	1,051710E+21	2,804899E+22
1445	1,349861E+22	1,349944E+22	5,259150E+20	5,258605E+20	2,699805E+22	1,051776E+21	2,804983E+22
1446	1,349953E+22	1,349895E+22	5,257748E+20	5,259156E+20	2,699848E+22	1,051690E+21	2,805017E+22
1447	1,349933E+22	1,349927E+22	5,259092E+20	5,257638E+20	2,699860E+22	1,051673E+21	2,805027E+22
1448	1,349889E+22	1,349962E+22	5,258646E+20	5,259164E+20	2,699850E+22	1,051781E+21	2,805029E+22
1449	1,349941E+22	1,349868E+22	5,258179E+20	5,258927E+20	2,699809E+22	1,051711E+21	2,804980E+22
1450	1,349850E+22	1,349899E+22	5,259754E+20	5,258171E+20	2,699749E+22	1,051792E+21	2,804928E+22
1451	1,349839E+22	1,349839E+22	5,258540E+20	5,259949E+20	2,699678E+22	1,051849E+21	2,804863E+22
1452	1,349841E+22	1,349747E+22	5,259208E+20	5,258980E+20	2,699588E+22	1,051819E+21	2,804770E+22
1453	1,349706E+22	1,349792E+22	5,260277E+20	5,259225E+20	2,699498E+22	1,051950E+21	2,804693E+22
1454	1,349713E+22	1,349689E+22	5,258882E+20	5,260622E+20	2,699401E+22	1,051950E+21	2,804597E+22
1455	1,349670E+22	1,349636E+22	5,260235E+20	5,259198E+20	2,699306E+22	1,051943E+21	2,804500E+22
1456	1,349591E+22	1,349669E+22	5,260243E+20	5,260234E+20	2,699260E+22	1,052048E+21	2,804465E+22
1457	1,349667E+22	1,349585E+22	5,259363E+20	5,260416E+20	2,699251E+22	1,051978E+21	2,804449E+22
1458	1,349617E+22	1,349643E+22	5,260781E+20	5,258975E+20	2,699260E+22	1,051976E+21	2,804458E+22
1459	1,349625E+22	1,349668E+22	5,259616E+20	5,260570E+20	2,699293E+22	1,052019E+21	2,804495E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1460	1,349703E+22	1,349633E+22	5,259402E+20	5,259632E+20	2,699335E+22	1,051903E+21	2,804526E+22
1461	1,349651E+22	1,349744E+22	5,260341E+20	5,258979E+20	2,699396E+22	1,051932E+21	2,804589E+22
1462	1,349738E+22	1,349732E+22	5,258654E+20	5,260305E+20	2,699471E+22	1,051896E+21	2,804660E+22
1463	1,349796E+22	1,349734E+22	5,259321E+20	5,258522E+20	2,699530E+22	1,051784E+21	2,804709E+22
1464	1,349749E+22	1,349836E+22	5,259776E+20	5,259018E+20	2,699585E+22	1,051879E+21	2,804773E+22
1465	1,349833E+22	1,349791E+22	5,258410E+20	5,259671E+20	2,699624E+22	1,051808E+21	2,804804E+22
1466	1,349799E+22	1,349812E+22	5,259720E+20	5,258256E+20	2,699612E+22	1,051798E+21	2,804791E+22
1467	1,349763E+22	1,349819E+22	5,259203E+20	5,259829E+20	2,699582E+22	1,051903E+21	2,804772E+22
1468	1,349820E+22	1,349726E+22	5,258668E+20	5,259547E+20	2,699546E+22	1,051821E+21	2,804728E+22
1469	1,349723E+22	1,349763E+22	5,260318E+20	5,258765E+20	2,699486E+22	1,051908E+21	2,804677E+22
1470	1,349705E+22	1,349713E+22	5,259152E+20	5,260554E+20	2,699417E+22	1,051971E+21	2,804614E+22
1471	1,349695E+22	1,349619E+22	5,259748E+20	5,259561E+20	2,699314E+22	1,051931E+21	2,804507E+22
1472	1,349551E+22	1,349647E+22	5,260949E+20	5,259855E+20	2,699199E+22	1,052080E+21	2,804407E+22
1473	1,349574E+22	1,349549E+22	5,259556E+20	5,261194E+20	2,699123E+22	1,052075E+21	2,804331E+22
1474	1,349541E+22	1,349505E+22	5,260860E+20	5,259723E+20	2,699045E+22	1,052058E+21	2,804251E+22
1475	1,349476E+22	1,349533E+22	5,260817E+20	5,260774E+20	2,699009E+22	1,052159E+21	2,804225E+22
1476	1,349555E+22	1,349468E+22	5,259823E+20	5,260983E+20	2,699023E+22	1,052081E+21	2,804231E+22
1477	1,349496E+22	1,349534E+22	5,261210E+20	5,259592E+20	2,699030E+22	1,052080E+21	2,804238E+22
1478	1,349511E+22	1,349562E+22	5,260060E+20	5,261154E+20	2,699072E+22	1,052121E+21	2,804285E+22
1479	1,349598E+22	1,349523E+22	5,259758E+20	5,260028E+20	2,699121E+22	1,051979E+21	2,804319E+22
1480	1,349544E+22	1,349628E+22	5,260903E+20	5,259340E+20	2,699173E+22	1,052024E+21	2,804375E+22
1481	1,349633E+22	1,349632E+22	5,259296E+20	5,260626E+20	2,699265E+22	1,051992E+21	2,804465E+22
1482	1,349677E+22	1,349635E+22	5,259932E+20	5,258975E+20	2,699312E+22	1,051891E+21	2,804501E+22
1483	1,349624E+22	1,349713E+22	5,260318E+20	5,259647E+20	2,699337E+22	1,051997E+21	2,804537E+22
1484	1,349710E+22	1,349663E+22	5,258829E+20	5,260365E+20	2,699373E+22	1,051919E+21	2,804565E+22
1485	1,349678E+22	1,349678E+22	5,260145E+20	5,258928E+20	2,699356E+22	1,051907E+21	2,804547E+22
1486	1,349651E+22	1,349692E+22	5,259712E+20	5,260399E+20	2,699343E+22	1,052011E+21	2,804544E+22
1487	1,349704E+22	1,349602E+22	5,259182E+20	5,259997E+20	2,699306E+22	1,051918E+21	2,804498E+22
1488	1,349584E+22	1,349633E+22	5,261041E+20	5,259325E+20	2,699217E+22	1,052037E+21	2,804420E+22
1489	1,349553E+22	1,349587E+22	5,259904E+20	5,261153E+20	2,699140E+22	1,052106E+21	2,804351E+22
1490	1,349539E+22	1,349480E+22	5,260439E+20	5,260266E+20	2,699020E+22	1,052071E+21	2,804227E+22
1491	1,349413E+22	1,349485E+22	5,261537E+20	5,260544E+20	2,698898E+22	1,052208E+21	2,804119E+22
1492	1,349453E+22	1,349402E+22	5,260063E+20	5,261805E+20	2,698854E+22	1,052187E+21	2,804073E+22
1493	1,349423E+22	1,349375E+22	5,261358E+20	5,260279E+20	2,698798E+22	1,052164E+21	2,804014E+22
1494	1,349361E+22	1,349423E+22	5,261331E+20	5,261308E+20	2,698784E+22	1,052264E+21	2,804010E+22
1495	1,349433E+22	1,349364E+22	5,260258E+20	5,261422E+20	2,698798E+22	1,052168E+21	2,804015E+22
1496	1,349370E+22	1,349421E+22	5,261779E+20	5,260077E+20	2,698791E+22	1,052186E+21	2,804009E+22
1497	1,349394E+22	1,349456E+22	5,260677E+20	5,261508E+20	2,698850E+22	1,052218E+21	2,804072E+22
1498	1,349485E+22	1,349419E+22	5,260343E+20	5,260437E+20	2,698904E+22	1,052078E+21	2,804112E+22
1499	1,349441E+22	1,349506E+22	5,261425E+20	5,259827E+20	2,698946E+22	1,052125E+21	2,804159E+22
1500	1,349525E+22	1,349519E+22	5,259723E+20	5,261220E+20	2,699044E+22	1,052094E+21	2,804253E+22
1501	1,349560E+22	1,349521E+22	5,260298E+20	5,259669E+20	2,699081E+22	1,051997E+21	2,804280E+22
1502	1,349515E+22	1,349594E+22	5,260707E+20	5,260309E+20	2,699109E+22	1,052102E+21	2,804319E+22
1503	1,349605E+22	1,349542E+22	5,259211E+20	5,260812E+20	2,699148E+22	1,052002E+21	2,804348E+22
1504	1,349564E+22	1,349553E+22	5,260778E+20	5,259385E+20	2,699117E+22	1,052016E+21	2,804319E+22
1505	1,349524E+22	1,349580E+22	5,260478E+20	5,260767E+20	2,699104E+22	1,052125E+21	2,804316E+22
1506	1,349556E+22	1,349486E+22	5,259927E+20	5,260570E+20	2,699042E+22	1,052050E+21	2,804247E+22
1507	1,349429E+22	1,349483E+22	5,261702E+20	5,260041E+20	2,698912E+22	1,052174E+21	2,804130E+22
1508	1,349406E+22	1,349433E+22	5,260445E+20	5,261897E+20	2,698839E+22	1,052234E+21	2,804063E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1509	1,349402E+22	1,349327E+22	5,260932E+20	5,260974E+20	2,698729E+22	1,052191E+21	2,803948E+22
1510	1,349296E+22	1,349345E+22	5,262045E+20	5,261143E+20	2,698642E+22	1,052319E+21	2,803874E+22
1511	1,349340E+22	1,349280E+22	5,260571E+20	5,262241E+20	2,698620E+22	1,052281E+21	2,803848E+22
1512	1,349295E+22	1,349260E+22	5,262009E+20	5,260816E+20	2,698555E+22	1,052283E+21	2,803783E+22
1513	1,349227E+22	1,349321E+22	5,262015E+20	5,261783E+20	2,698547E+22	1,052380E+21	2,803785E+22
1514	1,349301E+22	1,349252E+22	5,260866E+20	5,261969E+20	2,698553E+22	1,052284E+21	2,803781E+22
1515	1,349251E+22	1,349283E+22	5,262282E+20	5,260608E+20	2,698535E+22	1,052289E+21	2,803764E+22
1516	1,349288E+22	1,349332E+22	5,261095E+20	5,261991E+20	2,698620E+22	1,052309E+21	2,803851E+22
1517	1,349377E+22	1,349304E+22	5,260736E+20	5,260959E+20	2,698681E+22	1,052170E+21	2,803898E+22
1518	1,349338E+22	1,349400E+22	5,261791E+20	5,260401E+20	2,698738E+22	1,052219E+21	2,803960E+22
1519	1,349420E+22	1,349414E+22	5,260074E+20	5,261682E+20	2,698834E+22	1,052176E+21	2,804052E+22
1520	1,349448E+22	1,349407E+22	5,260800E+20	5,260183E+20	2,698856E+22	1,052098E+21	2,804066E+22
1521	1,349405E+22	1,349489E+22	5,261324E+20	5,260641E+20	2,698894E+22	1,052197E+21	2,804114E+22
1522	1,349487E+22	1,349434E+22	5,259885E+20	5,261231E+20	2,698921E+22	1,052112E+21	2,804132E+22
1523	1,349438E+22	1,349420E+22	5,261456E+20	5,259946E+20	2,698858E+22	1,052140E+21	2,804072E+22
1524	1,349383E+22	1,349449E+22	5,261079E+20	5,261441E+20	2,698832E+22	1,052252E+21	2,804057E+22
1525	1,349405E+22	1,349343E+22	5,260478E+20	5,261386E+20	2,698748E+22	1,052186E+21	2,803966E+22
1526	1,349295E+22	1,349329E+22	5,262177E+20	5,260820E+20	2,698624E+22	1,052300E+21	2,803854E+22
1527	1,349283E+22	1,349285E+22	5,260905E+20	5,262420E+20	2,698568E+22	1,052332E+21	2,803801E+22
1528	1,349278E+22	1,349190E+22	5,261566E+20	5,261495E+20	2,698468E+22	1,052306E+21	2,803699E+22
1529	1,349167E+22	1,349233E+22	5,262778E+20	5,261527E+20	2,698401E+22	1,052430E+21	2,803644E+22
1530	1,349197E+22	1,349173E+22	5,261304E+20	5,262792E+20	2,698371E+22	1,052410E+21	2,803612E+22
1531	1,349153E+22	1,349127E+22	5,262615E+20	5,261465E+20	2,698280E+22	1,052408E+21	2,803521E+22
1532	1,349095E+22	1,349188E+22	5,262496E+20	5,262367E+20	2,698283E+22	1,052486E+21	2,803532E+22
1533	1,349180E+22	1,349123E+22	5,261275E+20	5,262522E+20	2,698304E+22	1,052380E+21	2,803542E+22
1534	1,349156E+22	1,349161E+22	5,262642E+20	5,261103E+20	2,698317E+22	1,052374E+21	2,803554E+22
1535	1,349194E+22	1,349227E+22	5,261465E+20	5,262337E+20	2,698421E+22	1,052380E+21	2,803659E+22
1536	1,349270E+22	1,349207E+22	5,261233E+20	5,261463E+20	2,698476E+22	1,052270E+21	2,803703E+22
1537	1,349226E+22	1,349309E+22	5,262352E+20	5,260832E+20	2,698535E+22	1,052318E+21	2,803766E+22
1538	1,349306E+22	1,349312E+22	5,260670E+20	5,262169E+20	2,698618E+22	1,052284E+21	2,803847E+22
1539	1,349337E+22	1,349278E+22	5,261352E+20	5,260682E+20	2,698616E+22	1,052203E+21	2,803836E+22
1540	1,349291E+22	1,349366E+22	5,261875E+20	5,261098E+20	2,698657E+22	1,052297E+21	2,803887E+22
1541	1,349355E+22	1,349311E+22	5,260440E+20	5,261810E+20	2,698666E+22	1,052225E+21	2,803889E+22
1542	1,349304E+22	1,349289E+22	5,261956E+20	5,260677E+20	2,698593E+22	1,052263E+21	2,803819E+22
1543	1,349246E+22	1,349311E+22	5,261547E+20	5,262056E+20	2,698557E+22	1,052360E+21	2,803793E+22
1544	1,349265E+22	1,349198E+22	5,261074E+20	5,262068E+20	2,698463E+22	1,052314E+21	2,803695E+22
1545	1,349166E+22	1,349198E+22	5,262824E+20	5,261292E+20	2,698363E+22	1,052412E+21	2,803605E+22
1546	1,349156E+22	1,349158E+22	5,261635E+20	5,262931E+20	2,698314E+22	1,052457E+21	2,803560E+22
1547	1,349143E+22	1,349052E+22	5,262257E+20	5,262096E+20	2,698195E+22	1,052435E+21	2,803439E+22
1548	1,349027E+22	1,349106E+22	5,263359E+20	5,262171E+20	2,698134E+22	1,052553E+21	2,803389E+22
1549	1,349052E+22	1,349041E+22	5,261847E+20	5,263497E+20	2,698093E+22	1,052534E+21	2,803346E+22
1550	1,349031E+22	1,348989E+22	5,263030E+20	5,262128E+20	2,698020E+22	1,052516E+21	2,803272E+22
1551	1,348989E+22	1,349060E+22	5,262875E+20	5,262734E+20	2,698049E+22	1,052561E+21	2,803305E+22
1552	1,349072E+22	1,349009E+22	5,261799E+20	5,262924E+20	2,698081E+22	1,052472E+21	2,803329E+22
1553	1,349047E+22	1,349071E+22	5,263201E+20	5,261403E+20	2,698117E+22	1,052460E+21	2,803363E+22
1554	1,349078E+22	1,349137E+22	5,262070E+20	5,262802E+20	2,698215E+22	1,052487E+21	2,803464E+22
1555	1,349151E+22	1,349092E+22	5,261758E+20	5,262023E+20	2,698243E+22	1,052378E+21	2,803481E+22
1556	1,349116E+22	1,349194E+22	5,262796E+20	5,261344E+20	2,698310E+22	1,052414E+21	2,803551E+22
1557	1,349194E+22	1,349196E+22	5,261143E+20	5,262665E+20	2,698390E+22	1,052381E+21	2,803628E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1558	1,349237E+22	1,349157E+22	5,261782E+20	5,261256E+20	2,698394E+22	1,052304E+21	2,803624E+22
1559	1,349178E+22	1,349249E+22	5,262330E+20	5,261563E+20	2,698427E+22	1,052389E+21	2,803666E+22
1560	1,349220E+22	1,349192E+22	5,261023E+20	5,262486E+20	2,698412E+22	1,052351E+21	2,803647E+22
1561	1,349166E+22	1,349165E+22	5,262578E+20	5,261263E+20	2,698331E+22	1,052384E+21	2,803570E+22
1562	1,349112E+22	1,349175E+22	5,262227E+20	5,262660E+20	2,698286E+22	1,052489E+21	2,803535E+22
1563	1,349134E+22	1,349045E+22	5,261716E+20	5,262660E+20	2,698179E+22	1,052438E+21	2,803423E+22
1564	1,349036E+22	1,349057E+22	5,263431E+20	5,261829E+20	2,698093E+22	1,052526E+21	2,803346E+22
1565	1,349012E+22	1,349028E+22	5,262285E+20	5,263543E+20	2,698040E+22	1,052583E+21	2,803298E+22
1566	1,349005E+22	1,348919E+22	5,262786E+20	5,262832E+20	2,697924E+22	1,052562E+21	2,803180E+22
1567	1,348892E+22	1,348974E+22	5,263827E+20	5,262701E+20	2,697866E+22	1,052653E+21	2,803131E+22
1568	1,348919E+22	1,348912E+22	5,262406E+20	5,264045E+20	2,697831E+22	1,052645E+21	2,803095E+22
1569	1,348911E+22	1,348875E+22	5,263607E+20	5,262476E+20	2,697786E+22	1,052608E+21	2,803047E+22
1570	1,348877E+22	1,348951E+22	5,263519E+20	5,263132E+20	2,697828E+22	1,052665E+21	2,803094E+22
1571	1,348954E+22	1,348894E+22	5,262382E+20	5,263451E+20	2,697848E+22	1,052583E+21	2,803106E+22
1572	1,348931E+22	1,348963E+22	5,263649E+20	5,262000E+20	2,697894E+22	1,052565E+21	2,803151E+22
1573	1,348961E+22	1,349023E+22	5,262533E+20	5,263437E+20	2,697984E+22	1,052597E+21	2,803244E+22
1574	1,349055E+22	1,348971E+22	5,262084E+20	5,262639E+20	2,698025E+22	1,052472E+21	2,803273E+22
1575	1,349025E+22	1,349079E+22	5,263135E+20	5,261701E+20	2,698104E+22	1,052484E+21	2,803352E+22
1576	1,349086E+22	1,349088E+22	5,261687E+20	5,263081E+20	2,698174E+22	1,052477E+21	2,803422E+22
1577	1,349113E+22	1,349061E+22	5,262392E+20	5,261671E+20	2,698174E+22	1,052406E+21	2,803415E+22
1578	1,349045E+22	1,349137E+22	5,263007E+20	5,262136E+20	2,698182E+22	1,052514E+21	2,803434E+22
1579	1,349076E+22	1,349050E+22	5,261667E+20	5,263152E+20	2,698126E+22	1,052482E+21	2,803375E+22
1580	1,349035E+22	1,349022E+22	5,263104E+20	5,261871E+20	2,698056E+22	1,052497E+21	2,803306E+22
1581	1,348981E+22	1,349030E+22	5,262832E+20	5,263231E+20	2,698011E+22	1,052606E+21	2,803272E+22
1582	1,349014E+22	1,348905E+22	5,262257E+20	5,263312E+20	2,697919E+22	1,052557E+21	2,803174E+22
1583	1,348908E+22	1,348930E+22	5,263957E+20	5,262374E+20	2,697838E+22	1,052633E+21	2,803101E+22
1584	1,348864E+22	1,348903E+22	5,262947E+20	5,264231E+20	2,697768E+22	1,052718E+21	2,803040E+22
1585	1,348861E+22	1,348797E+22	5,263441E+20	5,263402E+20	2,697658E+22	1,052684E+21	2,802926E+22
1586	1,348761E+22	1,348842E+22	5,264482E+20	5,263223E+20	2,697603E+22	1,052771E+21	2,802880E+22
1587	1,348790E+22	1,348771E+22	5,263028E+20	5,264531E+20	2,697561E+22	1,052756E+21	2,802837E+22
1588	1,348792E+22	1,348751E+22	5,264114E+20	5,262945E+20	2,697543E+22	1,052706E+21	2,802813E+22
1589	1,348752E+22	1,348837E+22	5,264056E+20	5,263695E+20	2,697589E+22	1,052775E+21	2,802867E+22
1590	1,348844E+22	1,348779E+22	5,262760E+20	5,264140E+20	2,697623E+22	1,052690E+21	2,802892E+22
1591	1,348831E+22	1,348851E+22	5,263950E+20	5,262486E+20	2,697683E+22	1,052644E+21	2,802947E+22
1592	1,348861E+22	1,348918E+22	5,262982E+20	5,263894E+20	2,697779E+22	1,052688E+21	2,803048E+22
1593	1,348958E+22	1,348877E+22	5,262594E+20	5,262920E+20	2,697835E+22	1,052551E+21	2,803090E+22
1594	1,348921E+22	1,348981E+22	5,263770E+20	5,262061E+20	2,697902E+22	1,052583E+21	2,803160E+22
1595	1,348956E+22	1,348976E+22	5,262324E+20	5,263596E+20	2,697931E+22	1,052592E+21	2,803190E+22
1596	1,348978E+22	1,348938E+22	5,262943E+20	5,262324E+20	2,697916E+22	1,052527E+21	2,803169E+22
1597	1,348907E+22	1,348997E+22	5,263604E+20	5,262833E+20	2,697904E+22	1,052644E+21	2,803169E+22
1598	1,348959E+22	1,348900E+22	5,262127E+20	5,263862E+20	2,697859E+22	1,052599E+21	2,803119E+22
1599	1,348922E+22	1,348881E+22	5,263536E+20	5,262360E+20	2,697803E+22	1,052590E+21	2,803062E+22
1600	1,348851E+22	1,348904E+22	5,263458E+20	5,263784E+20	2,697755E+22	1,052724E+21	2,803028E+22
1601	1,348870E+22	1,348793E+22	5,262940E+20	5,263848E+20	2,697663E+22	1,052679E+21	2,802931E+22
1602	1,348760E+22	1,348805E+22	5,264693E+20	5,263017E+20	2,697566E+22	1,052771E+21	2,802843E+22
1603	1,348709E+22	1,348758E+22	5,263657E+20	5,264870E+20	2,697466E+22	1,052853E+21	2,802752E+22
1604	1,348723E+22	1,348652E+22	5,264014E+20	5,263997E+20	2,697376E+22	1,052801E+21	2,802656E+22
1605	1,348632E+22	1,348700E+22	5,265069E+20	5,263777E+20	2,697332E+22	1,052885E+21	2,802620E+22
1606	1,348678E+22	1,348638E+22	5,263474E+20	5,265159E+20	2,697316E+22	1,052863E+21	2,802603E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1607	1,348684E+22	1,348637E+22	5,264444E+20	5,263479E+20	2,697322E+22	1,052792E+21	2,802601E+22
1608	1,348639E+22	1,348731E+22	5,264529E+20	5,264306E+20	2,697369E+22	1,052883E+21	2,802658E+22
1609	1,348737E+22	1,348685E+22	5,263263E+20	5,264563E+20	2,697421E+22	1,052783E+21	2,802700E+22
1610	1,348737E+22	1,348750E+22	5,264485E+20	5,262842E+20	2,697487E+22	1,052733E+21	2,802760E+22
1611	1,348750E+22	1,348806E+22	5,263594E+20	5,264195E+20	2,697557E+22	1,052779E+21	2,802835E+22
1612	1,348841E+22	1,348773E+22	5,263137E+20	5,263311E+20	2,697614E+22	1,052645E+21	2,802879E+22
1613	1,348790E+22	1,348866E+22	5,264363E+20	5,262630E+20	2,697656E+22	1,052699E+21	2,802926E+22
1614	1,348830E+22	1,348846E+22	5,262772E+20	5,264327E+20	2,697676E+22	1,052710E+21	2,802947E+22
1615	1,348861E+22	1,348805E+22	5,263292E+20	5,262933E+20	2,697666E+22	1,052622E+21	2,802928E+22
1616	1,348790E+22	1,348865E+22	5,264101E+20	5,263430E+20	2,697655E+22	1,052753E+21	2,802931E+22
1617	1,348843E+22	1,348783E+22	5,262731E+20	5,264309E+20	2,697626E+22	1,052704E+21	2,802897E+22
1618	1,348802E+22	1,348762E+22	5,264228E+20	5,262886E+20	2,697564E+22	1,052711E+21	2,802835E+22
1619	1,348701E+22	1,348775E+22	5,264205E+20	5,264404E+20	2,697476E+22	1,052861E+21	2,802762E+22
1620	1,348718E+22	1,348657E+22	5,263608E+20	5,264575E+20	2,697374E+22	1,052818E+21	2,802656E+22
1621	1,348610E+22	1,348653E+22	5,265363E+20	5,263744E+20	2,697263E+22	1,052911E+21	2,802554E+22
1622	1,348581E+22	1,348601E+22	5,264149E+20	5,265543E+20	2,697182E+22	1,052969E+21	2,802479E+22
1623	1,348606E+22	1,348511E+22	5,264429E+20	5,264480E+20	2,697117E+22	1,052891E+21	2,802406E+22
1624	1,348511E+22	1,348578E+22	5,265595E+20	5,264313E+20	2,697089E+22	1,052991E+21	2,802388E+22
1625	1,348557E+22	1,348539E+22	5,264041E+20	5,265624E+20	2,697095E+22	1,052966E+21	2,802392E+22
1626	1,348569E+22	1,348534E+22	5,265008E+20	5,263966E+20	2,697103E+22	1,052897E+21	2,802393E+22
1627	1,348518E+22	1,348618E+22	5,265107E+20	5,264727E+20	2,697136E+22	1,052983E+21	2,802434E+22
1628	1,348627E+22	1,348576E+22	5,263773E+20	5,264930E+20	2,697203E+22	1,052870E+21	2,802490E+22
1629	1,348626E+22	1,348637E+22	5,265059E+20	5,263265E+20	2,697263E+22	1,052832E+21	2,802547E+22
1630	1,348642E+22	1,348691E+22	5,264034E+20	5,264736E+20	2,697334E+22	1,052877E+21	2,802621E+22
1631	1,348726E+22	1,348660E+22	5,263474E+20	5,263910E+20	2,697387E+22	1,052738E+21	2,802661E+22
1632	1,348669E+22	1,348745E+22	5,264802E+20	5,263358E+20	2,697414E+22	1,052816E+21	2,802696E+22
1633	1,348716E+22	1,348728E+22	5,263268E+20	5,264884E+20	2,697444E+22	1,052815E+21	2,802726E+22
1634	1,348758E+22	1,348681E+22	5,263823E+20	5,263413E+20	2,697440E+22	1,052724E+21	2,802712E+22
1635	1,348667E+22	1,348737E+22	5,264754E+20	5,263860E+20	2,697403E+22	1,052861E+21	2,802689E+22
1636	1,348709E+22	1,348663E+22	5,263402E+20	5,264825E+20	2,697371E+22	1,052823E+21	2,802653E+22
1637	1,348651E+22	1,348630E+22	5,264962E+20	5,263597E+20	2,697281E+22	1,052856E+21	2,802567E+22
1638	1,348554E+22	1,348627E+22	5,264787E+20	5,265167E+20	2,697181E+22	1,052995E+21	2,802481E+22
1639	1,348582E+22	1,348508E+22	5,264068E+20	5,265233E+20	2,697090E+22	1,052930E+21	2,802383E+22
1640	1,348480E+22	1,348506E+22	5,265898E+20	5,264352E+20	2,696987E+22	1,053025E+21	2,802289E+22
1641	1,348457E+22	1,348476E+22	5,264760E+20	5,265968E+20	2,696932E+22	1,053073E+21	2,802240E+22
1642	1,348487E+22	1,348395E+22	5,265028E+20	5,264952E+20	2,696883E+22	1,052998E+21	2,802183E+22
1643	1,348373E+22	1,348460E+22	5,266229E+20	5,264849E+20	2,696833E+22	1,053108E+21	2,802144E+22
1644	1,348428E+22	1,348424E+22	5,264646E+20	5,266191E+20	2,696852E+22	1,053084E+21	2,802160E+22
1645	1,348450E+22	1,348412E+22	5,265579E+20	5,264529E+20	2,696862E+22	1,053011E+21	2,802164E+22
1646	1,348416E+22	1,348493E+22	5,265512E+20	5,265198E+20	2,696909E+22	1,053071E+21	2,802217E+22
1647	1,348528E+22	1,348465E+22	5,264093E+20	5,265315E+20	2,696992E+22	1,052941E+21	2,802287E+22
1648	1,348514E+22	1,348532E+22	5,265468E+20	5,263806E+20	2,697046E+22	1,052927E+21	2,802338E+22
1649	1,348525E+22	1,348595E+22	5,264514E+20	5,265238E+20	2,697119E+22	1,052975E+21	2,802417E+22
1650	1,348616E+22	1,348551E+22	5,263963E+20	5,264459E+20	2,697167E+22	1,052842E+21	2,802452E+22
1651	1,348551E+22	1,348622E+22	5,265341E+20	5,263853E+20	2,697173E+22	1,052919E+21	2,802464E+22
1652	1,348606E+22	1,348607E+22	5,263857E+20	5,265319E+20	2,697213E+22	1,052918E+21	2,802504E+22
1653	1,348640E+22	1,348557E+22	5,264489E+20	5,263942E+20	2,697196E+22	1,052843E+21	2,802481E+22
1654	1,348542E+22	1,348608E+22	5,265300E+20	5,264477E+20	2,697150E+22	1,052978E+21	2,802447E+22
1655	1,348571E+22	1,348533E+22	5,263907E+20	5,265510E+20	2,697104E+22	1,052942E+21	2,802398E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1656	1,348505E+22	1,348489E+22	5,265557E+20	5,264402E+20	2,696994E+22	1,052996E+21	2,802294E+22
1657	1,348417E+22	1,348488E+22	5,265403E+20	5,265737E+20	2,696905E+22	1,053114E+21	2,802217E+22
1658	1,348455E+22	1,348367E+22	5,264694E+20	5,265717E+20	2,696822E+22	1,053041E+21	2,802126E+22
1659	1,348339E+22	1,348367E+22	5,266558E+20	5,264800E+20	2,696707E+22	1,053136E+21	2,802020E+22
1660	1,348317E+22	1,348350E+22	5,265433E+20	5,266475E+20	2,696667E+22	1,053191E+21	2,801986E+22
1661	1,348344E+22	1,348271E+22	5,265690E+20	5,265626E+20	2,696615E+22	1,053132E+21	2,801928E+22
1662	1,348248E+22	1,348329E+22	5,266679E+20	5,265511E+20	2,696576E+22	1,053219E+21	2,801898E+22
1663	1,348318E+22	1,348301E+22	5,264999E+20	5,266727E+20	2,696619E+22	1,053173E+21	2,801936E+22
1664	1,348347E+22	1,348296E+22	5,265973E+20	5,265051E+20	2,696643E+22	1,053102E+21	2,801953E+22
1665	1,348316E+22	1,348394E+22	5,265977E+20	5,265535E+20	2,696710E+22	1,053151E+21	2,802025E+22
1666	1,348425E+22	1,348370E+22	5,264565E+20	5,265723E+20	2,696795E+22	1,053029E+21	2,802097E+22
1667	1,348389E+22	1,348425E+22	5,265992E+20	5,264326E+20	2,696814E+22	1,053032E+21	2,802118E+22
1668	1,348407E+22	1,348482E+22	5,265092E+20	5,265765E+20	2,696889E+22	1,053086E+21	2,802198E+22
1669	1,348505E+22	1,348429E+22	5,264549E+20	5,265025E+20	2,696934E+22	1,052957E+21	2,802229E+22
1670	1,348449E+22	1,348491E+22	5,265787E+20	5,264347E+20	2,696940E+22	1,053013E+21	2,802242E+22
1671	1,348497E+22	1,348488E+22	5,264313E+20	5,265785E+20	2,696985E+22	1,053010E+21	2,802286E+22
1672	1,348510E+22	1,348438E+22	5,265023E+20	5,264602E+20	2,696948E+22	1,052962E+21	2,802244E+22
1673	1,348401E+22	1,348489E+22	5,265919E+20	5,265062E+20	2,696890E+22	1,053098E+21	2,802200E+22
1674	1,348432E+22	1,348403E+22	5,264522E+20	5,266104E+20	2,696835E+22	1,053063E+21	2,802141E+22
1675	1,348356E+22	1,348342E+22	5,266222E+20	5,264963E+20	2,696699E+22	1,053118E+21	2,802011E+22
1676	1,348280E+22	1,348344E+22	5,266116E+20	5,266215E+20	2,696624E+22	1,053233E+21	2,801947E+22
1677	1,348317E+22	1,348227E+22	5,265422E+20	5,266329E+20	2,696543E+22	1,053175E+21	2,801861E+22
1678	1,348206E+22	1,348227E+22	5,267050E+20	5,265488E+20	2,696433E+22	1,053254E+21	2,801758E+22
1679	1,348186E+22	1,348220E+22	5,265881E+20	5,267199E+20	2,696406E+22	1,053308E+21	2,801737E+22
1680	1,348219E+22	1,348141E+22	5,266139E+20	5,266375E+20	2,696361E+22	1,053251E+21	2,801686E+22
1681	1,348141E+22	1,348213E+22	5,267143E+20	5,265951E+20	2,696353E+22	1,053309E+21	2,801684E+22
1682	1,348220E+22	1,348193E+22	5,265496E+20	5,267016E+20	2,696413E+22	1,053251E+21	2,801738E+22
1683	1,348227E+22	1,348191E+22	5,266537E+20	5,265371E+20	2,696418E+22	1,053191E+21	2,801737E+22
1684	1,348193E+22	1,348294E+22	5,266592E+20	5,265924E+20	2,696487E+22	1,053252E+21	2,801813E+22
1685	1,348296E+22	1,348262E+22	5,265187E+20	5,266321E+20	2,696558E+22	1,053151E+21	2,801873E+22
1686	1,348279E+22	1,348300E+22	5,266373E+20	5,264936E+20	2,696579E+22	1,053131E+21	2,801892E+22
1687	1,348309E+22	1,348360E+22	5,265466E+20	5,266286E+20	2,696668E+22	1,053175E+21	2,801986E+22
1688	1,348402E+22	1,348311E+22	5,264986E+20	5,265579E+20	2,696714E+22	1,053056E+21	2,802019E+22
1689	1,348344E+22	1,348385E+22	5,266296E+20	5,264774E+20	2,696729E+22	1,053107E+21	2,802040E+22
1690	1,348375E+22	1,348381E+22	5,264887E+20	5,266270E+20	2,696755E+22	1,053116E+21	2,802067E+22
1691	1,348360E+22	1,348313E+22	5,265684E+20	5,265259E+20	2,696673E+22	1,053094E+21	2,801982E+22
1692	1,348256E+22	1,348350E+22	5,266639E+20	5,265676E+20	2,696606E+22	1,053232E+21	2,801929E+22
1693	1,348290E+22	1,348254E+22	5,265246E+20	5,266765E+20	2,696544E+22	1,053201E+21	2,801864E+22
1694	1,348226E+22	1,348185E+22	5,266731E+20	5,265568E+20	2,696411E+22	1,053230E+21	2,801734E+22
1695	1,348149E+22	1,348201E+22	5,266617E+20	5,266819E+20	2,696349E+22	1,053344E+21	2,801683E+22
1696	1,348177E+22	1,348093E+22	5,265944E+20	5,267083E+20	2,696270E+22	1,053303E+21	2,801600E+22
1697	1,348075E+22	1,348104E+22	5,267572E+20	5,266111E+20	2,696179E+22	1,053368E+21	2,801516E+22
1698	1,348067E+22	1,348101E+22	5,266436E+20	5,267689E+20	2,696168E+22	1,053413E+21	2,801510E+22
1699	1,348093E+22	1,348022E+22	5,266738E+20	5,266797E+20	2,696116E+22	1,053354E+21	2,801451E+22
1700	1,348025E+22	1,348101E+22	5,267805E+20	5,266246E+20	2,696125E+22	1,053405E+21	2,801466E+22
1701	1,348097E+22	1,348087E+22	5,266169E+20	5,267457E+20	2,696184E+22	1,053363E+21	2,801520E+22
1702	1,348106E+22	1,348074E+22	5,266967E+20	5,265945E+20	2,696180E+22	1,053291E+21	2,801509E+22
1703	1,348079E+22	1,348177E+22	5,266998E+20	5,266588E+20	2,696256E+22	1,053359E+21	2,801592E+22
1704	1,348189E+22	1,348141E+22	5,265576E+20	5,267024E+20	2,696330E+22	1,053260E+21	2,801656E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1705	1,348188E+22	1,348188E+22	5,266743E+20	5,265388E+20	2,696376E+22	1,053213E+21	2,801697E+22
1706	1,348219E+22	1,348256E+22	5,265927E+20	5,266590E+20	2,696475E+22	1,053252E+21	2,801800E+22
1707	1,348280E+22	1,348207E+22	5,265560E+20	5,265979E+20	2,696488E+22	1,053154E+21	2,801803E+22
1708	1,348210E+22	1,348277E+22	5,266994E+20	5,265246E+20	2,696487E+22	1,053224E+21	2,801809E+22
1709	1,348228E+22	1,348257E+22	5,265632E+20	5,266926E+20	2,696486E+22	1,053256E+21	2,801811E+22
1710	1,348221E+22	1,348164E+22	5,266207E+20	5,265969E+20	2,696386E+22	1,053218E+21	2,801707E+22
1711	1,348130E+22	1,348199E+22	5,267145E+20	5,266329E+20	2,696328E+22	1,053347E+21	2,801663E+22
1712	1,348161E+22	1,348106E+22	5,265783E+20	5,267450E+20	2,696267E+22	1,053323E+21	2,801600E+22
1713	1,348102E+22	1,348053E+22	5,267242E+20	5,266140E+20	2,696155E+22	1,053338E+21	2,801489E+22
1714	1,348019E+22	1,348078E+22	5,267192E+20	5,267376E+20	2,696096E+22	1,053457E+21	2,801442E+22
1715	1,348028E+22	1,347968E+22	5,266623E+20	5,267727E+20	2,695995E+22	1,053435E+21	2,801339E+22
1716	1,347941E+22	1,347976E+22	5,268297E+20	5,266624E+20	2,695918E+22	1,053492E+21	2,801267E+22
1717	1,347938E+22	1,347975E+22	5,267189E+20	5,268175E+20	2,695913E+22	1,053536E+21	2,801267E+22
1718	1,347972E+22	1,347892E+22	5,267242E+20	5,267267E+20	2,695864E+22	1,053451E+21	2,801209E+22
1719	1,347904E+22	1,347978E+22	5,268256E+20	5,266776E+20	2,695882E+22	1,053503E+21	2,801233E+22
1720	1,347968E+22	1,347970E+22	5,266597E+20	5,268140E+20	2,695937E+22	1,053474E+21	2,801285E+22
1721	1,347996E+22	1,347962E+22	5,267305E+20	5,266540E+20	2,695958E+22	1,053384E+21	2,801296E+22
1722	1,347984E+22	1,348066E+22	5,267387E+20	5,267025E+20	2,696051E+22	1,053441E+21	2,801395E+22
1723	1,348086E+22	1,348035E+22	5,266081E+20	5,267418E+20	2,696120E+22	1,053350E+21	2,801455E+22
1724	1,348091E+22	1,348086E+22	5,267352E+20	5,265689E+20	2,696177E+22	1,053304E+21	2,801507E+22
1725	1,348102E+22	1,348156E+22	5,266615E+20	5,267037E+20	2,696258E+22	1,053365E+21	2,801595E+22
1726	1,348150E+22	1,348089E+22	5,266050E+20	5,266611E+20	2,696239E+22	1,053266E+21	2,801566E+22
1727	1,348079E+22	1,348143E+22	5,267505E+20	5,265998E+20	2,696222E+22	1,053350E+21	2,801557E+22
1728	1,348095E+22	1,348114E+22	5,266150E+20	5,267677E+20	2,696209E+22	1,053383E+21	2,801547E+22
1729	1,348105E+22	1,348023E+22	5,266687E+20	5,266543E+20	2,696128E+22	1,053323E+21	2,801460E+22
1730	1,348013E+22	1,348064E+22	5,267705E+20	5,266757E+20	2,696077E+22	1,053446E+21	2,801422E+22
1731	1,348016E+22	1,347979E+22	5,266466E+20	5,267991E+20	2,695995E+22	1,053446E+21	2,801340E+22
1732	1,347954E+22	1,347928E+22	5,267989E+20	5,266703E+20	2,695883E+22	1,053469E+21	2,801230E+22
1733	1,347870E+22	1,347949E+22	5,267977E+20	5,268040E+20	2,695819E+22	1,053602E+21	2,801179E+22
1734	1,347889E+22	1,347824E+22	5,267196E+20	5,268367E+20	2,695714E+22	1,053556E+21	2,801069E+22
1735	1,347818E+22	1,347837E+22	5,268830E+20	5,267217E+20	2,695655E+22	1,053605E+21	2,801016E+22
1736	1,347814E+22	1,347844E+22	5,267703E+20	5,268744E+20	2,695658E+22	1,053645E+21	2,801022E+22
1737	1,347855E+22	1,347774E+22	5,267649E+20	5,267803E+20	2,695629E+22	1,053545E+21	2,800984E+22
1738	1,347791E+22	1,347867E+22	5,268661E+20	5,267289E+20	2,695658E+22	1,053595E+21	2,801017E+22
1739	1,347845E+22	1,347857E+22	5,267106E+20	5,268708E+20	2,695703E+22	1,053581E+21	2,801061E+22
1740	1,347895E+22	1,347854E+22	5,267849E+20	5,266942E+20	2,695748E+22	1,053479E+21	2,801096E+22
1741	1,347888E+22	1,347963E+22	5,268004E+20	5,267398E+20	2,695851E+22	1,053540E+21	2,801205E+22
1742	1,347981E+22	1,347925E+22	5,266551E+20	5,267790E+20	2,695907E+22	1,053434E+21	2,801250E+22
1743	1,347978E+22	1,347977E+22	5,267829E+20	5,266229E+20	2,695955E+22	1,053406E+21	2,801296E+22
1744	1,347969E+22	1,348040E+22	5,267122E+20	5,267690E+20	2,696009E+22	1,053481E+21	2,801357E+22
1745	1,348027E+22	1,347965E+22	5,266487E+20	5,267268E+20	2,695992E+22	1,053375E+21	2,801329E+22
1746	1,347964E+22	1,348011E+22	5,267987E+20	5,266516E+20	2,695975E+22	1,053450E+21	2,801320E+22
1747	1,347965E+22	1,347982E+22	5,266779E+20	5,268188E+20	2,695947E+22	1,053497E+21	2,801296E+22
1748	1,347979E+22	1,347895E+22	5,267401E+20	5,266995E+20	2,695874E+22	1,053440E+21	2,801218E+22
1749	1,347873E+22	1,347939E+22	5,268468E+20	5,267361E+20	2,695812E+22	1,053583E+21	2,801170E+22
1750	1,347866E+22	1,347840E+22	5,267080E+20	5,268740E+20	2,695706E+22	1,053582E+21	2,801064E+22
1751	1,347815E+22	1,347780E+22	5,268569E+20	5,267535E+20	2,695595E+22	1,053610E+21	2,800956E+22
1752	1,347733E+22	1,347801E+22	5,268540E+20	5,268746E+20	2,695533E+22	1,053729E+21	2,800906E+22
1753	1,347772E+22	1,347688E+22	5,267654E+20	5,268911E+20	2,695460E+22	1,053656E+21	2,800826E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1754	1,347702E+22	1,347711E+22	5,269304E+20	5,267602E+20	2,695413E+22	1,053691E+21	2,800782E+22
1755	1,347675E+22	1,347729E+22	5,268286E+20	5,269206E+20	2,695404E+22	1,053749E+21	2,800779E+22
1756	1,347725E+22	1,347665E+22	5,268265E+20	5,268268E+20	2,695390E+22	1,053653E+21	2,800755E+22
1757	1,347671E+22	1,347756E+22	5,269278E+20	5,267823E+20	2,695428E+22	1,053710E+21	2,800799E+22
1758	1,347738E+22	1,347739E+22	5,267571E+20	5,269190E+20	2,695477E+22	1,053676E+21	2,800845E+22
1759	1,347802E+22	1,347740E+22	5,268279E+20	5,267424E+20	2,695542E+22	1,053570E+21	2,800899E+22
1760	1,347785E+22	1,347857E+22	5,268458E+20	5,267848E+20	2,695642E+22	1,053631E+21	2,801005E+22
1761	1,347876E+22	1,347826E+22	5,266929E+20	5,268293E+20	2,695702E+22	1,053522E+21	2,801054E+22
1762	1,347864E+22	1,347869E+22	5,268261E+20	5,266776E+20	2,695733E+22	1,053504E+21	2,801083E+22
1763	1,347837E+22	1,347920E+22	5,267702E+20	5,268284E+20	2,695757E+22	1,053599E+21	2,801117E+22
1764	1,347907E+22	1,347840E+22	5,267138E+20	5,267756E+20	2,695747E+22	1,053489E+21	2,801095E+22
1765	1,347845E+22	1,347883E+22	5,268672E+20	5,267024E+20	2,695729E+22	1,053570E+21	2,801086E+22
1766	1,347833E+22	1,347843E+22	5,267374E+20	5,268724E+20	2,695677E+22	1,053610E+21	2,801038E+22
1767	1,347841E+22	1,347758E+22	5,267969E+20	5,267715E+20	2,695599E+22	1,053568E+21	2,800956E+22
1768	1,347724E+22	1,347799E+22	5,269025E+20	5,268118E+20	2,695523E+22	1,053714E+21	2,800894E+22
1769	1,347732E+22	1,347699E+22	5,267582E+20	5,269452E+20	2,695431E+22	1,053703E+21	2,800801E+22
1770	1,347693E+22	1,347642E+22	5,269092E+20	5,268073E+20	2,695335E+22	1,053716E+21	2,800706E+22
1771	1,347598E+22	1,347670E+22	5,269198E+20	5,269187E+20	2,695268E+22	1,053838E+21	2,800652E+22
1772	1,347642E+22	1,347569E+22	5,268369E+20	5,269291E+20	2,695211E+22	1,053766E+21	2,800587E+22
1773	1,347566E+22	1,347596E+22	5,269979E+20	5,268135E+20	2,695163E+22	1,053811E+21	2,800544E+22
1774	1,347535E+22	1,347601E+22	5,268831E+20	5,269827E+20	2,695136E+22	1,053866E+21	2,800523E+22
1775	1,347608E+22	1,347535E+22	5,268735E+20	5,268957E+20	2,695143E+22	1,053769E+21	2,800520E+22
1776	1,347566E+22	1,347633E+22	5,269698E+20	5,268370E+20	2,695199E+22	1,053807E+21	2,800579E+22
1777	1,347651E+22	1,347630E+22	5,267943E+20	5,269615E+20	2,695280E+22	1,053756E+21	2,800656E+22
1778	1,347709E+22	1,347641E+22	5,268653E+20	5,267772E+20	2,695350E+22	1,053643E+21	2,800714E+22
1779	1,347660E+22	1,347761E+22	5,268976E+20	5,268281E+20	2,695421E+22	1,053726E+21	2,800794E+22
1780	1,347750E+22	1,347725E+22	5,267527E+20	5,268756E+20	2,695476E+22	1,053628E+21	2,800838E+22
1781	1,347741E+22	1,347754E+22	5,268887E+20	5,267352E+20	2,695495E+22	1,053624E+21	2,800857E+22
1782	1,347714E+22	1,347786E+22	5,268255E+20	5,268817E+20	2,695500E+22	1,053707E+21	2,800871E+22
1783	1,347795E+22	1,347703E+22	5,267674E+20	5,268368E+20	2,695498E+22	1,053604E+21	2,800858E+22
1784	1,347720E+22	1,347749E+22	5,269186E+20	5,267623E+20	2,695469E+22	1,053681E+21	2,800837E+22
1785	1,347708E+22	1,347716E+22	5,267837E+20	5,269403E+20	2,695423E+22	1,053724E+21	2,800796E+22
1786	1,347710E+22	1,347626E+22	5,268466E+20	5,268387E+20	2,695336E+22	1,053685E+21	2,800704E+22
1787	1,347580E+22	1,347663E+22	5,269676E+20	5,268730E+20	2,695243E+22	1,053841E+21	2,800627E+22
1788	1,347600E+22	1,347568E+22	5,268338E+20	5,269892E+20	2,695168E+22	1,053823E+21	2,800550E+22
1789	1,347559E+22	1,347514E+22	5,269859E+20	5,268547E+20	2,695073E+22	1,053841E+21	2,800457E+22
1790	1,347450E+22	1,347534E+22	5,269856E+20	5,269674E+20	2,694984E+22	1,053953E+21	2,800380E+22
1791	1,347498E+22	1,347434E+22	5,268946E+20	5,269984E+20	2,694931E+22	1,053893E+21	2,800321E+22
1792	1,347427E+22	1,347461E+22	5,270443E+20	5,268827E+20	2,694888E+22	1,053927E+21	2,800280E+22
1793	1,347426E+22	1,347473E+22	5,269209E+20	5,270460E+20	2,694899E+22	1,053967E+21	2,800295E+22
1794	1,347515E+22	1,347421E+22	5,269089E+20	5,269401E+20	2,694937E+22	1,053849E+21	2,800322E+22
1795	1,347466E+22	1,347531E+22	5,270185E+20	5,268719E+20	2,694997E+22	1,053890E+21	2,800386E+22
1796	1,347548E+22	1,347543E+22	5,268547E+20	5,269892E+20	2,695090E+22	1,053844E+21	2,800475E+22
1797	1,347593E+22	1,347552E+22	5,269237E+20	5,268276E+20	2,695145E+22	1,053751E+21	2,800520E+22
1798	1,347531E+22	1,347644E+22	5,269513E+20	5,268849E+20	2,695174E+22	1,053836E+21	2,800558E+22
1799	1,347632E+22	1,347595E+22	5,268036E+20	5,269420E+20	2,695228E+22	1,053746E+21	2,800602E+22
1800	1,347628E+22	1,347620E+22	5,269325E+20	5,267912E+20	2,695249E+22	1,053724E+21	2,800621E+22
1801	1,347612E+22	1,347656E+22	5,268689E+20	5,269324E+20	2,695268E+22	1,053801E+21	2,800648E+22
1802	1,347681E+22	1,347583E+22	5,268124E+20	5,268856E+20	2,695264E+22	1,053698E+21	2,800633E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1803	1,347580E+22	1,347630E+22	5,269765E+20	5,268194E+20	2,695209E+22	1,053796E+21	2,800589E+22
1804	1,347566E+22	1,347596E+22	5,268570E+20	5,269936E+20	2,695162E+22	1,053851E+21	2,800547E+22
1805	1,347570E+22	1,347499E+22	5,269203E+20	5,269024E+20	2,695069E+22	1,053823E+21	2,800451E+22
1806	1,347435E+22	1,347517E+22	5,270370E+20	5,269273E+20	2,694952E+22	1,053964E+21	2,800348E+22
1807	1,347463E+22	1,347422E+22	5,269017E+20	5,270516E+20	2,694885E+22	1,053953E+21	2,800280E+22
1808	1,347414E+22	1,347371E+22	5,270423E+20	5,269189E+20	2,694785E+22	1,053961E+21	2,800181E+22
1809	1,347316E+22	1,347395E+22	5,270308E+20	5,270406E+20	2,694711E+22	1,054071E+21	2,800118E+22
1810	1,347372E+22	1,347300E+22	5,269353E+20	5,270681E+20	2,694672E+22	1,054003E+21	2,800073E+22
1811	1,347308E+22	1,347335E+22	5,270897E+20	5,269409E+20	2,694643E+22	1,054031E+21	2,800046E+22
1812	1,347328E+22	1,347366E+22	5,269805E+20	5,270803E+20	2,694694E+22	1,054061E+21	2,800100E+22
1813	1,347416E+22	1,347327E+22	5,269687E+20	5,269746E+20	2,694743E+22	1,053943E+21	2,800137E+22
1814	1,347345E+22	1,347429E+22	5,270746E+20	5,269070E+20	2,694774E+22	1,053982E+21	2,800172E+22
1815	1,347424E+22	1,347435E+22	5,269082E+20	5,270428E+20	2,694859E+22	1,053951E+21	2,800254E+22
1816	1,347464E+22	1,347433E+22	5,269688E+20	5,268866E+20	2,694897E+22	1,053855E+21	2,800282E+22
1817	1,347425E+22	1,347518E+22	5,269894E+20	5,269438E+20	2,694943E+22	1,053933E+21	2,800337E+22
1818	1,347535E+22	1,347475E+22	5,268422E+20	5,269900E+20	2,695010E+22	1,053832E+21	2,800393E+22
1819	1,347520E+22	1,347505E+22	5,269812E+20	5,268360E+20	2,695025E+22	1,053817E+21	2,800407E+22
1820	1,347496E+22	1,347553E+22	5,269345E+20	5,269723E+20	2,695049E+22	1,053907E+21	2,800440E+22
1821	1,347548E+22	1,347476E+22	5,268789E+20	5,269479E+20	2,695023E+22	1,053827E+21	2,800406E+22
1822	1,347431E+22	1,347493E+22	5,270438E+20	5,268857E+20	2,694925E+22	1,053929E+21	2,800318E+22
1823	1,347428E+22	1,347448E+22	5,269259E+20	5,270639E+20	2,694877E+22	1,053990E+21	2,800276E+22
1824	1,347432E+22	1,347350E+22	5,269816E+20	5,269659E+20	2,694781E+22	1,053948E+21	2,800176E+22
1825	1,347307E+22	1,347369E+22	5,270899E+20	5,269895E+20	2,694676E+22	1,054079E+21	2,800084E+22
1826	1,347325E+22	1,347286E+22	5,269504E+20	5,271126E+20	2,694611E+22	1,054063E+21	2,800017E+22
1827	1,347267E+22	1,347238E+22	5,270930E+20	5,269846E+20	2,694505E+22	1,054078E+21	2,799913E+22
1828	1,347185E+22	1,347271E+22	5,270954E+20	5,270924E+20	2,694456E+22	1,054188E+21	2,799875E+22
1829	1,347256E+22	1,347186E+22	5,269977E+20	5,271208E+20	2,694443E+22	1,054119E+21	2,799854E+22
1830	1,347194E+22	1,347214E+22	5,271487E+20	5,269802E+20	2,694408E+22	1,054129E+21	2,799821E+22
1831	1,347220E+22	1,347254E+22	5,270433E+20	5,271224E+20	2,694474E+22	1,054166E+21	2,799890E+22
1832	1,347294E+22	1,347222E+22	5,270171E+20	5,270218E+20	2,694516E+22	1,054039E+21	2,799920E+22
1833	1,347229E+22	1,347315E+22	5,271129E+20	5,269679E+20	2,694544E+22	1,054081E+21	2,799952E+22
1834	1,347310E+22	1,347319E+22	5,269446E+20	5,271003E+20	2,694628E+22	1,054045E+21	2,800033E+22
1835	1,347355E+22	1,347314E+22	5,270094E+20	5,269398E+20	2,694668E+22	1,053949E+21	2,800063E+22
1836	1,347329E+22	1,347409E+22	5,270480E+20	5,269789E+20	2,694738E+22	1,054027E+21	2,800141E+22
1837	1,347429E+22	1,347374E+22	5,269026E+20	5,270335E+20	2,694804E+22	1,053936E+21	2,800197E+22
1838	1,347389E+22	1,347388E+22	5,270392E+20	5,268866E+20	2,694777E+22	1,053926E+21	2,800169E+22
1839	1,347361E+22	1,347427E+22	5,269977E+20	5,270386E+20	2,694788E+22	1,054036E+21	2,800192E+22
1840	1,347405E+22	1,347340E+22	5,269353E+20	5,270183E+20	2,694745E+22	1,053954E+21	2,800140E+22
1841	1,347307E+22	1,347347E+22	5,270947E+20	5,269567E+20	2,694654E+22	1,054051E+21	2,800059E+22
1842	1,347305E+22	1,347307E+22	5,269781E+20	5,271210E+20	2,694612E+22	1,054099E+21	2,800022E+22
1843	1,347297E+22	1,347213E+22	5,270401E+20	5,270243E+20	2,694510E+22	1,054064E+21	2,799916E+22
1844	1,347171E+22	1,347245E+22	5,271586E+20	5,270416E+20	2,694416E+22	1,054200E+21	2,799836E+22
1845	1,347183E+22	1,347162E+22	5,270177E+20	5,271787E+20	2,694344E+22	1,054196E+21	2,799764E+22
1846	1,347122E+22	1,347096E+22	5,271558E+20	5,270466E+20	2,694218E+22	1,054202E+21	2,799638E+22
1847	1,347065E+22	1,347134E+22	5,271599E+20	5,271492E+20	2,694198E+22	1,054309E+21	2,799629E+22
1848	1,347137E+22	1,347062E+22	5,270552E+20	5,271660E+20	2,694198E+22	1,054221E+21	2,799620E+22
1849	1,347086E+22	1,347096E+22	5,271943E+20	5,270284E+20	2,694182E+22	1,054223E+21	2,799605E+22
1850	1,347101E+22	1,347147E+22	5,270849E+20	5,271684E+20	2,694249E+22	1,054253E+21	2,799674E+22
1851	1,347165E+22	1,347114E+22	5,270581E+20	5,270777E+20	2,694280E+22	1,054136E+21	2,799693E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1852	1,347117E+22	1,347208E+22	5,271649E+20	5,270138E+20	2,694326E+22	1,054179E+21	2,799744E+22
1853	1,347206E+22	1,347215E+22	5,269963E+20	5,271472E+20	2,694421E+22	1,054144E+21	2,799835E+22
1854	1,347247E+22	1,347197E+22	5,270619E+20	5,269816E+20	2,694444E+22	1,054043E+21	2,799848E+22
1855	1,347226E+22	1,347294E+22	5,271076E+20	5,270270E+20	2,694521E+22	1,054135E+21	2,799934E+22
1856	1,347306E+22	1,347263E+22	5,269557E+20	5,270911E+20	2,694569E+22	1,054047E+21	2,799974E+22
1857	1,347269E+22	1,347261E+22	5,270830E+20	5,269618E+20	2,694530E+22	1,054045E+21	2,799934E+22
1858	1,347237E+22	1,347294E+22	5,270438E+20	5,271041E+20	2,694531E+22	1,054148E+21	2,799946E+22
1859	1,347280E+22	1,347204E+22	5,269871E+20	5,270805E+20	2,694484E+22	1,054068E+21	2,799890E+22
1860	1,347187E+22	1,347218E+22	5,271656E+20	5,270003E+20	2,694405E+22	1,054166E+21	2,799821E+22
1861	1,347168E+22	1,347186E+22	5,270506E+20	5,271691E+20	2,694355E+22	1,054220E+21	2,799777E+22
1862	1,347138E+22	1,347074E+22	5,271097E+20	5,270821E+20	2,694212E+22	1,054192E+21	2,799631E+22
1863	1,347019E+22	1,347098E+22	5,272295E+20	5,271095E+20	2,694117E+22	1,054339E+21	2,799551E+22
1864	1,347035E+22	1,347019E+22	5,270795E+20	5,272458E+20	2,694054E+22	1,054325E+21	2,799487E+22
1865	1,347004E+22	1,346952E+22	5,272023E+20	5,271128E+20	2,693956E+22	1,054315E+21	2,799388E+22
1866	1,346954E+22	1,347007E+22	5,272063E+20	5,271975E+20	2,693962E+22	1,054404E+21	2,799402E+22
1867	1,347019E+22	1,346950E+22	5,271028E+20	5,272153E+20	2,693969E+22	1,054318E+21	2,799401E+22
1868	1,346968E+22	1,346997E+22	5,272491E+20	5,270745E+20	2,693965E+22	1,054324E+21	2,799398E+22
1869	1,346978E+22	1,347047E+22	5,271379E+20	5,272217E+20	2,694024E+22	1,054360E+21	2,799460E+22
1870	1,347040E+22	1,346991E+22	5,271087E+20	5,271312E+20	2,694031E+22	1,054240E+21	2,799455E+22
1871	1,347018E+22	1,347084E+22	5,272182E+20	5,270636E+20	2,694102E+22	1,054282E+21	2,799530E+22
1872	1,347103E+22	1,347102E+22	5,270479E+20	5,271907E+20	2,694205E+22	1,054239E+21	2,799628E+22
1873	1,347150E+22	1,347083E+22	5,271005E+20	5,270354E+20	2,694233E+22	1,054136E+21	2,799646E+22
1874	1,347114E+22	1,347186E+22	5,271462E+20	5,270799E+20	2,694300E+22	1,054226E+21	2,799723E+22
1875	1,347180E+22	1,347149E+22	5,270017E+20	5,271516E+20	2,694329E+22	1,054153E+21	2,799744E+22
1876	1,347151E+22	1,347146E+22	5,271441E+20	5,270149E+20	2,694297E+22	1,054159E+21	2,799713E+22
1877	1,347116E+22	1,347177E+22	5,271098E+20	5,271499E+20	2,694292E+22	1,054260E+21	2,799718E+22
1878	1,347141E+22	1,347068E+22	5,270593E+20	5,271290E+20	2,694209E+22	1,054188E+21	2,799628E+22
1879	1,347050E+22	1,347078E+22	5,272391E+20	5,270574E+20	2,694128E+22	1,054297E+21	2,799558E+22
1880	1,347011E+22	1,347047E+22	5,271168E+20	5,272369E+20	2,694058E+22	1,054354E+21	2,799493E+22
1881	1,346995E+22	1,346920E+22	5,271597E+20	5,271664E+20	2,693914E+22	1,054326E+21	2,799347E+22
1882	1,346889E+22	1,346948E+22	5,272740E+20	5,271800E+20	2,693837E+22	1,054454E+21	2,799282E+22
1883	1,346914E+22	1,346881E+22	5,271297E+20	5,273071E+20	2,693795E+22	1,054437E+21	2,799239E+22
1884	1,346894E+22	1,346837E+22	5,272628E+20	5,271565E+20	2,693731E+22	1,054419E+21	2,799173E+22
1885	1,346832E+22	1,346906E+22	5,272661E+20	5,272361E+20	2,693738E+22	1,054502E+21	2,799188E+22
1886	1,346877E+22	1,346836E+22	5,271619E+20	5,272630E+20	2,693713E+22	1,054425E+21	2,799155E+22
1887	1,346840E+22	1,346874E+22	5,273070E+20	5,271293E+20	2,693714E+22	1,054436E+21	2,799157E+22
1888	1,346854E+22	1,346927E+22	5,271900E+20	5,272730E+20	2,693780E+22	1,054463E+21	2,799227E+22
1889	1,346944E+22	1,346866E+22	5,271457E+20	5,271876E+20	2,693811E+22	1,054333E+21	2,799244E+22
1890	1,346929E+22	1,346971E+22	5,272535E+20	5,271083E+20	2,693900E+22	1,054362E+21	2,799337E+22
1891	1,347003E+22	1,347002E+22	5,270900E+20	5,272398E+20	2,694005E+22	1,054330E+21	2,799438E+22
1892	1,347044E+22	1,346989E+22	5,271517E+20	5,270853E+20	2,694033E+22	1,054237E+21	2,799456E+22
1893	1,346994E+22	1,347084E+22	5,272021E+20	5,271294E+20	2,694078E+22	1,054331E+21	2,799512E+22
1894	1,347047E+22	1,347022E+22	5,270639E+20	5,272026E+20	2,694069E+22	1,054266E+21	2,799495E+22
1895	1,347028E+22	1,347008E+22	5,272141E+20	5,270675E+20	2,694037E+22	1,054282E+21	2,799465E+22
1896	1,346977E+22	1,347044E+22	5,271793E+20	5,272010E+20	2,694021E+22	1,054380E+21	2,799459E+22
1897	1,347003E+22	1,346924E+22	5,271127E+20	5,272007E+20	2,693926E+22	1,054313E+21	2,799358E+22
1898	1,346906E+22	1,346933E+22	5,272836E+20	5,271307E+20	2,693838E+22	1,054414E+21	2,799280E+22
1899	1,346867E+22	1,346901E+22	5,271659E+20	5,273130E+20	2,693768E+22	1,054479E+21	2,799216E+22
1900	1,346870E+22	1,346785E+22	5,272163E+20	5,272293E+20	2,693655E+22	1,054446E+21	2,799100E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1901	1,346771E+22	1,346825E+22	5,273334E+20	5,272250E+20	2,693596E+22	1,054558E+21	2,799052E+22
1902	1,346783E+22	1,346756E+22	5,272006E+20	5,273498E+20	2,693539E+22	1,054550E+21	2,798994E+22
1903	1,346766E+22	1,346718E+22	5,273329E+20	5,272061E+20	2,693485E+22	1,054539E+21	2,798939E+22
1904	1,346688E+22	1,346791E+22	5,273286E+20	5,272911E+20	2,693478E+22	1,054620E+21	2,798940E+22
1905	1,346748E+22	1,346703E+22	5,272055E+20	5,273335E+20	2,693451E+22	1,054539E+21	2,798905E+22
1906	1,346732E+22	1,346743E+22	5,273394E+20	5,271870E+20	2,693475E+22	1,054526E+21	2,798928E+22
1907	1,346757E+22	1,346808E+22	5,272304E+20	5,273207E+20	2,693564E+22	1,054551E+21	2,799020E+22
1908	1,346856E+22	1,346772E+22	5,271944E+20	5,272246E+20	2,693628E+22	1,054419E+21	2,799070E+22
1909	1,346828E+22	1,346886E+22	5,273014E+20	5,271418E+20	2,693714E+22	1,054443E+21	2,799158E+22
1910	1,346873E+22	1,346899E+22	5,271496E+20	5,272839E+20	2,693772E+22	1,054434E+21	2,799216E+22
1911	1,346921E+22	1,346874E+22	5,272119E+20	5,271399E+20	2,693795E+22	1,054352E+21	2,799230E+22
1912	1,346864E+22	1,346962E+22	5,272625E+20	5,271802E+20	2,693827E+22	1,054443E+21	2,799271E+22
1913	1,346929E+22	1,346884E+22	5,271137E+20	5,272646E+20	2,693813E+22	1,054378E+21	2,799251E+22
1914	1,346911E+22	1,346872E+22	5,272601E+20	5,271273E+20	2,693783E+22	1,054387E+21	2,799221E+22
1915	1,346845E+22	1,346911E+22	5,272299E+20	5,272675E+20	2,693756E+22	1,054497E+21	2,799206E+22
1916	1,346869E+22	1,346797E+22	5,271688E+20	5,272719E+20	2,693665E+22	1,054441E+21	2,799110E+22
1917	1,346772E+22	1,346800E+22	5,273373E+20	5,271928E+20	2,693571E+22	1,054530E+21	2,799024E+22
1918	1,346728E+22	1,346757E+22	5,272348E+20	5,273693E+20	2,693485E+22	1,054604E+21	2,798946E+22
1919	1,346746E+22	1,346649E+22	5,272905E+20	5,272792E+20	2,693395E+22	1,054570E+21	2,798852E+22
1920	1,346632E+22	1,346703E+22	5,274074E+20	5,272691E+20	2,693335E+22	1,054676E+21	2,798802E+22
1921	1,346644E+22	1,346625E+22	5,272587E+20	5,274118E+20	2,693269E+22	1,054670E+21	2,798736E+22
1922	1,346626E+22	1,346587E+22	5,273777E+20	5,272713E+20	2,693213E+22	1,054649E+21	2,798678E+22
1923	1,346556E+22	1,346659E+22	5,273721E+20	5,273552E+20	2,693215E+22	1,054727E+21	2,798688E+22
1924	1,346641E+22	1,346585E+22	5,272514E+20	5,273867E+20	2,693226E+22	1,054638E+21	2,798690E+22
1925	1,346637E+22	1,346638E+22	5,273822E+20	5,272219E+20	2,693275E+22	1,054604E+21	2,798735E+22
1926	1,346652E+22	1,346703E+22	5,272891E+20	5,273563E+20	2,693355E+22	1,054645E+21	2,798820E+22
1927	1,346749E+22	1,346674E+22	5,272528E+20	5,272684E+20	2,693423E+22	1,054521E+21	2,798875E+22
1928	1,346702E+22	1,346786E+22	5,273577E+20	5,271939E+20	2,693488E+22	1,054552E+21	2,798943E+22
1929	1,346755E+22	1,346773E+22	5,271941E+20	5,273491E+20	2,693528E+22	1,054543E+21	2,798983E+22
1930	1,346812E+22	1,346743E+22	5,272488E+20	5,272015E+20	2,693555E+22	1,054450E+21	2,799000E+22
1931	1,346754E+22	1,346833E+22	5,273089E+20	5,272350E+20	2,693587E+22	1,054544E+21	2,799041E+22
1932	1,346815E+22	1,346768E+22	5,271686E+20	5,273165E+20	2,693583E+22	1,054485E+21	2,799031E+22
1933	1,346783E+22	1,346756E+22	5,273118E+20	5,271763E+20	2,693538E+22	1,054488E+21	2,798987E+22
1934	1,346696E+22	1,346776E+22	5,272988E+20	5,273254E+20	2,693472E+22	1,054624E+21	2,798934E+22
1935	1,346729E+22	1,346659E+22	5,272406E+20	5,273336E+20	2,693388E+22	1,054574E+21	2,798845E+22
1936	1,346631E+22	1,346664E+22	5,274076E+20	5,272494E+20	2,693296E+22	1,054657E+21	2,798761E+22
1937	1,346599E+22	1,346612E+22	5,272990E+20	5,274317E+20	2,693211E+22	1,054731E+21	2,798684E+22
1938	1,346617E+22	1,346515E+22	5,273456E+20	5,273424E+20	2,693132E+22	1,054688E+21	2,798600E+22
1939	1,346492E+22	1,346573E+22	5,274614E+20	5,273343E+20	2,693065E+22	1,054796E+21	2,798544E+22
1940	1,346507E+22	1,346503E+22	5,273133E+20	5,274785E+20	2,693010E+22	1,054792E+21	2,798489E+22
1941	1,346501E+22	1,346461E+22	5,274216E+20	5,273241E+20	2,692962E+22	1,054746E+21	2,798437E+22
1942	1,346435E+22	1,346527E+22	5,274311E+20	5,274008E+20	2,692962E+22	1,054832E+21	2,798445E+22
1943	1,346539E+22	1,346472E+22	5,273124E+20	5,274258E+20	2,693011E+22	1,054738E+21	2,798485E+22
1944	1,346526E+22	1,346539E+22	5,274382E+20	5,272607E+20	2,693065E+22	1,054699E+21	2,798535E+22
1945	1,346539E+22	1,346594E+22	5,273359E+20	5,274111E+20	2,693134E+22	1,054747E+21	2,798608E+22
1946	1,346635E+22	1,346564E+22	5,272880E+20	5,273282E+20	2,693199E+22	1,054616E+21	2,798660E+22
1947	1,346589E+22	1,346668E+22	5,273966E+20	5,272512E+20	2,693257E+22	1,054648E+21	2,798722E+22
1948	1,346652E+22	1,346663E+22	5,272407E+20	5,273968E+20	2,693315E+22	1,054638E+21	2,798779E+22
1949	1,346709E+22	1,346633E+22	5,272963E+20	5,272390E+20	2,693341E+22	1,054535E+21	2,798795E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1950	1,346630E+22	1,346714E+22	5,273774E+20	5,272798E+20	2,693344E+22	1,054657E+21	2,798809E+22
1951	1,346682E+22	1,346651E+22	5,272394E+20	5,273738E+20	2,693333E+22	1,054613E+21	2,798794E+22
1952	1,346635E+22	1,346628E+22	5,273774E+20	5,272434E+20	2,693263E+22	1,054621E+21	2,798725E+22
1953	1,346559E+22	1,346622E+22	5,273566E+20	5,274008E+20	2,693181E+22	1,054757E+21	2,798657E+22
1954	1,346603E+22	1,346509E+22	5,272922E+20	5,274033E+20	2,693112E+22	1,054695E+21	2,798581E+22
1955	1,346504E+22	1,346524E+22	5,274653E+20	5,273118E+20	2,693028E+22	1,054777E+21	2,798505E+22
1956	1,346468E+22	1,346488E+22	5,273624E+20	5,274892E+20	2,692956E+22	1,054852E+21	2,798441E+22
1957	1,346474E+22	1,346392E+22	5,274004E+20	5,273964E+20	2,692866E+22	1,054797E+21	2,798345E+22
1958	1,346340E+22	1,346435E+22	5,275264E+20	5,273932E+20	2,692775E+22	1,054920E+21	2,798267E+22
1959	1,346371E+22	1,346370E+22	5,273775E+20	5,275324E+20	2,692741E+22	1,054910E+21	2,798232E+22
1960	1,346377E+22	1,346337E+22	5,274784E+20	5,273720E+20	2,692714E+22	1,054850E+21	2,798199E+22
1961	1,346331E+22	1,346399E+22	5,274827E+20	5,274513E+20	2,692730E+22	1,054934E+21	2,798223E+22
1962	1,346438E+22	1,346363E+22	5,273546E+20	5,274782E+20	2,692801E+22	1,054833E+21	2,798285E+22
1963	1,346417E+22	1,346437E+22	5,274773E+20	5,273182E+20	2,692854E+22	1,054796E+21	2,798334E+22
1964	1,346431E+22	1,346495E+22	5,273798E+20	5,274667E+20	2,692926E+22	1,054847E+21	2,798411E+22
1965	1,346530E+22	1,346458E+22	5,273256E+20	5,273698E+20	2,692988E+22	1,054695E+21	2,798458E+22
1966	1,346479E+22	1,346549E+22	5,274554E+20	5,272909E+20	2,693028E+22	1,054746E+21	2,798503E+22
1967	1,346541E+22	1,346554E+22	5,273087E+20	5,274327E+20	2,693095E+22	1,054741E+21	2,798569E+22
1968	1,346579E+22	1,346525E+22	5,273610E+20	5,272881E+20	2,693104E+22	1,054649E+21	2,798569E+22
1969	1,346495E+22	1,346580E+22	5,274349E+20	5,273482E+20	2,693075E+22	1,054783E+21	2,798553E+22
1970	1,346548E+22	1,346512E+22	5,272872E+20	5,274511E+20	2,693060E+22	1,054738E+21	2,798534E+22
1971	1,346506E+22	1,346483E+22	5,274244E+20	5,273165E+20	2,692989E+22	1,054741E+21	2,798463E+22
1972	1,346440E+22	1,346489E+22	5,274124E+20	5,274612E+20	2,692929E+22	1,054874E+21	2,798417E+22
1973	1,346483E+22	1,346382E+22	5,273477E+20	5,274499E+20	2,692865E+22	1,054798E+21	2,798345E+22
1974	1,346362E+22	1,346391E+22	5,275403E+20	5,273652E+20	2,692753E+22	1,054906E+21	2,798244E+22
1975	1,346317E+22	1,346364E+22	5,274392E+20	5,275454E+20	2,692681E+22	1,054985E+21	2,798179E+22
1976	1,346318E+22	1,346259E+22	5,274681E+20	5,274628E+20	2,692577E+22	1,054931E+21	2,798070E+22
1977	1,346205E+22	1,346279E+22	5,275814E+20	5,274610E+20	2,692484E+22	1,055042E+21	2,797988E+22
1978	1,346258E+22	1,346229E+22	5,274233E+20	5,275918E+20	2,692487E+22	1,055015E+21	2,797989E+22
1979	1,346270E+22	1,346214E+22	5,275215E+20	5,274232E+20	2,692484E+22	1,054945E+21	2,797979E+22
1980	1,346228E+22	1,346299E+22	5,275297E+20	5,274988E+20	2,692527E+22	1,055029E+21	2,798030E+22
1981	1,346326E+22	1,346269E+22	5,273956E+20	5,275177E+20	2,692595E+22	1,054913E+21	2,798086E+22
1982	1,346295E+22	1,346329E+22	5,275330E+20	5,273653E+20	2,692624E+22	1,054898E+21	2,798114E+22
1983	1,346316E+22	1,346391E+22	5,274406E+20	5,275044E+20	2,692707E+22	1,054945E+21	2,798201E+22
1984	1,346415E+22	1,346351E+22	5,273833E+20	5,274138E+20	2,692766E+22	1,054797E+21	2,798246E+22
1985	1,346370E+22	1,346421E+22	5,275092E+20	5,273454E+20	2,692791E+22	1,054855E+21	2,798277E+22
1986	1,346426E+22	1,346433E+22	5,273558E+20	5,274965E+20	2,692859E+22	1,054852E+21	2,798345E+22
1987	1,346454E+22	1,346400E+22	5,274035E+20	5,273623E+20	2,692854E+22	1,054766E+21	2,798331E+22
1988	1,346376E+22	1,346451E+22	5,274804E+20	5,274203E+20	2,692827E+22	1,054901E+21	2,798317E+22
1989	1,346432E+22	1,346380E+22	5,273325E+20	5,275039E+20	2,692811E+22	1,054836E+21	2,798295E+22
1990	1,346382E+22	1,346347E+22	5,274910E+20	5,273680E+20	2,692730E+22	1,054859E+21	2,798216E+22
1991	1,346308E+22	1,346368E+22	5,274919E+20	5,275009E+20	2,692676E+22	1,054993E+21	2,798175E+22
1992	1,346330E+22	1,346262E+22	5,274249E+20	5,275055E+20	2,692592E+22	1,054930E+21	2,798085E+22
1993	1,346206E+22	1,346242E+22	5,276073E+20	5,274358E+20	2,692448E+22	1,055043E+21	2,797952E+22
1994	1,346167E+22	1,346213E+22	5,274939E+20	5,276181E+20	2,692380E+22	1,055112E+21	2,797891E+22
1995	1,346183E+22	1,346110E+22	5,275148E+20	5,275313E+20	2,692293E+22	1,055046E+21	2,797798E+22
1996	1,346095E+22	1,346147E+22	5,276279E+20	5,275173E+20	2,692242E+22	1,055145E+21	2,797756E+22
1997	1,346155E+22	1,346116E+22	5,274699E+20	5,276307E+20	2,692272E+22	1,055101E+21	2,797782E+22
1998	1,346155E+22	1,346110E+22	5,275798E+20	5,274698E+20	2,692265E+22	1,055050E+21	2,797770E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
1999	1,346106E+22	1,346206E+22	5,275927E+20	5,275411E+20	2,692313E+22	1,055134E+21	2,797826E+22
2000	1,346201E+22	1,346168E+22	5,274523E+20	5,275695E+20	2,692369E+22	1,055022E+21	2,797871E+22
2001	1,346184E+22	1,346199E+22	5,275813E+20	5,274209E+20	2,692382E+22	1,055002E+21	2,797883E+22
2002	1,346213E+22	1,346270E+22	5,274839E+20	5,275548E+20	2,692483E+22	1,055039E+21	2,797987E+22
2003	1,346308E+22	1,346235E+22	5,274252E+20	5,274674E+20	2,692543E+22	1,054893E+21	2,798032E+22
2004	1,346263E+22	1,346310E+22	5,275514E+20	5,274041E+20	2,692573E+22	1,054955E+21	2,798069E+22
2005	1,346311E+22	1,346321E+22	5,273965E+20	5,275470E+20	2,692632E+22	1,054944E+21	2,798126E+22
2006	1,346328E+22	1,346274E+22	5,274593E+20	5,274193E+20	2,692602E+22	1,054879E+21	2,798090E+22
2007	1,346253E+22	1,346332E+22	5,275470E+20	5,274608E+20	2,692585E+22	1,055008E+21	2,798086E+22
2008	1,346303E+22	1,346261E+22	5,274049E+20	5,275510E+20	2,692564E+22	1,054956E+21	2,798059E+22
2009	1,346249E+22	1,346206E+22	5,275631E+20	5,274285E+20	2,692455E+22	1,054992E+21	2,797954E+22
2010	1,346162E+22	1,346232E+22	5,275559E+20	5,275688E+20	2,692395E+22	1,055125E+21	2,797907E+22
2011	1,346173E+22	1,346117E+22	5,274818E+20	5,275863E+20	2,692291E+22	1,055068E+21	2,797797E+22
2012	1,346067E+22	1,346090E+22	5,276566E+20	5,275138E+20	2,692156E+22	1,055170E+21	2,797674E+22
2013	1,346043E+22	1,346067E+22	5,275389E+20	5,276712E+20	2,692110E+22	1,055210E+21	2,797631E+22
2014	1,346063E+22	1,345975E+22	5,275741E+20	5,275816E+20	2,692038E+22	1,055156E+21	2,797553E+22
2015	1,345977E+22	1,346039E+22	5,276943E+20	5,275535E+20	2,692016E+22	1,055248E+21	2,797541E+22
2016	1,346026E+22	1,346019E+22	5,275363E+20	5,276804E+20	2,692045E+22	1,055217E+21	2,797566E+22
2017	1,346026E+22	1,345988E+22	5,276343E+20	5,275316E+20	2,692015E+22	1,055166E+21	2,797531E+22
2018	1,345987E+22	1,346085E+22	5,276374E+20	5,275966E+20	2,692071E+22	1,055234E+21	2,797595E+22
2019	1,346088E+22	1,346048E+22	5,274912E+20	5,276219E+20	2,692136E+22	1,055113E+21	2,797647E+22
2020	1,346091E+22	1,346083E+22	5,276182E+20	5,274700E+20	2,692174E+22	1,055088E+21	2,797683E+22
2021	1,346118E+22	1,346163E+22	5,275243E+20	5,275892E+20	2,692281E+22	1,055113E+21	2,797792E+22
2022	1,346194E+22	1,346132E+22	5,274783E+20	5,275186E+20	2,692326E+22	1,054997E+21	2,797826E+22
2023	1,346142E+22	1,346210E+22	5,276104E+20	5,274514E+20	2,692352E+22	1,055062E+21	2,797858E+22
2024	1,346186E+22	1,346208E+22	5,274603E+20	5,276024E+20	2,692393E+22	1,055063E+21	2,797900E+22
2025	1,346208E+22	1,346134E+22	5,275184E+20	5,274780E+20	2,692342E+22	1,054996E+21	2,797842E+22
2026	1,346132E+22	1,346198E+22	5,276059E+20	5,275131E+20	2,692331E+22	1,055119E+21	2,797843E+22
2027	1,346165E+22	1,346130E+22	5,274652E+20	5,276114E+20	2,692295E+22	1,055077E+21	2,797802E+22
2028	1,346108E+22	1,346071E+22	5,276190E+20	5,275024E+20	2,692179E+22	1,055121E+21	2,797691E+22
2029	1,346016E+22	1,346092E+22	5,276073E+20	5,276309E+20	2,692108E+22	1,055238E+21	2,797632E+22
2030	1,346027E+22	1,345969E+22	5,275427E+20	5,276553E+20	2,691996E+22	1,055198E+21	2,797516E+22
2031	1,345935E+22	1,345956E+22	5,277191E+20	5,275615E+20	2,691891E+22	1,055281E+21	2,797419E+22
2032	1,345919E+22	1,345942E+22	5,276082E+20	5,277209E+20	2,691862E+22	1,055329E+21	2,797395E+22
2033	1,345940E+22	1,345844E+22	5,276383E+20	5,276379E+20	2,691784E+22	1,055276E+21	2,797311E+22
2034	1,345852E+22	1,345924E+22	5,277482E+20	5,276118E+20	2,691777E+22	1,055360E+21	2,797313E+22
2035	1,345895E+22	1,345901E+22	5,275861E+20	5,277442E+20	2,691796E+22	1,055330E+21	2,797329E+22
2036	1,345914E+22	1,345864E+22	5,276729E+20	5,275944E+20	2,691778E+22	1,055267E+21	2,797305E+22
2037	1,345887E+22	1,345967E+22	5,276725E+20	5,276316E+20	2,691853E+22	1,055304E+21	2,797384E+22
2038	1,345983E+22	1,345937E+22	5,275417E+20	5,276597E+20	2,691920E+22	1,055201E+21	2,797440E+22
2039	1,345983E+22	1,345991E+22	5,276746E+20	5,274996E+20	2,691973E+22	1,055174E+21	2,797491E+22
2040	1,345998E+22	1,346070E+22	5,275870E+20	5,276362E+20	2,692068E+22	1,055223E+21	2,797590E+22
2041	1,346069E+22	1,346010E+22	5,275340E+20	5,275803E+20	2,692078E+22	1,055114E+21	2,797590E+22
2042	1,346024E+22	1,346085E+22	5,276576E+20	5,275103E+20	2,692109E+22	1,055168E+21	2,797626E+22
2043	1,346065E+22	1,346079E+22	5,275105E+20	5,276594E+20	2,692145E+22	1,055170E+21	2,797662E+22
2044	1,346098E+22	1,346004E+22	5,275666E+20	5,275418E+20	2,692102E+22	1,055108E+21	2,797613E+22
2045	1,346011E+22	1,346072E+22	5,276570E+20	5,275625E+20	2,692084E+22	1,055219E+21	2,797606E+22
2046	1,346020E+22	1,346002E+22	5,275290E+20	5,276796E+20	2,692022E+22	1,055209E+21	2,797543E+22
2047	1,345960E+22	1,345941E+22	5,276855E+20	5,275647E+20	2,691901E+22	1,055250E+21	2,797426E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2048	1,345874E+22	1,345949E+22	5,276769E+20	5,276950E+20	2,691823E+22	1,055372E+21	2,797360E+22
2049	1,345894E+22	1,345813E+22	5,276071E+20	5,277186E+20	2,691706E+22	1,055326E+21	2,797239E+22
2050	1,345812E+22	1,345816E+22	5,277767E+20	5,276151E+20	2,691628E+22	1,055392E+21	2,797168E+22
2051	1,345786E+22	1,345818E+22	5,276700E+20	5,277774E+20	2,691603E+22	1,055447E+21	2,797148E+22
2052	1,345813E+22	1,345724E+22	5,276869E+20	5,277047E+20	2,691537E+22	1,055392E+21	2,797076E+22
2053	1,345726E+22	1,345804E+22	5,277914E+20	5,276583E+20	2,691530E+22	1,055450E+21	2,797075E+22
2054	1,345770E+22	1,345783E+22	5,276384E+20	5,277924E+20	2,691553E+22	1,055431E+21	2,797096E+22
2055	1,345802E+22	1,345760E+22	5,277267E+20	5,276255E+20	2,691562E+22	1,055352E+21	2,797097E+22
2056	1,345780E+22	1,345864E+22	5,277344E+20	5,276688E+20	2,691644E+22	1,055403E+21	2,797185E+22
2057	1,345870E+22	1,345825E+22	5,275990E+20	5,277109E+20	2,691695E+22	1,055310E+21	2,797226E+22
2058	1,345869E+22	1,345883E+22	5,277190E+20	5,275591E+20	2,691752E+22	1,055278E+21	2,797280E+22
2059	1,345878E+22	1,345953E+22	5,276343E+20	5,277016E+20	2,691831E+22	1,055336E+21	2,797365E+22
2060	1,345966E+22	1,345883E+22	5,275699E+20	5,276478E+20	2,691849E+22	1,055218E+21	2,797371E+22
2061	1,345926E+22	1,345962E+22	5,276958E+20	5,275523E+20	2,691888E+22	1,055248E+21	2,797412E+22
2062	1,345950E+22	1,345963E+22	5,275693E+20	5,277061E+20	2,691913E+22	1,055275E+21	2,797440E+22
2063	1,345967E+22	1,345898E+22	5,276334E+20	5,275875E+20	2,691864E+22	1,055221E+21	2,797386E+22
2064	1,345866E+22	1,345953E+22	5,277304E+20	5,276235E+20	2,691819E+22	1,055354E+21	2,797355E+22
2065	1,345866E+22	1,345852E+22	5,275991E+20	5,277504E+20	2,691718E+22	1,055350E+21	2,797253E+22
2066	1,345820E+22	1,345790E+22	5,277426E+20	5,276297E+20	2,691609E+22	1,055372E+21	2,797147E+22
2067	1,345739E+22	1,345800E+22	5,277380E+20	5,277542E+20	2,691539E+22	1,055492E+21	2,797088E+22
2068	1,345773E+22	1,345671E+22	5,276614E+20	5,277837E+20	2,691445E+22	1,055445E+21	2,796989E+22
2069	1,345690E+22	1,345693E+22	5,278259E+20	5,276659E+20	2,691382E+22	1,055492E+21	2,796932E+22
2070	1,345647E+22	1,345701E+22	5,277322E+20	5,278404E+20	2,691348E+22	1,055573E+21	2,796905E+22
2071	1,345676E+22	1,345613E+22	5,277480E+20	5,277569E+20	2,691289E+22	1,055505E+21	2,796839E+22
2072	1,345603E+22	1,345684E+22	5,278520E+20	5,277071E+20	2,691287E+22	1,055559E+21	2,796843E+22
2073	1,345650E+22	1,345651E+22	5,276958E+20	5,278384E+20	2,691301E+22	1,055534E+21	2,796855E+22
2074	1,345692E+22	1,345643E+22	5,277735E+20	5,276705E+20	2,691335E+22	1,055444E+21	2,796880E+22
2075	1,345663E+22	1,345753E+22	5,277849E+20	5,277228E+20	2,691416E+22	1,055508E+21	2,796967E+22
2076	1,345762E+22	1,345713E+22	5,276361E+20	5,277803E+20	2,691475E+22	1,055416E+21	2,797017E+22
2077	1,345768E+22	1,345769E+22	5,277484E+20	5,276107E+20	2,691537E+22	1,055359E+21	2,797073E+22
2078	1,345774E+22	1,345841E+22	5,276799E+20	5,277514E+20	2,691615E+22	1,055431E+21	2,797158E+22
2079	1,345863E+22	1,345783E+22	5,276239E+20	5,276822E+20	2,691646E+22	1,055306E+21	2,797177E+22
2080	1,345816E+22	1,345856E+22	5,277647E+20	5,275930E+20	2,691671E+22	1,055358E+21	2,797207E+22
2081	1,345814E+22	1,345842E+22	5,276412E+20	5,277605E+20	2,691655E+22	1,055402E+21	2,797196E+22
2082	1,345824E+22	1,345768E+22	5,276959E+20	5,276567E+20	2,691592E+22	1,055353E+21	2,797127E+22
2083	1,345717E+22	1,345804E+22	5,277955E+20	5,276977E+20	2,691521E+22	1,055493E+21	2,797070E+22
2084	1,345738E+22	1,345694E+22	5,276481E+20	5,278276E+20	2,691432E+22	1,055476E+21	2,796979E+22
2085	1,345700E+22	1,345641E+22	5,277859E+20	5,276814E+20	2,691341E+22	1,055467E+21	2,796888E+22
2086	1,345609E+22	1,345669E+22	5,278004E+20	5,278088E+20	2,691278E+22	1,055609E+21	2,796839E+22
2087	1,345634E+22	1,345563E+22	5,277295E+20	5,278332E+20	2,691197E+22	1,055563E+21	2,796753E+22
2088	1,345547E+22	1,345577E+22	5,278967E+20	5,277248E+20	2,691124E+22	1,055622E+21	2,796686E+22
2089	1,345500E+22	1,345565E+22	5,278004E+20	5,278995E+20	2,691065E+22	1,055700E+21	2,796635E+22
2090	1,345547E+22	1,345480E+22	5,278001E+20	5,278114E+20	2,691027E+22	1,055611E+21	2,796588E+22
2091	1,345484E+22	1,345552E+22	5,279050E+20	5,277574E+20	2,691036E+22	1,055662E+21	2,796602E+22
2092	1,345548E+22	1,345528E+22	5,277362E+20	5,278965E+20	2,691076E+22	1,055633E+21	2,796639E+22
2093	1,345593E+22	1,345536E+22	5,278039E+20	5,277189E+20	2,691129E+22	1,055523E+21	2,796681E+22
2094	1,345555E+22	1,345652E+22	5,278297E+20	5,277828E+20	2,691206E+22	1,055612E+21	2,796768E+22
2095	1,345656E+22	1,345618E+22	5,276863E+20	5,278258E+20	2,691274E+22	1,055512E+21	2,796826E+22
2096	1,345671E+22	1,345665E+22	5,278030E+20	5,276525E+20	2,691337E+22	1,055456E+21	2,796882E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2097	1,345662E+22	1,345724E+22	5,277445E+20	5,277869E+20	2,691386E+22	1,055531E+21	2,796939E+22
2098	1,345743E+22	1,345672E+22	5,276841E+20	5,277259E+20	2,691415E+22	1,055410E+21	2,796956E+22
2099	1,345677E+22	1,345733E+22	5,278303E+20	5,276530E+20	2,691410E+22	1,055483E+21	2,796958E+22
2100	1,345673E+22	1,345702E+22	5,276931E+20	5,278379E+20	2,691376E+22	1,055531E+21	2,796929E+22
2101	1,345690E+22	1,345623E+22	5,277367E+20	5,277233E+20	2,691313E+22	1,055460E+21	2,796859E+22
2102	1,345587E+22	1,345658E+22	5,278482E+20	5,277632E+20	2,691245E+22	1,055611E+21	2,796806E+22
2103	1,345612E+22	1,345567E+22	5,277110E+20	5,278773E+20	2,691179E+22	1,055588E+21	2,796738E+22
2104	1,345577E+22	1,345517E+22	5,278554E+20	5,277349E+20	2,691094E+22	1,055590E+21	2,796653E+22
2105	1,345463E+22	1,345539E+22	5,278744E+20	5,278687E+20	2,691002E+22	1,055743E+21	2,796576E+22
2106	1,345487E+22	1,345433E+22	5,277945E+20	5,279021E+20	2,690920E+22	1,055697E+21	2,796490E+22
2107	1,345403E+22	1,345434E+22	5,279598E+20	5,277937E+20	2,690836E+22	1,055754E+21	2,796412E+22
2108	1,345379E+22	1,345419E+22	5,278454E+20	5,279635E+20	2,690798E+22	1,055809E+21	2,796379E+22
2109	1,345440E+22	1,345349E+22	5,278350E+20	5,278558E+20	2,690789E+22	1,055691E+21	2,796358E+22
2110	1,345373E+22	1,345438E+22	5,279519E+20	5,278066E+20	2,690812E+22	1,055758E+21	2,796387E+22
2111	1,345435E+22	1,345438E+22	5,277893E+20	5,279396E+20	2,690873E+22	1,055729E+21	2,796446E+22
2112	1,345484E+22	1,345440E+22	5,278577E+20	5,277663E+20	2,690924E+22	1,055624E+21	2,796487E+22
2113	1,345439E+22	1,345542E+22	5,278875E+20	5,278262E+20	2,690981E+22	1,055714E+21	2,796552E+22
2114	1,345550E+22	1,345510E+22	5,277378E+20	5,278649E+20	2,691061E+22	1,055603E+21	2,796621E+22
2115	1,345560E+22	1,345550E+22	5,278623E+20	5,276979E+20	2,691110E+22	1,055560E+21	2,796666E+22
2116	1,345551E+22	1,345605E+22	5,277924E+20	5,278434E+20	2,691156E+22	1,055636E+21	2,796719E+22
2117	1,345622E+22	1,345553E+22	5,277229E+20	5,277869E+20	2,691174E+22	1,055510E+21	2,796725E+22
2118	1,345544E+22	1,345603E+22	5,278804E+20	5,277289E+20	2,691147E+22	1,055609E+21	2,796708E+22
2119	1,345545E+22	1,345574E+22	5,277489E+20	5,278991E+20	2,691119E+22	1,055648E+21	2,796684E+22
2120	1,345574E+22	1,345487E+22	5,277947E+20	5,277779E+20	2,691060E+22	1,055573E+21	2,796618E+22
2121	1,345456E+22	1,345518E+22	5,279161E+20	5,278114E+20	2,690975E+22	1,055728E+21	2,796547E+22
2122	1,345476E+22	1,345439E+22	5,277807E+20	5,279311E+20	2,690915E+22	1,055712E+21	2,796486E+22
2123	1,345426E+22	1,345385E+22	5,279288E+20	5,278042E+20	2,690810E+22	1,055733E+21	2,796384E+22
2124	1,345317E+22	1,345395E+22	5,279313E+20	5,279435E+20	2,690713E+22	1,055875E+21	2,796300E+22
2125	1,345353E+22	1,345290E+22	5,278380E+20	5,279641E+20	2,690644E+22	1,055802E+21	2,796224E+22
2126	1,345277E+22	1,345295E+22	5,280085E+20	5,278520E+20	2,690572E+22	1,055861E+21	2,796158E+22
2127	1,345262E+22	1,345303E+22	5,279021E+20	5,280022E+20	2,690565E+22	1,055904E+21	2,796155E+22
2128	1,345331E+22	1,345243E+22	5,278921E+20	5,278989E+20	2,690574E+22	1,055791E+21	2,796153E+22
2129	1,345249E+22	1,345330E+22	5,280121E+20	5,278564E+20	2,690579E+22	1,055869E+21	2,796165E+22
2130	1,345316E+22	1,345331E+22	5,278471E+20	5,279947E+20	2,690647E+22	1,055842E+21	2,796231E+22
2131	1,345371E+22	1,345323E+22	5,279105E+20	5,278232E+20	2,690694E+22	1,055734E+21	2,796267E+22
2132	1,345341E+22	1,345417E+22	5,279255E+20	5,278763E+20	2,690758E+22	1,055802E+21	2,796338E+22
2133	1,345452E+22	1,345397E+22	5,277701E+20	5,279044E+20	2,690849E+22	1,055674E+21	2,796417E+22
2134	1,345446E+22	1,345440E+22	5,279069E+20	5,277538E+20	2,690886E+22	1,055661E+21	2,796452E+22
2135	1,345424E+22	1,345503E+22	5,278466E+20	5,278956E+20	2,690927E+22	1,055742E+21	2,796501E+22
2136	1,345497E+22	1,345435E+22	5,277786E+20	5,278468E+20	2,690933E+22	1,055625E+21	2,796495E+22
2137	1,345412E+22	1,345466E+22	5,279401E+20	5,277845E+20	2,690878E+22	1,055725E+21	2,796450E+22
2138	1,345423E+22	1,345439E+22	5,278116E+20	5,279490E+20	2,690862E+22	1,055761E+21	2,796438E+22
2139	1,345446E+22	1,345351E+22	5,278638E+20	5,278348E+20	2,690797E+22	1,055699E+21	2,796366E+22
2140	1,345328E+22	1,345382E+22	5,279731E+20	5,278758E+20	2,690709E+22	1,055849E+21	2,796294E+22
2141	1,345337E+22	1,345309E+22	5,278324E+20	5,280000E+20	2,690646E+22	1,055832E+21	2,796229E+22
2142	1,345279E+22	1,345246E+22	5,279877E+20	5,278852E+20	2,690525E+22	1,055873E+21	2,796112E+22
2143	1,345180E+22	1,345262E+22	5,279921E+20	5,280002E+20	2,690443E+22	1,055992E+21	2,796042E+22
2144	1,345232E+22	1,345156E+22	5,278982E+20	5,280104E+20	2,690388E+22	1,055909E+21	2,795979E+22
2145	1,345147E+22	1,345164E+22	5,280723E+20	5,278927E+20	2,690310E+22	1,055965E+21	2,795907E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2146	1,345135E+22	1,345187E+22	5,279660E+20	5,280469E+20	2,690322E+22	1,056013E+21	2,795924E+22
2147	1,345198E+22	1,345129E+22	5,279534E+20	5,279596E+20	2,690326E+22	1,055913E+21	2,795918E+22
2148	1,345133E+22	1,345207E+22	5,280516E+20	5,279203E+20	2,690341E+22	1,055972E+21	2,795938E+22
2149	1,345214E+22	1,345215E+22	5,278781E+20	5,280453E+20	2,690429E+22	1,055923E+21	2,796021E+22
2150	1,345273E+22	1,345211E+22	5,279469E+20	5,278745E+20	2,690484E+22	1,055821E+21	2,796066E+22
2151	1,345244E+22	1,345321E+22	5,279730E+20	5,279083E+20	2,690564E+22	1,055881E+21	2,796153E+22
2152	1,345347E+22	1,345302E+22	5,278213E+20	5,279440E+20	2,690649E+22	1,055765E+21	2,796226E+22
2153	1,345316E+22	1,345330E+22	5,279656E+20	5,278076E+20	2,690646E+22	1,055773E+21	2,796223E+22
2154	1,345296E+22	1,345381E+22	5,279097E+20	5,279534E+20	2,690677E+22	1,055863E+21	2,796263E+22
2155	1,345371E+22	1,345300E+22	5,278415E+20	5,279110E+20	2,690671E+22	1,055753E+21	2,796246E+22
2156	1,345299E+22	1,345321E+22	5,279858E+20	5,278437E+20	2,690620E+22	1,055830E+21	2,796203E+22
2157	1,345305E+22	1,345307E+22	5,278595E+20	5,280021E+20	2,690612E+22	1,055862E+21	2,796198E+22
2158	1,345310E+22	1,345223E+22	5,279203E+20	5,279053E+20	2,690534E+22	1,055826E+21	2,796116E+22
2159	1,345181E+22	1,345261E+22	5,280381E+20	5,279363E+20	2,690442E+22	1,055974E+21	2,796040E+22
2160	1,345194E+22	1,345178E+22	5,278985E+20	5,280608E+20	2,690372E+22	1,055959E+21	2,795968E+22
2161	1,345130E+22	1,345100E+22	5,280560E+20	5,279421E+20	2,690230E+22	1,055998E+21	2,795830E+22
2162	1,345044E+22	1,345121E+22	5,280617E+20	5,280471E+20	2,690165E+22	1,056109E+21	2,795776E+22
2163	1,345098E+22	1,345021E+22	5,279664E+20	5,280676E+20	2,690119E+22	1,056034E+21	2,795722E+22
2164	1,345023E+22	1,345029E+22	5,281157E+20	5,279565E+20	2,690052E+22	1,056072E+21	2,795660E+22
2165	1,345016E+22	1,345067E+22	5,280054E+20	5,281127E+20	2,690083E+22	1,056118E+21	2,795695E+22
2166	1,345084E+22	1,345010E+22	5,279931E+20	5,280300E+20	2,690094E+22	1,056023E+21	2,795696E+22
2167	1,345034E+22	1,345101E+22	5,280937E+20	5,279619E+20	2,690135E+22	1,056056E+21	2,795741E+22
2168	1,345124E+22	1,345115E+22	5,279253E+20	5,280723E+20	2,690238E+22	1,055998E+21	2,795838E+22
2169	1,345160E+22	1,345110E+22	5,280033E+20	5,279055E+20	2,690270E+22	1,055909E+21	2,795861E+22
2170	1,345122E+22	1,345222E+22	5,280365E+20	5,279465E+20	2,690344E+22	1,055983E+21	2,795943E+22
2171	1,345213E+22	1,345191E+22	5,278861E+20	5,280046E+20	2,690404E+22	1,055891E+21	2,795994E+22
2172	1,345195E+22	1,345197E+22	5,280073E+20	5,278744E+20	2,690392E+22	1,055882E+21	2,795980E+22
2173	1,345186E+22	1,345248E+22	5,279494E+20	5,280120E+20	2,690434E+22	1,055961E+21	2,796030E+22
2174	1,345259E+22	1,345170E+22	5,278877E+20	5,279746E+20	2,690429E+22	1,055862E+21	2,796015E+22
2175	1,345186E+22	1,345205E+22	5,280409E+20	5,278922E+20	2,690391E+22	1,055933E+21	2,795984E+22
2176	1,345180E+22	1,345193E+22	5,279234E+20	5,280537E+20	2,690373E+22	1,055977E+21	2,795971E+22
2177	1,345156E+22	1,345096E+22	5,279932E+20	5,279726E+20	2,690252E+22	1,055966E+21	2,795849E+22
2178	1,345032E+22	1,345120E+22	5,281135E+20	5,279990E+20	2,690153E+22	1,056112E+21	2,795764E+22
2179	1,345046E+22	1,345027E+22	5,279722E+20	5,281261E+20	2,690073E+22	1,056098E+21	2,795683E+22
2180	1,344999E+22	1,344943E+22	5,281051E+20	5,280023E+20	2,689942E+22	1,056107E+21	2,795553E+22
2181	1,344918E+22	1,344981E+22	5,281090E+20	5,281032E+20	2,689899E+22	1,056212E+21	2,795521E+22
2182	1,344966E+22	1,344895E+22	5,280152E+20	5,281380E+20	2,689860E+22	1,056153E+21	2,795476E+22
2183	1,344901E+22	1,344918E+22	5,281630E+20	5,280130E+20	2,689819E+22	1,056176E+21	2,795436E+22
2184	1,344907E+22	1,344958E+22	5,280567E+20	5,281573E+20	2,689865E+22	1,056214E+21	2,795486E+22
2185	1,344968E+22	1,344901E+22	5,280485E+20	5,280683E+20	2,689869E+22	1,056117E+21	2,795480E+22
2186	1,344928E+22	1,344997E+22	5,281556E+20	5,279885E+20	2,689925E+22	1,056144E+21	2,795539E+22
2187	1,345007E+22	1,345013E+22	5,279911E+20	5,281124E+20	2,690020E+22	1,056103E+21	2,795630E+22
2188	1,345042E+22	1,344996E+22	5,280454E+20	5,279641E+20	2,690038E+22	1,056010E+21	2,795639E+22
2189	1,345005E+22	1,345104E+22	5,280776E+20	5,280156E+20	2,690108E+22	1,056093E+21	2,795718E+22
2190	1,345097E+22	1,345064E+22	5,279272E+20	5,280827E+20	2,690162E+22	1,056010E+21	2,795763E+22
2191	1,345095E+22	1,345074E+22	5,280469E+20	5,279275E+20	2,690169E+22	1,055974E+21	2,795767E+22
2192	1,345089E+22	1,345132E+22	5,280003E+20	5,280497E+20	2,690221E+22	1,056050E+21	2,795826E+22
2193	1,345132E+22	1,345055E+22	5,279515E+20	5,280201E+20	2,690187E+22	1,055972E+21	2,795784E+22
2194	1,345044E+22	1,345088E+22	5,281166E+20	5,279433E+20	2,690132E+22	1,056060E+21	2,795738E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2195	1,345024E+22	1,345063E+22	5,280030E+20	5,281219E+20	2,690087E+22	1,056125E+21	2,795700E+22
2196	1,345009E+22	1,344941E+22	5,280488E+20	5,280471E+20	2,689950E+22	1,056096E+21	2,795559E+22
2197	1,344898E+22	1,344965E+22	5,281647E+20	5,280648E+20	2,689863E+22	1,056229E+21	2,795486E+22
2198	1,344914E+22	1,344878E+22	5,280254E+20	5,281937E+20	2,689793E+22	1,056219E+21	2,795415E+22
2199	1,344876E+22	1,344814E+22	5,281555E+20	5,280553E+20	2,689690E+22	1,056211E+21	2,795311E+22
2200	1,344797E+22	1,344864E+22	5,281648E+20	5,281536E+20	2,689661E+22	1,056318E+21	2,795293E+22
2201	1,344827E+22	1,344779E+22	5,280798E+20	5,281979E+20	2,689605E+22	1,056278E+21	2,795233E+22
2202	1,344778E+22	1,344801E+22	5,282289E+20	5,280613E+20	2,689579E+22	1,056290E+21	2,795208E+22
2203	1,344790E+22	1,344841E+22	5,281241E+20	5,282027E+20	2,689631E+22	1,056327E+21	2,795264E+22
2204	1,344859E+22	1,344780E+22	5,280915E+20	5,281123E+20	2,689638E+22	1,056204E+21	2,795259E+22
2205	1,344819E+22	1,344884E+22	5,281963E+20	5,280380E+20	2,689702E+22	1,056234E+21	2,795326E+22
2206	1,344883E+22	1,344903E+22	5,280328E+20	5,281784E+20	2,689786E+22	1,056211E+21	2,795407E+22
2207	1,344930E+22	1,344888E+22	5,280825E+20	5,280247E+20	2,689818E+22	1,056107E+21	2,795429E+22
2208	1,344907E+22	1,344989E+22	5,281210E+20	5,280629E+20	2,689896E+22	1,056184E+21	2,795515E+22
2209	1,344987E+22	1,344950E+22	5,279823E+20	5,281279E+20	2,689937E+22	1,056110E+21	2,795548E+22
2210	1,344991E+22	1,344962E+22	5,281102E+20	5,279632E+20	2,689953E+22	1,056073E+21	2,795560E+22
2211	1,344965E+22	1,345020E+22	5,280735E+20	5,280977E+20	2,689984E+22	1,056171E+21	2,795602E+22
2212	1,344995E+22	1,344928E+22	5,280062E+20	5,280871E+20	2,689922E+22	1,056093E+21	2,795531E+22
2213	1,344904E+22	1,344948E+22	5,281731E+20	5,280214E+20	2,689853E+22	1,056195E+21	2,795472E+22
2214	1,344879E+22	1,344913E+22	5,280599E+20	5,282015E+20	2,689793E+22	1,056261E+21	2,795419E+22
2215	1,344883E+22	1,344794E+22	5,281002E+20	5,281078E+20	2,689677E+22	1,056208E+21	2,795298E+22
2216	1,344778E+22	1,344825E+22	5,282217E+20	5,281087E+20	2,689603E+22	1,056330E+21	2,795236E+22
2217	1,344770E+22	1,344749E+22	5,280940E+20	5,282464E+20	2,689519E+22	1,056340E+21	2,795153E+22
2218	1,344733E+22	1,344692E+22	5,282265E+20	5,281089E+20	2,689424E+22	1,056335E+21	2,795058E+22
2219	1,344653E+22	1,344741E+22	5,282388E+20	5,282171E+20	2,689394E+22	1,056456E+21	2,795040E+22
2220	1,344698E+22	1,344644E+22	5,281295E+20	5,282603E+20	2,689343E+22	1,056390E+21	2,794981E+22
2221	1,344667E+22	1,344673E+22	5,282731E+20	5,281174E+20	2,689340E+22	1,056391E+21	2,794979E+22
2222	1,344678E+22	1,344722E+22	5,281695E+20	5,282563E+20	2,689400E+22	1,056426E+21	2,795042E+22
2223	1,344754E+22	1,344674E+22	5,281298E+20	5,281603E+20	2,689428E+22	1,056290E+21	2,795057E+22
2224	1,344714E+22	1,344781E+22	5,282381E+20	5,280856E+20	2,689495E+22	1,056324E+21	2,795128E+22
2225	1,344763E+22	1,344795E+22	5,280856E+20	5,282350E+20	2,689558E+22	1,056321E+21	2,795190E+22
2226	1,344824E+22	1,344775E+22	5,281383E+20	5,280688E+20	2,689600E+22	1,056207E+21	2,795220E+22
2227	1,344804E+22	1,344877E+22	5,281833E+20	5,281054E+20	2,689681E+22	1,056289E+21	2,795310E+22
2228	1,344879E+22	1,344830E+22	5,280313E+20	5,281713E+20	2,689708E+22	1,056203E+21	2,795329E+22
2229	1,344872E+22	1,344844E+22	5,281615E+20	5,280209E+20	2,689717E+22	1,056182E+21	2,795335E+22
2230	1,344824E+22	1,344897E+22	5,281298E+20	5,281671E+20	2,689721E+22	1,056297E+21	2,795351E+22
2231	1,344859E+22	1,344797E+22	5,280571E+20	5,281564E+20	2,689657E+22	1,056214E+21	2,795278E+22
2232	1,344779E+22	1,344809E+22	5,282279E+20	5,280770E+20	2,689588E+22	1,056305E+21	2,795218E+22
2233	1,344739E+22	1,344773E+22	5,281264E+20	5,282550E+20	2,689512E+22	1,056381E+21	2,795150E+22
2234	1,344749E+22	1,344660E+22	5,281733E+20	5,281545E+20	2,689409E+22	1,056328E+21	2,795042E+22
2235	1,344637E+22	1,344696E+22	5,282971E+20	5,281685E+20	2,689332E+22	1,056466E+21	2,794979E+22
2236	1,344625E+22	1,344612E+22	5,281526E+20	5,283199E+20	2,689236E+22	1,056473E+21	2,794884E+22
2237	1,344601E+22	1,344552E+22	5,282788E+20	5,281892E+20	2,689153E+22	1,056468E+21	2,794800E+22
2238	1,344527E+22	1,344603E+22	5,282890E+20	5,282857E+20	2,689130E+22	1,056575E+21	2,794787E+22
2239	1,344593E+22	1,344521E+22	5,281708E+20	5,283090E+20	2,689115E+22	1,056480E+21	2,794763E+22
2240	1,344567E+22	1,344560E+22	5,283172E+20	5,281496E+20	2,689127E+22	1,056467E+21	2,794774E+22
2241	1,344549E+22	1,344619E+22	5,282268E+20	5,282959E+20	2,689169E+22	1,056523E+21	2,794821E+22
2242	1,344629E+22	1,344574E+22	5,281892E+20	5,282032E+20	2,689203E+22	1,056392E+21	2,794843E+22
2243	1,344594E+22	1,344672E+22	5,282988E+20	5,281389E+20	2,689266E+22	1,056438E+21	2,794910E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2244	1,344654E+22	1,344673E+22	5,281312E+20	5,282862E+20	2,689327E+22	1,056417E+21	2,794969E+22
2245	1,344729E+22	1,344656E+22	5,281802E+20	5,281202E+20	2,689386E+22	1,056300E+21	2,795016E+22
2246	1,344697E+22	1,344763E+22	5,282300E+20	5,281553E+20	2,689460E+22	1,056385E+21	2,795099E+22
2247	1,344768E+22	1,344724E+22	5,280746E+20	5,282247E+20	2,689492E+22	1,056299E+21	2,795122E+22
2248	1,344751E+22	1,344730E+22	5,282119E+20	5,280800E+20	2,689481E+22	1,056292E+21	2,795110E+22
2249	1,344680E+22	1,344769E+22	5,281949E+20	5,282320E+20	2,689449E+22	1,056427E+21	2,795092E+22
2250	1,344726E+22	1,344661E+22	5,281264E+20	5,282122E+20	2,689387E+22	1,056339E+21	2,795021E+22
2251	1,344648E+22	1,344668E+22	5,282993E+20	5,281332E+20	2,689316E+22	1,056432E+21	2,794959E+22
2252	1,344601E+22	1,344625E+22	5,281859E+20	5,283130E+20	2,689226E+22	1,056499E+21	2,794876E+22
2253	1,344610E+22	1,344518E+22	5,282293E+20	5,282273E+20	2,689128E+22	1,056457E+21	2,794774E+22
2254	1,344489E+22	1,344557E+22	5,283517E+20	5,282455E+20	2,689046E+22	1,056597E+21	2,794706E+22
2255	1,344496E+22	1,344477E+22	5,282029E+20	5,283891E+20	2,688973E+22	1,056592E+21	2,794632E+22
2256	1,344487E+22	1,344423E+22	5,283288E+20	5,282388E+20	2,688910E+22	1,056568E+21	2,794567E+22
2257	1,344403E+22	1,344484E+22	5,283501E+20	5,283236E+20	2,688887E+22	1,056674E+21	2,794554E+22
2258	1,344473E+22	1,344413E+22	5,282375E+20	5,283389E+20	2,688886E+22	1,056576E+21	2,794544E+22
2259	1,344441E+22	1,344456E+22	5,283814E+20	5,281959E+20	2,688897E+22	1,056577E+21	2,794555E+22
2260	1,344419E+22	1,344502E+22	5,282779E+20	5,283539E+20	2,688920E+22	1,056632E+21	2,794584E+22
2261	1,344516E+22	1,344452E+22	5,282335E+20	5,282715E+20	2,688967E+22	1,056505E+21	2,794618E+22
2262	1,344492E+22	1,344549E+22	5,283377E+20	5,281970E+20	2,689041E+22	1,056535E+21	2,794694E+22
2263	1,344568E+22	1,344562E+22	5,281676E+20	5,283305E+20	2,689130E+22	1,056498E+21	2,794780E+22
2264	1,344638E+22	1,344555E+22	5,282199E+20	5,281563E+20	2,689192E+22	1,056376E+21	2,794830E+22
2265	1,344570E+22	1,344663E+22	5,282863E+20	5,281996E+20	2,689233E+22	1,056486E+21	2,794882E+22
2266	1,344634E+22	1,344618E+22	5,281405E+20	5,282737E+20	2,689252E+22	1,056414E+21	2,794893E+22
2267	1,344616E+22	1,344607E+22	5,282809E+20	5,281440E+20	2,689222E+22	1,056425E+21	2,794865E+22
2268	1,344545E+22	1,344624E+22	5,282538E+20	5,282917E+20	2,689169E+22	1,056546E+21	2,794823E+22
2269	1,344602E+22	1,344514E+22	5,281833E+20	5,282789E+20	2,689116E+22	1,056462E+21	2,794763E+22
2270	1,344516E+22	1,344523E+22	5,283535E+20	5,281969E+20	2,689039E+22	1,056550E+21	2,794694E+22
2271	1,344473E+22	1,344492E+22	5,282369E+20	5,283807E+20	2,688966E+22	1,056618E+21	2,794628E+22
2272	1,344480E+22	1,344388E+22	5,282817E+20	5,282934E+20	2,688867E+22	1,056575E+21	2,794525E+22
2273	1,344346E+22	1,344424E+22	5,284168E+20	5,283064E+20	2,688770E+22	1,056723E+21	2,794442E+22
2274	1,344367E+22	1,344352E+22	5,282752E+20	5,284319E+20	2,688719E+22	1,056707E+21	2,794389E+22
2275	1,344360E+22	1,344302E+22	5,283998E+20	5,282828E+20	2,688662E+22	1,056683E+21	2,794330E+22
2276	1,344266E+22	1,344356E+22	5,284103E+20	5,283667E+20	2,688622E+22	1,056777E+21	2,794300E+22
2277	1,344339E+22	1,344290E+22	5,282901E+20	5,284014E+20	2,688629E+22	1,056692E+21	2,794298E+22
2278	1,344308E+22	1,344331E+22	5,284237E+20	5,282624E+20	2,688638E+22	1,056686E+21	2,794307E+22
2279	1,344315E+22	1,344380E+22	5,283130E+20	5,284153E+20	2,688695E+22	1,056728E+21	2,794368E+22
2280	1,344428E+22	1,344340E+22	5,282663E+20	5,283163E+20	2,688769E+22	1,056583E+21	2,794427E+22
2281	1,344395E+22	1,344447E+22	5,283841E+20	5,282337E+20	2,688842E+22	1,056618E+21	2,794504E+22
2282	1,344467E+22	1,344472E+22	5,282278E+20	5,283595E+20	2,688938E+22	1,056587E+21	2,794597E+22
2283	1,344520E+22	1,344461E+22	5,282811E+20	5,282089E+20	2,688981E+22	1,056490E+21	2,794630E+22
2284	1,344436E+22	1,344542E+22	5,283436E+20	5,282605E+20	2,688978E+22	1,056604E+21	2,794638E+22
2285	1,344507E+22	1,344482E+22	5,281963E+20	5,283459E+20	2,688988E+22	1,056542E+21	2,794642E+22
2286	1,344492E+22	1,344463E+22	5,283310E+20	5,282081E+20	2,688954E+22	1,056539E+21	2,794608E+22
2287	1,344433E+22	1,344483E+22	5,283028E+20	5,283468E+20	2,688917E+22	1,056650E+21	2,794582E+22
2288	1,344481E+22	1,344384E+22	5,282349E+20	5,283307E+20	2,688865E+22	1,056566E+21	2,794522E+22
2289	1,344369E+22	1,344398E+22	5,284141E+20	5,282560E+20	2,688767E+22	1,056670E+21	2,794434E+22
2290	1,344326E+22	1,344368E+22	5,283122E+20	5,284356E+20	2,688694E+22	1,056748E+21	2,794369E+22
2291	1,344337E+22	1,344259E+22	5,283559E+20	5,283567E+20	2,688597E+22	1,056713E+21	2,794268E+22
2292	1,344205E+22	1,344282E+22	5,284825E+20	5,283579E+20	2,688487E+22	1,056840E+21	2,794171E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2293	1,344237E+22	1,344214E+22	5,283391E+20	5,284888E+20	2,688451E+22	1,056828E+21	2,794134E+22
2294	1,344225E+22	1,344170E+22	5,284526E+20	5,283406E+20	2,688395E+22	1,056793E+21	2,794074E+22
2295	1,344143E+22	1,344231E+22	5,284523E+20	5,284317E+20	2,688374E+22	1,056884E+21	2,794062E+22
2296	1,344224E+22	1,344170E+22	5,283283E+20	5,284651E+20	2,688394E+22	1,056793E+21	2,794073E+22
2297	1,344197E+22	1,344213E+22	5,284651E+20	5,283181E+20	2,688410E+22	1,056783E+21	2,794088E+22
2298	1,344223E+22	1,344277E+22	5,283685E+20	5,284483E+20	2,688501E+22	1,056817E+21	2,794182E+22
2299	1,344335E+22	1,344248E+22	5,283223E+20	5,283511E+20	2,688583E+22	1,056673E+21	2,794250E+22
2300	1,344280E+22	1,344345E+22	5,284385E+20	5,282694E+20	2,688625E+22	1,056708E+21	2,794296E+22
2301	1,344344E+22	1,344365E+22	5,282840E+20	5,284146E+20	2,688709E+22	1,056699E+21	2,794379E+22
2302	1,344387E+22	1,344339E+22	5,283319E+20	5,282730E+20	2,688726E+22	1,056605E+21	2,794386E+22
2303	1,344321E+22	1,344410E+22	5,283891E+20	5,283237E+20	2,688731E+22	1,056713E+21	2,794402E+22
2304	1,344397E+22	1,344352E+22	5,282409E+20	5,283986E+20	2,688749E+22	1,056639E+21	2,794413E+22
2305	1,344369E+22	1,344333E+22	5,283850E+20	5,282578E+20	2,688702E+22	1,056643E+21	2,794366E+22
2306	1,344306E+22	1,344366E+22	5,283729E+20	5,283906E+20	2,688672E+22	1,056763E+21	2,794349E+22
2307	1,344339E+22	1,344267E+22	5,283055E+20	5,283969E+20	2,688606E+22	1,056702E+21	2,794276E+22
2308	1,344215E+22	1,344256E+22	5,284821E+20	5,283265E+20	2,688471E+22	1,056809E+21	2,794152E+22
2309	1,344186E+22	1,344219E+22	5,283811E+20	5,285097E+20	2,688405E+22	1,056891E+21	2,794094E+22
2310	1,344200E+22	1,344111E+22	5,284148E+20	5,284213E+20	2,688311E+22	1,056836E+21	2,793994E+22
2311	1,344083E+22	1,344140E+22	5,285319E+20	5,284153E+20	2,688223E+22	1,056947E+21	2,793918E+22
2312	1,344109E+22	1,344087E+22	5,283852E+20	5,285421E+20	2,688195E+22	1,056927E+21	2,793888E+22
2313	1,344085E+22	1,344048E+22	5,285003E+20	5,284003E+20	2,688133E+22	1,056901E+21	2,793823E+22
2314	1,344019E+22	1,344116E+22	5,285127E+20	5,284802E+20	2,688136E+22	1,056993E+21	2,793835E+22
2315	1,344115E+22	1,344063E+22	5,283856E+20	5,285163E+20	2,688178E+22	1,056902E+21	2,793868E+22
2316	1,344093E+22	1,344099E+22	5,285164E+20	5,283567E+20	2,688192E+22	1,056873E+21	2,793879E+22
2317	1,344126E+22	1,344170E+22	5,284264E+20	5,284890E+20	2,688297E+22	1,056915E+21	2,793988E+22
2318	1,344222E+22	1,344148E+22	5,283708E+20	5,283969E+20	2,688370E+22	1,056768E+21	2,794047E+22
2319	1,344169E+22	1,344237E+22	5,284797E+20	5,283289E+20	2,688406E+22	1,056809E+21	2,794087E+22
2320	1,344226E+22	1,344250E+22	5,283266E+20	5,284733E+20	2,688476E+22	1,056800E+21	2,794156E+22
2321	1,344268E+22	1,344215E+22	5,283774E+20	5,283323E+20	2,688483E+22	1,056710E+21	2,794153E+22
2322	1,344213E+22	1,344289E+22	5,284515E+20	5,283644E+20	2,688501E+22	1,056816E+21	2,794183E+22
2323	1,344281E+22	1,344237E+22	5,283058E+20	5,284473E+20	2,688517E+22	1,056753E+21	2,794193E+22
2324	1,344230E+22	1,344204E+22	5,284461E+20	5,283114E+20	2,688434E+22	1,056758E+21	2,794110E+22
2325	1,344162E+22	1,344232E+22	5,284397E+20	5,284608E+20	2,688394E+22	1,056900E+21	2,794084E+22
2326	1,344189E+22	1,344125E+22	5,283664E+20	5,284715E+20	2,688314E+22	1,056838E+21	2,793998E+22
2327	1,344087E+22	1,344106E+22	5,285348E+20	5,283986E+20	2,688194E+22	1,056933E+21	2,793887E+22
2328	1,344062E+22	1,344079E+22	5,284346E+20	5,285650E+20	2,688141E+22	1,057000E+21	2,793841E+22
2329	1,344068E+22	1,343977E+22	5,284720E+20	5,284761E+20	2,688045E+22	1,056948E+21	2,793740E+22
2330	1,343952E+22	1,344020E+22	5,285986E+20	5,284614E+20	2,687972E+22	1,057060E+21	2,793678E+22
2331	1,343972E+22	1,343972E+22	5,284488E+20	5,286037E+20	2,687944E+22	1,057053E+21	2,793649E+22
2332	1,343948E+22	1,343916E+22	5,285571E+20	5,284598E+20	2,687864E+22	1,057017E+21	2,793566E+22
2333	1,343909E+22	1,343988E+22	5,285716E+20	5,285372E+20	2,687897E+22	1,057109E+21	2,793608E+22
2334	1,344009E+22	1,343946E+22	5,284378E+20	5,285605E+20	2,687955E+22	1,056998E+21	2,793654E+22
2335	1,343998E+22	1,343989E+22	5,285578E+20	5,284017E+20	2,687987E+22	1,056960E+21	2,793683E+22
2336	1,344018E+22	1,344072E+22	5,284665E+20	5,285315E+20	2,688090E+22	1,056998E+21	2,793790E+22
2337	1,344095E+22	1,344043E+22	5,284125E+20	5,284523E+20	2,688138E+22	1,056865E+21	2,793824E+22
2338	1,344052E+22	1,344128E+22	5,285351E+20	5,283773E+20	2,688180E+22	1,056912E+21	2,793871E+22
2339	1,344113E+22	1,344140E+22	5,283821E+20	5,285245E+20	2,688252E+22	1,056907E+21	2,793943E+22
2340	1,344150E+22	1,344087E+22	5,284328E+20	5,283798E+20	2,688237E+22	1,056813E+21	2,793918E+22
2341	1,344101E+22	1,344161E+22	5,285145E+20	5,284181E+20	2,688261E+22	1,056933E+21	2,793955E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2342	1,344149E+22	1,344113E+22	5,283637E+20	5,285098E+20	2,688261E+22	1,056873E+21	2,793948E+22
2343	1,344103E+22	1,344069E+22	5,284940E+20	5,283896E+20	2,688172E+22	1,056884E+21	2,793860E+22
2344	1,344032E+22	1,344093E+22	5,284902E+20	5,285305E+20	2,688125E+22	1,057021E+21	2,793827E+22
2345	1,344056E+22	1,343985E+22	5,284216E+20	5,285375E+20	2,688041E+22	1,056959E+21	2,793737E+22
2346	1,343963E+22	1,343975E+22	5,286058E+20	5,284439E+20	2,687939E+22	1,057050E+21	2,793644E+22
2347	1,343925E+22	1,343958E+22	5,285070E+20	5,286115E+20	2,687883E+22	1,057118E+21	2,793595E+22
2348	1,343912E+22	1,343843E+22	5,285398E+20	5,285308E+20	2,687755E+22	1,057071E+21	2,793462E+22
2349	1,343807E+22	1,343881E+22	5,286666E+20	5,285269E+20	2,687687E+22	1,057194E+21	2,793407E+22
2350	1,343833E+22	1,343838E+22	5,285079E+20	5,286680E+20	2,687670E+22	1,057176E+21	2,793388E+22
2351	1,343843E+22	1,343784E+22	5,285970E+20	5,285211E+20	2,687626E+22	1,057118E+21	2,793338E+22
2352	1,343812E+22	1,343872E+22	5,286122E+20	5,285804E+20	2,687684E+22	1,057193E+21	2,793403E+22
2353	1,343903E+22	1,343845E+22	5,284804E+20	5,286036E+20	2,687748E+22	1,057084E+21	2,793456E+22
2354	1,343890E+22	1,343898E+22	5,286102E+20	5,284420E+20	2,687789E+22	1,057052E+21	2,793494E+22
2355	1,343898E+22	1,343978E+22	5,285205E+20	5,285819E+20	2,687877E+22	1,057102E+21	2,793587E+22
2356	1,343969E+22	1,343923E+22	5,284647E+20	5,285067E+20	2,687892E+22	1,056971E+21	2,793589E+22
2357	1,343947E+22	1,343999E+22	5,285907E+20	5,284319E+20	2,687946E+22	1,057023E+21	2,793648E+22
2358	1,344003E+22	1,344017E+22	5,284360E+20	5,285726E+20	2,688020E+22	1,057009E+21	2,793720E+22
2359	1,344045E+22	1,343963E+22	5,284746E+20	5,284372E+20	2,688008E+22	1,056912E+21	2,793699E+22
2360	1,343980E+22	1,344042E+22	5,285580E+20	5,284752E+20	2,688022E+22	1,057033E+21	2,793726E+22
2361	1,344012E+22	1,343989E+22	5,284150E+20	5,285769E+20	2,688000E+22	1,056992E+21	2,793700E+22
2362	1,343973E+22	1,343944E+22	5,285600E+20	5,284487E+20	2,687918E+22	1,057009E+21	2,793618E+22
2363	1,343902E+22	1,343968E+22	5,285593E+20	5,285819E+20	2,687870E+22	1,057141E+21	2,793584E+22
2364	1,343913E+22	1,343844E+22	5,284950E+20	5,285883E+20	2,687757E+22	1,057083E+21	2,793465E+22
2365	1,343825E+22	1,343834E+22	5,286811E+20	5,285018E+20	2,687659E+22	1,057183E+21	2,793377E+22
2366	1,343771E+22	1,343821E+22	5,285737E+20	5,286766E+20	2,687591E+22	1,057250E+21	2,793316E+22
2367	1,343772E+22	1,343696E+22	5,285884E+20	5,286126E+20	2,687467E+22	1,057201E+21	2,793188E+22
2368	1,343683E+22	1,343739E+22	5,287070E+20	5,285965E+20	2,687422E+22	1,057304E+21	2,793152E+22
2369	1,343720E+22	1,343706E+22	5,285520E+20	5,287273E+20	2,687426E+22	1,057279E+21	2,793154E+22
2370	1,343745E+22	1,343677E+22	5,286499E+20	5,285590E+20	2,687421E+22	1,057209E+21	2,793142E+22
2371	1,343704E+22	1,343781E+22	5,286663E+20	5,286126E+20	2,687485E+22	1,057279E+21	2,793213E+22
2372	1,343771E+22	1,343742E+22	5,285358E+20	5,286446E+20	2,687513E+22	1,057180E+21	2,793231E+22
2373	1,343768E+22	1,343785E+22	5,286676E+20	5,284956E+20	2,687552E+22	1,057163E+21	2,793269E+22
2374	1,343774E+22	1,343861E+22	5,285736E+20	5,286333E+20	2,687635E+22	1,057207E+21	2,793356E+22
2375	1,343870E+22	1,343797E+22	5,285027E+20	5,285652E+20	2,687667E+22	1,057068E+21	2,793374E+22
2376	1,343854E+22	1,343880E+22	5,286277E+20	5,284798E+20	2,687734E+22	1,057107E+21	2,793445E+22
2377	1,343896E+22	1,343906E+22	5,284813E+20	5,286249E+20	2,687802E+22	1,057106E+21	2,793513E+22
2378	1,343930E+22	1,343861E+22	5,285292E+20	5,284911E+20	2,687791E+22	1,057020E+21	2,793493E+22
2379	1,343851E+22	1,343933E+22	5,286182E+20	5,285316E+20	2,687785E+22	1,057150E+21	2,793500E+22
2380	1,343870E+22	1,343855E+22	5,284831E+20	5,286358E+20	2,687725E+22	1,057119E+21	2,793436E+22
2381	1,343845E+22	1,343800E+22	5,286351E+20	5,285082E+20	2,687645E+22	1,057143E+21	2,793359E+22
2382	1,343759E+22	1,343830E+22	5,286328E+20	5,286344E+20	2,687588E+22	1,057267E+21	2,793315E+22
2383	1,343774E+22	1,343698E+22	5,285505E+20	5,286579E+20	2,687472E+22	1,057208E+21	2,793192E+22
2384	1,343679E+22	1,343689E+22	5,287274E+20	5,285721E+20	2,687367E+22	1,057300E+21	2,793097E+22
2385	1,343625E+22	1,343677E+22	5,286225E+20	5,287504E+20	2,687302E+22	1,057373E+21	2,793039E+22
2386	1,343649E+22	1,343566E+22	5,286423E+20	5,286716E+20	2,687215E+22	1,057314E+21	2,792947E+22
2387	1,343573E+22	1,343624E+22	5,287612E+20	5,286382E+20	2,687196E+22	1,057399E+21	2,792936E+22
2388	1,343602E+22	1,343591E+22	5,286171E+20	5,287640E+20	2,687193E+22	1,057381E+21	2,792931E+22
2389	1,343631E+22	1,343569E+22	5,287145E+20	5,286019E+20	2,687200E+22	1,057316E+21	2,792932E+22
2390	1,343572E+22	1,343678E+22	5,287247E+20	5,286598E+20	2,687250E+22	1,057385E+21	2,792989E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2391	1,343651E+22	1,343621E+22	5,285764E+20	5,287107E+20	2,687271E+22	1,057287E+21	2,793000E+22
2392	1,343661E+22	1,343660E+22	5,287001E+20	5,285548E+20	2,687321E+22	1,057255E+21	2,793046E+22
2393	1,343675E+22	1,343741E+22	5,286128E+20	5,286850E+20	2,687416E+22	1,057298E+21	2,793146E+22
2394	1,343777E+22	1,343696E+22	5,285515E+20	5,286059E+20	2,687473E+22	1,057157E+21	2,793189E+22
2395	1,343748E+22	1,343786E+22	5,286770E+20	5,285190E+20	2,687534E+22	1,057196E+21	2,793254E+22
2396	1,343761E+22	1,343795E+22	5,285446E+20	5,286748E+20	2,687555E+22	1,057219E+21	2,793277E+22
2397	1,343800E+22	1,343737E+22	5,285961E+20	5,285537E+20	2,687537E+22	1,057150E+21	2,793252E+22
2398	1,343714E+22	1,343802E+22	5,286840E+20	5,285884E+20	2,687515E+22	1,057272E+21	2,793243E+22
2399	1,343743E+22	1,343708E+22	5,285376E+20	5,287022E+20	2,687452E+22	1,057240E+21	2,793176E+22
2400	1,343719E+22	1,343657E+22	5,286854E+20	5,285714E+20	2,687376E+22	1,057257E+21	2,793102E+22
2401	1,343620E+22	1,343689E+22	5,286862E+20	5,287008E+20	2,687309E+22	1,057387E+21	2,793047E+22
2402	1,343633E+22	1,343568E+22	5,286092E+20	5,287268E+20	2,687202E+22	1,057336E+21	2,792935E+22
2403	1,343542E+22	1,343557E+22	5,287813E+20	5,286339E+20	2,687099E+22	1,057415E+21	2,792841E+22
2404	1,343488E+22	1,343536E+22	5,286894E+20	5,288062E+20	2,687024E+22	1,057496E+21	2,792773E+22
2405	1,343533E+22	1,343436E+22	5,287116E+20	5,287196E+20	2,686970E+22	1,057431E+21	2,792713E+22
2406	1,343447E+22	1,343510E+22	5,288281E+20	5,286762E+20	2,686957E+22	1,057504E+21	2,792707E+22
2407	1,343478E+22	1,343474E+22	5,286691E+20	5,288178E+20	2,686952E+22	1,057487E+21	2,792700E+22
2408	1,343503E+22	1,343453E+22	5,287542E+20	5,286618E+20	2,686956E+22	1,057416E+21	2,792698E+22
2409	1,343447E+22	1,343557E+22	5,287650E+20	5,287206E+20	2,687005E+22	1,057486E+21	2,792753E+22
2410	1,343546E+22	1,343511E+22	5,286195E+20	5,287618E+20	2,687058E+22	1,057381E+21	2,792796E+22
2411	1,343569E+22	1,343557E+22	5,287408E+20	5,285912E+20	2,687126E+22	1,057332E+21	2,792859E+22
2412	1,343572E+22	1,343634E+22	5,286725E+20	5,287216E+20	2,687206E+22	1,057394E+21	2,792945E+22
2413	1,343672E+22	1,343594E+22	5,286136E+20	5,286523E+20	2,687265E+22	1,057266E+21	2,792992E+22
2414	1,343619E+22	1,343681E+22	5,287374E+20	5,285737E+20	2,687301E+22	1,057311E+21	2,793032E+22
2415	1,343637E+22	1,343664E+22	5,285939E+20	5,287455E+20	2,687301E+22	1,057339E+21	2,793035E+22
2416	1,343681E+22	1,343598E+22	5,286389E+20	5,286222E+20	2,687279E+22	1,057261E+21	2,793005E+22
2417	1,343592E+22	1,343663E+22	5,287350E+20	5,286475E+20	2,687255E+22	1,057382E+21	2,792993E+22
2418	1,343619E+22	1,343584E+22	5,285978E+20	5,287545E+20	2,687204E+22	1,057352E+21	2,792939E+22
2419	1,343581E+22	1,343534E+22	5,287427E+20	5,286214E+20	2,687115E+22	1,057364E+21	2,792851E+22
2420	1,343462E+22	1,343549E+22	5,287588E+20	5,287594E+20	2,687011E+22	1,057518E+21	2,792763E+22
2421	1,343489E+22	1,343426E+22	5,286832E+20	5,287911E+20	2,686914E+22	1,057474E+21	2,792662E+22
2422	1,343403E+22	1,343421E+22	5,288485E+20	5,286901E+20	2,686823E+22	1,057539E+21	2,792577E+22
2423	1,343367E+22	1,343395E+22	5,287479E+20	5,288666E+20	2,686762E+22	1,057614E+21	2,792523E+22
2424	1,343415E+22	1,343311E+22	5,287609E+20	5,287778E+20	2,686725E+22	1,057539E+21	2,792479E+22
2425	1,343320E+22	1,343392E+22	5,288753E+20	5,287349E+20	2,686711E+22	1,057610E+21	2,792472E+22
2426	1,343352E+22	1,343366E+22	5,287188E+20	5,288772E+20	2,686718E+22	1,057596E+21	2,792477E+22
2427	1,343386E+22	1,343340E+22	5,287953E+20	5,287133E+20	2,686726E+22	1,057509E+21	2,792477E+22
2428	1,343334E+22	1,343432E+22	5,288215E+20	5,287665E+20	2,686767E+22	1,057588E+21	2,792525E+22
2429	1,343450E+22	1,343400E+22	5,286796E+20	5,288025E+20	2,686851E+22	1,057482E+21	2,792599E+22
2430	1,343464E+22	1,343457E+22	5,287949E+20	5,286294E+20	2,686921E+22	1,057424E+21	2,792663E+22
2431	1,343460E+22	1,343522E+22	5,287195E+20	5,287768E+20	2,686983E+22	1,057496E+21	2,792733E+22
2432	1,343553E+22	1,343481E+22	5,286517E+20	5,287158E+20	2,687034E+22	1,057368E+21	2,792771E+22
2433	1,343498E+22	1,343557E+22	5,287806E+20	5,286358E+20	2,687055E+22	1,057416E+21	2,792796E+22
2434	1,343523E+22	1,343547E+22	5,286469E+20	5,287967E+20	2,687070E+22	1,057444E+21	2,792814E+22
2435	1,343568E+22	1,343479E+22	5,286930E+20	5,286645E+20	2,687047E+22	1,057358E+21	2,792783E+22
2436	1,343458E+22	1,343532E+22	5,288092E+20	5,286944E+20	2,686991E+22	1,057504E+21	2,792741E+22
2437	1,343478E+22	1,343458E+22	5,286738E+20	5,288133E+20	2,686935E+22	1,057487E+21	2,792684E+22
2438	1,343425E+22	1,343400E+22	5,288110E+20	5,286894E+20	2,686825E+22	1,057500E+21	2,792575E+22
2439	1,343321E+22	1,343392E+22	5,288174E+20	5,288379E+20	2,686713E+22	1,057655E+21	2,792478E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2440	1,343363E+22	1,343276E+22	5,287331E+20	5,288637E+20	2,686638E+22	1,057597E+21	2,792398E+22
2441	1,343281E+22	1,343282E+22	5,289003E+20	5,287511E+20	2,686563E+22	1,057651E+21	2,792328E+22
2442	1,343246E+22	1,343280E+22	5,288067E+20	5,289182E+20	2,686526E+22	1,057725E+21	2,792299E+22
2443	1,343285E+22	1,343202E+22	5,288114E+20	5,288243E+20	2,686486E+22	1,057636E+21	2,792250E+22
2444	1,343178E+22	1,343269E+22	5,289378E+20	5,287871E+20	2,686447E+22	1,057725E+21	2,792220E+22
2445	1,343226E+22	1,343245E+22	5,287813E+20	5,289265E+20	2,686472E+22	1,057708E+21	2,792242E+22
2446	1,343269E+22	1,343225E+22	5,288494E+20	5,287575E+20	2,686494E+22	1,057607E+21	2,792255E+22
2447	1,343238E+22	1,343310E+22	5,288689E+20	5,288160E+20	2,686548E+22	1,057685E+21	2,792316E+22
2448	1,343355E+22	1,343292E+22	5,287198E+20	5,288544E+20	2,686647E+22	1,057574E+21	2,792404E+22
2449	1,343357E+22	1,343353E+22	5,288327E+20	5,286862E+20	2,686710E+22	1,057519E+21	2,792462E+22
2450	1,343350E+22	1,343423E+22	5,287657E+20	5,288330E+20	2,686773E+22	1,057599E+21	2,792533E+22
2451	1,343442E+22	1,343371E+22	5,286945E+20	5,287630E+20	2,686813E+22	1,057457E+21	2,792559E+22
2452	1,343379E+22	1,343431E+22	5,288452E+20	5,286817E+20	2,686809E+22	1,057527E+21	2,792562E+22
2453	1,343403E+22	1,343426E+22	5,287209E+20	5,288379E+20	2,686829E+22	1,057559E+21	2,792585E+22
2454	1,343428E+22	1,343359E+22	5,287631E+20	5,287171E+20	2,686787E+22	1,057480E+21	2,792535E+22
2455	1,343314E+22	1,343387E+22	5,288699E+20	5,287672E+20	2,686701E+22	1,057637E+21	2,792465E+22
2456	1,343333E+22	1,343309E+22	5,287248E+20	5,288962E+20	2,686641E+22	1,057621E+21	2,792404E+22
2457	1,343288E+22	1,343247E+22	5,288571E+20	5,287677E+20	2,686535E+22	1,057625E+21	2,792297E+22
2458	1,343200E+22	1,343256E+22	5,288714E+20	5,289005E+20	2,686456E+22	1,057772E+21	2,792233E+22
2459	1,343246E+22	1,343152E+22	5,287880E+20	5,289099E+20	2,686398E+22	1,057698E+21	2,792168E+22
2460	1,343149E+22	1,343157E+22	5,289734E+20	5,287990E+20	2,686306E+22	1,057772E+21	2,792083E+22
2461	1,343107E+22	1,343167E+22	5,288826E+20	5,289672E+20	2,686273E+22	1,057850E+21	2,792058E+22
2462	1,343139E+22	1,343083E+22	5,288753E+20	5,288834E+20	2,686222E+22	1,057759E+21	2,791998E+22
2463	1,343052E+22	1,343124E+22	5,289880E+20	5,288516E+20	2,686176E+22	1,057840E+21	2,791960E+22
2464	1,343120E+22	1,343114E+22	5,288216E+20	5,289841E+20	2,686235E+22	1,057806E+21	2,792015E+22
2465	1,343171E+22	1,343108E+22	5,288863E+20	5,288059E+20	2,686279E+22	1,057692E+21	2,792048E+22
2466	1,343142E+22	1,343215E+22	5,289132E+20	5,288597E+20	2,686357E+22	1,057773E+21	2,792134E+22
2467	1,343248E+22	1,343203E+22	5,287614E+20	5,288924E+20	2,686451E+22	1,057654E+21	2,792216E+22
2468	1,343235E+22	1,343247E+22	5,288905E+20	5,287342E+20	2,686482E+22	1,057625E+21	2,792244E+22
2469	1,343233E+22	1,343316E+22	5,288304E+20	5,288735E+20	2,686549E+22	1,057704E+21	2,792319E+22
2470	1,343321E+22	1,343259E+22	5,287555E+20	5,288098E+20	2,686580E+22	1,057565E+21	2,792336E+22
2471	1,343263E+22	1,343295E+22	5,289035E+20	5,287401E+20	2,686557E+22	1,057644E+21	2,792322E+22
2472	1,343279E+22	1,343296E+22	5,287723E+20	5,289052E+20	2,686575E+22	1,057677E+21	2,792342E+22
2473	1,343291E+22	1,343224E+22	5,288095E+20	5,287947E+20	2,686516E+22	1,057604E+21	2,792276E+22
2474	1,343184E+22	1,343251E+22	5,289199E+20	5,288437E+20	2,686435E+22	1,057764E+21	2,792211E+22
2475	1,343209E+22	1,343170E+22	5,287750E+20	5,289552E+20	2,686379E+22	1,057730E+21	2,792152E+22
2476	1,343162E+22	1,343107E+22	5,289259E+20	5,288215E+20	2,686269E+22	1,057747E+21	2,792044E+22
2477	1,343072E+22	1,343134E+22	5,289509E+20	5,289398E+20	2,686206E+22	1,057891E+21	2,791995E+22
2478	1,343098E+22	1,343036E+22	5,288644E+20	5,289599E+20	2,686134E+22	1,057824E+21	2,791917E+22
2479	1,342998E+22	1,343018E+22	5,290369E+20	5,288649E+20	2,686016E+22	1,057902E+21	2,791806E+22
2480	1,342962E+22	1,343026E+22	5,289340E+20	5,290356E+20	2,685988E+22	1,057970E+21	2,791785E+22
2481	1,343009E+22	1,342943E+22	5,289169E+20	5,289479E+20	2,685952E+22	1,057865E+21	2,791738E+22
2482	1,342950E+22	1,343001E+22	5,290292E+20	5,289039E+20	2,685952E+22	1,057933E+21	2,791745E+22
2483	1,343027E+22	1,343009E+22	5,288639E+20	5,290196E+20	2,686036E+22	1,057884E+21	2,791824E+22
2484	1,343066E+22	1,343009E+22	5,289407E+20	5,288481E+20	2,686075E+22	1,057789E+21	2,791854E+22
2485	1,343029E+22	1,343126E+22	5,289736E+20	5,289004E+20	2,686155E+22	1,057874E+21	2,791942E+22
2486	1,343125E+22	1,343104E+22	5,288182E+20	5,289444E+20	2,686229E+22	1,057763E+21	2,792006E+22
2487	1,343123E+22	1,343115E+22	5,289394E+20	5,287958E+20	2,686238E+22	1,057735E+21	2,792011E+22
2488	1,343126E+22	1,343188E+22	5,288756E+20	5,289294E+20	2,686314E+22	1,057805E+21	2,792094E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2489	1,343207E+22	1,343134E+22	5,287992E+20	5,288684E+20	2,686341E+22	1,057668E+21	2,792108E+22
2490	1,343146E+22	1,343175E+22	5,289502E+20	5,288019E+20	2,686321E+22	1,057752E+21	2,792096E+22
2491	1,343152E+22	1,343175E+22	5,288197E+20	5,289605E+20	2,686327E+22	1,057780E+21	2,792105E+22
2492	1,343155E+22	1,343088E+22	5,288722E+20	5,288565E+20	2,686243E+22	1,057729E+21	2,792016E+22
2493	1,343053E+22	1,343122E+22	5,289913E+20	5,288902E+20	2,686175E+22	1,057882E+21	2,791963E+22
2494	1,343076E+22	1,343045E+22	5,288498E+20	5,290054E+20	2,686121E+22	1,057855E+21	2,791907E+22
2495	1,343028E+22	1,342963E+22	5,289977E+20	5,288826E+20	2,685991E+22	1,057880E+21	2,791779E+22
2496	1,342929E+22	1,343001E+22	5,290139E+20	5,290038E+20	2,685930E+22	1,058018E+21	2,791732E+22
2497	1,342946E+22	1,342899E+22	5,289184E+20	5,290346E+20	2,685845E+22	1,057953E+21	2,791641E+22
2498	1,342863E+22	1,342877E+22	5,290841E+20	5,289379E+20	2,685741E+22	1,058022E+21	2,791543E+22
2499	1,342845E+22	1,342891E+22	5,289765E+20	5,290851E+20	2,685735E+22	1,058062E+21	2,791541E+22
2500	1,342898E+22	1,342817E+22	5,289715E+20	5,289935E+20	2,685715E+22	1,057965E+21	2,791511E+22
2501	1,342846E+22	1,342902E+22	5,290902E+20	5,289353E+20	2,685748E+22	1,058025E+21	2,791550E+22
2502	1,342910E+22	1,342920E+22	5,289255E+20	5,290627E+20	2,685830E+22	1,057988E+21	2,791629E+22
2503	1,342946E+22	1,342896E+22	5,289910E+20	5,289069E+20	2,685842E+22	1,057898E+21	2,791632E+22
2504	1,342914E+22	1,343010E+22	5,290158E+20	5,289566E+20	2,685925E+22	1,057972E+21	2,791722E+22
2505	1,343013E+22	1,342985E+22	5,288558E+20	5,289981E+20	2,685998E+22	1,057854E+21	2,791784E+22
2506	1,343027E+22	1,342999E+22	5,289794E+20	5,288483E+20	2,686026E+22	1,057828E+21	2,791809E+22
2507	1,343026E+22	1,343077E+22	5,289222E+20	5,289664E+20	2,686103E+22	1,057889E+21	2,791892E+22
2508	1,343085E+22	1,343023E+22	5,288601E+20	5,289217E+20	2,686108E+22	1,057782E+21	2,791887E+22
2509	1,343017E+22	1,343064E+22	5,290150E+20	5,288535E+20	2,686081E+22	1,057869E+21	2,791868E+22
2510	1,343013E+22	1,343050E+22	5,288889E+20	5,290220E+20	2,686063E+22	1,057911E+21	2,791855E+22
2511	1,343024E+22	1,342938E+22	5,289341E+20	5,289234E+20	2,685961E+22	1,057857E+21	2,791747E+22
2512	1,342926E+22	1,342979E+22	5,290509E+20	5,289485E+20	2,685905E+22	1,057999E+21	2,791705E+22
2513	1,342935E+22	1,342909E+22	5,289111E+20	5,290671E+20	2,685844E+22	1,057978E+21	2,791642E+22
2514	1,342887E+22	1,342830E+22	5,290547E+20	5,289544E+20	2,685717E+22	1,058009E+21	2,791518E+22
2515	1,342783E+22	1,342865E+22	5,290660E+20	5,290628E+20	2,685648E+22	1,058129E+21	2,791461E+22
2516	1,342801E+22	1,342757E+22	5,289782E+20	5,290996E+20	2,685558E+22	1,058078E+21	2,791366E+22
2517	1,342737E+22	1,342749E+22	5,291428E+20	5,289827E+20	2,685486E+22	1,058126E+21	2,791298E+22
2518	1,342729E+22	1,342774E+22	5,290404E+20	5,291300E+20	2,685502E+22	1,058170E+21	2,791319E+22
2519	1,342788E+22	1,342695E+22	5,290283E+20	5,290457E+20	2,685483E+22	1,058074E+21	2,791290E+22
2520	1,342735E+22	1,342796E+22	5,291370E+20	5,289894E+20	2,685531E+22	1,058126E+21	2,791344E+22
2521	1,342791E+22	1,342813E+22	5,289699E+20	5,291228E+20	2,685603E+22	1,058093E+21	2,791413E+22
2522	1,342842E+22	1,342782E+22	5,290274E+20	5,289689E+20	2,685624E+22	1,057996E+21	2,791424E+22
2523	1,342818E+22	1,342898E+22	5,290527E+20	5,289926E+20	2,685717E+22	1,058045E+21	2,791521E+22
2524	1,342909E+22	1,342875E+22	5,289093E+20	5,290364E+20	2,685785E+22	1,057946E+21	2,791579E+22
2525	1,342915E+22	1,342902E+22	5,290413E+20	5,288801E+20	2,685817E+22	1,057921E+21	2,791609E+22
2526	1,342897E+22	1,342976E+22	5,289893E+20	5,290152E+20	2,685874E+22	1,058005E+21	2,791674E+22
2527	1,342948E+22	1,342890E+22	5,289202E+20	5,289893E+20	2,685838E+22	1,057910E+21	2,791629E+22
2528	1,342887E+22	1,342926E+22	5,290654E+20	5,289194E+20	2,685813E+22	1,057985E+21	2,791612E+22
2529	1,342885E+22	1,342911E+22	5,289418E+20	5,290847E+20	2,685795E+22	1,058026E+21	2,791598E+22
2530	1,342907E+22	1,342801E+22	5,289862E+20	5,289903E+20	2,685708E+22	1,057976E+21	2,791506E+22
2531	1,342801E+22	1,342851E+22	5,291063E+20	5,289973E+20	2,685652E+22	1,058104E+21	2,791462E+22
2532	1,342789E+22	1,342781E+22	5,289790E+20	5,291315E+20	2,685569E+22	1,058111E+21	2,791381E+22
2533	1,342737E+22	1,342703E+22	5,291240E+20	5,290143E+20	2,685440E+22	1,058138E+21	2,791254E+22
2534	1,342640E+22	1,342727E+22	5,291348E+20	5,291252E+20	2,685366E+22	1,058260E+21	2,791192E+22
2535	1,342671E+22	1,342604E+22	5,290386E+20	5,291623E+20	2,685275E+22	1,058201E+21	2,791095E+22
2536	1,342623E+22	1,342616E+22	5,291923E+20	5,290347E+20	2,685239E+22	1,058227E+21	2,791062E+22
2537	1,342610E+22	1,342657E+22	5,290941E+20	5,291818E+20	2,685267E+22	1,058276E+21	2,791094E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2538	1,342675E+22	1,342588E+22	5,290717E+20	5,291065E+20	2,685263E+22	1,058178E+21	2,791081E+22
2539	1,342622E+22	1,342689E+22	5,291775E+20	5,290314E+20	2,685311E+22	1,058209E+21	2,791132E+22
2540	1,342674E+22	1,342704E+22	5,290221E+20	5,291675E+20	2,685378E+22	1,058190E+21	2,791197E+22
2541	1,342735E+22	1,342684E+22	5,290809E+20	5,290004E+20	2,685418E+22	1,058081E+21	2,791226E+22
2542	1,342710E+22	1,342795E+22	5,291151E+20	5,290302E+20	2,685506E+22	1,058145E+21	2,791320E+22
2543	1,342792E+22	1,342759E+22	5,289681E+20	5,290895E+20	2,685550E+22	1,058058E+21	2,791356E+22
2544	1,342795E+22	1,342786E+22	5,290875E+20	5,289430E+20	2,685582E+22	1,058030E+21	2,791385E+22
2545	1,342768E+22	1,342849E+22	5,290396E+20	5,290855E+20	2,685617E+22	1,058125E+21	2,791430E+22
2546	1,342835E+22	1,342753E+22	5,289611E+20	5,290646E+20	2,685589E+22	1,058026E+21	2,791391E+22
2547	1,342780E+22	1,342792E+22	5,291078E+20	5,289686E+20	2,685572E+22	1,058076E+21	2,791380E+22
2548	1,342763E+22	1,342785E+22	5,290054E+20	5,291355E+20	2,685547E+22	1,058141E+21	2,791362E+22
2549	1,342771E+22	1,342689E+22	5,290577E+20	5,290377E+20	2,685459E+22	1,058095E+21	2,791269E+22
2550	1,342650E+22	1,342728E+22	5,291829E+20	5,290572E+20	2,685378E+22	1,058240E+21	2,791202E+22
2551	1,342629E+22	1,342630E+22	5,290500E+20	5,292026E+20	2,685259E+22	1,058253E+21	2,791084E+22
2552	1,342594E+22	1,342551E+22	5,291797E+20	5,290802E+20	2,685145E+22	1,058260E+21	2,790971E+22
2553	1,342508E+22	1,342580E+22	5,291922E+20	5,291837E+20	2,685088E+22	1,058376E+21	2,790925E+22
2554	1,342560E+22	1,342471E+22	5,290892E+20	5,292242E+20	2,685031E+22	1,058313E+21	2,790862E+22
2555	1,342516E+22	1,342503E+22	5,292371E+20	5,290789E+20	2,685019E+22	1,058316E+21	2,790850E+22
2556	1,342488E+22	1,342554E+22	5,291518E+20	5,292367E+20	2,685042E+22	1,058388E+21	2,790881E+22
2557	1,342550E+22	1,342491E+22	5,291293E+20	5,291524E+20	2,685042E+22	1,058282E+21	2,790870E+22
2558	1,342507E+22	1,342581E+22	5,292348E+20	5,290764E+20	2,685088E+22	1,058311E+21	2,790920E+22
2559	1,342560E+22	1,342579E+22	5,290768E+20	5,292113E+20	2,685139E+22	1,058288E+21	2,790968E+22
2560	1,342628E+22	1,342569E+22	5,291269E+20	5,290452E+20	2,685197E+22	1,058172E+21	2,791015E+22
2561	1,342594E+22	1,342683E+22	5,291663E+20	5,290834E+20	2,685277E+22	1,058250E+21	2,791102E+22
2562	1,342679E+22	1,342643E+22	5,290083E+20	5,291607E+20	2,685322E+22	1,058169E+21	2,791139E+22
2563	1,342686E+22	1,342666E+22	5,291211E+20	5,289984E+20	2,685352E+22	1,058119E+21	2,791164E+22
2564	1,342654E+22	1,342727E+22	5,290899E+20	5,291403E+20	2,685381E+22	1,058230E+21	2,791204E+22
2565	1,342722E+22	1,342644E+22	5,290209E+20	5,291050E+20	2,685366E+22	1,058126E+21	2,791179E+22
2566	1,342661E+22	1,342678E+22	5,291816E+20	5,290139E+20	2,685338E+22	1,058196E+21	2,791158E+22
2567	1,342620E+22	1,342655E+22	5,290823E+20	5,291925E+20	2,685274E+22	1,058275E+21	2,791102E+22
2568	1,342621E+22	1,342554E+22	5,291232E+20	5,291096E+20	2,685175E+22	1,058233E+21	2,790998E+22
2569	1,342494E+22	1,342576E+22	5,292486E+20	5,291337E+20	2,685070E+22	1,058382E+21	2,790908E+22
2570	1,342496E+22	1,342472E+22	5,291004E+20	5,292823E+20	2,684968E+22	1,058383E+21	2,790806E+22
2571	1,342477E+22	1,342404E+22	5,292219E+20	5,291321E+20	2,684881E+22	1,058354E+21	2,790716E+22
2572	1,342386E+22	1,342452E+22	5,292522E+20	5,292357E+20	2,684838E+22	1,058488E+21	2,790686E+22
2573	1,342433E+22	1,342370E+22	5,291532E+20	5,292688E+20	2,684803E+22	1,058422E+21	2,790645E+22
2574	1,342384E+22	1,342397E+22	5,293018E+20	5,291317E+20	2,684781E+22	1,058433E+21	2,790625E+22
2575	1,342351E+22	1,342429E+22	5,292142E+20	5,292910E+20	2,684780E+22	1,058505E+21	2,790631E+22
2576	1,342432E+22	1,342369E+22	5,291751E+20	5,292032E+20	2,684801E+22	1,058378E+21	2,790639E+22
2577	1,342396E+22	1,342458E+22	5,292831E+20	5,291237E+20	2,684853E+22	1,058407E+21	2,790694E+22
2578	1,342463E+22	1,342463E+22	5,291161E+20	5,292668E+20	2,684926E+22	1,058383E+21	2,790764E+22
2579	1,342531E+22	1,342464E+22	5,291587E+20	5,290919E+20	2,684995E+22	1,058251E+21	2,790820E+22
2580	1,342485E+22	1,342579E+22	5,292136E+20	5,291435E+20	2,685064E+22	1,058357E+21	2,790899E+22
2581	1,342567E+22	1,342543E+22	5,290622E+20	5,292112E+20	2,685110E+22	1,058273E+21	2,790937E+22
2582	1,342580E+22	1,342553E+22	5,291786E+20	5,290470E+20	2,685134E+22	1,058226E+21	2,790956E+22
2583	1,342536E+22	1,342600E+22	5,291561E+20	5,291838E+20	2,685135E+22	1,058340E+21	2,790969E+22
2584	1,342597E+22	1,342523E+22	5,290843E+20	5,291548E+20	2,685120E+22	1,058239E+21	2,790943E+22
2585	1,342515E+22	1,342549E+22	5,292520E+20	5,290769E+20	2,685064E+22	1,058329E+21	2,790897E+22
2586	1,342473E+22	1,342512E+22	5,291405E+20	5,292715E+20	2,684985E+22	1,058412E+21	2,790826E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2587	1,342480E+22	1,342405E+22	5,291706E+20	5,291777E+20	2,684885E+22	1,058348E+21	2,790720E+22
2588	1,342360E+22	1,342426E+22	5,293034E+20	5,291998E+20	2,684786E+22	1,058503E+21	2,790636E+22
2589	1,342369E+22	1,342343E+22	5,291637E+20	5,293315E+20	2,684711E+22	1,058495E+21	2,790561E+22
2590	1,342357E+22	1,342283E+22	5,292881E+20	5,291817E+20	2,684640E+22	1,058470E+21	2,790487E+22
2591	1,342249E+22	1,342329E+22	5,293216E+20	5,292897E+20	2,684578E+22	1,058611E+21	2,790439E+22
2592	1,342297E+22	1,342253E+22	5,292134E+20	5,293304E+20	2,684550E+22	1,058544E+21	2,790404E+22
2593	1,342251E+22	1,342268E+22	5,293591E+20	5,291943E+20	2,684520E+22	1,058553E+21	2,790375E+22
2594	1,342241E+22	1,342296E+22	5,292551E+20	5,293506E+20	2,684537E+22	1,058606E+21	2,790398E+22
2595	1,342334E+22	1,342250E+22	5,292062E+20	5,292431E+20	2,684584E+22	1,058449E+21	2,790429E+22
2596	1,342293E+22	1,342350E+22	5,293275E+20	5,291696E+20	2,684643E+22	1,058497E+21	2,790493E+22
2597	1,342353E+22	1,342376E+22	5,291691E+20	5,293080E+20	2,684728E+22	1,058477E+21	2,790576E+22
2598	1,342420E+22	1,342367E+22	5,292123E+20	5,291414E+20	2,684787E+22	1,058354E+21	2,790623E+22
2599	1,342364E+22	1,342462E+22	5,292721E+20	5,291925E+20	2,684826E+22	1,058465E+21	2,790672E+22
2600	1,342456E+22	1,342427E+22	5,291159E+20	5,292580E+20	2,684882E+22	1,058374E+21	2,790720E+22
2601	1,342464E+22	1,342429E+22	5,292403E+20	5,290987E+20	2,684893E+22	1,058339E+21	2,790727E+22
2602	1,342419E+22	1,342473E+22	5,292103E+20	5,292452E+20	2,684893E+22	1,058456E+21	2,790738E+22
2603	1,342469E+22	1,342398E+22	5,291302E+20	5,292182E+20	2,684867E+22	1,058348E+21	2,790702E+22
2604	1,342372E+22	1,342411E+22	5,293091E+20	5,291553E+20	2,684784E+22	1,058464E+21	2,790630E+22
2605	1,342332E+22	1,342377E+22	5,292011E+20	5,293365E+20	2,684709E+22	1,058538E+21	2,790562E+22
2606	1,342353E+22	1,342261E+22	5,292307E+20	5,292365E+20	2,684614E+22	1,058467E+21	2,790460E+22
2607	1,342226E+22	1,342280E+22	5,293705E+20	5,292502E+20	2,684506E+22	1,058621E+21	2,790368E+22
2608	1,342237E+22	1,342214E+22	5,292313E+20	5,293841E+20	2,684452E+22	1,058615E+21	2,790313E+22
2609	1,342213E+22	1,342157E+22	5,293565E+20	5,292452E+20	2,684370E+22	1,058602E+21	2,790230E+22
2610	1,342114E+22	1,342197E+22	5,293741E+20	5,293587E+20	2,684311E+22	1,058733E+21	2,790184E+22
2611	1,342173E+22	1,342123E+22	5,292527E+20	5,293852E+20	2,684296E+22	1,058638E+21	2,790160E+22
2612	1,342136E+22	1,342143E+22	5,294034E+20	5,292469E+20	2,684279E+22	1,058650E+21	2,790144E+22
2613	1,342133E+22	1,342192E+22	5,293079E+20	5,293843E+20	2,684325E+22	1,058692E+21	2,790194E+22
2614	1,342232E+22	1,342152E+22	5,292603E+20	5,292823E+20	2,684384E+22	1,058543E+21	2,790238E+22
2615	1,342176E+22	1,342246E+22	5,293842E+20	5,292182E+20	2,684422E+22	1,058602E+21	2,790282E+22
2616	1,342238E+22	1,342271E+22	5,292248E+20	5,293640E+20	2,684509E+22	1,058589E+21	2,790368E+22
2617	1,342307E+22	1,342250E+22	5,292651E+20	5,292012E+20	2,684556E+22	1,058466E+21	2,790403E+22
2618	1,342266E+22	1,342334E+22	5,293122E+20	5,292479E+20	2,684601E+22	1,058560E+21	2,790457E+22
2619	1,342356E+22	1,342309E+22	5,291538E+20	5,293012E+20	2,684665E+22	1,058455E+21	2,790510E+22
2620	1,342346E+22	1,342314E+22	5,292914E+20	5,291578E+20	2,684660E+22	1,058449E+21	2,790505E+22
2621	1,342282E+22	1,342364E+22	5,292718E+20	5,292990E+20	2,684646E+22	1,058571E+21	2,790503E+22
2622	1,342330E+22	1,342272E+22	5,291926E+20	5,292814E+20	2,684602E+22	1,058474E+21	2,790450E+22
2623	1,342227E+22	1,342263E+22	5,293736E+20	5,292151E+20	2,684490E+22	1,058589E+21	2,790349E+22
2624	1,342199E+22	1,342232E+22	5,292662E+20	5,293902E+20	2,684431E+22	1,058656E+21	2,790297E+22
2625	1,342220E+22	1,342119E+22	5,293002E+20	5,292940E+20	2,684339E+22	1,058594E+21	2,790199E+22
2626	1,342100E+22	1,342142E+22	5,294265E+20	5,293142E+20	2,684242E+22	1,058741E+21	2,790116E+22
2627	1,342105E+22	1,342090E+22	5,292822E+20	5,294485E+20	2,684195E+22	1,058731E+21	2,790068E+22
2628	1,342074E+22	1,342028E+22	5,294116E+20	5,293212E+20	2,684102E+22	1,058733E+21	2,789976E+22
2629	1,341984E+22	1,342076E+22	5,294309E+20	5,294108E+20	2,684059E+22	1,058842E+21	2,789944E+22
2630	1,342059E+22	1,342001E+22	5,293063E+20	5,294281E+20	2,684060E+22	1,058734E+21	2,789934E+22
2631	1,342015E+22	1,342020E+22	5,294610E+20	5,292850E+20	2,684035E+22	1,058746E+21	2,789909E+22
2632	1,342016E+22	1,342084E+22	5,293672E+20	5,294265E+20	2,684101E+22	1,058794E+21	2,789980E+22
2633	1,342108E+22	1,342044E+22	5,293182E+20	5,293401E+20	2,684152E+22	1,058658E+21	2,790018E+22
2634	1,342067E+22	1,342128E+22	5,294220E+20	5,292834E+20	2,684194E+22	1,058705E+21	2,790065E+22
2635	1,342140E+22	1,342156E+22	5,292559E+20	5,294162E+20	2,684296E+22	1,058672E+21	2,790163E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2636	1,342208E+22	1,342135E+22	5,293027E+20	5,292556E+20	2,684343E+22	1,058558E+21	2,790199E+22
2637	1,342164E+22	1,342235E+22	5,293629E+20	5,292820E+20	2,684400E+22	1,058645E+21	2,790264E+22
2638	1,342244E+22	1,342207E+22	5,292105E+20	5,293424E+20	2,684452E+22	1,058553E+21	2,790307E+22
2639	1,342206E+22	1,342195E+22	5,293574E+20	5,292146E+20	2,684401E+22	1,058572E+21	2,790259E+22
2640	1,342142E+22	1,342234E+22	5,293412E+20	5,293609E+20	2,684376E+22	1,058702E+21	2,790246E+22
2641	1,342190E+22	1,342126E+22	5,292602E+20	5,293506E+20	2,684316E+22	1,058611E+21	2,790177E+22
2642	1,342105E+22	1,342108E+22	5,294212E+20	5,292803E+20	2,684213E+22	1,058702E+21	2,790084E+22
2643	1,342079E+22	1,342092E+22	5,293154E+20	5,294457E+20	2,684171E+22	1,058761E+21	2,790047E+22
2644	1,342085E+22	1,341991E+22	5,293574E+20	5,293634E+20	2,684075E+22	1,058721E+21	2,789947E+22
2645	1,341956E+22	1,342026E+22	5,294901E+20	5,293718E+20	2,683982E+22	1,058862E+21	2,789869E+22
2646	1,341966E+22	1,341966E+22	5,293468E+20	5,295056E+20	2,683932E+22	1,058852E+21	2,789817E+22
2647	1,341931E+22	1,341892E+22	5,294759E+20	5,293749E+20	2,683823E+22	1,058851E+21	2,789709E+22
2648	1,341858E+22	1,341946E+22	5,294949E+20	5,294532E+20	2,683803E+22	1,058948E+21	2,789698E+22
2649	1,341936E+22	1,341878E+22	5,293700E+20	5,294785E+20	2,683814E+22	1,058849E+21	2,789699E+22
2650	1,341906E+22	1,341898E+22	5,295009E+20	5,293434E+20	2,683804E+22	1,058844E+21	2,789688E+22
2651	1,341909E+22	1,341975E+22	5,294047E+20	5,294865E+20	2,683884E+22	1,058891E+21	2,789773E+22
2652	1,342001E+22	1,341934E+22	5,293556E+20	5,294087E+20	2,683934E+22	1,058764E+21	2,789811E+22
2653	1,341970E+22	1,342024E+22	5,294628E+20	5,293259E+20	2,683994E+22	1,058789E+21	2,789873E+22
2654	1,342049E+22	1,342055E+22	5,293035E+20	5,294451E+20	2,684104E+22	1,058749E+21	2,789979E+22
2655	1,342095E+22	1,342030E+22	5,293613E+20	5,292897E+20	2,684125E+22	1,058651E+21	2,789990E+22
2656	1,342039E+22	1,342130E+22	5,294310E+20	5,293222E+20	2,684169E+22	1,058753E+21	2,790045E+22
2657	1,342100E+22	1,342090E+22	5,292808E+20	5,294045E+20	2,684190E+22	1,058685E+21	2,790059E+22
2658	1,342072E+22	1,342052E+22	5,294054E+20	5,292873E+20	2,684124E+22	1,058693E+21	2,789993E+22
2659	1,342019E+22	1,342089E+22	5,293859E+20	5,294248E+20	2,684108E+22	1,058811E+21	2,789989E+22
2660	1,342067E+22	1,341984E+22	5,293096E+20	5,294206E+20	2,684051E+22	1,058730E+21	2,789924E+22
2661	1,341984E+22	1,341983E+22	5,294776E+20	5,293329E+20	2,683967E+22	1,058811E+21	2,789848E+22
2662	1,341951E+22	1,341974E+22	5,293797E+20	5,294999E+20	2,683925E+22	1,058880E+21	2,789813E+22
2663	1,341932E+22	1,341863E+22	5,294296E+20	5,294306E+20	2,683795E+22	1,058860E+21	2,789681E+22
2664	1,341810E+22	1,341891E+22	5,295638E+20	5,294333E+20	2,683701E+22	1,058997E+21	2,789601E+22
2665	1,341824E+22	1,341822E+22	5,294183E+20	5,295671E+20	2,683647E+22	1,058985E+21	2,789545E+22
2666	1,341810E+22	1,341745E+22	5,295219E+20	5,294324E+20	2,683555E+22	1,058954E+21	2,789450E+22
2667	1,341745E+22	1,341816E+22	5,295376E+20	5,295039E+20	2,683561E+22	1,059041E+21	2,789465E+22
2668	1,341815E+22	1,341762E+22	5,294144E+20	5,295435E+20	2,683576E+22	1,058958E+21	2,789472E+22
2669	1,341791E+22	1,341797E+22	5,295431E+20	5,293947E+20	2,683589E+22	1,058938E+21	2,789482E+22
2670	1,341807E+22	1,341872E+22	5,294522E+20	5,295280E+20	2,683679E+22	1,058980E+21	2,789577E+22
2671	1,341890E+22	1,341828E+22	5,294086E+20	5,294457E+20	2,683719E+22	1,058854E+21	2,789604E+22
2672	1,341868E+22	1,341922E+22	5,295238E+20	5,293526E+20	2,683790E+22	1,058876E+21	2,789678E+22
2673	1,341934E+22	1,341953E+22	5,293714E+20	5,294839E+20	2,683886E+22	1,058855E+21	2,789772E+22
2674	1,341976E+22	1,341915E+22	5,294075E+20	5,293499E+20	2,683891E+22	1,058757E+21	2,789766E+22
2675	1,341915E+22	1,342008E+22	5,294767E+20	5,293926E+20	2,683923E+22	1,058869E+21	2,789810E+22
2676	1,341972E+22	1,341956E+22	5,293272E+20	5,294873E+20	2,683927E+22	1,058815E+21	2,789809E+22
2677	1,341958E+22	1,341919E+22	5,294489E+20	5,293465E+20	2,683878E+22	1,058795E+21	2,789757E+22
2678	1,341912E+22	1,341959E+22	5,294399E+20	5,294685E+20	2,683871E+22	1,058908E+21	2,789762E+22
2679	1,341934E+22	1,341858E+22	5,293775E+20	5,294708E+20	2,683793E+22	1,058848E+21	2,789678E+22
2680	1,341842E+22	1,341861E+22	5,295554E+20	5,293858E+20	2,683703E+22	1,058941E+21	2,789597E+22
2681	1,341794E+22	1,341845E+22	5,294627E+20	5,295676E+20	2,683638E+22	1,059030E+21	2,789541E+22
2682	1,341787E+22	1,341712E+22	5,294863E+20	5,295045E+20	2,683499E+22	1,058991E+21	2,789398E+22
2683	1,341679E+22	1,341741E+22	5,296136E+20	5,294953E+20	2,683420E+22	1,059109E+21	2,789331E+22
2684	1,341697E+22	1,341682E+22	5,294679E+20	5,296301E+20	2,683379E+22	1,059098E+21	2,789288E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2685	1,341693E+22	1,341624E+22	5,295685E+20	5,294792E+20	2,683317E+22	1,059048E+21	2,789222E+22
2686	1,341632E+22	1,341708E+22	5,295900E+20	5,295480E+20	2,683340E+22	1,059138E+21	2,789254E+22
2687	1,341687E+22	1,341656E+22	5,294747E+20	5,295982E+20	2,683343E+22	1,059073E+21	2,789250E+22
2688	1,341678E+22	1,341689E+22	5,296034E+20	5,294407E+20	2,683367E+22	1,059044E+21	2,789272E+22
2689	1,341698E+22	1,341762E+22	5,295152E+20	5,295718E+20	2,683460E+22	1,059087E+21	2,789369E+22
2690	1,341789E+22	1,341711E+22	5,294487E+20	5,294903E+20	2,683500E+22	1,058939E+21	2,789394E+22
2691	1,341763E+22	1,341812E+22	5,295651E+20	5,294016E+20	2,683575E+22	1,058967E+21	2,789471E+22
2692	1,341809E+22	1,341841E+22	5,294157E+20	5,295507E+20	2,683650E+22	1,058966E+21	2,789547E+22
2693	1,341854E+22	1,341802E+22	5,294492E+20	5,294140E+20	2,683656E+22	1,058863E+21	2,789542E+22
2694	1,341805E+22	1,341884E+22	5,295240E+20	5,294464E+20	2,683689E+22	1,058970E+21	2,789586E+22
2695	1,341850E+22	1,341827E+22	5,293857E+20	5,295400E+20	2,683677E+22	1,058926E+21	2,789570E+22
2696	1,341845E+22	1,341795E+22	5,295153E+20	5,293887E+20	2,683640E+22	1,058904E+21	2,789530E+22
2697	1,341783E+22	1,341837E+22	5,295176E+20	5,295200E+20	2,683620E+22	1,059038E+21	2,789524E+22
2698	1,341795E+22	1,341727E+22	5,294378E+20	5,295404E+20	2,683521E+22	1,058978E+21	2,789419E+22
2699	1,341700E+22	1,341722E+22	5,296149E+20	5,294638E+20	2,683422E+22	1,059079E+21	2,789330E+22
2700	1,341646E+22	1,341695E+22	5,295215E+20	5,296471E+20	2,683341E+22	1,059169E+21	2,789258E+22
2701	1,341658E+22	1,341569E+22	5,295371E+20	5,295634E+20	2,683227E+22	1,059101E+21	2,789137E+22
2702	1,341562E+22	1,341606E+22	5,296678E+20	5,295358E+20	2,683168E+22	1,059204E+21	2,789088E+22
2703	1,341559E+22	1,341559E+22	5,295333E+20	5,296771E+20	2,683118E+22	1,059210E+21	2,789039E+22
2704	1,341560E+22	1,341512E+22	5,296346E+20	5,295261E+20	2,683072E+22	1,059161E+21	2,788989E+22
2705	1,341500E+22	1,341595E+22	5,296593E+20	5,296053E+20	2,683095E+22	1,059265E+21	2,789022E+22
2706	1,341571E+22	1,341532E+22	5,295198E+20	5,296563E+20	2,683103E+22	1,059176E+21	2,789021E+22
2707	1,341580E+22	1,341570E+22	5,296417E+20	5,294926E+20	2,683150E+22	1,059134E+21	2,789063E+22
2708	1,341594E+22	1,341651E+22	5,295571E+20	5,296224E+20	2,683245E+22	1,059179E+21	2,789163E+22
2709	1,341689E+22	1,341612E+22	5,294858E+20	5,295360E+20	2,683301E+22	1,059022E+21	2,789203E+22
2710	1,341659E+22	1,341710E+22	5,296090E+20	5,294487E+20	2,683370E+22	1,059058E+21	2,789275E+22
2711	1,341682E+22	1,341732E+22	5,294730E+20	5,296096E+20	2,683414E+22	1,059083E+21	2,789322E+22
2712	1,341740E+22	1,341682E+22	5,295101E+20	5,294640E+20	2,683422E+22	1,058974E+21	2,789319E+22
2713	1,341693E+22	1,341760E+22	5,295913E+20	5,294954E+20	2,683453E+22	1,059087E+21	2,789362E+22
2714	1,341736E+22	1,341696E+22	5,294390E+20	5,295916E+20	2,683432E+22	1,059031E+21	2,789335E+22
2715	1,341720E+22	1,341667E+22	5,295706E+20	5,294504E+20	2,683387E+22	1,059021E+21	2,789289E+22
2716	1,341635E+22	1,341708E+22	5,295770E+20	5,295930E+20	2,683343E+22	1,059170E+21	2,789260E+22
2717	1,341650E+22	1,341593E+22	5,294930E+20	5,296112E+20	2,683243E+22	1,059104E+21	2,789154E+22
2718	1,341566E+22	1,341579E+22	5,296731E+20	5,295203E+20	2,683146E+22	1,059193E+21	2,789065E+22
2719	1,341502E+22	1,341554E+22	5,295893E+20	5,296994E+20	2,683056E+22	1,059289E+21	2,788985E+22
2720	1,341524E+22	1,341436E+22	5,296087E+20	5,296082E+20	2,682960E+22	1,059217E+21	2,788882E+22
2721	1,341426E+22	1,341480E+22	5,297401E+20	5,295914E+20	2,682906E+22	1,059331E+21	2,788839E+22
2722	1,341425E+22	1,341429E+22	5,295870E+20	5,297465E+20	2,682854E+22	1,059334E+21	2,788788E+22
2723	1,341439E+22	1,341384E+22	5,296800E+20	5,296007E+20	2,682824E+22	1,059281E+21	2,788752E+22
2724	1,341386E+22	1,341468E+22	5,297014E+20	5,296716E+20	2,682854E+22	1,059373E+21	2,788791E+22
2725	1,341476E+22	1,341420E+22	5,295547E+20	5,297009E+20	2,682896E+22	1,059256E+21	2,788822E+22
2726	1,341490E+22	1,341467E+22	5,296817E+20	5,295224E+20	2,682958E+22	1,059204E+21	2,788878E+22
2727	1,341475E+22	1,341555E+22	5,296135E+20	5,296591E+20	2,683030E+22	1,059273E+21	2,788957E+22
2728	1,341566E+22	1,341516E+22	5,295473E+20	5,295784E+20	2,683083E+22	1,059126E+21	2,788995E+22
2729	1,341537E+22	1,341600E+22	5,296735E+20	5,295040E+20	2,683137E+22	1,059178E+21	2,789054E+22
2730	1,341567E+22	1,341603E+22	5,295224E+20	5,296660E+20	2,683170E+22	1,059188E+21	2,789088E+22
2731	1,341637E+22	1,341554E+22	5,295542E+20	5,295206E+20	2,683191E+22	1,059075E+21	2,789099E+22
2732	1,341578E+22	1,341634E+22	5,296405E+20	5,295513E+20	2,683212E+22	1,059192E+21	2,789131E+22
2733	1,341617E+22	1,341581E+22	5,294880E+20	5,296483E+20	2,683198E+22	1,059136E+21	2,789112E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2734	1,341593E+22	1,341548E+22	5,296268E+20	5,295117E+20	2,683140E+22	1,059138E+21	2,789054E+22
2735	1,341483E+22	1,341577E+22	5,296478E+20	5,296594E+20	2,683059E+22	1,059307E+21	2,788990E+22
2736	1,341510E+22	1,341453E+22	5,295662E+20	5,296684E+20	2,682963E+22	1,059235E+21	2,788887E+22
2737	1,341431E+22	1,341435E+22	5,297461E+20	5,295766E+20	2,682865E+22	1,059323E+21	2,788798E+22
2738	1,341365E+22	1,341405E+22	5,296484E+20	5,297561E+20	2,682771E+22	1,059405E+21	2,788711E+22
2739	1,341390E+22	1,341298E+22	5,296619E+20	5,296770E+20	2,682688E+22	1,059339E+21	2,788622E+22
2740	1,341286E+22	1,341348E+22	5,297896E+20	5,296654E+20	2,682634E+22	1,059455E+21	2,788579E+22
2741	1,341305E+22	1,341306E+22	5,296316E+20	5,298118E+20	2,682611E+22	1,059443E+21	2,788555E+22
2742	1,341338E+22	1,341267E+22	5,297226E+20	5,296455E+20	2,682605E+22	1,059368E+21	2,788541E+22
2743	1,341275E+22	1,341361E+22	5,297568E+20	5,297044E+20	2,682636E+22	1,059461E+21	2,788582E+22
2744	1,341370E+22	1,341323E+22	5,296180E+20	5,297250E+20	2,682692E+22	1,059343E+21	2,788627E+22
2745	1,341373E+22	1,341373E+22	5,297462E+20	5,295649E+20	2,682746E+22	1,059311E+21	2,788677E+22
2746	1,341350E+22	1,341444E+22	5,296649E+20	5,297163E+20	2,682793E+22	1,059381E+21	2,788731E+22
2747	1,341450E+22	1,341394E+22	5,295926E+20	5,296491E+20	2,682844E+22	1,059242E+21	2,788768E+22
2748	1,341427E+22	1,341470E+22	5,297124E+20	5,295686E+20	2,682898E+22	1,059281E+21	2,788826E+22
2749	1,341474E+22	1,341482E+22	5,295600E+20	5,297159E+20	2,682955E+22	1,059276E+21	2,788883E+22
2750	1,341538E+22	1,341442E+22	5,295973E+20	5,295618E+20	2,682980E+22	1,059159E+21	2,788896E+22
2751	1,341445E+22	1,341525E+22	5,297018E+20	5,295998E+20	2,682970E+22	1,059302E+21	2,788900E+22
2752	1,341475E+22	1,341467E+22	5,295604E+20	5,297014E+20	2,682942E+22	1,059262E+21	2,788868E+22
2753	1,341447E+22	1,341417E+22	5,297022E+20	5,295800E+20	2,682864E+22	1,059282E+21	2,788792E+22
2754	1,341339E+22	1,341424E+22	5,297097E+20	5,297228E+20	2,682763E+22	1,059432E+21	2,788707E+22
2755	1,341379E+22	1,341302E+22	5,296241E+20	5,297364E+20	2,682681E+22	1,059360E+21	2,788617E+22
2756	1,341296E+22	1,341287E+22	5,297987E+20	5,296413E+20	2,682583E+22	1,059440E+21	2,788527E+22
2757	1,341238E+22	1,341274E+22	5,296975E+20	5,298207E+20	2,682512E+22	1,059518E+21	2,788464E+22
2758	1,341266E+22	1,341175E+22	5,297118E+20	5,297390E+20	2,682441E+22	1,059451E+21	2,788386E+22
2759	1,341153E+22	1,341226E+22	5,298504E+20	5,297228E+20	2,682379E+22	1,059573E+21	2,788336E+22
2760	1,341189E+22	1,341192E+22	5,296999E+20	5,298506E+20	2,682381E+22	1,059550E+21	2,788337E+22
2761	1,341226E+22	1,341158E+22	5,297879E+20	5,296843E+20	2,682384E+22	1,059472E+21	2,788332E+22
2762	1,341153E+22	1,341246E+22	5,298122E+20	5,297419E+20	2,682399E+22	1,059554E+21	2,788354E+22
2763	1,341246E+22	1,341213E+22	5,296665E+20	5,297812E+20	2,682458E+22	1,059448E+21	2,788403E+22
2764	1,341244E+22	1,341253E+22	5,297869E+20	5,296296E+20	2,682498E+22	1,059417E+21	2,788440E+22
2765	1,341244E+22	1,341324E+22	5,297010E+20	5,297765E+20	2,682568E+22	1,059477E+21	2,788516E+22
2766	1,341360E+22	1,341280E+22	5,296271E+20	5,296954E+20	2,682640E+22	1,059322E+21	2,788572E+22
2767	1,341326E+22	1,341362E+22	5,297601E+20	5,296086E+20	2,682688E+22	1,059369E+21	2,788625E+22
2768	1,341368E+22	1,341384E+22	5,296243E+20	5,297482E+20	2,682752E+22	1,059372E+21	2,788689E+22
2769	1,341415E+22	1,341341E+22	5,296644E+20	5,296171E+20	2,682756E+22	1,059281E+21	2,788684E+22
2770	1,341303E+22	1,341398E+22	5,297649E+20	5,296639E+20	2,682701E+22	1,059429E+21	2,788644E+22
2771	1,341337E+22	1,341325E+22	5,296214E+20	5,297778E+20	2,682662E+22	1,059399E+21	2,788602E+22
2772	1,341311E+22	1,341264E+22	5,297563E+20	5,296502E+20	2,682575E+22	1,059407E+21	2,788516E+22
2773	1,341219E+22	1,341277E+22	5,297598E+20	5,297815E+20	2,682496E+22	1,059541E+21	2,788450E+22
2774	1,341254E+22	1,341167E+22	5,296768E+20	5,297893E+20	2,682421E+22	1,059466E+21	2,788368E+22
2775	1,341150E+22	1,341161E+22	5,298592E+20	5,296999E+20	2,682311E+22	1,059559E+21	2,788267E+22
2776	1,341097E+22	1,341153E+22	5,297725E+20	5,298740E+20	2,682249E+22	1,059646E+21	2,788214E+22
2777	1,341130E+22	1,341054E+22	5,297840E+20	5,297992E+20	2,682184E+22	1,059583E+21	2,788142E+22
2778	1,341024E+22	1,341094E+22	5,299095E+20	5,297706E+20	2,682117E+22	1,059680E+21	2,788085E+22
2779	1,341070E+22	1,341066E+22	5,297568E+20	5,299018E+20	2,682136E+22	1,059659E+21	2,788102E+22
2780	1,341102E+22	1,341038E+22	5,298345E+20	5,297376E+20	2,682140E+22	1,059572E+21	2,788097E+22
2781	1,341040E+22	1,341132E+22	5,298501E+20	5,298006E+20	2,682172E+22	1,059651E+21	2,788137E+22
2782	1,341136E+22	1,341102E+22	5,297029E+20	5,298407E+20	2,682239E+22	1,059544E+21	2,788193E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2783	1,341136E+22	1,341140E+22	5,298274E+20	5,296855E+20	2,682276E+22	1,059513E+21	2,788227E+22
2784	1,341152E+22	1,341218E+22	5,297565E+20	5,298115E+20	2,682371E+22	1,059568E+21	2,788327E+22
2785	1,341265E+22	1,341182E+22	5,296845E+20	5,297335E+20	2,682448E+22	1,059418E+21	2,788390E+22
2786	1,341210E+22	1,341254E+22	5,298156E+20	5,296485E+20	2,682464E+22	1,059464E+21	2,788410E+22
2787	1,341240E+22	1,341271E+22	5,296843E+20	5,298071E+20	2,682511E+22	1,059491E+21	2,788460E+22
2788	1,341273E+22	1,341212E+22	5,297193E+20	5,296883E+20	2,682486E+22	1,059408E+21	2,788426E+22
2789	1,341177E+22	1,341258E+22	5,298150E+20	5,297313E+20	2,682435E+22	1,059546E+21	2,788390E+22
2790	1,341217E+22	1,341187E+22	5,296712E+20	5,298337E+20	2,682405E+22	1,059505E+21	2,788355E+22
2791	1,341181E+22	1,341127E+22	5,298152E+20	5,297027E+20	2,682308E+22	1,059518E+21	2,788260E+22
2792	1,341088E+22	1,341153E+22	5,298346E+20	5,298259E+20	2,682240E+22	1,059660E+21	2,788206E+22
2793	1,341113E+22	1,341048E+22	5,297501E+20	5,298549E+20	2,682160E+22	1,059605E+21	2,788121E+22
2794	1,340999E+22	1,341022E+22	5,299252E+20	5,297691E+20	2,682021E+22	1,059694E+21	2,787990E+22
2795	1,340962E+22	1,341011E+22	5,298373E+20	5,299461E+20	2,681973E+22	1,059783E+21	2,787951E+22
2796	1,341002E+22	1,340913E+22	5,298365E+20	5,298600E+20	2,681915E+22	1,059697E+21	2,787885E+22
2797	1,340914E+22	1,340964E+22	5,299531E+20	5,298201E+20	2,681877E+22	1,059773E+21	2,787855E+22
2798	1,340955E+22	1,340953E+22	5,297995E+20	5,299453E+20	2,681908E+22	1,059745E+21	2,787883E+22
2799	1,340972E+22	1,340930E+22	5,298796E+20	5,297905E+20	2,681901E+22	1,059670E+21	2,787868E+22
2800	1,340923E+22	1,341027E+22	5,299089E+20	5,298458E+20	2,681950E+22	1,059755E+21	2,787926E+22
2801	1,341031E+22	1,340999E+22	5,297589E+20	5,298914E+20	2,682030E+22	1,059650E+21	2,787995E+22
2802	1,341034E+22	1,341026E+22	5,298753E+20	5,297253E+20	2,682060E+22	1,059601E+21	2,788020E+22
2803	1,341057E+22	1,341109E+22	5,298115E+20	5,298548E+20	2,682166E+22	1,059666E+21	2,788133E+22
2804	1,341151E+22	1,341077E+22	5,297338E+20	5,297831E+20	2,682228E+22	1,059517E+21	2,788180E+22
2805	1,341096E+22	1,341142E+22	5,298605E+20	5,297107E+20	2,682238E+22	1,059571E+21	2,788196E+22
2806	1,341116E+22	1,341152E+22	5,297334E+20	5,298696E+20	2,682269E+22	1,059603E+21	2,788229E+22
2807	1,341143E+22	1,341081E+22	5,297725E+20	5,297545E+20	2,682224E+22	1,059527E+21	2,788177E+22
2808	1,341059E+22	1,341126E+22	5,298828E+20	5,297782E+20	2,682185E+22	1,059661E+21	2,788151E+22
2809	1,341090E+22	1,341060E+22	5,297410E+20	5,298875E+20	2,682150E+22	1,059628E+21	2,788113E+22
2810	1,341035E+22	1,340989E+22	5,298777E+20	5,297593E+20	2,682024E+22	1,059637E+21	2,787987E+22
2811	1,340940E+22	1,341012E+22	5,299014E+20	5,298981E+20	2,681951E+22	1,059800E+21	2,787931E+22
2812	1,340960E+22	1,340904E+22	5,298107E+20	5,299310E+20	2,681864E+22	1,059742E+21	2,787839E+22
2813	1,340875E+22	1,340876E+22	5,299743E+20	5,298387E+20	2,681751E+22	1,059813E+21	2,787732E+22
2814	1,340846E+22	1,340879E+22	5,298873E+20	5,299964E+20	2,681724E+22	1,059884E+21	2,787713E+22
2815	1,340879E+22	1,340792E+22	5,298891E+20	5,299079E+20	2,681671E+22	1,059797E+21	2,787650E+22
2816	1,340793E+22	1,340856E+22	5,300159E+20	5,298580E+20	2,681649E+22	1,059874E+21	2,787636E+22
2817	1,340829E+22	1,340852E+22	5,298603E+20	5,299995E+20	2,681680E+22	1,059860E+21	2,787666E+22
2818	1,340843E+22	1,340809E+22	5,299320E+20	5,298466E+20	2,681652E+22	1,059779E+21	2,787630E+22
2819	1,340819E+22	1,340905E+22	5,299630E+20	5,299032E+20	2,681724E+22	1,059866E+21	2,787710E+22
2820	1,340930E+22	1,340884E+22	5,298057E+20	5,299385E+20	2,681815E+22	1,059744E+21	2,787789E+22
2821	1,340946E+22	1,340917E+22	5,299125E+20	5,297711E+20	2,681863E+22	1,059684E+21	2,787832E+22
2822	1,340953E+22	1,341012E+22	5,298531E+20	5,298973E+20	2,681965E+22	1,059750E+21	2,787940E+22
2823	1,341024E+22	1,340972E+22	5,297807E+20	5,298401E+20	2,681997E+22	1,059621E+21	2,787959E+22
2824	1,340973E+22	1,341030E+22	5,299243E+20	5,297622E+20	2,682003E+22	1,059686E+21	2,787971E+22
2825	1,340993E+22	1,341035E+22	5,297963E+20	5,299247E+20	2,682028E+22	1,059721E+21	2,788000E+22
2826	1,341013E+22	1,340942E+22	5,298330E+20	5,298069E+20	2,681955E+22	1,059640E+21	2,787919E+22
2827	1,340935E+22	1,340986E+22	5,299491E+20	5,298362E+20	2,681921E+22	1,059785E+21	2,787900E+22
2828	1,340950E+22	1,340925E+22	5,298017E+20	5,299531E+20	2,681875E+22	1,059755E+21	2,787851E+22
2829	1,340903E+22	1,340849E+22	5,299270E+20	5,298376E+20	2,681752E+22	1,059765E+21	2,787728E+22
2830	1,340808E+22	1,340874E+22	5,299536E+20	5,299681E+20	2,681682E+22	1,059922E+21	2,787674E+22
2831	1,340828E+22	1,340766E+22	5,298664E+20	5,299963E+20	2,681594E+22	1,059863E+21	2,787581E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2832	1,340755E+22	1,340751E+22	5,300426E+20	5,298809E+20	2,681506E+22	1,059923E+21	2,787498E+22
2833	1,340718E+22	1,340766E+22	5,299565E+20	5,300379E+20	2,681483E+22	1,059994E+21	2,787483E+22
2834	1,340733E+22	1,340669E+22	5,299519E+20	5,299563E+20	2,681401E+22	1,059908E+21	2,787392E+22
2835	1,340657E+22	1,340728E+22	5,300774E+20	5,299202E+20	2,681385E+22	1,059998E+21	2,787385E+22
2836	1,340697E+22	1,340725E+22	5,299130E+20	5,300621E+20	2,681422E+22	1,059975E+21	2,787419E+22
2837	1,340747E+22	1,340684E+22	5,299656E+20	5,299063E+20	2,681431E+22	1,059872E+21	2,787418E+22
2838	1,340732E+22	1,340795E+22	5,299991E+20	5,299455E+20	2,681527E+22	1,059945E+21	2,787522E+22
2839	1,340833E+22	1,340787E+22	5,298480E+20	5,299812E+20	2,681620E+22	1,059829E+21	2,787603E+22
2840	1,340845E+22	1,340829E+22	5,299664E+20	5,298111E+20	2,681674E+22	1,059778E+21	2,787651E+22
2841	1,340833E+22	1,340918E+22	5,299115E+20	5,299489E+20	2,681751E+22	1,059860E+21	2,787737E+22
2842	1,340892E+22	1,340850E+22	5,298365E+20	5,298987E+20	2,681742E+22	1,059735E+21	2,787715E+22
2843	1,340857E+22	1,340891E+22	5,299839E+20	5,298230E+20	2,681748E+22	1,059807E+21	2,787729E+22
2844	1,340871E+22	1,340899E+22	5,298535E+20	5,299781E+20	2,681770E+22	1,059832E+21	2,787753E+22
2845	1,340898E+22	1,340807E+22	5,298784E+20	5,298679E+20	2,681705E+22	1,059746E+21	2,787680E+22
2846	1,340807E+22	1,340858E+22	5,299968E+20	5,298964E+20	2,681665E+22	1,059893E+21	2,787654E+22
2847	1,340806E+22	1,340795E+22	5,298577E+20	5,300239E+20	2,681601E+22	1,059882E+21	2,787589E+22
2848	1,340768E+22	1,340720E+22	5,299955E+20	5,298980E+20	2,681488E+22	1,059893E+21	2,787478E+22
2849	1,340676E+22	1,340749E+22	5,300232E+20	5,300195E+20	2,681425E+22	1,060043E+21	2,787429E+22
2850	1,340688E+22	1,340629E+22	5,299370E+20	5,300444E+20	2,681317E+22	1,059981E+21	2,787315E+22
2851	1,340622E+22	1,340616E+22	5,301141E+20	5,299347E+20	2,681238E+22	1,060049E+21	2,787243E+22
2852	1,340571E+22	1,340638E+22	5,300186E+20	5,300971E+20	2,681209E+22	1,060116E+21	2,787221E+22
2853	1,340603E+22	1,340535E+22	5,299952E+20	5,300318E+20	2,681138E+22	1,060027E+21	2,787141E+22
2854	1,340545E+22	1,340599E+22	5,301142E+20	5,299861E+20	2,681144E+22	1,060100E+21	2,787154E+22
2855	1,340597E+22	1,340604E+22	5,299532E+20	5,301185E+20	2,681201E+22	1,060072E+21	2,787208E+22
2856	1,340660E+22	1,340585E+22	5,300145E+20	5,299402E+20	2,681245E+22	1,059955E+21	2,787241E+22
2857	1,340636E+22	1,340710E+22	5,300504E+20	5,299750E+20	2,681346E+22	1,060025E+21	2,787349E+22
2858	1,340706E+22	1,340688E+22	5,299027E+20	5,300196E+20	2,681395E+22	1,059922E+21	2,787387E+22
2859	1,340721E+22	1,340716E+22	5,300260E+20	5,298669E+20	2,681437E+22	1,059893E+21	2,787426E+22
2860	1,340703E+22	1,340797E+22	5,299679E+20	5,300030E+20	2,681500E+22	1,059971E+21	2,787497E+22
2861	1,340784E+22	1,340717E+22	5,298778E+20	5,299608E+20	2,681501E+22	1,059839E+21	2,787484E+22
2862	1,340754E+22	1,340763E+22	5,300254E+20	5,298752E+20	2,681517E+22	1,059901E+21	2,787507E+22
2863	1,340753E+22	1,340776E+22	5,299039E+20	5,300346E+20	2,681528E+22	1,059938E+21	2,787522E+22
2864	1,340774E+22	1,340694E+22	5,299386E+20	5,299244E+20	2,681469E+22	1,059863E+21	2,787455E+22
2865	1,340670E+22	1,340741E+22	5,300606E+20	5,299583E+20	2,681412E+22	1,060019E+21	2,787414E+22
2866	1,340657E+22	1,340655E+22	5,299289E+20	5,300884E+20	2,681312E+22	1,060017E+21	2,787314E+22
2867	1,340636E+22	1,340573E+22	5,300693E+20	5,299629E+20	2,681209E+22	1,060032E+21	2,787213E+22
2868	1,340535E+22	1,340608E+22	5,300929E+20	5,300724E+20	2,681143E+22	1,060165E+21	2,787160E+22
2869	1,340554E+22	1,340488E+22	5,299892E+20	5,301105E+20	2,681042E+22	1,060100E+21	2,787052E+22
2870	1,340485E+22	1,340480E+22	5,301584E+20	5,300003E+20	2,680965E+22	1,060159E+21	2,786981E+22
2871	1,340433E+22	1,340505E+22	5,300657E+20	5,301666E+20	2,680938E+22	1,060232E+21	2,786961E+22
2872	1,340490E+22	1,340416E+22	5,300454E+20	5,300864E+20	2,680906E+22	1,060132E+21	2,786919E+22
2873	1,340445E+22	1,340493E+22	5,301624E+20	5,300250E+20	2,680938E+22	1,060187E+21	2,786957E+22
2874	1,340490E+22	1,340497E+22	5,300117E+20	5,301509E+20	2,680988E+22	1,060163E+21	2,787004E+22
2875	1,340558E+22	1,340485E+22	5,300739E+20	5,299793E+20	2,681042E+22	1,060053E+21	2,787047E+22
2876	1,340512E+22	1,340613E+22	5,301065E+20	5,300177E+20	2,681125E+22	1,060124E+21	2,787137E+22
2877	1,340590E+22	1,340574E+22	5,299437E+20	5,300832E+20	2,681163E+22	1,060027E+21	2,787166E+22
2878	1,340612E+22	1,340593E+22	5,300622E+20	5,299292E+20	2,681205E+22	1,059991E+21	2,787204E+22
2879	1,340597E+22	1,340672E+22	5,300109E+20	5,300591E+20	2,681269E+22	1,060070E+21	2,787276E+22
2880	1,340682E+22	1,340606E+22	5,299308E+20	5,300055E+20	2,681289E+22	1,059936E+21	2,787282E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2881	1,340639E+22	1,340658E+22	5,300786E+20	5,299187E+20	2,681297E+22	1,059997E+21	2,787297E+22
2882	1,340610E+22	1,340654E+22	5,299704E+20	5,300893E+20	2,681264E+22	1,060060E+21	2,787270E+22
2883	1,340634E+22	1,340561E+22	5,300093E+20	5,299929E+20	2,681196E+22	1,060002E+21	2,787196E+22
2884	1,340526E+22	1,340603E+22	5,301287E+20	5,300192E+20	2,681129E+22	1,060148E+21	2,787143E+22
2885	1,340529E+22	1,340507E+22	5,299851E+20	5,301564E+20	2,681036E+22	1,060142E+21	2,787050E+22
2886	1,340511E+22	1,340432E+22	5,301223E+20	5,300258E+20	2,680942E+22	1,060148E+21	2,786957E+22
2887	1,340399E+22	1,340472E+22	5,301475E+20	5,301351E+20	2,680871E+22	1,060283E+21	2,786899E+22
2888	1,340417E+22	1,340366E+22	5,300484E+20	5,301728E+20	2,680783E+22	1,060221E+21	2,786805E+22
2889	1,340354E+22	1,340358E+22	5,302098E+20	5,300581E+20	2,680712E+22	1,060268E+21	2,786739E+22
2890	1,340304E+22	1,340371E+22	5,301279E+20	5,302189E+20	2,680675E+22	1,060347E+21	2,786710E+22
2891	1,340384E+22	1,340294E+22	5,301078E+20	5,301315E+20	2,680678E+22	1,060239E+21	2,786702E+22
2892	1,340334E+22	1,340387E+22	5,302213E+20	5,300583E+20	2,680721E+22	1,060280E+21	2,786749E+22
2893	1,340380E+22	1,340390E+22	5,300581E+20	5,301990E+20	2,680770E+22	1,060257E+21	2,786796E+22
2894	1,340440E+22	1,340379E+22	5,301112E+20	5,300361E+20	2,680819E+22	1,060147E+21	2,786834E+22
2895	1,340390E+22	1,340498E+22	5,301471E+20	5,300778E+20	2,680887E+22	1,060225E+21	2,786910E+22
2896	1,340482E+22	1,340465E+22	5,299893E+20	5,301343E+20	2,680947E+22	1,060124E+21	2,786959E+22
2897	1,340513E+22	1,340485E+22	5,301053E+20	5,299701E+20	2,680998E+22	1,060075E+21	2,787006E+22
2898	1,340484E+22	1,340555E+22	5,300726E+20	5,301002E+20	2,681039E+22	1,060173E+21	2,787056E+22
2899	1,340568E+22	1,340492E+22	5,299953E+20	5,300590E+20	2,681061E+22	1,060054E+21	2,787066E+22
2900	1,340504E+22	1,340541E+22	5,301401E+20	5,299787E+20	2,681045E+22	1,060119E+21	2,787057E+22
2901	1,340480E+22	1,340516E+22	5,300235E+20	5,301666E+20	2,680996E+22	1,060190E+21	2,787015E+22
2902	1,340511E+22	1,340417E+22	5,300576E+20	5,300677E+20	2,680928E+22	1,060125E+21	2,786940E+22
2903	1,340400E+22	1,340459E+22	5,301836E+20	5,300815E+20	2,680859E+22	1,060265E+21	2,786886E+22
2904	1,340402E+22	1,340381E+22	5,300484E+20	5,302071E+20	2,680783E+22	1,060255E+21	2,786809E+22
2905	1,340371E+22	1,340309E+22	5,301817E+20	5,300742E+20	2,680679E+22	1,060256E+21	2,786705E+22
2906	1,340240E+22	1,340335E+22	5,302194E+20	5,301907E+20	2,680576E+22	1,060410E+21	2,786617E+22
2907	1,340275E+22	1,340227E+22	5,301198E+20	5,302355E+20	2,680502E+22	1,060355E+21	2,786538E+22
2908	1,340221E+22	1,340227E+22	5,302705E+20	5,301103E+20	2,680448E+22	1,060381E+21	2,786486E+22
2909	1,340196E+22	1,340241E+22	5,301789E+20	5,302741E+20	2,680437E+22	1,060453E+21	2,786482E+22
2910	1,340280E+22	1,340181E+22	5,301506E+20	5,301829E+20	2,680461E+22	1,060334E+21	2,786495E+22
2911	1,340221E+22	1,340282E+22	5,302634E+20	5,301095E+20	2,680503E+22	1,060373E+21	2,786541E+22
2912	1,340265E+22	1,340297E+22	5,301057E+20	5,302504E+20	2,680562E+22	1,060356E+21	2,786597E+22
2913	1,340328E+22	1,340277E+22	5,301524E+20	5,300861E+20	2,680604E+22	1,060238E+21	2,786628E+22
2914	1,340277E+22	1,340376E+22	5,302028E+20	5,301256E+20	2,680653E+22	1,060328E+21	2,786686E+22
2915	1,340383E+22	1,340349E+22	5,300489E+20	5,301792E+20	2,680733E+22	1,060228E+21	2,786756E+22
2916	1,340404E+22	1,340378E+22	5,301598E+20	5,300113E+20	2,680781E+22	1,060171E+21	2,786798E+22
2917	1,340371E+22	1,340435E+22	5,301223E+20	5,301585E+20	2,680806E+22	1,060281E+21	2,786834E+22
2918	1,340444E+22	1,340373E+22	5,300400E+20	5,301282E+20	2,680817E+22	1,060168E+21	2,786834E+22
2919	1,340375E+22	1,340410E+22	5,301890E+20	5,300474E+20	2,680785E+22	1,060236E+21	2,786808E+22
2920	1,340357E+22	1,340391E+22	5,300832E+20	5,302221E+20	2,680748E+22	1,060305E+21	2,786778E+22
2921	1,340389E+22	1,340293E+22	5,301160E+20	5,301140E+20	2,680681E+22	1,060230E+21	2,786704E+22
2922	1,340258E+22	1,340322E+22	5,302601E+20	5,301285E+20	2,680581E+22	1,060389E+21	2,786620E+22
2923	1,340256E+22	1,340250E+22	5,301265E+20	5,302645E+20	2,680505E+22	1,060391E+21	2,786544E+22
2924	1,340213E+22	1,340175E+22	5,302495E+20	5,301395E+20	2,680388E+22	1,060389E+21	2,786427E+22
2925	1,340101E+22	1,340182E+22	5,302757E+20	5,302687E+20	2,680282E+22	1,060544E+21	2,786337E+22
2926	1,340156E+22	1,340083E+22	5,301656E+20	5,303077E+20	2,680239E+22	1,060473E+21	2,786286E+22
2927	1,340111E+22	1,340096E+22	5,303137E+20	5,301683E+20	2,680207E+22	1,060482E+21	2,786255E+22
2928	1,340090E+22	1,340137E+22	5,302308E+20	5,303188E+20	2,680227E+22	1,060550E+21	2,786282E+22
2929	1,340165E+22	1,340086E+22	5,301948E+20	5,302228E+20	2,680251E+22	1,060418E+21	2,786292E+22

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 $\odot$ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2930	1,340090E+22	1,340171E+22	5,303213E+20	5,301563E+20	2,680261E+22	1,060478E+21	2,786309E+22
2931	1,340145E+22	1,340184E+22	5,301655E+20	5,302983E+20	2,680330E+22	1,060464E+21	2,786376E+22
2932	1,340214E+22	1,340165E+22	5,302044E+20	5,301306E+20	2,680379E+22	1,060335E+21	2,786412E+22
2933	1,340183E+22	1,340253E+22	5,302497E+20	5,301771E+20	2,680436E+22	1,060427E+21	2,786479E+22
2934	1,340288E+22	1,340238E+22	5,300917E+20	5,302342E+20	2,680526E+22	1,060326E+21	2,786559E+22
2935	1,340294E+22	1,340268E+22	5,302006E+20	5,300708E+20	2,680562E+22	1,060271E+21	2,786589E+22
2936	1,340255E+22	1,340331E+22	5,301729E+20	5,302174E+20	2,680587E+22	1,060390E+21	2,786626E+22
2937	1,340324E+22	1,340256E+22	5,300891E+20	5,301817E+20	2,680580E+22	1,060271E+21	2,786607E+22
2938	1,340245E+22	1,340275E+22	5,302591E+20	5,300987E+20	2,680521E+22	1,060358E+21	2,786556E+22
2939	1,340228E+22	1,340262E+22	5,301617E+20	5,302672E+20	2,680490E+22	1,060429E+21	2,786533E+22
2940	1,340242E+22	1,340165E+22	5,301896E+20	5,301668E+20	2,680407E+22	1,060356E+21	2,786443E+22
2941	1,340110E+22	1,340174E+22	5,303225E+20	5,302006E+20	2,680284E+22	1,060523E+21	2,786337E+22
2942	1,340107E+22	1,340100E+22	5,301791E+20	5,303468E+20	2,680207E+22	1,060526E+21	2,786260E+22
2943	1,340075E+22	1,340023E+22	5,302944E+20	5,302163E+20	2,680098E+22	1,060511E+21	2,786149E+22
2944	1,339985E+22	1,340050E+22	5,303262E+20	5,303279E+20	2,680035E+22	1,060654E+21	2,786101E+22
2945	1,340048E+22	1,339969E+22	5,302161E+20	5,303495E+20	2,680017E+22	1,060566E+21	2,786074E+22
2946	1,339992E+22	1,339983E+22	5,303794E+20	5,302093E+20	2,679974E+22	1,060589E+21	2,786033E+22
2947	1,339966E+22	1,340036E+22	5,303002E+20	5,303606E+20	2,680002E+22	1,060661E+21	2,786068E+22
2948	1,340031E+22	1,339981E+22	5,302537E+20	5,302751E+20	2,680013E+22	1,060529E+21	2,786066E+22
2949	1,339975E+22	1,340039E+22	5,303688E+20	5,302189E+20	2,680014E+22	1,060588E+21	2,786072E+22
2950	1,340045E+22	1,340061E+22	5,302051E+20	5,303562E+20	2,680106E+22	1,060561E+21	2,786162E+22
2951	1,340119E+22	1,340050E+22	5,302393E+20	5,301808E+20	2,680169E+22	1,060420E+21	2,786211E+22
2952	1,340086E+22	1,340155E+22	5,302945E+20	5,302218E+20	2,680242E+22	1,060516E+21	2,786293E+22
2953	1,340178E+22	1,340144E+22	5,301357E+20	5,302759E+20	2,680322E+22	1,060412E+21	2,786363E+22
2954	1,340166E+22	1,340153E+22	5,302612E+20	5,301234E+20	2,680319E+22	1,060385E+21	2,786357E+22
2955	1,340129E+22	1,340213E+22	5,302419E+20	5,302643E+20	2,680342E+22	1,060506E+21	2,786393E+22
2956	1,340193E+22	1,340135E+22	5,301543E+20	5,302334E+20	2,680328E+22	1,060388E+21	2,786367E+22
2957	1,340121E+22	1,340130E+22	5,303213E+20	5,301620E+20	2,680251E+22	1,060483E+21	2,786299E+22
2958	1,340096E+22	1,340124E+22	5,302177E+20	5,303367E+20	2,680220E+22	1,060554E+21	2,786276E+22
2959	1,340099E+22	1,340023E+22	5,302388E+20	5,302455E+20	2,680122E+22	1,060484E+21	2,786171E+22
2960	1,339974E+22	1,340035E+22	5,303742E+20	5,302776E+20	2,680009E+22	1,060652E+21	2,786074E+22
2961	1,339981E+22	1,339961E+22	5,302290E+20	5,304087E+20	2,679942E+22	1,060638E+21	2,786006E+22
2962	1,339952E+22	1,339884E+22	5,303585E+20	5,302694E+20	2,679836E+22	1,060628E+21	2,785898E+22
2963	1,339868E+22	1,339933E+22	5,303995E+20	5,303648E+20	2,679801E+22	1,060764E+21	2,785877E+22
2964	1,339915E+22	1,339864E+22	5,302867E+20	5,303917E+20	2,679779E+22	1,060678E+21	2,785846E+22
2965	1,339856E+22	1,339860E+22	5,304381E+20	5,302688E+20	2,679716E+22	1,060707E+21	2,785787E+22
2966	1,339834E+22	1,339912E+22	5,303487E+20	5,304239E+20	2,679746E+22	1,060773E+21	2,785823E+22
2967	1,339910E+22	1,339853E+22	5,302918E+20	5,303360E+20	2,679763E+22	1,060628E+21	2,785826E+22
2968	1,339879E+22	1,339925E+22	5,304064E+20	5,302684E+20	2,679804E+22	1,060675E+21	2,785872E+22
2969	1,339956E+22	1,339959E+22	5,302452E+20	5,303904E+20	2,679915E+22	1,060636E+21	2,785978E+22
2970	1,340015E+22	1,339950E+22	5,302931E+20	5,302209E+20	2,679966E+22	1,060514E+21	2,786017E+22
2971	1,339975E+22	1,340064E+22	5,303559E+20	5,302629E+20	2,680039E+22	1,060619E+21	2,786101E+22
2972	1,340052E+22	1,340043E+22	5,301963E+20	5,303299E+20	2,680095E+22	1,060526E+21	2,786147E+22
2973	1,340048E+22	1,340018E+22	5,303145E+20	5,301910E+20	2,680066E+22	1,060506E+21	2,786117E+22
2974	1,340015E+22	1,340079E+22	5,302921E+20	5,303257E+20	2,680094E+22	1,060618E+21	2,786155E+22
2975	1,340071E+22	1,340001E+22	5,302025E+20	5,302952E+20	2,680073E+22	1,060498E+21	2,786122E+22
2976	1,339996E+22	1,340003E+22	5,303731E+20	5,302250E+20	2,679999E+22	1,060598E+21	2,786058E+22
2977	1,339959E+22	1,339996E+22	5,302695E+20	5,303944E+20	2,679954E+22	1,060664E+21	2,786021E+22
2978	1,339952E+22	1,339882E+22	5,303042E+20	5,303106E+20	2,679833E+22	1,060615E+21	2,785895E+22

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 ☉ Years	0° - 90°	90° - 180°	180° - 270°	270° - 360°	0° - 180°	180° - 360°	0° - 360°
2979	1,339840E+22	1,339900E+22	5,304452E+20	5,303281E+20	2,679740E+22	1,060773E+21	2,785817E+22
2980	1,339850E+22	1,339836E+22	5,303024E+20	5,304591E+20	2,679686E+22	1,060762E+21	2,785762E+22
2981	1,339827E+22	1,339746E+22	5,304260E+20	5,303279E+20	2,679573E+22	1,060754E+21	2,785649E+22
2982	1,339737E+22	1,339810E+22	5,304589E+20	5,304233E+20	2,679548E+22	1,060882E+21	2,785636E+22
2983	1,339776E+22	1,339741E+22	5,303349E+20	5,304588E+20	2,679517E+22	1,060794E+21	2,785596E+22
2984	1,339730E+22	1,339734E+22	5,304810E+20	5,303365E+20	2,679464E+22	1,060817E+21	2,785546E+22
2985	1,339723E+22	1,339788E+22	5,303875E+20	5,304712E+20	2,679512E+22	1,060859E+21	2,785597E+22
2986	1,339806E+22	1,339734E+22	5,303414E+20	5,303797E+20	2,679540E+22	1,060721E+21	2,785612E+22
2987	1,339783E+22	1,339827E+22	5,304625E+20	5,302992E+20	2,679610E+22	1,060762E+21	2,785686E+22
2988	1,339846E+22	1,339870E+22	5,303042E+20	5,304311E+20	2,679716E+22	1,060735E+21	2,785790E+22
2989	1,339899E+22	1,339838E+22	5,303423E+20	5,302808E+20	2,679737E+22	1,060623E+21	2,785799E+22
2990	1,339859E+22	1,339947E+22	5,303997E+20	5,303229E+20	2,679806E+22	1,060723E+21	2,785878E+22
2991	1,339935E+22	1,339919E+22	5,302368E+20	5,303883E+20	2,679854E+22	1,060625E+21	2,785916E+22
2992	1,339945E+22	1,339896E+22	5,303595E+20	5,302481E+20	2,679841E+22	1,060608E+21	2,785901E+22
2993	1,339905E+22	1,339961E+22	5,303431E+20	5,303670E+20	2,679866E+22	1,060710E+21	2,785937E+22
2994	1,339939E+22	1,339879E+22	5,302681E+20	5,303510E+20	2,679819E+22	1,060619E+21	2,785881E+22
2995	1,339857E+22	1,339883E+22	5,304424E+20	5,302799E+20	2,679740E+22	1,060722E+21	2,785812E+22
2996	1,339813E+22	1,339864E+22	5,303425E+20	5,304590E+20	2,679677E+22	1,060801E+21	2,785758E+22
2997	1,339818E+22	1,339727E+22	5,303683E+20	5,303823E+20	2,679545E+22	1,060751E+21	2,785620E+22
2998	1,339716E+22	1,339758E+22	5,305030E+20	5,303892E+20	2,679473E+22	1,060892E+21	2,785563E+22
2999	1,339716E+22	1,339703E+22	5,303613E+20	5,305186E+20	2,679419E+22	1,060880E+21	2,785507E+22