



Astrodienst Ephemeris Tables for the year 1780

tropical geocentric zodiac

contains Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, True Node, Moon's Node, Lilith, Chiron

Programming
Dieter Koch and Alois Treindl
based on Swiss Ephemeris
Code D5EPX

ASTRODIENST EPHEMERIS for the year 1780
geocentric

JANUARY 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	6 40 58	10♌16'38	5♏30	7°R25	27♌49	5♏43	24♏36	4♏5	21°R16	3♏40	2♏25	1♏43	0♏4	11♏34	27°R22	S 1
S 2	6 44 55	11°17'49	18°20	6♌7	29°4	6°29	24°43	4°11	21♏14	3°40	2°27	1°44	0°1	11°41	27°Y22	S 2
M 3	6 48 52	12°19'00	0♏54	4°53	0♏19	7°15	24°50	4°17	21°11	3°41	2°29	1°R45	29♌58	11°47	27°22	M 3
T 4	6 52 48	13°20'10	13°17	3°47	1°34	8°0	24°57	4°23	21°9	3°41	2°31	1°44	29°55	11°54	27°21	T 4
W 5	6 56 45	14°21'21	25°31	2°48	2°49	8°46	25°3	4°30	21°7	3°R41	2°33	1°42	29°52	12°1	27°21	W 5
T 6	7 0 41	15°22'32	7♌37	1°59	4°5	9°31	25°10	4°35	21°4	3°41	2°34	1°37	29°48	12°8	27°21	T 6
F 7	7 4 38	16°23'43	19°37	1°20	5°20	10°17	25°16	4°41	21°2	3°41	2°36	1°29	29°45	12°14	27°D21	F 7
S 8	7 8 34	17°24'53	1♏33	0°51	6°35	11°2	25°22	4°47	21°0	3°40	2°38	1°21	29°42	12°21	27°21	S 8
S 9	7 12 31	18°26'03	13°25	0°31	7°50	11°48	25°28	4°53	20°58	3°40	2°40	1°11	29°39	12°28	27°21	S 9
M10	7 16 27	19°27'13	25°16	0°21	9°5	12°33	25°34	4°59	20°56	3°40	2°42	1°1	29°36	12°34	27°21	M10
T 11	7 20 24	20°28'21	7♏8	0°D20	10°20	13°19	25°39	5°5	20°53	3°40	2°44	0°52	29°33	12°41	27°21	T 11
W12	7 24 21	21°29'30	19°3	0°27	11°35	14°4	25°45	5°10	20°51	3°40	2°46	0°45	29°29	12°48	27°22	W12
T 13	7 28 17	22°30'37	1°Y6	0°42	12°50	14°50	25°50	5°16	20°49	3°39	2°47	0°40	29°26	12°55	27°22	T 13
F 14	7 32 14	23°31'44	13°19	1°4	14°5	15°35	25°55	5°21	20°47	3°39	2°49	0°38	29°23	13°1	27°22	F 14
S 15	7 36 10	24°32'50	25°48	1°32	15°20	16°21	26°0	5°27	20°45	3°39	2°51	0°D37	29°20	13°8	27°23	S 15
S 16	7 40 7	25°33'55	8♌37	2°6	16°35	17°6	26°5	5°32	20°43	3°38	2°53	0°38	29°17	13°15	27°23	S 16
M17	7 44 3	26°34'59	21°51	2°46	17°49	17°51	26°9	5°38	20°41	3°38	2°55	0°39	29°13	13°22	27°24	M17
T 18	7 48 0	27°36'02	5♏33	3°30	19°4	18°37	26°14	5°43	20°39	3°38	2°57	0°R39	29°10	13°28	27°25	T 18
W19	7 51 56	28°37'05	19°45	4°18	20°19	19°22	26°18	5°48	20°37	3°37	2°59	0°37	29°7	13°35	27°25	W19
T 20	7 55 53	29°38'07	4♏24	5°11	21°34	20°7	26°22	5°53	20°36	3°37	3°1	0°33	29°4	13°42	27°26	T 20
F 21	7 59 50	0♏39'07	19°27	6°6	22°49	20°52	26°26	5°58	20°34	3°36	3°2	0°27	29°1	13°48	27°27	F 21
S 22	8 3 46	1°40'07	4♏43	7°5	24°3	21°38	26°30	6°3	20°32	3°36	3°4	0°18	28°58	13°55	27°28	S 22
S 23	8 7 43	2°41'06	20°4	8°7	25°18	22°23	26°33	6°8	20°30	3°35	3°6	0°8	28°54	14°2	27°29	S 23
M24	8 11 39	3°42'04	5♏16	9°12	26°33	23°8	26°37	6°13	20°29	3°34	3°8	29♌59	28°51	14°9	27°30	M24
T 25	8 15 36	4°43'02	20°10	10°19	27°48	23°53	26°40	6°18	20°27	3°34	3°10	29°50	28°48	14°15	27°31	T 25
W26	8 19 32	5°43'58	4♏38	11°28	29°2	24°38	26°43	6°23	20°25	3°33	3°12	29°44	28°45	14°22	27°32	W26
T 27	8 23 29	6°44'54	18°38	12°39	0♏17	25°23	26°46	6°27	20°24	3°32	3°14	29°40	28°42	14°29	27°33	T 27
F 28	8 27 25	7°45'50	2♏10	13°51	1°31	26°8	26°49	6°32	20°22	3°32	3°16	29°39	28°38	14°35	27°34	F 28
S 29	8 31 22	8°46'44	15°15	15°6	2°46	26°53	26°51	6°37	20°21	3°31	3°18	29°D39	28°35	14°42	27°35	S 29
S 30	8 35 19	9°47'38	27°59	16°22	4°1	27°38	26°53	6°41	20°19	3°30	3°20	29°R39	28°32	14°49	27°37	S 30
M31	8 39 15	10♏48'31	10♏24	17♌40	5♏15	28♏23	26♏55	6♏45	20♏18	3♏29	3♏21	29♌39	28♌29	14♏56	27°Y38	M31

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	23s 4	11s12	2n18	20s24	2n52	22s 1	1s25	10s17	0s55	8s22	1n16	19s13	1n48	23n19	0n 8	0s 9	1n26	24s11	4s39	20n32	20n11	22s 1	10n13	0s22	
S 2	22 59	16 9	1 12	20 18	3 2	21 47	1 26	9 59	0 54	8 24	1 16	19 14	1 48	23 19	0 8	0 9	1 26	24 10	4 39	20 32	20 11	22 0	10 13	0 22	
M 3	22 54	20 17	0 5	20 13	3 10	21 32	1 27	9 41	0 53	8 26	1 17	19 15	1 48	23 18	0 8	0 9	1 26	24 10	4 39	20 32	20 10	21 58	10 12	0 22	
T 4	22 48	23 27	1s 2	20 10	3 15	21 16	1 28	9 23	0 52	8 29	1 17	19 16	1 48	23 18	0 8	0 9	1 26	24 9	4 39	20 32	20 9	21 56	10 12	0 22	
W 5	22 42	25 29	2 5	20 9	3 18	21 0	1 29	9 5	0 51	8 31	1 17	19 17	1 48	23 18	0 8	0 9	1 26	24 9	4 40	20 32	20 9	21 55	10 12	0 22	
T 6	22 35	26 16	3 2	20 9	3 18	20 43	1 30	8 47	0 50	8 33	1 17	19 18	1 48	23 18	0 8	0 9	1 26	24 9	4 40	20 31	20 8	21 53	10 12	0 22	
F 7	22 28	25 49	3 49	20 11	3 17	20 26	1 31	8 29	0 49	8 35	1 17	19 19	1 48	23 18	0 8	0 9	1 26	24 8	4 40	20 29	20 7	21 51	10 12	0 22	
S 8	22 20	24 10	4 27	20 14	3 14	20 8	1 32	8 11	0 48	8 37	1 18	19 20	1 48	23 18	0 8	0 9	1 26	24 8	4 40	20 27	20 7	21 50	10 12	0 22	
S 9	22 12	21 28	4 52	20 19	3 9	19 49	1 32	7 53	0 48	8 39	1 18	19 21	1 49	23 18	0 8	0 9	1 26	24 7	4 40	20 25	20 6	21 48	10 12	0 22	
M10	22 3	17 54	5 5	20 25	3 3	19 30	1 33	7 34	0 47	8 41	1 18	19 22	1 49	23 17	0 8	0 9	1 26	24 7	4 40	20 23	20 5	21 46	10 12	0 22	
T 11	21 54	13 37	5 5	20 32	2 56	19 10	1 34	7 16	0 46	8 43	1 18	19 23	1 49	23 17	0 8	0 9	1 26	24 7	4 40	20 22	20 5	21 44	10 12	0 22	
W12	21 45	8 48	4 51	20 40	2 48	18 50	1 34	6 58	0 45	8 44	1 19	19 24	1 49	23 17	0 8	0 8	1 26	24 6	4 40	20 20	20 4	21 43	10 12	0 22	
T 13	21 35	3 37	4 25	20 48	2 40	18 29	1 34	6 39	0 44	8 46	1 19	19 25	1 49	23 17	0 8	0 8	1 26	24 6	4 40	20 19	20 3	21 41	10 12	0 22	
F 14	21 25	1n48	3 46	20 57	2 31	18 8	1 35	6 21	0 43	8 48	1 19	19 26	1 49	23 17	0 8	0 8	1 26	24 5	4 40	20 18	20 3	21 39	10 12	0 22	
S 15	21 14	7 15	2 56	21 6	2 21	17 46	1 35	6 2	0 42	8 49	1 19	19 27	1 49	23 17	0 8	0 8	1 26	24 5	4 40	20 18	20 2	21 38	10 12	0 23	
S 16	21 3	12 34	1 55	21 15	2 12	17 24	1 35	5 44	0 41	8 51	1 19	19 28	1 49	23 17	0 8	0 8	1 26	24 5	4 40	20 18	20 1	21 36	10 12	0 23	
M17	20 52	17 30	0 47	21 25	2 2	17 1	1 35	5 25	0 40	8 52	1 20	19 29	1 49	23 17	0 8	0 8	1 26	24 4	4 40	20 19	20 1	21 34	10 13	0 23	
T 18	20 40	21 41	0n26	21 34	1 52	16 38	1 35	5 7	0 39	8 54	1 20	19 30	1 49	23 16	0 8	0 7	1 26	24 4	4 40	20 19	20 0	21 32	10 13	0 23	
W19	20 28	24 44	1 40	21 42	1 42	16 14	1 35	4 48	0 38	8 55	1 20	19 30	1 49	23 16	0 8	0 7	1 27	24 4	4 40	20 18	19 59	21 31	10 13	0 23	
T 20	20 15	26 14	2 50	21 50	1 32	15 50	1 35	4 29	0 37	8 56	1 20	19 31	1 49	23 16	0 8	0 7	1 27	24 3	4 40	20 18	19 58	21 29	10 13	0 23	
F 21	20 2	25 51	3 50	21 58	1 22	15 26	1 35	4 11	0 36	8 58	1 21	19 32	1 50	23 16	0 8	0 7	1 27	24 3	4 40	20 16	19 58	21 27	10 13	0 23	
S 22	19 49	23 32	4 34	22 5	1 12	15 1	1 35	3 52	0 35	8 59	1 21	19 33	1 50	23 16	0 8	0 6	1 27	24 2	4 40	20 14	19 57	21 25	10 14	0 23	
S 23	19 35	19 32	4 59	22 11	1 2	14 35	1 35	3 33	0 35	9 0	1 21	19 33	1 50	23 16	0 8	0 6	1 27	24 2	4 41	20 12	19 56	21 24	10 14	0 23	
M24	19 21	14 16	5 2	22 17	0 52	14 9	1 34	3 15	0 34	9 1	1 21	19 34	1 50	23 16	0 8	0 6	1 27	24 2	4 41	20 10	19 56	21 22	10 14	0 23	
T 25	19 6	8 16	4 45	22 22	0 43	13 43	1 34	2 56	0 33	9 2	1 22	19 35	1 50	23 16	0 8	0 5	1 27	24 1	4 41	20 8	19 55	21 20	10 14	0 23	
W26	18 52	1 58	4 9	22 25	0 33	13 17	1 33	2 37	0 32	9 3	1 22	19 36	1 50	23 15	0 8	0 5	1 27	24 1	4 41	20 7	19 54	21 18	10 15	0 23	
T 27	18 37	4s14	3 20	22 28	0 24	12 50	1 33	2 18	0 31	9 3	1 22	19 36	1 50	23 15	0 8	0 5	1 27	24 0	4 41	20 6	19 54	21 17	10 15	0 23	
F 28	18 21	10 2	2 21	22 30	0 15	12 23	1 32	2 0	0 30	9 4	1 22	19 37	1 50	23 15	0 8	0 4	1 27	24 0	4 41	20 6	19 53	21 15	10 16	0 23	
S 29	18 5	15 13	1 16	22 31	0 6	11 55	1 31	1 41	0 29	9 5	1 22	19 38	1 50	23 15	0 8	0 4	1 27	24 0	4 41	20 6	19 52	21 13	10 16	0 23	
S 30	17 49	19 35	0 9	22 30	0s 3	11 27	1 30	1 22	0 28	9 5	1 23	19 38	1 50	23 15	0 8	0 4	1 27	23 59	4 41	20 6	19 52	21 11	10 16	0 23	
M31	17s33	22s58	0s57	22s29	0s11	10s59	1s30	1s 4	0s27	9s 6	1n23	19s39	1n51	23n15	0n 8	0s 3	1n27	23s59	4s41	20n 6	19n51	21s 9	10n17	0s23	

ASTRODIENST EPHEMERIS for the year 1780
geocentric

FEBRUARY 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	8 43 12	11 ⁴⁹ 24	22 ³⁷ 37	18 ⁵⁸ 58	6 ³⁰ 30	29 ³⁸ 8	26 ⁵⁷ 57	6 ⁵⁰ 50	20 ^R 17	3 ^R 28	3 ²³ 23	29 ^R 36	28 ²⁶ 26	15 ²² 2	27 ³⁹ 39	T 1
W 2	8 47 8	12 ⁵⁰ 15	4 ³⁰ 40	20 ¹⁹ 19	7 ⁴⁴ 44	29 ⁵³ 53	26 ⁵⁹ 59	6 ⁵⁴ 54	20 ^{II} 15	3 ²⁸ 28	3 ²⁵ 25	29 ³¹ 31	28 ²³ 23	15 ⁹ 9	27 ⁴¹ 41	W 2
T 3	8 51 5	13 ⁵¹ 05	16 ³⁶ 36	21 ⁴⁰ 40	8 ⁵⁹ 59	0 ³⁸ 38	27 ¹ 1	6 ⁵⁸ 58	20 ¹⁴ 14	3 ²⁷ 27	3 ²⁷ 27	29 ²³ 23	28 ¹⁹ 19	15 ¹⁶ 16	27 ⁴² 42	T 3
F 4	8 55 1	14 ⁵¹ 55	28 ³⁰ 30	23 ³ 3	10 ¹³ 13	1 ²³ 23	27 ² 2	7 ² 2	20 ¹³ 13	3 ²⁶ 26	3 ²⁹ 29	29 ¹² 12	28 ¹⁶ 16	15 ²² 22	27 ⁴⁴ 44	F 4
S 5	8 58 58	15 ⁵² 43	10 ²² 22	24 ²⁶ 26	11 ²⁷ 27	2 ⁸ 8	27 ³ 3	7 ⁶ 6	20 ¹² 12	3 ²⁵ 25	3 ³¹ 31	28 ⁵⁹ 59	28 ¹³ 13	15 ²⁹ 29	27 ⁴⁶ 46	S 5
S 6	9 2 55	16 ⁵³ 29	22 ¹⁴ 14	25 ⁵¹ 51	12 ⁴² 42	2 ⁵² 52	27 ⁴ 4	7 ¹⁰ 10	20 ¹¹ 11	3 ²⁴ 24	3 ³³ 33	28 ⁴⁴ 44	28 ¹⁰ 10	15 ³⁶ 36	27 ⁴⁷ 47	S 6
M 7	9 6 51	17 ⁵⁴ 15	4 ³⁷ 37	27 ¹⁷ 17	13 ⁵⁶ 56	3 ³⁷ 37	27 ⁵ 5	7 ¹⁴ 14	20 ¹⁰ 10	3 ²³ 23	3 ³⁴ 34	28 ²⁹ 29	28 ⁷ 7	15 ⁴³ 43	27 ⁴⁹ 49	M 7
T 8	9 10 48	18 ⁵⁴ 58	16 ² 2	28 ⁴⁴ 44	15 ¹⁰ 10	4 ²² 22	27 ⁶ 6	7 ¹⁷ 17	20 ⁹ 9	3 ²² 22	3 ³⁶ 36	28 ¹⁵ 15	28 ⁴ 4	15 ⁴⁹ 49	27 ⁵¹ 51	T 8
W 9	9 14 44	19 ⁵⁵ 41	28 ² 2	0 ¹¹ 11	16 ²⁴ 24	5 ⁷ 7	27 ⁶ 6	7 ²¹ 21	20 ⁸ 8	3 ²¹ 21	3 ³⁸ 38	28 ⁴ 4	28 ⁰ 0	15 ⁵⁶ 56	27 ⁵³ 53	W 9
T 10	9 18 41	20 ⁵⁶ 22	10 ³⁷ 37	1 ⁴⁰ 40	17 ³⁹ 39	5 ⁵¹ 51	27 ⁷ 7	7 ²⁵ 25	20 ⁷ 7	3 ¹⁹ 19	3 ⁴⁰ 40	27 ⁵⁵ 55	27 ⁵⁷ 57	16 ³ 3	27 ⁵⁵ 55	T 10
F 11	9 22 37	21 ⁵⁷ 01	22 ²⁴ 24	3 ¹⁰ 10	18 ⁵³ 53	6 ³⁶ 36	27 ^R 7	7 ²⁸ 28	20 ⁶ 6	3 ¹⁸ 18	3 ⁴² 42	27 ⁵⁰ 50	27 ⁵⁴ 54	16 ¹⁰ 10	27 ⁵⁷ 57	F 11
S 12	9 26 34	22 ⁵⁷ 38	4 ⁵² 52	4 ⁴⁰ 40	20 ⁷ 7	7 ²⁰ 20	27 ⁷ 7	7 ³¹ 31	20 ⁵ 5	3 ¹⁷ 17	3 ⁴⁴ 44	27 ⁴⁷ 47	27 ⁵¹ 51	16 ¹⁶ 16	27 ⁵⁹ 59	S 12
S 13	9 30 30	23 ⁵⁸ 14	17 ³⁷ 37	6 ¹² 12	21 ²¹ 21	8 ⁵ 5	27 ⁶ 6	7 ³⁵ 35	20 ⁴ 4	3 ¹⁶ 16	3 ⁴⁵ 45	27 ⁴⁶ 46	27 ⁴⁸ 48	16 ²³ 23	28 ¹ 1	S 13
M14	9 34 27	24 ⁵⁸ 48	0 ^{II} 43	7 ⁴⁴ 44	22 ³⁵ 35	8 ⁴⁹ 49	27 ⁶ 6	7 ³⁸ 38	20 ⁴ 4	3 ¹⁵ 15	3 ⁴⁷ 47	27 ⁴⁶ 46	27 ⁴⁴ 44	16 ³⁰ 30	28 ³ 3	M14
T 15	9 38 23	25 ⁵⁹ 21	14 ¹⁴ 14	9 ¹⁸ 18	23 ⁴⁹ 49	9 ³⁴ 34	27 ⁵ 5	7 ⁴¹ 41	20 ³ 3	3 ¹⁴ 14	3 ⁴⁹ 49	27 ⁴⁵ 45	27 ⁴¹ 41	16 ³⁶ 36	28 ⁵ 5	T 15
W16	9 42 20	26 ⁵⁹ 51	28 ¹³ 13	10 ⁵² 52	25 ³ 3	10 ¹⁸ 18	27 ⁴ 4	7 ⁴⁴ 44	20 ² 2	3 ¹² 12	3 ⁵¹ 51	27 ⁴³ 43	27 ³⁸ 38	16 ⁴³ 43	28 ⁷ 7	W16
T 17	9 46 17	28 ⁰ 20	12 ³⁴ 40	12 ²⁷ 27	26 ¹⁷ 17	11 ³ 3	27 ³ 3	7 ⁴⁷ 47	20 ² 2	3 ¹¹ 11	3 ⁵³ 53	27 ³⁸ 38	27 ³⁵ 35	16 ⁵⁰ 50	28 ¹⁰ 10	T 17
F 18	9 50 13	29 ⁰ 47	27 ³² 32	14 ³ 3	27 ³¹ 31	11 ⁴⁷ 47	27 ² 2	7 ⁵⁰ 50	20 ¹ 1	3 ¹⁰ 10	3 ⁵⁴ 54	27 ³¹ 31	27 ³² 32	16 ⁵⁷ 57	28 ¹² 12	F 18
S 19	9 54 10	0 ³⁷ 12	12 ³⁴ 43	15 ⁴⁰ 40	28 ⁴⁴ 44	12 ³¹ 31	27 ⁰ 0	7 ⁵² 52	20 ¹ 1	3 ⁸ 8	3 ⁵⁶ 56	27 ²¹ 21	27 ²⁹ 29	17 ³ 3	28 ¹⁴ 14	S 19
S 20	9 58 6	1 ¹ 35	28 ³ 3	17 ¹⁸ 18	29 ⁵⁸ 58	13 ¹⁶ 16	26 ⁵⁹ 59	7 ⁵⁵ 55	20 ¹ 1	3 ⁷ 7	3 ⁵⁸ 58	27 ⁹ 9	27 ²⁵ 25	17 ¹⁰ 10	28 ¹⁷ 17	S 20
M21	10 2 3	2 ¹ 56	13 ³⁷ 21	18 ⁵⁷ 57	1 ³⁷ 12	14 ⁰ 0	26 ⁵⁷ 57	7 ⁵⁸ 58	20 ⁰ 0	3 ⁶ 6	4 ⁰ 0	26 ⁵⁸ 58	27 ²² 22	17 ¹⁷ 17	28 ¹⁹ 19	M21
T 22	10 5 59	3 ² 16	28 ²⁵ 25	20 ³⁷ 37	2 ²⁵ 25	14 ⁴⁴ 44	26 ⁵⁵ 55	8 ⁰ 0	20 ⁰ 0	3 ⁴ 4	4 ¹ 1	26 ⁴⁸ 48	27 ¹⁹ 19	17 ²³ 23	28 ²² 22	T 22
W23	10 9 56	4 ² 34	13 ³⁴ 6	22 ¹⁸ 18	3 ³⁹ 39	15 ²⁸ 28	26 ⁵³ 53	8 ² 2	20 ⁰ 0	3 ³ 3	4 ³ 3	26 ⁴⁰ 40	27 ¹⁶ 16	17 ³⁰ 30	28 ²⁴ 24	W23
T 24	10 13 52	5 ² 51	27 ¹⁸ 18	24 ⁰ 0	4 ⁵² 52	16 ¹² 12	26 ⁵⁰ 50	8 ⁵ 5	20 ⁰ 0	3 ² 2	4 ⁵ 5	26 ³⁵ 35	27 ¹³ 13	17 ³⁷ 37	28 ²⁷ 27	T 24
F 25	10 17 49	6 ³ 06	11 ¹⁸ 0	25 ⁴³ 43	6 ⁶ 6	16 ⁵⁶ 56	26 ⁴⁸ 48	8 ⁷ 7	19 ⁵⁹ 59	3 ⁰ 0	4 ⁶ 6	26 ³² 32	27 ¹⁰ 10	17 ⁴⁴ 44	28 ²⁹ 29	F 25
S 26	10 21 46	7 ³ 20	24 ¹³ 13	27 ²⁶ 26	7 ¹⁹ 19	17 ⁴⁰ 40	26 ⁴⁵ 45	8 ⁹ 9	19 ⁵⁹ 59	2 ⁵⁹ 59	4 ⁸ 8	26 ^D 31	27 ⁶ 6	17 ⁵⁰ 50	28 ³² 32	S 26
S 27	10 25 42	8 ³ 33	7 ³⁷ 0	29 ¹¹ 11	8 ³³ 33	18 ²⁴ 24	26 ⁴² 42	8 ¹¹ 11	19 ^D 59	2 ⁵⁷ 57	4 ¹⁰ 10	26 ^R 31	27 ³ 3	17 ⁵⁷ 57	28 ³⁵ 35	S 27
M28	10 29 39	9 ³ 44	19 ²⁶ 26	0 ³⁷ 57	9 ⁴⁶ 46	19 ⁸ 8	26 ³⁹ 39	8 ¹³ 13	19 ⁵⁹ 59	2 ⁵⁶ 56	4 ¹¹ 11	26 ³¹ 31	27 ⁰ 0	18 ⁴ 4	28 ³⁷ 37	M28
T 29	10 33 35	10 ³⁷ 53	1 ³⁷ 37	2 ³⁴ 44	10 ³⁷ 59	19 ³⁷ 52	26 ³⁶ 36	8 ¹⁴ 14	19 ^{II} 59	2 ⁵⁴ 54	4 ¹³ 13	26 ³² 32	26 ³⁷ 37	18 ¹¹ 11	28 ⁴⁰ 40	T 29

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ASTRODIENST EPHEMERIS for the year 1780
geocentric

MARCH 1780

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	10 37 32	11 ¹¹ 4'01	13 ³ 36	4 ³ 33	12 ¹ 12	20 ¹ 36	26 ¹ R33	8 ¹ 16	20 ¹ 0	2 ¹ R53	4 ¹ 14	26 ¹ R25	26 ¹ 54	18 ¹ 17	28 ¹ 43	W 1
T 2	10 41 28	12 ¹ 4'07	25 ¹ 30	6 ¹ 22	13 ¹ 26	21 ¹ 20	26 ¹ 29	8 ¹ 18	20 ¹ 0	2 ¹ 51	4 ¹ 16	26 ¹ 18	26 ¹ 50	18 ¹ 24	28 ¹ 46	T 2
F 3	10 45 25	13 ¹ 4'11	7 ¹ 20	8 ¹ 12	14 ¹ 39	22 ¹ 3	26 ¹ 25	8 ¹ 19	20 ¹ 0	2 ¹ 50	4 ¹ 18	26 ¹ 8	26 ¹ 47	18 ¹ 31	28 ¹ 49	F 3
S 4	10 49 21	14 ¹ 4'14	19 ¹ 11	10 ¹ 4	15 ¹ 52	22 ¹ 47	26 ¹ 21	8 ¹ 21	20 ¹ 0	2 ¹ 48	4 ¹ 19	25 ¹ 55	26 ¹ 44	18 ¹ 37	28 ¹ 52	S 4
S 5	10 53 18	15 ¹ 4'15	1 ¹ 4	11 ¹ 56	17 ¹ 5	23 ¹ 31	26 ¹ 17	8 ¹ 22	20 ¹ 1	2 ¹ 47	4 ¹ 21	25 ¹ 42	26 ¹ 41	18 ¹ 44	28 ¹ 55	S 5
M 6	10 57 15	16 ¹ 4'14	13 ¹ 2	13 ¹ 49	18 ¹ 18	24 ¹ 15	26 ¹ 13	8 ¹ 23	20 ¹ 1	2 ¹ 45	4 ¹ 22	25 ¹ 28	26 ¹ 38	18 ¹ 51	28 ¹ 58	M 6
T 7	11 1 11	17 ¹ 4'11	25 ¹ 4	15 ¹ 44	19 ¹ 30	24 ¹ 58	26 ¹ 8	8 ¹ 24	20 ¹ 2	2 ¹ 44	4 ¹ 24	25 ¹ 16	26 ¹ 35	18 ¹ 58	29 ¹ 1	T 7
W 8	11 5 8	18 ¹ 4'06	7 ¹ 13	17 ¹ 39	20 ¹ 43	25 ¹ 42	26 ¹ 4	8 ¹ 25	20 ¹ 2	2 ¹ 42	4 ¹ 25	25 ¹ 5	26 ¹ 31	19 ¹ 4	29 ¹ 4	W 8
T 9	11 9 4	19 ¹ 3'59	19 ¹ 30	19 ¹ 36	21 ¹ 56	26 ¹ 25	25 ¹ 59	8 ¹ 26	20 ¹ 3	2 ¹ 40	4 ¹ 27	24 ¹ 57	26 ¹ 28	19 ¹ 11	29 ¹ 7	T 9
F 10	11 13 1	20 ¹ 3'50	1 ¹ 56	21 ¹ 33	23 ¹ 8	27 ¹ 9	25 ¹ 54	8 ¹ 27	20 ¹ 3	2 ¹ 39	4 ¹ 28	24 ¹ 52	26 ¹ 25	19 ¹ 18	29 ¹ 10	F 10
S 11	11 16 57	21 ¹ 3'38	14 ¹ 33	23 ¹ 31	24 ¹ 21	27 ¹ 52	25 ¹ 49	8 ¹ 27	20 ¹ 4	2 ¹ 37	4 ¹ 29	24 ¹ 49	26 ¹ 22	19 ¹ 24	29 ¹ 13	S 11
S 12	11 20 54	22 ¹ 3'25	27 ¹ 24	25 ¹ 30	25 ¹ 33	28 ¹ 36	25 ¹ 44	8 ¹ 28	20 ¹ 5	2 ¹ 36	4 ¹ 31	24 ¹ D49	26 ¹ 19	19 ¹ 31	29 ¹ 17	S 12
M13	11 24 50	23 ¹ 3'10	10 ¹ 31	27 ¹ 29	26 ¹ 46	29 ¹ 19	25 ¹ 38	8 ¹ 29	20 ¹ 6	2 ¹ 34	4 ¹ 32	24 ¹ 49	26 ¹ 16	19 ¹ 38	29 ¹ 20	M13
T 14	11 28 47	24 ¹ 2'52	23 ¹ 59	29 ¹ 29	27 ¹ 58	0 ¹ 2	25 ¹ 33	8 ¹ 29	20 ¹ 6	2 ¹ 32	4 ¹ 34	24 ¹ R50	26 ¹ 12	19 ¹ 45	29 ¹ 23	T 14
W15	11 32 44	25 ¹ 2'32	7 ¹ 48	1 ¹ 29	29 ¹ 11	0 ¹ 45	25 ¹ 27	8 ¹ 29	20 ¹ 7	2 ¹ 31	4 ¹ 35	24 ¹ 49	26 ¹ 9	19 ¹ 51	29 ¹ 27	W15
T 16	11 36 40	26 ¹ 2'09	22 ¹ 0	3 ¹ 29	0 ¹ 23	1 ¹ 29	25 ¹ 21	8 ¹ 29	20 ¹ 8	2 ¹ 29	4 ¹ 36	24 ¹ 46	26 ¹ 6	19 ¹ 58	29 ¹ 30	T 16
F 17	11 40 37	27 ¹ 1'44	6 ¹ 34	5 ¹ 28	1 ¹ 35	2 ¹ 12	25 ¹ 16	8 ¹ R29	20 ¹ 9	2 ¹ 27	4 ¹ 37	24 ¹ 41	26 ¹ 3	20 ¹ 5	29 ¹ 33	F 17
S 18	11 44 33	28 ¹ 1'17	21 ¹ 25	7 ¹ 27	2 ¹ 47	2 ¹ 55	25 ¹ 9	8 ¹ 29	20 ¹ 10	2 ¹ 26	4 ¹ 39	24 ¹ 34	26 ¹ 0	20 ¹ 12	29 ¹ 37	S 18
S 19	11 48 30	29 ¹ 0'48	6 ¹ 27	9 ¹ 26	3 ¹ 59	3 ¹ 38	25 ¹ 3	8 ¹ 29	20 ¹ 11	2 ¹ 24	4 ¹ 40	24 ¹ 26	25 ¹ 56	20 ¹ 18	29 ¹ 40	S 19
M20	11 52 26	0 ¹ 1'6	21 ¹ 30	11 ¹ 23	5 ¹ 11	4 ¹ 21	24 ¹ 57	8 ¹ 29	20 ¹ 13	2 ¹ 23	4 ¹ 41	24 ¹ 17	25 ¹ 53	20 ¹ 25	29 ¹ 44	M20
T 21	11 56 23	0 ¹ 59'43	6 ¹ 25	13 ¹ 18	6 ¹ 22	5 ¹ 4	24 ¹ 51	8 ¹ 29	20 ¹ 14	2 ¹ 21	4 ¹ 42	24 ¹ 10	25 ¹ 50	20 ¹ 32	29 ¹ 47	T 21
W22	12 0 19	1 ¹ 59'07	21 ¹ 3	15 ¹ 11	7 ¹ 34	5 ¹ 47	24 ¹ 44	8 ¹ 28	20 ¹ 15	2 ¹ 19	4 ¹ 44	24 ¹ 4	25 ¹ 47	20 ¹ 38	29 ¹ 51	W22
T 23	12 4 16	2 ¹ 58'29	5 ¹ 17	17 ¹ 2	8 ¹ 46	6 ¹ 30	24 ¹ 38	8 ¹ 28	20 ¹ 16	2 ¹ 18	4 ¹ 45	24 ¹ 0	25 ¹ 44	20 ¹ 45	29 ¹ 54	T 23
F 24	12 8 13	3 ¹ 57'50	19 ¹ 4	18 ¹ 51	9 ¹ 57	7 ¹ 13	24 ¹ 31	8 ¹ 27	20 ¹ 18	2 ¹ 16	4 ¹ 46	23 ¹ D58	25 ¹ 41	20 ¹ 52	29 ¹ 58	F 24
S 25	12 12 9	4 ¹ 57'09	2 ¹ 24	20 ¹ 35	11 ¹ 9	7 ¹ 55	24 ¹ 24	8 ¹ 26	20 ¹ 19	2 ¹ 14	4 ¹ 47	23 ¹ 58	25 ¹ 37	20 ¹ 59	0 ¹ 1	S 25
S 26	12 16 6	5 ¹ 56'26	15 ¹ 17	22 ¹ 17	12 ¹ 20	8 ¹ 38	24 ¹ 17	8 ¹ 26	20 ¹ 21	2 ¹ 13	4 ¹ 48	24 ¹ 0	25 ¹ 34	21 ¹ 5	0 ¹ 5	S 26
M27	12 20 2	6 ¹ 55'41	27 ¹ 49	23 ¹ 54	13 ¹ 31	9 ¹ 21	24 ¹ 10	8 ¹ 25	20 ¹ 22	2 ¹ 11	4 ¹ 49	24 ¹ 1	25 ¹ 31	21 ¹ 12	0 ¹ 8	M27
T 28	12 23 59	7 ¹ 54'54	10 ¹ 3	25 ¹ 27	14 ¹ 42	10 ¹ 4	24 ¹ 3	8 ¹ 24	20 ¹ 24	2 ¹ 9	4 ¹ 50	24 ¹ R 1	25 ¹ 28	21 ¹ 19	0 ¹ 12	T 28
W29	12 27 55	8 ¹ 54'06	22 ¹ 5	26 ¹ 55	15 ¹ 53	10 ¹ 46	23 ¹ 56	8 ¹ 23	20 ¹ 25	2 ¹ 8	4 ¹ 51	24 ¹ 0	25 ¹ 25	21 ¹ 25	0 ¹ 16	W29
T 30	12 31 52	9 ¹ 53'16	3 ¹ 59	28 ¹ 18	17 ¹ 4	11 ¹ 29	23 ¹ 49	8 ¹ 21	20 ¹ 27	2 ¹ 6	4 ¹ 52	23 ¹ 57	25 ¹ 21	21 ¹ 32	0 ¹ 19	T 30
F 31	12 35 48	10 ¹ 52'24	15 ¹ 50	29 ¹ 36	18 ¹ 15	12 ¹ 11	23 ¹ 42	8 ¹ 20	20 ¹ 29	2 ¹ 4	4 ¹ 53	23 ¹ 52	25 ¹ 18	21 ¹ 39	0 ¹ 23	F 31

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W 1	7s25	26s27	3s42	11s47	2s 4	4n20	0s32	8n 1	0s 3	8s51	1n30	19s50	1n54	23n14	0n 8	0n12	1n28	23s50	4s45	19n23	19n29	20s12	10n38	0s25	
T 2	7 3	25 19	4 19	11 4	2 2	4 51	0 29	8 18	0 2	8 50	1 30	19 50	1 55	23 14	0 8	0 13	1 28	23 50	4 45	19 21	19 29	20 10	10 39	0 25	
F 3	6 40	23 3	4 45	10 21	1 59	5 22	0 26	8 35	0 1	8 48	1 30	19 50	1 55	23 14	0 8	0 13	1 28	23 49	4 45	19 19	19 28	20 8	10 40	0 25	
S 4	6 17	19 49	4 59	9 36	1 56	5 53	0 23	8 52	0 0	8 47	1 30	19 50	1 55	23 14	0 8	0 14	1 28	23 49	4 45	19 16	19 27	20 6	10 41	0 25	
S 5	5 53	15 46	4 59	8 49	1 52	6 24	0 21	9 9	0n 0	8 45	1 30	19 50	1 55	23 14	0 8	0 15	1 28	23 49	4 46	19 12	19 26	20 4	10 42	0 25	
M 6	5 30	11 5	4 47	8 2	1 48	6 55	0 18	9 26	0 1	8 43	1 31	19 50	1 55	23 14	0 8	0 15	1 28	23 49	4 46	19 9	19 26	20 2	10 43	0 26	
T 7	5 7	5 58	4 22	7 13	1 43	7 25	0 15	9 43	0 2	8 42	1 31	19 50	1 55	23 14	0 8	0 16	1 28	23 49	4 46	19 6	19 25	20 0	10 44	0 26	
W 8	4 43	0 34	3 44	6 23	1 38	7 55	0 11	9 59	0 3	8 40	1 31	19 50	1 55	23 14	0 8	0 17	1 28	23 48	4 46	19 4	19 24	19 58	10 45	0 26	
T 9	4 20	4n56	2 56	5 32	1 32	8 25	0 8	10 16	0 3	8 38	1 31	19 50	1 56	23 14	0 8	0 17	1 28	23 48	4 46	19 2	19 23	19 56	10 46	0 26	
F 10	3 56	10 18	1 59	4 39	1 25	8 55	0 5	10 32	0 4	8 36	1 31	19 50	1 56	23 14	0 8	0 18	1 28	23 48	4 46	19 0	19 23	19 54	10 47	0 26	
S 11	3 33	15 21	0 54	3 46	1 18	9 25	0 2	10 48	0 5	8 34	1 32	19 50	1 56	23 14	0 8	0 19	1 28	23 48	4 47	19 0	19 22	19 52	10 49	0 26	
S 12	3 9	19 50	0n14	2 52	1 10	9 55	0n 1	11 5	0 6	8 32	1 32	19 50	1 56	23 14	0 8	0 19	1 29	23 48	4 47	19 0	19 21	19 50	10 50	0 26	
M13	2 46	23 25	1 23	1 57	1 2	10 24	0 4	11 21	0 6	8 30	1 32	19 50	1 56	23 14	0 8	0 20	1 29	23 47	4 47	19 0	19 20	19 48	10 51	0 26	
T 14	2 22	25 49	2 29	1 1	0 53	10 53	0 7	11 37	0 7	8 28	1 32	19 50	1 56	23 14	0 8	0 21	1 29	23 47	4 47	19 0	19 20	19 46	10 52	0 26	
W15	1 58	26 42	3 28	0 5	0 44	11 22	0 11	11 52	0 8	8 26	1 32	19 50	1 56	23 14	0 8	0 21	1 29	23 47	4 47	19 0	19 19	19 44	10 53	0 26	
T 16	1 35	25 54	4 17	0n51	0 34	11 50	0 14	12 8	0 8	8 23	1 32	19 50	1 57	23 14	0 8	0 22	1 29	23 47	4 47	18 59	19 18	19 41	10 54	0 26	
F 17	1 11	23 20	4 50	1 48	0 24	12 19	0 17	12 24	0 9	8 21	1 32	19 50	1 57	23 14	0 8	0 23	1 29	23 47	4 48	18 58	19 17	19 39	10 55	0 26	
S 18	0 47	19 11	5 4	2 45	0 14	12 47	0 21	12 39	0 10	8 19	1 33	19 49	1 57	23 15	0 8	0 23	1 29	23 47	4 48	18 56	19 17	19 37	10 56	0 26	
S 19	0 24	13 46	4 58	3 42	0 3	13 14	0 24	12 55	0 11	8 16	1 33	19 49	1 57	23 15	0 8	0 24	1 29	23 47	4 48	18 54	19 16	19 35	10 57	0 26	
M20	0n 0	7 32	4 32	4 38	0n 9	13 42	0 27	13 10	0 11	8 14	1 33	19 49	1 57	23 15	0 8	0 25	1 29	23 46	4 48	18 52	19 15	19 33	10 59	0 26	
T 21	0 24	0 55	3 46	5 34	0 21	14 9	0 31	13 25	0 12	8 12	1 33	19 49	1 57	23 15	0 8	0 25	1 29	23 46	4 48	18 50	19 14	19 31	11 0	0 27	
W22	0 47	5s38	2 47	6 29	0 33	14 35	0 34	13 40	0 13	8 9	1 33	19 49	1 57	23 15	0 8	0 26	1 29	23 46	4 49	18 49	19 14	19 29	11 1	0 27	
T 23	1 11	11 45	1 39	7 23	0 45	15 2	0 37	13 55	0 13	8 7	1 33	19 48	1 58	23 15	0 8	0 27	1 29	23 46	4 49	18 48	19 13	19 27	11 2	0 27	
F 24	1 35	17 5	0 26	8 16	0 57	15 28	0 41	14 9	0 14	8 4	1 33	19 48	1 58	23 15	0 8	0 27	1 29	23 46	4 49	18 47	19 12	19 25	11 3	0 27	
S 25	1 58	21 24	0s45	9 7	1 9	15 53	0 44	14 24	0 15	8 1	1 33	19 48	1 58	23 15	0 8	0 28	1 29	23 46	4 49	18 47	19 11	19 23	11 4	0 27	
S 26	2 22	24 31	1 52	9 56	1 21	16 19	0 48	14 38	0 15	7 59	1 33	19 48	1 58	23 15	0 8	0 29	1 29	23 46	4 49	18 48	19 11	19 20	11 6	0 27	
M27	2 45	26 19	2 52	10 43	1 33	16 44	0 51	14 53	0 16	7 56	1 33	19 47	1 58	23 15	0 8	0 29	1 29	23 46	4 50	18 48	19 10	19 18	11 7	0 27	
T 28	3 9	26 47	3 43	11 28	1 44	17 8	0 54	15 7	0 17	7 54	1 34	19 47	1 58	23 16	0 8	0 30	1 29	23 46	4 50	18 48	19 9	19 16	11 8	0 27	
W29	3 32	25 58	4 22	12 10	1 55	17 32	0 58	15 21	0 17	7 51	1 34	19 47	1 58	23 16	0 8	0 31	1 29	23 46	4 50	18 48	19 8	19 14	11 9	0 27	
T 30	3 55	23 59	4 50	12 50	2 6	17 56	1 1	15 35	0 18	7 48	1 34	19 47	1 58	23 16	0 8	0 31	1 29	23 46	4 50	18 47	19 8	19 12	11 11	0 27	
F 31	4n18	20s58	5s 5	13n27	2n16	18n19	1n 4	15n48	0n18	7s45	1n34	19s46	1n59	23n16	0n 8	0n32	1n29	23s46	4s50	18n46	19n 7	19s10	11n12	0s27	

ASTRODIENST EPHEMERIS for the year 1780

geocentric

APRIL 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	12 39 45	11°51'30	27°42	0848	19826	12854	23°R34	8°R19	20II30	2°R 3	4°54	23°R46	25815	21°46	0827	S 1
S 2	12 43 42	12°50'34	9°39	1°54	20°37	13°36	23°27	8°17	20°32	2° 1	4°55	23°38	25°12	21°52	0°30	S 2
M 3	12 47 38	13°49'36	21°41	2°54	21°47	14°19	23°19	8°16	20°34	2° 0	4°56	23°31	25° 9	21°59	0°34	M 3
T 4	12 51 35	14°48'37	3°53	3°48	22°58	15° 1	23°12	8°14	20°36	1°58	4°57	23°24	25° 6	22° 6	0°38	T 4
W 5	12 55 31	15°47'35	16°14	4°36	24° 8	15°43	23° 4	8°12	20°38	1°56	4°58	23°18	25° 2	22°13	0°42	W 5
T 6	12 59 28	16°46'31	28°46	5°17	25°18	16°26	22°57	8°10	20°40	1°55	4°59	23°13	24°59	22°19	0°45	T 6
F 7	13 3 24	17°45'25	11829	5°51	26°28	17° 8	22°49	8° 8	20°42	1°53	4°59	23°11	24°56	22°26	0°49	F 7
S 8	13 7 21	18°44'18	24°24	6°19	27°39	17°50	22°41	8° 6	20°44	1°52	5° 0	23°D10	24°53	22°33	0°53	S 8
S 9	13 11 17	19°43'08	7II32	6°41	28°48	18°32	22°34	8° 4	20°46	1°50	5° 1	23°11	24°50	22°39	0°57	S 9
M10	13 15 14	20°41'56	20°53	6°56	29°58	19°14	22°26	8° 2	20°48	1°48	5° 2	23°13	24°47	22°46	1° 1	M10
T 11	13 19 11	21°40'41	4828	7° 5	1II 8	19°57	22°18	8° 0	20°50	1°47	5° 2	23°14	24°43	22°53	1° 4	T 11
W12	13 23 7	22°39'25	18°18	7°R 7	2°18	20°39	22°11	7°57	20°52	1°45	5° 3	23°R15	24°40	23° 0	1° 8	W12
T 13	13 27 4	23°38'06	2824	7° 3	3°27	21°21	22° 3	7°55	20°55	1°44	5° 4	23°15	24°37	23° 6	1°12	T 13
F 14	13 31 0	24°36'45	16°42	6°53	4°36	22° 2	21°55	7°52	20°57	1°42	5° 4	23°13	24°34	23°13	1°16	F 14
S 15	13 34 57	25°35'21	1812	6°38	5°45	22°44	21°48	7°50	20°59	1°41	5° 5	23°10	24°31	23°20	1°20	S 15
S 16	13 38 53	26°33'56	15°48	6°18	6°54	23°26	21°40	7°47	21° 2	1°39	5° 5	23° 7	24°27	23°26	1°24	S 16
M17	13 42 50	27°32'28	0825	5°52	8° 3	24° 8	21°32	7°44	21° 4	1°38	5° 6	23° 3	24°24	23°33	1°28	M17
T 18	13 46 46	28°30'58	14°56	5°23	9°12	24°50	21°25	7°41	21° 6	1°36	5° 6	23° 0	24°21	23°40	1°31	T 18
W19	13 50 43	29°29'26	29°15	4°50	10°21	25°31	21°17	7°38	21° 9	1°35	5° 7	22°58	24°18	23°47	1°35	W19
T 20	13 54 39	0827'52	1316	4°15	11°29	26°13	21°10	7°35	21°11	1°34	5° 7	22°56	24°15	23°53	1°39	T 20
F 21	13 58 36	1°26'16	26°57	3°37	12°38	26°55	21° 2	7°32	21°14	1°32	5° 8	22°D56	24°12	24° 0	1°43	F 21
S 22	14 2 33	2°24'39	10814	2°57	13°46	27°36	20°55	7°29	21°17	1°31	5° 8	22°57	24° 8	24° 7	1°47	S 22
S 23	14 6 29	3°23'00	23°10	2°17	14°54	28°18	20°47	7°26	21°19	1°30	5° 8	22°58	24° 5	24°14	1°51	S 23
M24	14 10 26	4°21'20	5845	1°37	16° 2	28°59	20°40	7°22	21°22	1°28	5° 9	22°59	24° 2	24°20	1°55	M24
T 25	14 14 22	5°19'38	18° 3	0°57	17° 9	29°41	20°33	7°19	21°25	1°27	5° 9	23° 1	23°59	24°27	1°59	T 25
W26	14 18 19	6°17'54	08 8	0°19	18°17	0II22	20°26	7°16	21°27	1°26	5° 9	23° 1	23°56	24°34	2° 2	W26
T 27	14 22 15	7°16'09	12° 5	29°43	19°24	1° 4	20°18	7°12	21°30	1°24	5°10	23°R 2	23°53	24°40	2° 6	T 27
F 28	14 26 12	8°14'22	23°58	29° 9	20°31	1°45	20°11	7° 9	21°33	1°23	5°10	23° 1	23°49	24°47	2°10	F 28
S 29	14 30 9	9°12'34	5851	28°39	21°38	2°26	20° 4	7° 5	21°36	1°22	5°10	23° 0	23°46	24°54	2°14	S 29
S 30	14 34 5	10810'44	17850	28°Y12	22II45	3II 7	19858	78 1	21II39	1821	5810	22858	23843	258 1	2818	S 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	4n42	17s 6	5s 8	14n 2	2n25	18n42	1n 8	16n 2	0n19	7s43	1n34	19s46	1n59	23n16	0n 8	0n32	1n29	23s46	4s51	18n44	19n 6	19s 7	11n13	0s27					
S 2	5 5	12 32	4 57	14 33	2 33	19 4	1 11	16 15	0 20	7 40	1 34	19 46	1 59	23 16	0 8	0 33	1 29	23 46	4 51	18 42	19 5	19 5	11 14	0 27					
M 3	5 28	7 28	4 32	15 1	2 41	19 26	1 14	16 29	0 20	7 37	1 34	19 45	1 59	23 16	0 8	0 34	1 29	23 45	4 51	18 40	19 5	19 3	11 15	0 27					
T 4	5 51	2 3	3 55	15 26	2 48	19 47	1 18	16 42	0 21	7 34	1 34	19 45	1 59	23 16	0 8	0 34	1 29	23 45	4 51	18 39	19 4	19 1	11 17	0 27					
W 5	6 13	3n31	3 7	15 48	2 54	20 8	1 21	16 55	0 22	7 31	1 34	19 44	1 59	23 17	0 8	0 35	1 29	23 45	4 51	18 37	19 3	18 59	11 18	0 28					
T 6	6 36	9 3	2 9	16 6	2 59	20 29	1 24	17 7	0 22	7 29	1 34	19 44	1 59	23 17	0 8	0 36	1 29	23 45	4 52	18 36	19 2	18 57	11 19	0 28					
F 7	6 59	14 18	1 3	16 21	3 2	20 49	1 28	17 20	0 23	7 26	1 34	19 44	1 59	23 17	0 8	0 36	1 29	23 45	4 52	18 36	19 1	18 54	11 20	0 28					
S 8	7 21	19 0	0n 7	16 33	3 5	21 8	1 31	17 33	0 23	7 23	1 34	19 43	2 0	23 17	0 8	0 37	1 29	23 45	4 52	18 35	19 1	18 52	11 22	0 28					
S 9	7 43	22 52	1 18	16 41	3 6	21 27	1 34	17 45	0 24	7 20	1 34	19 43	2 0	23 17	0 8	0 38	1 29	23 45	4 52	18 36	19 0	18 50	11 23	0 28					
M10	8 6	25 34	2 26	16 46	3 6	21 45	1 37	17 57	0 25	7 17	1 34	19 42	2 0	23 17	0 8	0 38	1 29	23 46	4 52	18 36	18 59	18 48	11 24	0 28					
T 11	8 28	26 50	3 27	16 48	3 4	22 3	1 40	18 9	0 25	7 15	1 34	19 42	2 0	23 17	0 8	0 39	1 29	23 46	4 53	18 36	18 58	18 46	11 26	0 28					
W12	8 49	26 27	4 17	16 46	3 1	22 20	1 43	18 21	0 26	7 12	1 34	19 41	2 0	23 18	0 8	0 39	1 29	23 46	4 53	18 37	18 58	18 43	11 27	0 28					
T 13	9 11	24 24	4 52	16 40	2 57	22 36	1 46	18 33	0 26	7 9	1 34	19 41	2 0	23 18	0 8	0 40	1 29	23 46	4 53	18 36	18 57	18 41	11 28	0 28					
F 14	9 33	20 47	5 11	16 32	2 51	22 53	1 49	18 44	0 27	7 6	1 34	19 40	2 0	23 18	0 8	0 41	1 29	23 46	4 53	18 36	18 56	18 39	11 29	0 28					
S 15	9 54	15 53	5 10	16 20	2 44	23 8	1 52	18 55	0 27	7 3	1 34	19 40	2 0	23 18	0 8	0 41	1 29	23 46	4 53	18 35	18 55	18 37	11 31	0 28					
S 16	10 16	10 2	4 49	16 5	2 36	23 23	1 55	19 6	0 28	7 0	1 34	19 39	2 0	23 18	0 8	0 42	1 29	23 46	4 54	18 35	18 55	18 34	11 32	0 28					
M17	10 37	3 39	4 9	15 47	2 26	23 37	1 58	19 17	0 29	6 58	1 34	19 39	2 0	23 18	0 8	0 42	1 29	23 46	4 54	18 34	18 54	18 32	11 33	0 28					
T 18	10 58	2s55	3 14	15 27	2 15	23 51	2 1	19 28	0 29	6 55	1 34	19 38	2 0	23 19	0 8	0 43	1 29	23 46	4 54	18 33	18 53	18 30	11 34	0 29					
W19	11 18	9 15	2 6	15 4	2 2	24 4	2 3	19 39	0 30	6 52	1 34	19 38	2 1	23 19	0 8	0 43	1 29	23 46	4 54	18 32	18 52	18 28	11 36	0 29					
T 20	11 39	15 0	0 53	14 39	1 48	24 16	2 6	19 49	0 30	6 49	1 33	19 37	2 1	23 19	0 8	0 44	1 29	23 46	4 55	18 32	18 51	18 25	11 37	0 29					
F 21	11 59	19 51	0s22	14 12	1 34	24 28	2 9	19 59	0 31	6 47	1 33	19 37	2 1	23 19	0 8	0 44	1 28	23 46	4 55	18 32	18 51	18 23	11 38	0 29					
S 22	12 20	23 34	1 34	13 44	1 18	24 39	2 11	20 9	0 31	6 44	1 33	19 36	2 1	23 19	0 8	0 45	1 28	23 46	4 55	18 32	18 50	18 21	11 39	0 29					
S 23	12 39	25 56	2 39	13 15	1 2	24 50	2 14	20 19	0 32	6 41	1 33	19 35	2 1	23 19	0 8	0 45	1 28	23 47	4 55	18 32	18 49	18 19	11 41	0 29					
M24	12 59	26 55	3 34	12 46	0 46	25 0	2 16	20 29	0 32	6 39	1 33	19 35	2 1	23 20	0 8	0 46	1 28	23 47	4 55	18 33	18 48	18 16	11 42	0 29					
T 25	13 19	26 31	4 19	12 16	0 29	25 9	2 18	20 39	0 33	6 36	1 33	19 34	2 1	23 20	0 8	0 47	1 28	23 47	4 56	18 33	18 47	18 14	11 43	0 29					
W26	13 38	24 53	4 51	11 46	0 11	25 17	2 21	20 48	0 33	6 33	1 33	19 34	2 1	23 20	0 8	0 47	1 28	23 47	4 56	18 33	18 47	18 12	11 45	0 29					
T 27	13 57	22 9	5 10	11 18	0s 6	25 25	2 23	20 57	0 34	6 31	1 33	19 33	2 1	23 20	0 8	0 48	1 28	23 47	4 56	18 33	18 46	18 9	11 46	0 29					
F 28	14 16	18 30	5 16	10 50	0 23	25 33	2 25	21 6	0 34	6 28	1 33	19 32	2 1	23 20	0 8	0 48	1 28	23 47	4 56	18 33	18 45	18 7	11 47	0 29					
S 29	14 35	14 8	5 8	10 23	0 40	25 39	2 27	21 15	0 35	6 26	1 32	19 32	2 1	23 20	0 8	0 48	1 28	23 47	4 57	18 33	18 44	18 5	11 48	0 29					
S 30	14n53	9s12	4s46	9n59	0s56	25n45	2n29	21n23	0n35	6s23	1n32	19s31	2n 1	23n21	0n 8	0n49	1n28	23s48	4s57	18n32	18n44	18s 2	11n50	0s29					

ASTRODIENST EPHEMERIS for the year 1780

geocentric

MAY 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	14 38 2	11♈ 8'52	29♋ 57	27♎ 49	23♊ 52	3♊ 49	19♎ 51	6♎ 58	21♊ 41	1♎ 19	5♎ 10	22♎ 56	23♈ 40	25♎ 7	2♈ 22	M 1
T 2	14 41 58	12♈ 7'00	12♎ 16	27♎ 30	24♎ 59	4♎ 30	19♊ 44	6♎ 54	21♊ 44	1♎ 18	5♎ 10	22♎ 55	23♈ 37	25♎ 14	2♈ 26	T 2
W 3	14 45 55	13♈ 5'05	24♎ 49	27♎ 16	26♎ 5	5♎ 11	19♎ 38	6♎ 50	21♊ 47	1♎ 17	5♎ 11	22♎ 53	23♈ 33	25♎ 21	2♈ 29	W 3
T 4	14 49 51	14♈ 3'09	7♈ 37	27♎ 6	27♎ 11	5♎ 52	19♎ 31	6♎ 46	21♎ 50	1♎ 16	5♎ 11	22♎ 53	23♈ 30	25♎ 28	2♈ 33	T 4
F 5	14 53 48	15♈ 1'12	20♎ 40	27♎ 0	28♎ 17	6♎ 33	19♎ 25	6♎ 42	21♎ 53	1♎ 15	5♎ 11	22♎ 52	23♈ 27	25♎ 34	2♈ 37	F 5
S 6	14 57 44	15♈ 59'13	3♊ 58	27♎ 0	29♎ 23	7♎ 14	19♎ 18	6♎ 38	21♎ 56	1♎ 14	5♎ 11	22♎ 52	23♈ 24	25♎ 41	2♈ 41	S 6
S 7	15 1 41	16♈ 57'12	17♎ 30	27♎ 4	0♈ 28	7♎ 55	19♎ 12	6♎ 34	21♎ 59	1♎ 13	5♎ 11	22♎ 53	23♈ 21	25♎ 48	2♈ 45	S 7
M 8	15 5 37	17♈ 55'10	1♈ 14	27♎ 13	1♎ 34	8♎ 36	19♎ 6	6♎ 30	22♎ 2	1♎ 12	5♎ 11	22♎ 53	23♈ 18	25♎ 54	2♈ 48	M 8
T 9	15 9 34	18♈ 53'05	15♎ 9	27♎ 26	2♎ 39	9♎ 17	19♎ 0	6♎ 26	22♎ 6	1♎ 11	5♎ 10	22♎ 54	23♈ 14	26♎ 1	2♈ 52	T 9
W10	15 13 31	19♈ 50'59	29♎ 13	27♎ 44	3♎ 44	9♎ 58	18♎ 55	6♎ 22	22♎ 9	1♎ 10	5♎ 10	22♎ 54	23♈ 11	26♎ 8	2♈ 56	W10
T 11	15 17 27	20♈ 48'52	13♎ 23	28♎ 6	4♎ 48	10♎ 39	18♎ 49	6♎ 18	22♎ 12	1♎ 9	5♎ 10	22♎ 54	23♈ 8	26♎ 15	3♎ 0	T 11
F 12	15 21 24	21♈ 46'42	27♎ 36	28♎ 33	5♎ 53	11♎ 20	18♎ 43	6♎ 13	22♎ 15	1♎ 8	5♎ 10	22♎ 54	23♈ 5	26♎ 21	3♎ 3	F 12
S 13	15 25 20	22♈ 44'30	11♎ 52	29♎ 3	6♎ 57	12♎ 0	18♎ 38	6♎ 9	22♎ 18	1♎ 7	5♎ 10	22♎ 54	23♈ 2	26♎ 28	3♎ 7	S 13
S 14	15 29 17	23♈ 42'17	26♎ 6	29♎ 38	8♎ 1	12♎ 41	18♎ 33	6♎ 5	22♎ 21	1♎ 6	5♎ 10	22♎ 54	23♈ 59	26♎ 35	3♎ 11	S 14
M15	15 33 13	24♈ 40'02	10♈ 15	0♈ 17	9♎ 4	13♎ 22	18♎ 28	6♎ 1	22♎ 25	1♎ 5	5♎ 9	22♎ 54	23♈ 56	26♎ 41	3♎ 15	M15
T 16	15 37 10	25♈ 37'46	24♎ 18	0♎ 59	10♎ 8	14♎ 2	18♎ 23	5♎ 56	22♎ 28	1♎ 4	5♎ 9	22♎ 55	23♈ 53	26♎ 48	3♎ 18	T 16
W17	15 41 6	26♈ 35'28	8♎ 9	1♎ 45	11♎ 11	14♎ 43	18♎ 18	5♎ 52	22♎ 31	1♎ 4	5♎ 9	22♎ 55	23♈ 50	26♎ 55	3♎ 22	W17
T 18	15 45 3	27♈ 33'08	21♎ 48	2♎ 35	12♎ 14	15♎ 23	18♎ 13	5♎ 48	22♎ 35	1♎ 3	5♎ 9	22♎ 55	23♈ 47	27♎ 2	3♎ 26	T 18
F 19	15 49 0	28♈ 30'47	5♎ 11	3♎ 28	13♎ 16	16♎ 4	18♎ 9	5♎ 43	22♎ 38	1♎ 2	5♎ 8	22♎ 55	23♈ 43	27♎ 8	3♎ 29	F 19
S 20	15 52 56	29♈ 28'25	18♎ 17	4♎ 24	14♎ 18	16♎ 44	18♎ 5	5♎ 39	22♎ 41	1♎ 1	5♎ 8	22♎ 54	23♈ 39	27♎ 15	3♎ 33	S 20
S 21	15 56 53	0♈ 26'02	1♈ 5	5♎ 24	15♎ 20	17♎ 25	18♎ 1	5♎ 34	22♎ 45	1♎ 1	5♎ 7	22♎ 54	23♈ 36	27♎ 22	3♎ 36	S 21
M22	16 0 49	1♈ 23'38	13♎ 38	6♎ 27	16♎ 22	18♎ 5	17♎ 57	5♎ 30	22♎ 48	1♎ 0	5♎ 7	22♎ 53	23♈ 33	27♎ 29	3♎ 40	M22
T 23	16 4 46	2♈ 21'13	25♎ 55	7♎ 33	17♎ 23	18♎ 46	17♎ 53	5♎ 26	22♎ 51	0♎ 59	5♎ 7	22♎ 51	23♈ 30	27♎ 35	3♎ 43	T 23
W24	16 8 42	3♈ 18'47	8♎ 1	8♎ 42	18♎ 24	19♎ 26	17♎ 49	5♎ 21	22♎ 55	0♎ 59	5♎ 6	22♎ 50	23♈ 27	27♎ 42	3♎ 47	W24
T 25	16 12 39	4♈ 16'19	19♎ 59	9♎ 54	19♎ 24	20♎ 6	17♎ 46	5♎ 17	22♎ 58	0♎ 58	5♎ 6	22♎ 49	23♈ 24	27♎ 49	3♎ 50	T 25
F 26	16 16 36	5♈ 13'51	1♈ 53	11♎ 8	20♎ 25	20♎ 46	17♎ 42	5♎ 12	23♎ 2	0♎ 58	5♎ 5	22♎ 49	23♈ 20	27♎ 55	3♎ 54	F 26
S 27	16 20 32	6♈ 11'22	13♎ 47	12♎ 26	21♎ 25	21♎ 27	17♎ 39	5♎ 8	23♎ 5	0♎ 57	5♎ 4	22♎ 49	23♈ 17	28♎ 2	3♎ 57	S 27
S 28	16 24 29	7♈ 8'53	25♎ 46	13♎ 46	22♎ 24	22♎ 7	17♎ 36	5♎ 3	23♎ 9	0♎ 57	5♎ 4	22♎ 50	23♈ 14	28♎ 9	4♎ 1	S 28
M29	16 28 25	8♈ 6'22	7♎ 55	15♎ 9	23♎ 23	22♎ 47	17♎ 33	4♎ 59	23♎ 12	0♎ 56	5♎ 3	22♎ 51	23♈ 11	28♎ 16	4♎ 4	M29
T 30	16 32 22	9♈ 3'50	20♎ 18	16♎ 35	24♎ 22	23♎ 27	17♎ 31	4♎ 54	23♎ 16	0♎ 56	5♎ 3	22♎ 52	23♈ 8	28♎ 22	4♎ 7	T 30
W31	16 36 18	10♈ 1'18	2♈ 58	18♎ 3	25♎ 20	24♎ 7	17♎ 28	4♎ 50	23♎ 19	0♎ 56	5♎ 2	22♎ 53	23♈ 4	28♎ 29	4♎ 11	W31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
M 1	15n12	3s52	4s12	9n36	1s12	25n50	2n31	21n32	0n36	6s21	1n32	19s30	2n 1	23n21	0n 8	M 1
T 2	15 29	1n42	3 26	9 15	1 27	25 55	2 33	21 40	0 36	6 19	1 32	19 30	2 1	23 21	0 8	T 2
W 3	15 47	7 19	2 29	8 57	1 41	25 59	2 35	21 48	0 37	6 16	1 32	19 29	2 1	23 21	0 8	W 3
T 4	16 5	12 45	1 23	8 40	1 54	26 2	2 36	21 56	0 37	6 14	1 32	19 28	2 1	23 21	0 8	T 4
F 5	16 12	17 45	0 12	8 27	2 7	26 5	2 38	22 3	0 38	6 12	1 32	19 28	2 1	23 22	0 8	F 5
S 6	16 39	21 58	1n 1	8 16	2 19	26 7	2 39	22 11	0 38	6 9	1 31	19 27	2 1	23 22	0 8	S 6
S 7	16 55	25 4	2 12	8 7	2 29	26 9	2 40	22 18	0 39	6 7	1 31	19 26	2 1	23 22	0 8	S 7
M 8	17 12	26 45	3 17	8 1	2 39	26 9	2 42	22 25	0 39	6 5	1 31	19 26	2 1	23 22	0 8	M 8
T 9	17 28	26 46	4 11	7 57	2 48	26 9	2 43	22 32	0 40	6 3	1 31	19 25	2 1	23 22	0 8	T 9
W10	17 43	25 4	4 50	7 56	2 56	26 9	2 44	22 38	0 40	6 1	1 31	19 24	2 1	23 23	0 8	W10
T 11	17 59	21 49	5 12	7 58	3 3	26 8	2 45	22 45	0 41	5 59	1 30	19 23	2 1	23 23	0 8	T 11
F 12	18 14	17 15	5 16	8 1	3 9	26 6	2 46	22 51	0 41	5 57	1 30	19 23	2 1	23 23	0 8	F 12
S 13	18 29	11 44	5 0	8 7	3 14	26 3	2 46	22 57	0 42	5 55	1 30	19 22	2 1	23 23	0 8	S 13
S 14	18 43	5 37	4 25	8 16	3 18	26 0	2 47	23 2	0 42	5 54	1 30	19 21	2 1	23 23	0 8	S 14
M15	18 58	0s46	3 35	8 26	3 22	25 56	2 47	23 8	0 42	5 52	1 30	19 21	2 1	23 24	0 8	M15
T 16	19 11	7 4	2 32	8 38	3 24	25 52	2 48	23 13	0 43	5 50	1 29	19 20	2 1	23 24	0 8	T 16
W17	19 25	12 58	1 21	8 52	3 26	25 47	2 48	23 19	0 43	5 49	1 29	19 19	2 1	23 24	0 8	W17
T 18	19 38	18 8	0 6	9 9	3 27	25 42	2 48	23 24	0 44	5 47	1 29	19 18	2 1	23 24	0 8	T 18
F 19	19 51	22 18	1s 7	9 26	3 27	25 35	2 48	23 28	0 44	5 46	1 29	19 18	2 1	23 24	0 8	F 19
S 20	20 4	25 12	2 16	9 46	3 26	25 29	2 48	23 33	0 45	5 44	1 29	19 17	2 1	23 24	0 8	S 20
S 21	20 16	26 44	3 16	10 7	3 25	25 21	2 47	23 37	0 45	5 43	1 28	19 16	2 1	23 25	0 8	S 21
M22	20 28	26 50	4 5	10 29	3 23	25 13	2 47	23 41	0 45	5 41	1 28	19 15	2 1	23 25	0 8	M22
T 23	20 39	25 36	4 42	10 53	3 20	25 5	2 46	23 45	0 46	5 40	1 28	19 15	2 1	23 25	0 8	T 23
W24	20 51	23 12	5 6	11 19	3 17	24 56	2 45	23 49	0 46	5 39	1 28	19 14	2 1	23 25	0 9	W24
T 25	21 1	19 49	5 16	11 45	3 12	24 47	2 45	23 53	0 47	5 38	1 27	19 13	2 1	23 25	0 9	T 25
F 26	21 12	15 40	5 12	12 13	3 8	24 37	2 44	23 56	0 47	5 37	1 27	19 13	2 1	23 26	0 9	F 26
S 27	21 22	10 55	4 55	12 41	3 2	24 26	2 42	23 59	0 47	5 36	1 27	19 12	2 1	23 26	0 9	S 27
S 28	21 32	5 44	4 25	13 11	2 56	24 15	2 41	24 2	0 48	5 35	1 27	19 11	2 1	23 26	0 9	S 28
M29	21 41	0 17	3 43	13 41	2 50	24 4	2 40	24 5	0 48	5 34	1 26	19 10	2 1	23 26	0 9	M29
T 30	21 50	5n19	2 50	14 13	2 43	23 52	2 38	24 7	0 49	5 33	1 26	19 10	2 1	23 26	0 9	T 30
W31	21n59	10n49	1s48	14n44	2s35	23n39	2n36	24n 9	0n49	5s33	1n26	19s 9	2n 1	23n27	0n 9	W31

Julian Day Number = 2371312.5, Delta T = 22.29 sec
 Ecliptic obliquity = 23°28'10", Nutation = - 0°00'15", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 21°40'24", Lahiri = 20°47'24"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1780

geocentric

JUNE 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 40 15	10 ^{II} 58'45	15 ^{III} 57	19 ^{III} 34	26 ^{III} 18	24 ^{II} 47	17°R26	4°R46	23 ^{II} 23	0°R55	5°R 1	22 ^{II} 54	22 ^{II} 1	28 ^{III} 36	4 ^{II} 14	T 1
F 2	16 44 11	11°56'12	29°17	21° 8	27°16	25°27	17 ^{II} 24	4 ^{II} 41	23°26	0 ^{II} 55	5 ^{II} 1	22°R54	21°58	28°43	4°17	F 2
S 3	16 48 8	12°53'37	12 ^{II} 57	22°45	28°13	26° 7	17°22	4°37	23°30	0°55	5° 0	22°53	21°55	28°49	4°20	S 3
S 4	16 52 5	13°51'02	26°55	24°24	29° 9	26°47	17°20	4°32	23°33	0°54	4°59	22°51	21°52	28°56	4°24	S 4
M 5	16 56 1	14°48'26	11 ^{III} 7	26° 5	0 ^{II} 5	27°27	17°18	4°28	23°37	0°54	4°58	22°49	21°49	29° 3	4°27	M 5
T 6	16 59 58	15°45'49	25°29	27°49	1° 1	28° 7	17°17	4°24	23°40	0°54	4°58	22°46	21°45	29° 9	4°30	T 6
W 7	17 3 54	16°43'11	9 ^{II} 55	29°36	1°56	28°47	17°16	4°19	23°44	0°54	4°57	22°43	21°42	29°16	4°33	W 7
T 8	17 7 51	17°40'31	24°20	1 ^{II} 26	2°50	29°27	17°15	4°15	23°47	0°54	4°56	22°40	21°39	29°23	4°36	T 8
F 9	17 11 47	18°37'51	8 ^{III} 40	3°17	3°44	0 ^{II} 7	17°14	4°11	23°51	0°54	4°55	22°39	21°36	29°30	4°39	F 9
S 10	17 15 44	19°35'10	22°52	5°12	4°38	0°46	17°13	4° 7	23°55	0°54	4°54	22°D38	21°33	29°36	4°42	S 10
S 11	17 19 40	20°32'28	6 ^{II} 53	7° 8	5°31	1°26	17°13	4° 3	23°58	0°D54	4°53	22°39	21°30	29°43	4°45	S 11
M12	17 23 37	21°29'44	20°43	9° 7	6°23	2° 6	17°12	3°58	24° 2	0°54	4°53	22°41	21°26	29°50	4°48	M12
T 13	17 27 34	22°27'00	4 ^{III} 21	11° 8	7°14	2°46	17°D12	3°54	24° 5	0°54	4°52	22°42	21°23	29°56	4°51	T 13
W14	17 31 30	23°24'15	17°47	13°11	8° 5	3°25	17°12	3°50	24° 9	0°54	4°51	22°R43	21°20	0 ^{II} 3	4°54	W14
T 15	17 35 27	24°21'30	1 ^{II} 0	15°16	8°55	4° 5	17°12	3°46	24°12	0°54	4°50	22°43	21°17	0°10	4°57	T 15
F 16	17 39 23	25°18'44	14° 1	17°22	9°45	4°44	17°13	3°42	24°16	0°54	4°49	22°41	21°14	0°17	5° 0	F 16
S 17	17 43 20	26°15'57	26°50	19°30	10°34	5°24	17°13	3°38	24°20	0°54	4°48	22°38	21°11	0°23	5° 2	S 17
S 18	17 47 16	27°13'10	9 ^{II} 25	21°40	11°21	6° 3	17°14	3°34	24°23	0°54	4°47	22°33	21° 7	0°30	5° 5	S 18
M19	17 51 13	28°10'23	21°49	23°50	12° 9	6°43	17°15	3°31	24°27	0°55	4°46	22°27	21° 4	0°37	5° 8	M19
T 20	17 55 9	29° 7'36	4 ^{II} 2	26° 1	12°55	7°22	17°16	3°27	24°30	0°55	4°45	22°21	21° 1	0°44	5°10	T 20
W21	17 59 6	0 ^{II} 4'48	16° 5	28°12	13°40	8° 2	17°17	3°23	24°34	0°55	4°43	22°15	20°58	0°50	5°13	W21
T 22	18 3 3	1° 2'00	28° 1	0 ^{II} 23	14°25	8°41	17°19	3°19	24°37	0°56	4°42	22° 9	20°55	0°57	5°16	T 22
F 23	18 6 59	1°59'12	9 ^{II} 54	2°34	15° 9	9°21	17°20	3°16	24°41	0°56	4°41	22° 5	20°51	1° 4	5°18	F 23
S 24	18 10 56	2°56'23	21°47	4°45	15°51	10° 0	17°22	3°12	24°45	0°56	4°40	22° 3	20°48	1°10	5°21	S 24
S 25	18 14 52	3°53'35	3 ^{II} 45	6°55	16°33	10°39	17°24	3° 9	24°48	0°57	4°39	22°D 2	20°45	1°17	5°23	S 25
M26	18 18 49	4°50'47	15°52	9° 4	17°14	11°19	17°26	3° 5	24°52	0°57	4°38	22° 3	20°42	1°24	5°25	M26
T 27	18 22 45	5°47'59	28°14	11°12	17°53	11°58	17°29	3° 2	24°55	0°58	4°37	22° 4	20°39	1°31	5°28	T 27
W28	18 26 42	6°45'12	10 ^{II} 55	13°19	18°32	12°37	17°31	2°58	24°59	0°58	4°36	22° 5	20°36	1°37	5°30	W28
T 29	18 30 38	7°42'24	23°59	15°25	19° 9	13°16	17°34	2°55	25° 2	0°59	4°34	22°R 6	20°32	1°44	5°32	T 29
F 30	18 34 35	8 ^{II} 39'37	7 ^{II} 28	17 ^{II} 28	19 ^{II} 46	13 ^{II} 56	17 ^{II} 37	2 ^{II} 52	25 ^{II} 6	0 ^{II} 59	4 ^{II} 33	22 ^{II} 5	20 ^{II} 29	1 ^{II} 51	5 ^{II} 34	F 30

Day	☉	☽		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	22n 7	16n 1	0s38	15n17	2s27	23n26	2n34	24n11	0n49	5s32	1n26	19s 8	2n 1	23n27	0n 9	0n58	1n27	23s56	5s 4	18n31	18n18	16s46	12n26	0s32	
F 2	22 15	20 36	0n35	15 50	2 19	23 13	2 32	24 13	0 50	5 31	1 25	19 8	2 1	23 27	0 9	0 58	1 27	23 57	5 4	18 31	18 17	16 43	12 27	0 32	
S 3	22 22	24 10	1 48	16 23	2 10	22 59	2 30	24 15	0 50	5 31	1 25	19 7	2 0	23 27	0 9	0 58	1 27	23 57	5 4	18 31	18 16	16 41	12 28	0 33	
S 4	22 29	26 22	2 56	16 57	2 1	22 45	2 27	24 16	0 51	5 30	1 25	19 6	2 0	23 27	0 9	0 58	1 27	23 57	5 4	18 31	18 15	16 38	12 29	0 33	
M 5	22 36	26 54	3 55	17 30	1 51	22 30	2 24	24 18	0 51	5 30	1 25	19 5	2 0	23 27	0 9	0 58	1 27	23 58	5 4	18 30	18 14	16 36	12 30	0 33	
T 6	22 42	25 38	4 39	18 4	1 41	22 16	2 22	24 19	0 51	5 30	1 24	19 5	2 0	23 28	0 9	0 58	1 27	23 58	5 4	18 29	18 14	16 33	12 31	0 33	
W 7	22 48	22 41	5 6	18 37	1 31	22 0	2 19	24 19	0 52	5 30	1 24	19 4	2 0	23 28	0 9	0 58	1 27	23 59	5 5	18 28	18 13	16 31	12 32	0 33	
T 8	22 54	18 21	5 13	19 10	1 20	21 45	2 15	24 20	0 52	5 29	1 24	19 3	2 0	23 28	0 9	0 58	1 27	23 59	5 5	18 28	18 12	16 28	12 33	0 33	
F 9	22 59	12 59	5 2	19 43	1 9	21 29	2 12	24 20	0 52	5 29	1 23	19 3	2 0	23 28	0 9	0 58	1 27	23 59	5 5	18 27	18 11	16 26	12 34	0 33	
S 10	23 4	6 59	4 31	20 14	0 58	21 12	2 8	24 21	0 53	5 29	1 23	19 2	2 0	23 28	0 9	0 58	1 27	24 0	5 5	18 27	18 10	16 23	12 35	0 33	
S 11	23 8	0 42	3 45	20 46	0 47	20 56	2 5	24 21	0 53	5 29	1 23	19 1	2 0	23 29	0 9	0 58	1 27	24 0	5 5	18 27	18 10	16 21	12 36	0 33	
M12	23 12	5s32	2 46	21 15	0 36	20 39	2 1	24 21	0 53	5 30	1 23	19 1	1 59	23 29	0 9	0 58	1 27	24 1	5 6	18 28	18 9	16 18	12 37	0 33	
T 13	23 15	11 26	1 39	21 44	0 24	20 22	1 56	24 20	0 54	5 30	1 22	19 0	1 59	23 29	0 9	0 58	1 27	24 1	5 6	18 28	18 8	16 16	12 38	0 34	
W14	23 18	16 43	0 27	22 11	0 13	20 4	1 52	24 19	0 54	5 30	1 22	19 0	1 59	23 29	0 9	0 58	1 27	24 1	5 6	18 28	18 7	16 13	12 39	0 34	
T 15	23 21	21 7	0s45	22 37	0 2	19 46	1 47	24 19	0 54	5 30	1 22	18 59	1 59	23 29	0 9	0 58	1 27	24 2	5 6	18 28	18 6	16 11	12 39	0 34	
F 16	23 23	24 24	1 54	23 1	0n 9	19 29	1 42	24 18	0 55	5 31	1 22	18 58	1 59	23 29	0 9	0 58	1 27	24 2	5 6	18 28	18 5	16 8	12 40	0 34	
S 17	23 25	26 21	2 55	23 23	0 19	19 10	1 37	24 16	0 55	5 31	1 21	18 58	1 59	23 30	0 9	0 58	1 27	24 3	5 6	18 27	18 5	16 6	12 41	0 34	
S 18	23 26	26 54	3 47	23 42	0 30	18 52	1 32	24 15	0 55	5 32	1 21	18 57	1 59	23 30	0 9	0 58	1 27	24 3	5 7	18 26	18 4	16 3	12 42	0 34	
M19	23 27	26 6	4 27	23 59	0 40	18 34	1 27	24 13	0 56	5 32	1 21	18 57	1 59	23 30	0 9	0 58	1 27	24 3	5 7	18 24	18 3	16 1	12 43	0 34	
T 20	23 28	24 2	4 54	24 14	0 49	18 15	1 21	24 12	0 56	5 33	1 20	18 56	1 58	23 30	0 9	0 57	1 26	24 4	5 7	18 23	18 2	15 58	12 43	0 34	
W21	23 28	20 56	5 8	24 25	0 58	17 56	1 15	24 10	0 56	5 34	1 20	18 55	1 58	23 30	0 9	0 57	1 26	24 4	5 7	18 21	18 1	15 55	12 44	0 34	
T 22	23 28	16 59	5 8	24 35	1 6	17 37	1 9	24 7	0 57	5 35	1 20	18 55	1 58	23 30	0 9	0 57	1 26	24 5	5 7	18 20	18 0	15 53	12 45	0 34	
F 23	23 27	12 25	4 55	24 41	1 14	17 18	1 2	24 5	0 57	5 35	1 20	18 54	1 58	23 30	0 9	0 57	1 26	24 5	5 7	18 19	18 0	15 50	12 46	0 35	
S 24	23 26	7 23	4 29	24 44	1 21	16 59	0 56	24 2	0 57	5 36	1 19	18 54	1 58	23 31	0 9	0 57	1 26	24 6	5 8	18 18	17 59	15 48	12 46	0 35	
S 25	23 25	2 3	3 52	24 45	1 28	16 40	0 49	24 0	0 57	5 37	1 19	18 53	1 58	23 31	0 9	0 57	1 26	24 6	5 8	18 18	17 58	15 45	12 47	0 35	
M26	23 23	3n26	3 3	24 43	1 33	16 21	0 42	23 57	0 58	5 38	1 19	18 53	1 57	23 31	0 9	0 56	1 26	24 6	5 8	18 18	17 57	15 43	12 48	0 35	
T 27	23 21	8 54	2 5	24 38	1 38	16 2	0 34	23 54	0 58	5 40	1 19	18 52	1 57	23 31	0 9	0 56	1 26	24 7	5 8	18 18	17 56	15 40	12 49	0 35	
W28	23 18	14 10	1 0	24 30	1 42	15 43	0 27	23 50	0 58	5 41	1 18	18 52	1 57	23 31	0 9	0 56	1 26	24 7	5 8	18 19	17 55	15 37	12 49	0 35	
T 29	23 15	18 57	0n10	24 20	1 46	15 24	0 19	23 47	0 59	5 42	1 18	18 51	1 57	23 31	0 9	0 56	1 26	24 8	5 8	18 19	17 54	15 35	12 50	0 35	
F 30	23n11	22n56	1n22	24n 7	1n49	15n 4	0n10	23n43	0n59	5s43	1n18	18s51	1n57	23n32	0n 9	0n55	1n26	24s 8	5s 9	18n19	17n54	15s32	12n50	0s35	

ASTRODIENST EPHEMERIS for the year 1780

geocentric

JULY 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	18 38 32	9°36'50	21°12'23	19°31	20°12'21	14°35	17°40	2°R49	25°11 9	1°1 0	4°R32	22°R 2	20°8'26	1°15'57	5°8'37	S 1
S 2	18 42 28	10°34'03	5°41	21°31	20°54	15°14	17°43	2°46	25°13	1° 1	4°31	21°8'57	20°23	2° 4	5°39	S 2
M 3	18 46 25	11°31'16	20°18	23°30	21°27	15°53	17°46	2°43	25°16	1° 1	4°29	21°50	20°20	2°11	5°41	M 3
T 4	18 50 21	12°28'29	5°12 6	25°26	21°58	16°32	17°50	2°40	25°20	1° 2	4°28	21°42	20°17	2°18	5°43	T 4
W 5	18 54 18	13°25'42	19°57	27°21	22°27	17°11	17°54	2°37	25°23	1° 3	4°27	21°35	20°13	2°24	5°45	W 5
T 6	18 58 14	14°22'55	4°14 44	29°14	22°55	17°50	17°57	2°34	25°27	1° 4	4°26	21°28	20°10	2°31	5°47	T 6
F 7	19 2 11	15°20'08	19°19	1°12 5	23°22	18°29	18° 1	2°32	25°30	1° 4	4°24	21°24	20° 7	2°38	5°49	F 7
S 8	19 6 8	16°17'20	3°12 37	2°54	23°47	19° 8	18° 6	2°29	25°34	1° 5	4°23	21°21	20° 4	2°45	5°50	S 8
S 9	19 10 4	17°14'33	17°37	4°42	24°10	19°47	18°10	2°27	25°37	1° 6	4°22	21°D21	20° 1	2°51	5°52	S 9
M10	19 14 1	18°11'45	1°18 18	6°27	24°31	20°26	18°14	2°24	25°40	1° 7	4°20	21°21	19°57	2°58	5°54	M10
T 11	19 17 57	19° 8'58	14°41	8°10	24°51	21° 5	18°19	2°22	25°44	1° 8	4°19	21°R22	19°54	3° 5	5°56	T 11
W12	19 21 54	20° 6'11	27°48	9°52	25° 9	21°44	18°24	2°20	25°47	1° 9	4°18	21°22	19°51	3°11	5°57	W12
T 13	19 25 50	21° 3'24	10°12 41	11°31	25°25	22°23	18°29	2°17	25°50	1°10	4°16	21°20	19°48	3°18	5°59	T 13
F 14	19 29 47	22° 0'37	23°22	13° 8	25°39	23° 2	18°34	2°15	25°54	1°11	4°15	21°16	19°45	3°25	6° 0	F 14
S 15	19 33 43	22°57'50	5°12 53	14°44	25°51	23°41	18°39	2°13	25°57	1°12	4°14	21° 9	19°42	3°32	6° 2	S 15
S 16	19 37 40	23°55'04	18°14	16°18	26° 0	24°20	18°45	2°11	26° 0	1°13	4°12	21° 0	19°38	3°38	6° 3	S 16
M17	19 41 37	24°52'19	0°12 27	17°49	26° 8	24°58	18°50	2° 9	26° 3	1°14	4°11	20°49	19°35	3°45	6° 4	M17
T 18	19 45 33	25°49'33	12°32	19°19	26°13	25°37	18°56	2° 8	26° 7	1°15	4°10	20°38	19°32	3°52	6° 6	T 18
W19	19 49 30	26°46'49	24°30	20°47	26°17	26°16	19° 2	2° 6	26°10	1°16	4° 8	20°26	19°29	3°58	6° 7	W19
T 20	19 53 26	27°44'05	6°12 24	22°13	26°R18	26°55	19° 8	2° 4	26°13	1°18	4° 7	20°15	19°26	4° 5	6° 8	T 20
F 21	19 57 23	28°41'22	18°15	23°36	26°16	27°33	19°14	2° 3	26°16	1°19	4° 5	20° 7	19°23	4°12	6° 9	F 21
S 22	20 1 19	29°38'40	0°12 7	24°58	26°13	28°12	19°20	2° 2	26°19	1°20	4° 4	20° 1	19°19	4°19	6°10	S 22
S 23	20 5 16	0°13'58	12° 3	26°18	26° 6	28°51	19°26	2° 0	26°23	1°21	4° 3	19°57	19°16	4°25	6°11	S 23
M24	20 9 12	1°33'18	24° 8	27°35	25°58	29°30	19°33	1°59	26°26	1°23	4° 1	19°55	19°13	4°32	6°12	M24
T 25	20 13 9	2°30'38	6°12 27	28°50	25°47	0°12 8	19°40	1°58	26°29	1°24	4° 0	19°D55	19°10	4°39	6°13	T 25
W26	20 17 6	3°28'00	19° 5	0°12 3	25°34	0°47	19°46	1°57	26°32	1°25	3°58	19°R55	19° 7	4°45	6°14	W26
T 27	20 21 2	4°25'23	2°11 7	1°14	25°18	1°25	19°53	1°56	26°35	1°27	3°57	19°55	19° 3	4°52	6°15	T 27
F 28	20 24 59	5°22'47	15°36	2°22	25° 1	2° 4	20° 0	1°55	26°38	1°28	3°56	19°53	19° 0	4°59	6°16	F 28
S 29	20 28 55	6°20'12	29°35	3°28	24°41	2°43	20° 8	1°54	26°41	1°30	3°54	19°48	18°57	5° 6	6°17	S 29
S 30	20 32 52	7°17'38	14°12 1	4°32	24°18	3°21	20°15	1°54	26°44	1°31	3°53	19°41	18°54	5°12	6°17	S 30
M31	20 36 48	8°15'06	28°12 51	5°12 32	23°12 54	4°12 0	20°22	1°53	26°47	1°32	3°52	19°32	18°51	5°19	6°18	M31

Day	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
S 1	23n 7	25n42	2n31	23n52	1n51	14n45	0n 2	23n39	0n59	5s45	1n17	18s51	1n57	23n32	0n 9	0n55	1n26	24s 9	5s 9	18n18	17n53	15s30	12n51	0s35	
S 2	23 3	26 53	3 33	23 35	1 52	14 26	0s 7	23 35	0 59	5 46	1 17	18 50	1 56	23 32	0 9	0 55	1 26	24 9	5 9	18 17	17 52	15 27	12 52	0 36	
M 3	22 58	26 14	4 21	23 16	1 52	14 7	0 16	23 31	1 0	5 48	1 17	18 50	1 56	23 32	0 9	0 54	1 26	24 10	5 9	18 15	17 51	15 24	12 52	0 36	
T 4	22 53	23 45	4 53	22 55	1 52	13 49	0 25	23 26	1 0	5 49	1 17	18 49	1 56	23 32	0 9	0 54	1 26	24 10	5 9	18 13	17 50	15 22	12 53	0 36	
W 5	22 47	19 41	5 6	22 32	1 51	13 30	0 35	23 21	1 0	5 51	1 16	18 49	1 56	23 32	0 9	0 54	1 26	24 10	5 9	18 11	17 49	15 19	12 53	0 36	
T 6	22 42	14 24	4 58	22 8	1 50	13 12	0 44	23 17	1 0	5 53	1 16	18 49	1 56	23 32	0 9	0 53	1 26	24 11	5 9	18 9	17 49	15 16	12 54	0 36	
F 7	22 35	8 23	4 31	21 42	1 48	12 53	0 55	23 12	1 1	5 54	1 16	18 48	1 55	23 32	0 9	0 53	1 26	24 11	5 10	18 8	17 48	15 14	12 54	0 36	
S 8	22 28	2 2	3 47	21 14	1 45	12 35	1 5	23 6	1 1	5 56	1 16	18 48	1 55	23 33	0 9	0 53	1 26	24 12	5 10	18 7	17 47	15 11	12 55	0 36	
S 9	22 21	4s18	2 51	20 46	1 42	12 18	1 16	23 1	1 1	5 58	1 15	18 48	1 55	23 33	0 9	0 52	1 26	24 12	5 10	18 7	17 46	15 9	12 55	0 36	
M10	22 14	10 18	1 45	20 16	1 38	12 0	1 26	22 55	1 1	6 0	1 15	18 48	1 55	23 33	0 9	0 52	1 26	24 13	5 10	18 7	17 45	15 6	12 56	0 36	
T 11	22 6	15 42	0 36	19 45	1 34	11 43	1 38	22 50	1 2	6 2	1 15	18 47	1 55	23 33	0 9	0 51	1 26	24 13	5 10	18 7	17 44	15 3	12 56	0 37	
W12	21 58	20 15	0s34	19 13	1 29	11 26	1 49	22 44	1 2	6 4	1 15	18 47	1 54	23 33	0 9	0 51	1 26	24 14	5 10	18 7	17 43	15 1	12 57	0 37	
T 13	21 49	23 45	1 41	18 41	1 23	11 10	2 1	22 38	1 2	6 6	1 14	18 47	1 54	23 33	0 9	0 51	1 26	24 14	5 10	18 7	17 43	14 58	12 57	0 37	
F 14	21 40	26 0	2 42	18 8	1 17	10 54	2 13	22 32	1 2	6 9	1 14	18 47	1 54	23 33	0 9	0 50	1 26	24 14	5 10	18 6	17 42	14 55	12 57	0 37	
S 15	21 31	26 54	3 34	17 34	1 11	10 39	2 25	22 25	1 3	6 11	1 14	18 46	1 54	23 33	0 9	0 50	1 25	24 15	5 10	18 4	17 41	14 53	12 58	0 37	
S 16	21 21	26 26	4 15	17 0	1 4	10 24	2 38	22 19	1 3	6 13	1 14	18 46	1 53	23 34	0 9	0 49	1 25	24 15	5 11	18 2	17 40	14 50	12 58	0 37	
M17	21 11	24 42	4 44	16 25	0 57	10 9	2 50	22 12	1 3	6 15	1 13	18 46	1 53	23 34	0 9	0 49	1 25	24 16	5 11	17 59	17 39	14 47	12 59	0 37	
T 18	21 0	21 51	4 59	15 50	0 49	9 55	3 3	22 5	1 3	6 18	1 13	18 46	1 53	23 34	0 9	0 48	1 25	24 16	5 11	17 56	17 38	14 45	12 59	0 37	
W19	20 50	18 6	5 1	15 14	0 41	9 42	3 16	21 58	1 4	6 20	1 13	18 46	1 53	23 34	0 9	0 48	1 25	24 17	5 11	17 53	17 37	14 42	12 59	0 38	
T 20	20 38	13 40	4 50	14 39	0 33	9 29	3 29	21 51	1 4	6 23	1 13	18 46	1 53	23 34	0 9	0 47	1 25	24 17	5 11	17 50	17 37	14 39	12 59	0 38	
F 21	20 27	8 45	4 27	14 3	0 24	9 17	3 43	21 43	1 4	6 25	1 12	18 46	1 52	23 34	0 9	0 47	1 25	24 17	5 11	17 48	17 36	14 37	13 0	0 38	
S 22	20 15	3 30	3 52	13 27	0 15	9 5	3 56	21 36	1 4	6 28	1 12	18 46	1 52	23 34	0 9	0 46	1 25	24 18	5 11	17 46	17 35	14 34	13 0	0 38	
S 23	20 3	1n54	3 7	12 52	0 6	8 55	4 10	21 28	1 4	6 30	1 12	18 46	1 52	23 34	0 9	0 46	1 25	24 18	5 11	17 45	17 34	14 31	13 0	0 38	
M24	19 50	7 19	2 12	12 16	0s 4	8 44	4 24	21 20	1 5	6 33	1 12	18 46	1 52	23 34	0 9	0 45	1 25	24 19	5 11	17 45	17 33	14 29	13 0	0 38	
T 25	19 37	12 34	1 11	11 41	0 13	8 35	4 37	21 12	1 5	6 36	1 11	18 46	1 51	23 34	0 9	0 45	1 25	24 19	5 11	17 44	17 32	14 26	13 1	0 38	
W26	19 24	17 27	0 4	11 6	0 24	8 27	4 51	21 4	1 5	6 39	1 11	18 46	1 51	23 35	0 9	0 44	1 25	24 20	5 12	17 45	17 31	14 23	13 1	0 38	
T 27	19 11	21 40	1n 4	10 31	0 34	8 19	5 5	20 56	1 5	6 41	1 11	18 46	1 51	23 35	0 9	0 43	1 25	24 20	5 12	17 44	17 30	14 20	13 1	0 39	
F 28	18 57	24 52	2 12	9 57	0 45	8 12	5 18	20 47	1 5	6 44	1 11	18 46	1 51	23 35	0 9	0 43	1 25	24 20	5 12	17 44	17 30	14 18	13 1	0 39	
S 29	18 43	26 41	3 13	9 23	0 45	8 6	5 31	20 39	1 6	6 47	1 11	18 46	1 51	23 35	0 9	0 42	1 25	24 21	5 12	17 43	17 29	14 15	13 1	0 39	
S 30	18 28	26 47	4 5	8 50	1 6	8 1	5 44	20 30	1 6	6 50	1 10	18 46	1 50	23 35	0 9	0 42	1 25	24 21	5 12	17 41	17 28	14 12	13 1	0 39	
M31	18n14	25n 0	4n41	8n17	1s18	7n57	5s57	20n21	1n 6	6s53	1n10	18s46	1n50	23n35	0n 9	0n41	1n25	24s22	5s12	17n38	17n27	14s 9	13n 1	0s39	

ASTRODIENST EPHEMERIS for the year 1780

geocentric

AUGUST 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	20 40 45	9♏12'34	13♏57	6♏30	23°R27	4♏38	20♏30	1°R53	26♏49	1♏34	3°R50	19°R21	18♏48	5♏26	6♏18	T 1
W 2	20 44 41	10°10'03	29° 9	7°25	22♏59	5°17	20°38	1♏52	26°52	1°35	3♏49	19♏10	18°44	5°33	6°19	W 2
T 3	20 48 38	11° 7'33	14♏15	8°17	22°29	5°55	20°46	1°52	26°55	1°37	3°47	19° 1	18°41	5°39	6°19	T 3
F 4	20 52 35	12° 5'04	29° 8	9° 6	21°58	6°34	20°54	1°52	26°58	1°39	3°46	18°54	18°38	5°46	6°20	F 4
S 5	20 56 31	13° 2'35	13♏39	9°51	21°24	7°12	21° 2	1°D52	27° 1	1°40	3°45	18°49	18°35	5°53	6°20	S 5
S 6	21 0 28	14° 0'08	27°46	10°33	20°50	7°51	21°10	1°52	27° 3	1°42	3°43	18°47	18°32	5°59	6°20	S 6
M 7	21 4 24	14°57'41	11♏28	11°11	20°15	8°29	21°18	1°52	27° 6	1°43	3°42	18°46	18°28	6° 6	6°20	M 7
T 8	21 8 21	15°55'15	24°47	11°45	19°38	9° 8	21°27	1°52	27° 9	1°45	3°41	18°46	18°25	6°13	6°20	T 8
W 9	21 12 17	16°52'50	7♏45	12°15	19° 2	9°46	21°35	1°53	27°11	1°47	3°39	18°46	18°22	6°20	6°20	W 9
T 10	21 16 14	17°50'26	20°27	12°41	18°24	10°24	21°44	1°53	27°14	1°49	3°38	18°43	18°19	6°26	6°R20	T 10
F 11	21 20 10	18°48'04	2♏55	13° 2	17°47	11° 3	21°53	1°54	27°16	1°50	3°37	18°38	18°16	6°33	6°20	F 11
S 12	21 24 7	19°45'42	15°12	13°19	17°10	11°41	22° 2	1°54	27°19	1°52	3°35	18°30	18°13	6°40	6°20	S 12
S 13	21 28 4	20°43'21	27°21	13°30	16°33	12°19	22°11	1°55	27°21	1°54	3°34	18°19	18° 9	6°46	6°20	S 13
M14	21 32 0	21°41'02	9♏24	13°36	15°56	12°58	22°20	1°56	27°24	1°56	3°33	18° 6	18° 6	6°53	6°20	M14
T 15	21 35 57	22°38'43	21°22	13°R37	15°21	13°36	22°29	1°57	27°26	1°57	3°31	17°53	18° 3	7° 0	6°20	T 15
W16	21 39 53	23°36'26	3♏16	13°32	14°47	14°14	22°38	1°58	27°28	1°59	3°30	17°39	18° 0	7° 7	6°19	W16
T 17	21 43 50	24°34'11	15° 8	13°21	14°13	14°53	22°48	1°59	27°31	2° 1	3°29	17°26	17°57	7°13	6°19	T 17
F 18	21 47 46	25°31'57	26°59	13° 5	13°42	15°31	22°57	2° 0	27°33	2° 3	3°27	17°16	17°54	7°20	6°18	F 18
S 19	21 51 43	26°29'44	8♏52	12°43	13°11	16° 9	23° 7	2° 1	27°35	2° 5	3°26	17° 8	17°50	7°27	6°18	S 19
S 20	21 55 39	27°27'33	20°49	12°15	12°43	16°48	23°16	2° 3	27°38	2° 7	3°25	17° 3	17°47	7°33	6°17	S 20
M21	21 59 36	28°25'24	2♏55	11°42	12°17	17°26	23°26	2° 4	27°40	2° 9	3°24	17° 0	17°44	7°40	6°17	M21
T 22	22 3 33	29°23'17	15°13	11° 3	11°52	18° 4	23°36	2° 6	27°42	2°10	3°22	17°D 0	17°41	7°47	6°16	T 22
W23	22 7 29	0♏21'11	27°48	10°19	11°30	18°42	23°46	2° 7	27°44	2°12	3°21	17°R 0	17°38	7°54	6°15	W23
T 24	22 11 26	1°19'08	10♏46	9°32	11°10	19°20	23°56	2° 9	27°46	2°14	3°20	17° 0	17°34	8° 0	6°15	T 24
F 25	22 15 22	2°17'06	24° 9	8°40	10°52	19°59	24° 6	2°11	27°48	2°16	3°19	16°58	17°31	8° 7	6°14	F 25
S 26	22 19 19	3°15'06	8♏2	7°46	10°37	20°37	24°17	2°13	27°50	2°18	3°18	16°54	17°28	8°14	6°13	S 26
S 27	22 23 15	4°13'08	22°24	6°50	10°24	21°15	24°27	2°15	27°52	2°20	3°17	16°48	17°25	8°20	6°12	S 27
M28	22 27 12	5°11'12	7♏12	5°53	10°14	21°53	24°37	2°17	27°54	2°22	3°15	16°39	17°22	8°27	6°11	M28
T 29	22 31 8	6° 9'18	22°20	4°57	10° 6	22°31	24°48	2°19	27°55	2°24	3°14	16°29	17°19	8°34	6°10	T 29
W30	22 35 5	7° 7'25	7♏39	4° 3	10° 0	23° 9	24°58	2°22	27°57	2°26	3°13	16°19	17°15	8°41	6° 9	W30
T 31	22 39 2	8♏5'34	22♏56	3♏11	9♏57	23♏48	25♏9	2♏24	27♏59	2♏29	3♏12	16♏10	17♏12	8♏47	6♏8	T 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	17n58	21n26	4n59	7n45	1s29	7n53	6s10	20n12	1n 6	6s56	1n10	18s46	1n50	23n35	0n 9	0n40
W 2	17 43	16 24	4 56	7 15	1 40	7 51	6 22	20 3	1 6	6 59	1 10	18 46	1 50	23 35	0 9	0 40
T 3	17 27	10 23	4 32	6 45	1 52	7 49	6 34	19 53	1 6	7 3	1 9	18 47	1 49	23 35	0 9	0 39
F 4	17 12	3 52	3 50	6 16	2 3	7 49	6 45	19 44	1 7	7 6	1 9	18 47	1 49	23 35	0 9	0 39
S 5	16 55	2s43	2 54	5 48	2 15	7 49	6 56	19 34	1 7	7 9	1 9	18 47	1 49	23 35	0 9	0 38
S 6	16 39	9 0	1 49	5 21	2 27	7 50	7 6	19 25	1 7	7 12	1 9	18 47	1 49	23 35	0 9	0 37
M 7	16 22	14 41	0 39	4 56	2 38	7 52	7 15	19 15	1 7	7 16	1 9	18 47	1 48	23 36	0 9	0 37
T 8	16 5	19 30	0s32	4 33	2 50	7 55	7 24	19 5	1 7	7 19	1 8	18 48	1 48	23 36	0 9	0 36
W 9	15 48	23 15	1 38	4 11	3 1	7 58	7 32	18 55	1 7	7 22	1 8	18 48	1 48	23 36	0 9	0 35
T 10	15 30	25 46	2 39	3 51	3 12	8 3	7 39	18 44	1 8	7 26	1 8	18 48	1 48	23 36	0 9	0 34
F 11	15 12	26 56	3 30	3 33	3 23	8 8	7 45	18 34	1 8	7 29	1 8	18 49	1 48	23 36	0 9	0 34
S 12	14 54	26 46	4 11	3 17	3 33	8 13	7 51	18 23	1 8	7 33	1 8	18 49	1 47	23 36	0 9	0 33
S 13	14 36	25 17	4 40	3 4	3 43	8 20	7 55	18 13	1 8	7 36	1 7	18 49	1 47	23 36	0 9	0 32
M14	14 18	22 40	4 56	2 52	3 53	8 27	7 59	18 2	1 8	7 40	1 7	18 50	1 47	23 36	0 9	0 32
T 15	13 59	19 7	4 59	2 44	4 2	8 34	8 2	17 51	1 8	7 43	1 7	18 50	1 47	23 36	0 9	0 31
W16	13 40	14 48	4 49	2 38	4 10	8 42	8 4	17 40	1 9	7 47	1 7	18 51	1 46	23 36	0 9	0 30
T 17	13 21	9 57	4 26	2 36	4 17	8 50	8 5	17 29	1 9	7 51	1 7	18 51	1 46	23 36	0 9	0 29
F 18	13 2	4 44	3 52	2 36	4 23	8 58	8 6	17 18	1 9	7 54	1 6	18 52	1 46	23 36	0 9	0 29
S 19	12 42	0n39	3 7	2 40	4 29	9 7	8 5	17 7	1 9	7 58	1 6	18 52	1 46	23 36	0 9	0 28
S 20	12 22	6 4	2 14	2 46	4 32	9 16	8 4	16 55	1 9	8 2	1 6	18 52	1 45	23 36	0 10	0 27
M21	12 2	11 20	1 14	2 57	4 35	9 25	8 2	16 44	1 9	8 6	1 6	18 53	1 45	23 36	0 10	0 26
T 22	11 42	16 16	0 9	3 10	4 36	9 34	7 59	16 32	1 9	8 9	1 6	18 54	1 45	23 37	0 10	0 25
W23	11 22	20 37	0n57	3 27	4 35	9 44	7 56	16 20	1 9	8 13	1 6	18 54	1 45	23 37	0 10	0 25
T 24	11 1	24 6	2 2	3 48	4 33	9 53	7 51	16 8	1 10	8 17	1 5	18 55	1 44	23 37	0 10	0 24
F 25	10 40	26 24	3 3	4 11	4 28	10 2	7 47	15 56	1 10	8 21	1 5	18 55	1 44	23 37	0 10	0 23
S 26	10 20	27 9	3 56	4 37	4 22	10 11	7 42	15 44	1 10	8 25	1 5	18 56	1 44	23 37	0 10	0 22
S 27	9 59	26 8	4 35	5 5	4 14	10 20	7 36	15 32	1 10	8 29	1 5	18 57	1 44	23 37	0 10	0 21
M28	9 37	23 18	4 58	5 35	4 4	10 29	7 30	15 20	1 10	8 33	1 5	18 57	1 44	23 37	0 10	0 21
T 29	9 16	18 49	5 0	6 7	3 52	10 37	7 23	15 8	1 10	8 37	1 4	18 58	1 43	23 37	0 10	0 20
W30	8 54	13 4	4 42	6 39	3 38	10 45	7 16	14 55	1 10	8 41	1 4	18 58	1 43	23 37	0 10	0 19
T 31	8n33	6n31	4n 3	7n12	3s23	10n53	7s 9	14n43	1n10	8s45	1n 4	18s59	1n43	23n37	0n10	0n18

Julian Day Number = 2371404.5, Delta T = 22.30 sec
 Ecliptic obliquity = 23°28'10, Nutation = - 0°00'11, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 21°40'37, Lahiri = 20°47'37Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1780

geocentric

SEPTEMBER 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	22 42 58	9 ^h 3'45	8 ^h 1	2°R24	9°D56	24 ^h 26	25 ^h 20	2 ^h 27	28 ^h 1	2 ^h 31	3°R11	16°R 3	17 ^h 9	8 ^h 54	6°R 6	F 1
S 2	22 46 55	10° 1'57	22°45	1 ^h 42	9 ^h 57	25° 4	25°31	2°29	28° 2	2°33	3 ^h 10	15°R59	17° 6	9° 1	6°R 5	S 2
S 3	22 50 51	11° 0'11	7 ^h 3	1° 7	10° 1	25°42	25°42	2°32	28° 4	2°35	3° 9	15°57	17° 3	9° 7	6° 4	S 3
M 4	22 54 48	11°58'26	20°53	0°38	10° 7	26°20	25°53	2°35	28° 5	2°37	3° 8	15°D57	17° 0	9°14	6° 2	M 4
T 5	22 58 44	12°56'43	4 ^h 17	0°18	10°15	26°58	26° 4	2°38	28° 7	2°39	3° 7	15°57	16°56	9°21	6° 1	T 5
W 6	23 2 41	13°55'02	17°14	0° 6	10°25	27°36	26°15	2°40	28° 8	2°41	3° 6	15°R57	16°53	9°28	5°59	W 6
T 7	23 6 37	14°53'22	29°53	0°D 2	10°37	28°14	26°26	2°44	28°10	2°43	3° 5	15°56	16°50	9°34	5°58	T 7
F 8	23 10 34	15°51'43	12 ^h 15	0° 8	10°52	28°52	26°37	2°47	28°11	2°45	3° 4	15°53	16°47	9°41	5°56	F 8
S 9	23 14 31	16°50'06	24°26	0°23	11° 8	29°30	26°49	2°50	28°12	2°48	3° 3	15°47	16°44	9°48	5°55	S 9
S 10	23 18 27	17°48'31	6 ^h 28	0°48	11°26	0 ^h 8	27° 0	2°53	28°14	2°50	3° 2	15°39	16°40	9°54	5°53	S 10
M11	23 22 24	18°46'58	18°24	1°21	11°47	0°46	27°12	2°57	28°15	2°52	3° 1	15°29	16°37	10° 1	5°51	M11
T 12	23 26 20	19°45'26	0 ^h 17	2° 3	12° 9	1°24	27°23	3° 0	28°16	2°54	3° 0	15°19	16°34	10° 8	5°49	T 12
W13	23 30 17	20°43'56	12° 9	2°53	12°32	2° 2	27°35	3° 4	28°17	2°56	3° 0	15° 8	16°31	10°15	5°47	W13
T 14	23 34 13	21°42'27	24° 2	3°51	12°58	2°40	27°46	3° 7	28°18	2°59	2°59	14°58	16°28	10°21	5°46	T 14
F 15	23 38 10	22°41'01	5 ^h 56	4°56	13°25	3°18	27°58	3°11	28°19	3° 1	2°58	14°50	16°25	10°28	5°44	F 15
S 16	23 42 6	23°39'37	17°54	6° 8	13°54	3°56	28°10	3°15	28°20	3° 3	2°57	14°45	16°21	10°35	5°42	S 16
S 17	23 46 3	24°38'15	29°58	7°25	14°24	4°34	28°22	3°18	28°21	3° 5	2°56	14°41	16°18	10°41	5°40	S 17
M18	23 49 59	25°36'55	12 ^h 10	8°48	14°56	5°12	28°34	3°22	28°22	3° 7	2°56	14°D40	16°15	10°48	5°38	M18
T 19	23 53 56	26°35'37	24°34	10°16	15°29	5°50	28°46	3°26	28°23	3°10	2°55	14°40	16°12	10°55	5°35	T 19
W20	23 57 53	27°34'21	7 ^h 12	11°49	16° 4	6°28	28°58	3°31	28°23	3°12	2°54	14°42	16° 9	11° 1	5°33	W20
T 21	0 1 49	28°33'08	20° 9	13°24	16°39	7° 6	29°10	3°35	28°24	3°14	2°54	14°43	16° 6	11° 8	5°31	T 21
F 22	0 5 46	29°31'57	3 ^h 29	15° 3	17°17	7°44	29°22	3°39	28°25	3°16	2°53	14°R43	16° 2	11°15	5°29	F 22
S 23	0 9 42	0 ^h 30'49	17°13	16°44	17°55	8°22	29°34	3°43	28°25	3°18	2°52	14°42	15°59	11°22	5°27	S 23
S 24	0 13 39	1°29'43	1 ^h 23	18°27	18°35	9° 0	29°46	3°48	28°26	3°21	2°52	14°38	15°56	11°28	5°24	S 24
M25	0 17 35	2°28'39	15°57	20°12	19°15	9°38	29°59	3°52	28°26	3°23	2°51	14°34	15°53	11°35	5°22	M25
T 26	0 21 32	3°27'37	0 ^h 52	21°58	19°57	10°16	0 ^h 11	3°57	28°27	3°25	2°51	14°28	15°50	11°42	5°20	T 26
W27	0 25 29	4°26'37	16° 0	23°44	20°40	10°54	0°23	4° 1	28°27	3°27	2°50	14°22	15°46	11°48	5°17	W27
T 28	0 29 25	5°25'40	1 ^h 10	25°32	21°24	11°32	0°36	4° 6	28°27	3°30	2°50	14°16	15°43	11°55	5°15	T 28
F 29	0 33 22	6°24'44	16°14	27°19	22° 9	12°10	0°48	4°11	28°28	3°32	2°49	14°12	15°40	12° 2	5°12	F 29
S 30	0 37 18	7 ^h 23'51	1 ^h 2	29 ^h 7	22 ^h 55	12 ^h 48	1 ^h 1	4 ^h 16	28 ^h 28	3 ^h 34	2 ^h 49	14 ^h 10	15 ^h 37	12 ^h 9	5 ^h 10	S 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
F 1	8n11	0s19	3n 7	7n44	3s 6	11n 1	7s 1	14n30	1n10	8s49	1n 4	19s 0	1n43	23n37	0n10	F 1
S 2	7 49	7 0	2 0	8 15	2 49	11 8	6 53	14 17	1 11	8 53	1 4	19 1	1 42	23 37	0 10	S 2
S 3	7 27	13 8	0 47	8 45	2 30	11 15	6 45	14 5	1 11	8 57	1 4	19 1	1 42	23 37	0 10	S 3
M 4	7 5	18 25	0s26	9 13	2 11	11 22	6 36	13 52	1 11	9 1	1 4	19 2	1 42	23 37	0 10	M 4
T 5	6 42	22 36	1 36	9 38	1 52	11 28	6 28	13 39	1 11	9 6	1 3	19 3	1 42	23 37	0 10	T 5
W 6	6 20	25 29	2 39	10 0	1 33	11 34	6 19	13 26	1 11	9 10	1 3	19 4	1 42	23 37	0 10	W 6
T 7	5 58	27 0	3 32	10 19	1 14	11 39	6 10	13 13	1 11	9 14	1 3	19 4	1 41	23 37	0 10	T 7
F 8	5 35	27 7	4 14	10 35	0 55	11 44	6 1	12 59	1 11	9 18	1 3	19 5	1 41	23 37	0 10	F 8
S 9	5 12	25 55	4 44	10 47	0 37	11 49	5 52	12 46	1 11	9 22	1 3	19 6	1 41	23 37	0 10	S 9
S 10	4 49	23 32	5 0	10 54	0 19	11 53	5 43	12 33	1 11	9 27	1 3	19 7	1 41	23 37	0 10	S 10
M11	4 27	20 9	5 4	10 58	0 3	11 56	5 33	12 19	1 11	9 31	1 3	19 8	1 40	23 37	0 10	M11
T 12	4 4	15 58	4 54	10 58	0n13	11 59	5 24	12 6	1 11	9 35	1 2	19 9	1 40	23 37	0 10	T 12
W13	3 41	11 12	4 30	10 53	0 28	12 2	5 15	11 52	1 11	9 39	1 2	19 10	1 40	23 37	0 10	W13
T 14	3 18	6 0	3 57	10 45	0 41	12 4	5 5	11 39	1 11	9 44	1 2	19 10	1 40	23 37	0 10	T 14
F 15	2 54	0 35	3 13	10 33	0 53	12 5	4 56	11 25	1 12	9 48	1 2	19 11	1 40	23 38	0 10	F 15
S 16	2 31	4n54	2 19	10 16	1 4	12 6	4 47	11 11	1 12	9 52	1 2	19 12	1 39	23 38	0 10	S 16
S 17	2 8	10 15	1 18	9 57	1 14	12 6	4 37	10 57	1 12	9 57	1 2	19 13	1 39	23 38	0 10	S 17
M18	1 45	15 18	0 13	9 34	1 23	12 6	4 28	10 44	1 12	10 1	1 2	19 14	1 39	23 38	0 10	M18
T 19	1 21	19 48	0n53	9 7	1 30	12 6	4 19	10 30	1 12	10 5	1 2	19 15	1 39	23 38	0 10	T 19
W20	0 58	23 30	1 59	8 38	1 37	12 4	4 9	10 16	1 12	10 10	1 1	19 16	1 39	23 38	0 10	W20
T 21	0 35	26 6	3 0	8 6	1 42	12 3	4 0	10 2	1 12	10 14	1 1	19 17	1 38	23 38	0 10	T 21
F 22	0 11	27 18	3 53	7 32	1 46	12 0	3 51	9 47	1 12	10 19	1 1	19 18	1 38	23 38	0 10	F 22
S 23	0s12	26 54	4 35	6 55	1 49	11 57	3 42	9 33	1 12	10 23	1 1	19 19	1 38	23 38	0 10	S 23
S 24	0 36	24 46	5 1	6 17	1 51	11 54	3 33	9 19	1 12	10 27	1 1	19 20	1 38	23 38	0 10	S 24
M25	0 59	20 59	5 9	5 37	1 53	11 50	3 24	9 5	1 12	10 32	1 1	19 21	1 38	23 38	0 10	M25
T 26	1 23	15 48	4 57	4 55	1 53	11 45	3 15	8 50	1 12	10 36	1 1	19 22	1 37	23 38	0 10	T 26
W27	1 46	9 35	4 24	4 13	1 53	11 40	3 7	8 36	1 12	10 41	1 1	19 23	1 37	23 38	0 10	W27
T 28	2 10	2 47	3 32	3 29	1 52	11 35	2 58	8 22	1 12	10 45	1 0	19 24	1 37	23 38	0 10	T 28
F 29	2 33	4s 9	2 26	2 45	1 50	11 28	2 49	8 7	1 12	10 50	1 0	19 25	1 37	23 38	0 10	F 29
S 30	2s56	10s44	1n11	2n 0	1n48	11n22	2s41	7n53	1n12	10s54	1n 0	19s26	1n37	23n38	0n10	S 30

Julian Day Number = 2371435.5, Delta T = 22.30 sec
 Ecliptic obliquity = 23°28'11, Nutation = - 0°00'12, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 21°40'41, Lahiri = 20°47'41Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1780

geocentric

OCTOBER 1780

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	0 41 15	8♂22'59	15♂27	0♂55	23♂42	13♂25	1♂13	4♂21	28♂28	3♂36	2♂R48	14♂D 9	15♂34	12♂15	5♂R 7	S 1
M 2	0 45 11	9°22'10	29°25	2°42	24°29	14° 3	1°26	4°25	28°28	3°39	2♂48	14♂10	15°31	12°22	5♂R 5	M 2
T 3	0 49 8	10°21'22	12♂55	4°30	25°18	14°41	1°39	4°31	28°28	3°41	2°48	14°11	15°27	12°29	5° 2	T 3
W 4	0 53 4	11°20'36	26° 0	6°16	26° 7	15°19	1°51	4°36	28°R28	3°43	2°47	14°13	15°24	12°35	4°59	W 4
T 5	0 57 1	12°19'52	8♂42	8° 3	26°57	15°57	2° 4	4°41	28°28	3°45	2°47	14°R14	15°21	12°42	4°57	T 5
F 6	1 0 57	13°19'10	21° 5	9°48	27°48	16°35	2°17	4°46	28°28	3°47	2°47	14°13	15°18	12°49	4°54	F 6
S 7	1 4 54	14°18'29	3♂15	11°33	28°39	17°13	2°29	4°51	28°28	3°50	2°46	14°12	15°15	12°56	4°51	S 7
S 8	1 8 51	15°17'51	15°14	13°18	29°32	17°51	2°42	4°57	28°28	3°52	2°46	14° 9	15°11	13° 2	4°48	S 8
M 9	1 12 47	16°17'14	27° 8	15° 2	0♂25	18°28	2°55	5° 2	28°27	3°54	2°46	14° 5	15° 8	13° 9	4°46	M 9
T 10	1 16 44	17°16'38	8♂59	16°45	1°18	19° 6	3° 8	5° 8	28°27	3°56	2°46	14° 0	15° 5	13°16	4°43	T 10
W11	1 20 40	18°16'05	20°51	18°27	2°12	19°44	3°21	5°13	28°27	3°58	2°46	13°55	15° 2	13°22	4°40	W11
T 12	1 24 37	19°15'34	2♂47	20° 9	3° 7	20°22	3°34	5°19	28°26	4° 1	2°46	13°51	14°59	13°29	4°37	T 12
F 13	1 28 33	20°15'04	14°48	21°50	4° 3	21° 0	3°47	5°24	28°26	4° 3	2°46	13°48	14°56	13°36	4°34	F 13
S 14	1 32 30	21°14'37	26°56	23°31	4°59	21°37	4° 0	5°30	28°25	4° 5	2°45	13°46	14°52	13°42	4°31	S 14
S 15	1 36 26	22°14'12	9♂12	25°11	5°55	22°15	4°13	5°36	28°25	4° 7	2°D45	13°D45	14°49	13°49	4°29	S 15
M16	1 40 23	23°13'48	21°39	26°50	6°53	22°53	4°26	5°41	28°24	4° 9	2°45	13°45	14°46	13°56	4°26	M16
T 17	1 44 20	24°13'28	4♂16	28°28	7°50	23°31	4°39	5°47	28°23	4°11	2°46	13°46	14°43	14° 3	4°23	T 17
W18	1 48 16	25°13'09	17° 7	0♂16	8°49	24° 9	4°52	5°53	28°23	4°13	2°46	13°47	14°40	14° 9	4°20	W18
T 19	1 52 13	26°12'52	0♂13	1°44	9°47	24°46	5° 5	5°59	28°22	4°16	2°46	13°49	14°37	14°16	4°17	T 19
F 20	1 56 9	27°12'38	13°36	3°20	10°46	25°24	5°18	6° 5	28°21	4°18	2°46	13°50	14°33	14°23	4°14	F 20
S 21	2 0 6	28°12'26	27°17	4°56	11°46	26° 2	5°31	6°11	28°20	4°20	2°46	13°R50	14°30	14°29	4°11	S 21
S 22	2 4 2	29°12'17	11♂17	6°32	12°46	26°40	5°44	6°17	28°19	4°22	2°46	13°50	14°27	14°36	4° 8	S 22
M23	2 7 59	0♂12'09	25°35	8° 7	13°47	27°17	5°57	6°23	28°18	4°24	2°46	13°49	14°24	14°43	4° 5	M23
T 24	2 11 55	1°12'04	10♂8	9°42	14°48	27°55	6°10	6°30	28°17	4°26	2°47	13°47	14°21	14°50	4° 2	T 24
W25	2 15 52	2°12'01	24°52	11°16	15°49	28°33	6°23	6°36	28°16	4°28	2°47	13°46	14°17	14°56	3°59	W25
T 26	2 19 49	3°12'00	9♂41	12°49	16°51	29°11	6°36	6°42	28°15	4°30	2°47	13°45	14°14	15° 3	3°56	T 26
F 27	2 23 45	4°12'01	24°27	14°23	17°53	29°48	6°50	6°48	28°14	4°32	2°47	13°44	14°11	15°10	3°53	F 27
S 28	2 27 42	5°12'04	9♂13	15°55	18°56	0♂26	7° 3	6°55	28°13	4°34	2°48	13°D43	14° 8	15°16	3°50	S 28
S 29	2 31 38	6°12'09	23°23	17°27	19°59	1° 4	7°16	7° 1	28°11	4°36	2°48	13°43	14° 5	15°23	3°47	S 29
M30	2 35 35	7°12'16	7♂21	18°59	21° 2	1°42	7°29	7° 8	28°10	4°38	2°48	13°44	14° 2	15°30	3°44	M30
T 31	2 39 31	8♂12'25	20♂55	20♂31	22♂5	2♂19	7♂42	7♂14	28♂9	4♂40	2♂49	13♂44	13♂58	15♂36	3♂41	T 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
S 1	3s20	16s36	0s 7	1n14	1n45	11n14	2s33	7n38	1n12	10s58	1n 0	19s27	1n37	23n38	0n10	0s 9
M 2	3 43	21 23	1 22	0 29	1 42	11 6	2 24	7 23	1 12	11 3	1 0	19 28	1 36	23 38	0 10	0 10
T 3	4 6	24 52	2 31	0s17	1 38	10 58	2 16	7 9	1 12	11 7	1 0	19 30	1 36	23 38	0 10	0 11
W 4	4 30	26 53	3 29	1 3	1 34	10 49	2 8	6 54	1 12	11 12	1 0	19 31	1 36	23 38	0 10	0 11
T 5	4 53	27 25	4 15	1 50	1 29	10 40	2 0	6 39	1 12	11 16	1 0	19 32	1 36	23 38	0 10	0 12
F 6	5 16	26 33	4 48	2 36	1 24	10 30	1 52	6 25	1 12	11 21	1 0	19 33	1 36	23 38	0 10	0 13
S 7	5 39	24 26	5 7	3 22	1 19	10 19	1 44	6 10	1 12	11 25	1 0	19 34	1 36	23 38	0 10	0 14
S 8	6 2	21 16	5 13	4 7	1 14	10 8	1 37	5 55	1 12	11 30	1 0	19 35	1 35	23 38	0 10	0 15
M 9	6 25	17 15	5 5	4 53	1 8	9 57	1 29	5 40	1 12	11 34	0 59	19 36	1 35	23 38	0 10	0 16
T 10	6 48	12 35	4 44	5 38	1 2	9 45	1 22	5 25	1 12	11 39	0 59	19 37	1 35	23 38	0 10	0 17
W11	7 10	7 28	4 11	6 22	0 56	9 32	1 15	5 11	1 12	11 43	0 59	19 39	1 35	23 38	0 10	0 17
T 12	7 33	2 3	3 26	7 7	0 50	9 19	1 7	4 56	1 12	11 47	0 59	19 40	1 35	23 38	0 10	0 18
F 13	7 55	3n30	2 33	7 51	0 44	9 6	1 0	4 41	1 12	11 52	0 59	19 41	1 35	23 38	0 10	0 19
S 14	8 18	8 58	1 31	8 34	0 37	8 52	0 53	4 26	1 12	11 56	0 59	19 42	1 34	23 38	0 11	0 20
S 15	8 40	14 11	0 25	9 17	0 31	8 38	0 47	4 11	1 12	12 1	0 59	19 43	1 34	23 38	0 11	0 21
M16	9 2	18 54	0n43	9 59	0 24	8 23	0 40	3 56	1 12	12 5	0 59	19 44	1 34	23 38	0 11	0 22
T 17	9 24	22 50	1 51	10 40	0 18	8 8	0 33	3 41	1 12	12 10	0 59	19 45	1 34	23 38	0 11	0 22
W18	9 46	25 44	2 54	11 21	0 11	7 52	0 27	3 26	1 12	12 14	0 59	19 47	1 34	23 38	0 11	0 23
T 19	10 8	27 17	3 49	12 1	0 4	7 36	0 20	3 11	1 12	12 18	0 59	19 48	1 34	23 38	0 11	0 24
F 20	10 30	27 18	4 33	12 41	0s 3	7 19	0 14	2 56	1 12	12 23	0 59	19 49	1 33	23 38	0 11	0 25
S 21	10 51	25 41	5 3	13 20	0 9	7 2	0 8	2 41	1 12	12 27	0 59	19 50	1 33	23 38	0 11	0 26
S 22	11 12	22 28	5 16	13 58	0 16	6 44	0 2	2 26	1 12	12 32	0 59	19 51	1 33	23 38	0 11	0 27
M23	11 33	17 52	5 10	14 36	0 23	6 27	0n 4	2 11	1 12	12 36	0 59	19 53	1 33	23 38	0 11	0 27
T 24	11 54	12 9	4 44	15 12	0 30	6 8	0 9	1 56	1 12	12 40	0 58	19 54	1 33	23 38	0 11	0 28
W25	12 15	5 41	3 59	15 48	0 36	5 50	0 15	1 41	1 12	12 45	0 58	19 55	1 33	23 38	0 11	0 29
T 26	12 36	1s 7	2 58	16 23	0 43	5 31	0 20	1 25	1 12	12 49	0 58	19 56	1 33	23 38	0 11	0 30
F 27	12 56	7 52	1 45	16 58	0 50	5 11	0 26	1 10	1 12	12 54	0 58	19 57	1 33	23 38	0 11	0 30
S 28	13 16	14 7	0 26	17 31	0 56	4 52	0 31	0 55	1 12	12 58	0 58	19 58	1 32	23 38	0 11	0 31
S 29	13 36	19 30	0s53	18 4	1 2	4 32	0 36	0 40	1 12	13 2	0 58	20 0	1 32	23 38	0 11	0 32
M30	13 56	23 39	2 7	18 35	1 9	4 11	0 41	0 25	1 12	13 7	0 58	20 1	1 32	23 38	0 11	0 33
T 31	14s16	26s21	3s12	19s 6	1s15	3n51	0n46	0n10	1n11	13s11	0n58	20s 2	1n32	23n38	0n11	0s33

Julian Day Number = 2371465.5, Delta T = 22.30 sec
 Ecliptic obliquity = 23°28'11", Nutation = - 0°00'13", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 21°40'45", Lahiri = 20°47'45"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1780

geocentric

NOVEMBER 1780

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	2 43 28	9 ^h 12 ^m 35 ^s	4 ^h 35 ^m 5 ^s	22 ^h 11 ^m 1 ^s	23 ^h 11 ^m 9 ^s	2 ^h 57 ^m	7 ^h 55 ^m	7 ^h 21 ^m	28 ^h R 7	4 ^h 42 ^m	2 ^h 49 ^m	13 ^h 45 ^m	13 ^h 55 ^m	15 ^h 43 ^m	3 ^h R38	W 1
T 2	2 47 24	10 ^h 12 ^m 47 ^s	16 ^h 52 ^m	23 ^h 32 ^m	24 ^h 13 ^m	3 ^h 35 ^m	8 ^h 9 ^m	7 ^h 27 ^m	28 ^h II 6	4 ^h 44 ^m	2 ^h 50 ^m	13 ^h 45 ^m	13 ^h 52 ^m	15 ^h 50 ^m	3 ^h 35 ^m	T 2
F 3	2 51 21	11 ^h 13 ^m 00 ^s	29 ^h 19 ^m	25 ^h 2 ^m	25 ^h 18 ^m	4 ^h 12 ^m	8 ^h 22 ^m	7 ^h 34 ^m	28 ^h 4 ^m	4 ^h 46 ^m	2 ^h 50 ^m	13 ^h 45 ^m	13 ^h 49 ^m	15 ^h 57 ^m	3 ^h 32 ^m	F 3
S 4	2 55 18	12 ^h 13 ^m 15 ^s	11 ^h 31 ^m	26 ^h 32 ^m	26 ^h 23 ^m	4 ^h 50 ^m	8 ^h 35 ^m	7 ^h 40 ^m	28 ^h 3 ^m	4 ^h 48 ^m	2 ^h 51 ^m	13 ^h R45	13 ^h 46 ^m	16 ^h 3 ^m	3 ^h 29 ^m	S 4
S 5	2 59 14	13 ^h 13 ^m 31 ^s	23 ^h 31 ^m	28 ^h 1 ^m	27 ^h 28 ^m	5 ^h 28 ^m	8 ^h 48 ^m	7 ^h 47 ^m	28 ^h 1 ^m	4 ^h 49 ^m	2 ^h 52 ^m	13 ^h D45	13 ^h 43 ^m	16 ^h 10 ^m	3 ^h 26 ^m	S 5
M 6	3 3 11	14 ^h 13 ^m 49 ^s	5 ^h 24 ^m	29 ^h 29 ^m	28 ^h 33 ^m	6 ^h 5 ^m	9 ^h 1 ^m	7 ^h 54 ^m	28 ^h 0 ^m	4 ^h 51 ^m	2 ^h 52 ^m	13 ^h 45 ^m	13 ^h 39 ^m	16 ^h 17 ^m	3 ^h 23 ^m	M 6
T 7	3 7 7	15 ^h 14 ^m 08 ^s	17 ^h 15 ^m	0 ^h 58 ^m	29 ^h 39 ^m	6 ^h 43 ^m	9 ^h 14 ^m	8 ^h 0 ^m	27 ^h 58 ^m	4 ^h 53 ^m	2 ^h 53 ^m	13 ^h 46 ^m	13 ^h 36 ^m	16 ^h 23 ^m	3 ^h 20 ^m	T 7
W 8	3 11 4	16 ^h 14 ^m 29 ^s	29 ^h 9 ^m	2 ^h 25 ^m	0 ^h 45 ^m	7 ^h 21 ^m	9 ^h 28 ^m	8 ^h 7 ^m	27 ^h 56 ^m	4 ^h 55 ^m	2 ^h 53 ^m	13 ^h 46 ^m	13 ^h 33 ^m	16 ^h 30 ^m	3 ^h 18 ^m	W 8
T 9	3 15 0	17 ^h 14 ^m 51 ^s	11 ^h Y 8 ^m	3 ^h 53 ^m	1 ^h 51 ^m	7 ^h 58 ^m	9 ^h 41 ^m	8 ^h 14 ^m	27 ^h 55 ^m	4 ^h 57 ^m	2 ^h 54 ^m	13 ^h 46 ^m	13 ^h 30 ^m	16 ^h 37 ^m	3 ^h 15 ^m	T 9
F 10	3 18 57	18 ^h 15 ^m 14 ^s	23 ^h 15 ^m	5 ^h 19 ^m	2 ^h 57 ^m	8 ^h 36 ^m	9 ^h 54 ^m	8 ^h 21 ^m	27 ^h 53 ^m	4 ^h 58 ^m	2 ^h 55 ^m	13 ^h 47 ^m	13 ^h 27 ^m	16 ^h 43 ^m	3 ^h 12 ^m	F 10
S 11	3 22 53	19 ^h 15 ^m 40 ^s	5 ^h 34 ^m	6 ^h 45 ^m	4 ^h 4 ^m	9 ^h 13 ^m	10 ^h 7 ^m	8 ^h 28 ^m	27 ^h 51 ^m	5 ^h 0 ^m	2 ^h 55 ^m	13 ^h 47 ^m	13 ^h 23 ^m	16 ^h 50 ^m	3 ^h 9 ^m	S 11
S 12	3 26 50	20 ^h 16 ^m 06 ^s	18 ^h 6 ^m	8 ^h 11 ^m	5 ^h 11 ^m	9 ^h 51 ^m	10 ^h 20 ^m	8 ^h 34 ^m	27 ^h 49 ^m	5 ^h 2 ^m	2 ^h 56 ^m	13 ^h R47	13 ^h 20 ^m	16 ^h 57 ^m	3 ^h 6 ^m	S 12
M13	3 30 47	21 ^h 16 ^m 35 ^s	0 ^h II 52 ^m	9 ^h 36 ^m	6 ^h 18 ^m	10 ^h 29 ^m	10 ^h 33 ^m	8 ^h 41 ^m	27 ^h 47 ^m	5 ^h 3 ^m	2 ^h 57 ^m	13 ^h 47 ^m	13 ^h 17 ^m	17 ^h 4 ^m	3 ^h 3 ^m	M13
T 14	3 34 43	22 ^h 17 ^m 05 ^s	13 ^h 52 ^m	11 ^h 0 ^m	7 ^h 25 ^m	11 ^h 6 ^m	10 ^h 46 ^m	8 ^h 48 ^m	27 ^h 45 ^m	5 ^h 5 ^m	2 ^h 58 ^m	13 ^h 46 ^m	13 ^h 14 ^m	17 ^h 10 ^m	3 ^h 0 ^m	T 14
W15	3 38 40	23 ^h 17 ^m 37 ^s	27 ^h 6 ^m	12 ^h 23 ^m	8 ^h 33 ^m	11 ^h 44 ^m	10 ^h 59 ^m	8 ^h 55 ^m	27 ^h 43 ^m	5 ^h 7 ^m	2 ^h 59 ^m	13 ^h 45 ^m	13 ^h 11 ^m	17 ^h 17 ^m	2 ^h 58 ^m	W15
T 16	3 42 36	24 ^h 18 ^m 10 ^s	10 ^h 32 ^m	13 ^h 45 ^m	9 ^h 41 ^m	12 ^h 21 ^m	11 ^h 12 ^m	9 ^h 2 ^m	27 ^h 41 ^m	5 ^h 8 ^m	3 ^h 0 ^m	13 ^h 43 ^m	13 ^h 8 ^m	17 ^h 24 ^m	2 ^h 55 ^m	T 16
F 17	3 46 33	25 ^h 18 ^m 46 ^s	24 ^h 11 ^m	15 ^h 6 ^m	10 ^h 49 ^m	12 ^h 59 ^m	11 ^h 25 ^m	9 ^h 9 ^m	27 ^h 39 ^m	5 ^h 10 ^m	3 ^h 0 ^m	13 ^h 42 ^m	13 ^h 4 ^m	17 ^h 30 ^m	2 ^h 52 ^m	F 17
S 18	3 50 29	26 ^h 19 ^m 23 ^s	8 ^h Ω 1 ^m	16 ^h 25 ^m	11 ^h 57 ^m	13 ^h 37 ^m	11 ^h 38 ^m	9 ^h 16 ^m	27 ^h 37 ^m	5 ^h 12 ^m	3 ^h 1 ^m	13 ^h 41 ^m	13 ^h 1 ^m	17 ^h 37 ^m	2 ^h 50 ^m	S 18
S 19	3 54 26	27 ^h 20 ^m 01 ^s	22 ^h 1 ^m	17 ^h 44 ^m	13 ^h 6 ^m	14 ^h 14 ^m	11 ^h 51 ^m	9 ^h 23 ^m	27 ^h 35 ^m	5 ^h 13 ^m	3 ^h 2 ^m	13 ^h D40	12 ^h 58 ^m	17 ^h 44 ^m	2 ^h 47 ^m	S 19
M20	3 58 22	28 ^h 20 ^m 42 ^s	6 ^h 11 ^m	19 ^h 1 ^m	14 ^h 14 ^m	14 ^h 52 ^m	12 ^h 4 ^m	9 ^h 30 ^m	27 ^h 33 ^m	5 ^h 15 ^m	3 ^h 3 ^m	13 ^h 40 ^m	12 ^h 55 ^m	17 ^h 50 ^m	2 ^h 44 ^m	M20
T 21	4 2 19	29 ^h 21 ^m 23 ^s	20 ^h 24 ^m	20 ^h 16 ^m	15 ^h 23 ^m	15 ^h 29 ^m	12 ^h 17 ^m	9 ^h 37 ^m	27 ^h 31 ^m	5 ^h 16 ^m	3 ^h 4 ^m	13 ^h 41 ^m	12 ^h 52 ^m	17 ^h 57 ^m	2 ^h 42 ^m	T 21
W22	4 6 16	0 ^h 22 ^m 07 ^s	4 ^h 43 ^m	21 ^h 28 ^m	16 ^h 32 ^m	16 ^h 7 ^m	12 ^h 30 ^m	9 ^h 44 ^m	27 ^h 29 ^m	5 ^h 18 ^m	3 ^h 5 ^m	13 ^h 42 ^m	12 ^h 49 ^m	18 ^h 4 ^m	2 ^h 39 ^m	W22
T 23	4 10 12	1 ^h 22 ^m 52 ^s	19 ^h 3 ^m	22 ^h 39 ^m	17 ^h 41 ^m	16 ^h 44 ^m	12 ^h 43 ^m	9 ^h 51 ^m	27 ^h 26 ^m	5 ^h 19 ^m	3 ^h 6 ^m	13 ^h 43 ^m	12 ^h 45 ^m	18 ^h 11 ^m	2 ^h 37 ^m	T 23
F 24	4 14 9	2 ^h 23 ^m 39 ^s	3 ^h 11 ^m	23 ^h 47 ^m	18 ^h 51 ^m	17 ^h 22 ^m	12 ^h 56 ^m	9 ^h 58 ^m	27 ^h 24 ^m	5 ^h 20 ^m	3 ^h 7 ^m	13 ^h 44 ^m	12 ^h 42 ^m	18 ^h 17 ^m	2 ^h 34 ^m	F 24
S 25	4 18 5	3 ^h 24 ^m 27 ^s	17 ^h 32 ^m	24 ^h 52 ^m	20 ^h 0 ^m	17 ^h 59 ^m	13 ^h 8 ^m	10 ^h 5 ^m	27 ^h 22 ^m	5 ^h 22 ^m	3 ^h 8 ^m	13 ^h R45	12 ^h 39 ^m	18 ^h 24 ^m	2 ^h 32 ^m	S 25
S 26	4 22 2	4 ^h 25 ^m 17 ^s	1 ^h 32 ^m	25 ^h 53 ^m	21 ^h 10 ^m	18 ^h 37 ^m	13 ^h 21 ^m	10 ^h 12 ^m	27 ^h 20 ^m	5 ^h 23 ^m	3 ^h 10 ^m	13 ^h 44 ^m	12 ^h 36 ^m	18 ^h 31 ^m	2 ^h 29 ^m	S 26
M27	4 25 58	5 ^h 26 ^m 08 ^s	15 ^h 17 ^m	26 ^h 50 ^m	22 ^h 20 ^m	19 ^h 14 ^m	13 ^h 34 ^m	10 ^h 19 ^m	27 ^h 17 ^m	5 ^h 24 ^m	3 ^h 11 ^m	13 ^h 42 ^m	12 ^h 33 ^m	18 ^h 37 ^m	2 ^h 27 ^m	M27
T 28	4 29 55	6 ^h 27 ^m 00 ^s	28 ^h 44 ^m	27 ^h 43 ^m	23 ^h 30 ^m	19 ^h 52 ^m	13 ^h 47 ^m	10 ^h 26 ^m	27 ^h 15 ^m	5 ^h 26 ^m	3 ^h 12 ^m	13 ^h 39 ^m	12 ^h 29 ^m	18 ^h 44 ^m	2 ^h 24 ^m	T 28
W29	4 33 51	7 ^h 27 ^m 53 ^s	11 ^h 35 ^m	28 ^h 30 ^m	24 ^h 40 ^m	20 ^h 29 ^m	13 ^h 59 ^m	10 ^h 33 ^m	27 ^h 13 ^m	5 ^h 27 ^m	3 ^h 13 ^m	13 ^h 35 ^m	12 ^h 26 ^m	18 ^h 51 ^m	2 ^h 22 ^m	W29
T 30	4 37 48	8 ^h 28 ^m 47 ^s	24 ^h 34 ^m	29 ^h 11 ^m	25 ^h 50 ^m	21 ^h 7 ^m	14 ^h 11 ^m	10 ^h 34 ^m	27 ^h 11 ^m	5 ^h 28 ^m	3 ^h 14 ^m	13 ^h 31 ^m	12 ^h 23 ^m	18 ^h 57 ^m	2 ^h 20 ^m	T 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	14s35	27s29	4s 4	19s36	1s21	3n30	0n51	0s 5	1n11	13s15	0n58	20s 3	1n32	23n38	0n11	0s34	1n25	24s34	5s10	15n59	16n 2	9s40	11n58	0s50			
T 2	14 54	27 5	4 43	20 5	1 27	3 8	0 55	0 20	1 11	13 19	0 58	20 4	1 32	23 38	0 11	0 35	1 25	24 34	5 10	15 59	16 1	9 37	11 57	0 50			
F 3	15 13	25 19	5 7	20 33	1 32	2 47	1 0	0 35	1 11	13 24	0 58	20 6	1 32	23 38	0 11	0 36	1 25	24 34	5 9	15 59	16 0	9 34	11 56	0 50			
S 4	15 31	22 25	5 17	20 59	1 38	2 25	1 4	0 50	1 11	13 28	0 58	20 7	1 32	23 38	0 11	0 36	1 25	24 34	5 9	15 59	15 59	9 31	11 55	0 50			
S 5	15 50	18 37	5 13	21 25	1 43	2 3	1 8	1 5	1 11	13 32	0 58	20 8	1 31	23 38	0 11	0 37	1 25	24 34	5 9	15 59	15 58	9 28	11 54	0 50			
M 6	16 8	14 7	4 55	21 50	1 49	1 41	1 12	1 20	1 11	13 36	0 58	20 9	1 31	23 38	0 11	0 38	1 25	24 33	5 9	15 59	15 57	9 25	11 53	0 50			
T 7	16 26	9 6	4 25	22 14	1 54	1 18	1 16	1 35	1 11	13 41	0 58	20 10	1 31	23 38	0 11	0 38	1 25	24 33	5 9	15 59	15 57	9 22	11 52	0 50			
W 8	16 43	3 45	3 43	22 36	1 58	0 55	1 20	1 50	1 11	13 45	0 58	20 11	1 31	23 38	0 11	0 39	1 25	24 33	5 9	15 59	15 56	9 19	11 51	0 50			
T 9	17 0	1n47	2 51	22 58	2 3	0 32	1 24	2 5	1 11	13 49	0 58	20 13	1 31	23 38	0 11	0 40	1 25	24 33	5 9	16 0	15 55	9 16	11 49	0 50			
F 10	17 17	7 19	1 51	23 18	2 7	0 9	1 27	2 20	1 11	13 53	0 58	20 14	1 31	23 38	0 11	0 40	1 25	24 32	5 9	16 0	15 54	9 13	11 48	0 50			
S 11	17 34	12 41	0 45	23 37	2 11	0s14	1 30	2 35	1 11	13 57	0 58	20 15	1 31	23 38	0 11	0 41	1 25	24 32	5 9	16 0	15 53	9 10	11 47	0 50			
S 12	17 50	17 38	0n24	23 55	2 15	0 38	1 34	2 50	1 10	14 1	0 58	20 16	1 31	23 38	0 11	0 42	1 25	24 32	5 9	16 0	15 52	9 6	11 46	0 50			
M13	18 6	21 53	1 33	24 12	2 18	1 1	1 37	3 5	1 10	14 5	0 58	20 17	1 31	23 38	0 11	0 42	1 25	24 32	5 9	16 0	15 51	9 3	11 45	0 50			
T 14	18 22	25 8	2 39	24 27	2 21	1 25	1 40	3 19	1 10	14 10	0 58	20 18	1 31	23 38	0 11	0 43	1 25	24 31	5 9	15 59	15 50	9 0	11 44	0 51			
W15	18 37	27 4	3 38	24 41	2 24	1 49	1 43	3 34	1 10	14 14	0 58	20 20	1 30	23 38	0 11	0 44	1 25	24 31	5 9	15 59	15 49	8 57	11 43	0 51			
T 16	18 52	27 27	4 25	24 54	2 26	2 13	1 46	3 49	1 10	14 18	0 58	20 21	1 30	23 38	0 11	0 44	1 25	24 31	5 9	15 59	15 48	8 54	11 42	0 51			
F 17	19 7	26 12	4 58	25 5	2 28	2 38	1 48	4 4	1 10	14 22	0 58	20 22	1 30	23 38	0 11	0 45	1 26	24 31	5 9	15 58	15 47	8 51	11 41	0 51			
S 18	19 21	23 21	5 15	25 15	2 30	3 2	1 51	4 18	1 10	14 26	0 58	20 23	1 30	23 38	0 11	0 45	1 26	24 30	5 9	15 58	15 46	8 48	11 40	0 51			
S 19	19 35	19 7	5 13	25 24	2 30	3 26	1 53	4 33	1 10	14 30	0 58	20 24	1 30	23 38	0 11	0 46	1 26	24 30	5 8	15 58	15 45	8 45	11 39	0 51			
M20	19 49	13 47	4 52	25 31	2 31	3 51	1 55	4 48	1 9	14 34	0 58	20 25	1 30	23 38	0 11	0 47	1 26	24 30	5 8	15 58	15 44	8 42	11 38	0 51			
T 21	20 2	7 42	4 14	25 37	2 31	4 15	1 58	5 2	1 9	14 38	0 58	20 26	1 30	23 38	0 11	0 47	1 26	24 30	5 8	15 58	15 43	8 39	11 37	0 51			
W22	20 15	1 10	3 19	25 41	2 30	4 40	2 0	5 17	1 9	14 42	0 58	20 27	1 30	23 38	0 11	0 48	1 26	24 29	5 8	15 58	15 42	8 36	11 36	0 51			
T 23	20 28	5s26	2 12	25 44	2 28	5 5	2 2	5 31	1 9	14 45	0 58	20 29	1 30	23 38	0 11	0 48	1 26	24 29	5 8	15 59	15 41	8 32	11 36	0 51			
F 24	20 40	11 45	0 57	25 45	2 26	5 29	2 3	5 46	1 9	14 49	0 58	20 30	1 30	23 38	0 11	0 49	1 26	24 29	5 8	15 59	15 40	8 29	11 35	0 51			
S 25	20 52	17 25	0s21	25 45	2 23	5 54	2 5	6 0	1 9	14 53	0 58	20 31	1 30	23 38	0 11	0 49	1 26	24 28	5 8	15 59	15 39	8 26	11 34	0 51			
S 26	21 3	22 4	1 36	25 43	2 19	6 19	2 6	6 15	1 9	14 57	0 58	20 32	1 30	23 38	0 11	0 50	1 26	24 28	5 8	15 59	15 38	8 23	11 33	0 51			
M27	21 14	25 23	2 45	25 40	2 14	6 43	2 8	6 29	1 8	15 1	0 58	20 33	1 30	23 38	0 11	0 50	1 26	24 28	5 8	15 58	15 37	8 20	11 32	0 51			
T 28	21 25	27 11	3 43	25 36	2 9	7 8	2 9	6 43	1 8	15 5	0 58	20 34	1 29	23 38	0 11	0 51	1 26	24 27	5 8	15 57	15 36	8 17	11 31	0 51			
W29	21 35	27 22	4 27	25 29	2 2	7 32	2 10	6 58	1 8	15 8	0 58	20 35	1 29	23 38	0 11	0 51	1 26	24 27	5 8	15 56	15 35	8 14	11 30	0 52			
T 30	21s45	26s 5	4s57	25s22	1s54	7s57	2n11	7s12	1n 8	15s12	0n58	20s36	1n29	23n38	0n11	0s52	1n26	24s27	5s 8	15n55	15n34	8s11	11n29	0s52			

ASTRODIENST EPHEMERIS for the year 1780

geocentric

DECEMBER 1780

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
F 1	4 41 45	9 ²⁹ 29'42	7 ²² 9	29 ²⁷ 46	27 ²⁷ 0	21 ²² 44	14 ¹⁴ 24	10 ¹⁰ 48	27 ²⁷ R 8	5 ⁵ 30	3 ³ 16	13 ¹³ R27	12 ¹² 20	19 ¹⁹ 4	2 ² R17	F 1
S 2	4 45 41	10°30'38	19°23	0 ⁰ 313	28°11	22°22	14°37	10°55	27 ²⁷ II 5	5°31	3°17	13 ¹³ R24	12°17	19°11	2 ² R15	S 2
S 3	4 49 38	11°31'35	1 ¹ 24	0°32	29°22	22°59	14°49	11° 2	27° 3	5°32	3°18	13°22	12°14	19°18	2°13	S 3
M 4	4 53 34	12°32'32	13°17	0°R42	0 ⁰ 32	23°36	15° 2	11° 9	27° 1	5°33	3°19	13°D22	12°10	19°24	2°11	M 4
T 5	4 57 31	13°33'30	25° 8	0°41	1°43	24°14	15°14	11°16	26°58	5°34	3°21	13°22	12° 7	19°31	2° 9	T 5
W 6	5 1 127	14°34'28	7 ⁷ Y 1	0°30	2°54	24°51	15°27	11°23	26°56	5°35	3°22	13°24	12° 4	19°38	2° 7	W 6
T 7	5 5 24	15°35'27	19° 1	0° 8	4° 5	25°29	15°39	11°30	26°53	5°36	3°23	13°26	12° 1	19°44	2° 5	T 7
F 8	5 9 20	16°36'27	1 ¹ 812	29 ²⁹ 34	5°17	26° 6	15°51	11°37	26°51	5°37	3°25	13°27	11°58	19°51	2° 3	F 8
S 9	5 13 17	17°37'27	13°39	28°49	6°28	26°43	16° 3	11°44	26°48	5°38	3°26	13°R28	11°55	19°58	2° 1	S 9
S 10	5 17 14	18°38'28	26°24	27°53	7°39	27°21	16°16	11°51	26°45	5°39	3°28	13°27	11°51	20° 4	1°59	S 10
M 11	5 21 10	19°39'30	9 ⁹ II28	26°47	8°51	27°58	16°28	11°58	26°43	5°40	3°29	13°25	11°48	20°11	1°58	M 11
T 12	5 25 7	20°40'33	22°51	25°34	10° 2	28°35	16°40	12° 5	26°40	5°41	3°30	13°20	11°45	20°18	1°56	T 12
W 13	5 29 3	21°41'36	6 ⁶ III32	24°14	11°14	29°12	16°52	12°12	26°38	5°42	3°32	13°14	11°42	20°24	1°54	W 13
T 14	5 33 0	22°42'40	20°28	22°52	12°26	29°50	17° 4	12°19	26°35	5°43	3°33	13° 8	11°39	20°31	1°52	T 14
F 15	5 36 56	23°43'45	4 ⁴ II33	21°29	13°38	0 ⁰ III27	17°15	12°26	26°33	5°43	3°35	13° 1	11°35	20°38	1°51	F 15
S 16	5 40 53	24°44'50	18°45	20° 9	14°50	1° 4	17°27	12°33	26°30	5°44	3°37	12°55	11°32	20°45	1°49	S 16
S 17	5 44 50	25°45'56	2 ² III59	18°53	16° 2	1°41	17°39	12°40	26°28	5°45	3°38	12°51	11°29	20°51	1°48	S 17
M 18	5 48 46	26°47'03	17°11	17°45	17°14	2°19	17°51	12°47	26°25	5°45	3°40	12°49	11°26	20°58	1°46	M 18
T 19	5 52 43	27°48'11	1 ¹ II20	16°46	18°27	2°56	18° 2	12°54	26°22	5°46	3°41	12°D49	11°23	21° 5	1°45	T 19
W 20	5 56 39	28°49'19	15°23	15°56	19°39	3°33	18°14	13° 1	26°20	5°47	3°43	12°49	11°20	21°11	1°44	W 20
T 21	6 0 36	29°50'28	29°20	15°18	20°51	4°10	18°25	13° 8	26°17	5°47	3°44	12°51	11°16	21°18	1°43	T 21
F 22	6 4 32	0 ⁰ III38	13 ¹³ III11	14°50	22° 4	4°47	18°37	13°15	26°15	5°48	3°46	12°R51	11°13	21°25	1°41	F 22
S 23	6 8 29	1°52'48	26°53	14°32	23°17	5°24	18°48	13°22	26°12	5°48	3°48	12°50	11°10	21°31	1°40	S 23
S 24	6 12 25	2°53'59	10 ¹⁰ II27	14°D25	24°29	6° 1	18°59	13°29	26° 9	5°49	3°49	12°47	11° 7	21°38	1°39	S 24
M 25	6 16 22	3°55'10	23°49	14°27	25°42	6°38	19°10	13°36	26° 7	5°49	3°51	12°41	11° 4	21°45	1°38	M 25
T 26	6 20 19	4°56'21	6 ⁶ III59	14°38	26°55	7°16	19°21	13°42	26° 4	5°50	3°53	12°33	11° 1	21°51	1°37	T 26
W 27	6 24 15	5°57'33	19°55	14°58	28° 8	7°53	19°32	13°49	26° 2	5°50	3°54	12°23	10°57	21°58	1°36	W 27
T 28	6 28 12	6°58'45	2 ² III35	15°24	29°21	8°30	19°43	13°56	25°59	5°50	3°56	12°13	10°54	22° 5	1°35	T 28
F 29	6 32 8	7°59'56	15° 0	15°58	0 ⁰ III33	9° 7	19°54	14° 3	25°57	5°51	3°58	12° 2	10°51	22°12	1°35	F 29
S 30	6 36 5	9° 1'07	27°12	16°37	1°47	9°44	20° 5	14° 9	25°54	5°51	4° 0	11°53	10°48	22°18	1°34	S 30
S 31	6 40 1	10 ¹⁰ III2	9 ⁹ II12	17 ¹⁷ II22	3 ³ II 0	10 ¹⁰ III20	20 ²⁰ III16	14 ¹⁴ II16	25 ²⁵ II52	5 ⁵ II51	4 ⁴ II 1	11 ¹¹ II46	10 ¹⁰ II45	22 ²² II25	1 ¹ II33	S 31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈		♉		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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Julian Day Number = 2371526.5, Delta T = 22.30 sec

Ecliptic obliquity = 23°28'10, Nutation = - 0°00'12, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 21°40'53, Lahiri = 20°47'54Greg. Calendar