



Astrodienst Ephemeris Tables for the year 1478

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 1478

geocentric

JANUARY 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	7 17 4	19°34'04	13°11	25°15	23°16	16°12	16°28	4°R26	26°46	28°22	28°R59	19°R13	20°36	24°23	5°4	T 1
F 2	7 21 0	20°48'11	25° 1	26°54	24°30	16°37	16°34	4°23	26°48	28°24	28°59	19°7	20°33	24°29	5° 7	F 2
S 3	7 24 57	21°49'18	6°352	27°59	25°43	17° 2	16°40	4°20	26°51	28°25	28°59	19° 2	20°30	24°36	5°10	S 3
S 4	7 28 53	22°50'24	18°47	29° 8	26°57	17°27	16°47	4°17	26°53	28°27	28°58	18°58	20°27	24°43	5°13	S 4
M 5	7 32 50	23°51'30	0°18	0°18	28°10	17°52	16°54	4°14	26°56	28°28	28°58	18°56	20°23	24°49	5°17	M 5
T 6	7 36 46	24°52'34	12°53	1°30	29°24	18°16	17° 0	4°11	26°58	28°30	28°57	18°54	20°20	24°56	5°20	T 6
W 7	7 40 43	25°53'38	25° 9	2°44	0°37	18°40	17° 7	4° 8	27° 0	28°31	28°57	18°D54	20°17	25° 3	5°23	W 7
T 8	7 44 40	26°54'41	7°34	3°59	1°50	19° 4	17°14	4° 5	27° 3	28°33	28°56	18°55	20°14	25° 9	5°26	T 8
F 9	7 48 36	27°55'43	20°12	5°17	3° 3	19°27	17°22	4° 1	27° 5	28°34	28°56	18°57	20°11	25°16	5°29	F 9
S 10	7 52 33	28°56'43	3°9	6°35	4°16	19°50	17°29	3°58	27° 7	28°35	28°55	18°58	20° 7	25°23	5°33	S 10
S 11	7 56 29	29°57'43	16°16	7°55	5°29	20°13	17°37	3°55	27° 9	28°37	28°55	19° 0	20° 4	25°30	5°36	S 11
M12	8 0 26	0°58'41	29°46	9°15	6°42	20°35	17°45	3°51	27°11	28°38	28°54	19°R 0	20° 1	25°36	5°39	M12
T 13	8 4 22	1°59'38	13°38	10°37	7°55	20°57	17°52	3°47	27°14	28°39	28°53	19° 0	19°58	25°43	5°43	T 13
W14	8 8 19	3° 0'34	27°51	12° 1	9° 8	21°19	18° 1	3°44	27°16	28°40	28°53	18°59	19°55	25°50	5°46	W14
T 15	8 12 15	4° 1'28	12°12	13°25	10°21	21°41	18° 9	3°40	27°18	28°42	28°52	18°57	19°52	25°56	5°49	T 15
F 16	8 16 12	5° 2'21	27°11	14°50	11°34	22° 2	18°17	3°36	27°20	28°43	28°51	18°55	19°48	26° 3	5°53	F 16
S 17	8 20 9	6° 3'13	12°38	16°16	12°46	22°23	18°26	3°32	27°21	28°44	28°50	18°53	19°45	26°10	5°56	S 17
S 18	8 24 5	7° 4'03	27° 5	17°43	13°59	22°43	18°34	3°28	27°23	28°45	28°49	18°52	19°42	26°16	6° 0	S 18
M19	8 28 2	8° 4'53	11°25	19°10	15°11	23° 3	18°43	3°24	27°25	28°46	28°48	18°D52	19°39	26°23	6° 3	M19
T 20	8 31 58	9° 5'41	26°30	20°39	16°23	23°23	18°52	3°20	27°27	28°47	28°48	18°52	19°36	26°30	6° 7	T 20
W21	8 35 55	10° 6'27	10°43	22° 9	17°36	23°42	19° 1	3°16	27°29	28°48	28°47	18°52	19°33	26°37	6°10	W21
T 22	8 39 51	11° 7'13	24°32	23°39	18°48	24° 2	19°10	3°11	27°30	28°49	28°46	18°53	19°29	26°43	6°14	T 22
F 23	8 43 48	12° 7'58	7°55	25°10	20° 0	24°20	19°19	3° 7	27°32	28°50	28°45	18°54	19°26	26°50	6°17	F 23
S 24	8 47 44	13° 8'41	20°53	26°42	21°12	24°38	19°29	3° 3	27°33	28°51	28°44	18°54	19°23	26°57	6°21	S 24
S 25	8 51 41	14° 9'24	3°29	28°15	22°24	24°56	19°38	2°58	27°35	28°52	28°43	18°55	19°20	27° 3	6°25	S 25
M26	8 55 38	15°10'05	15°46	29°49	23°36	25°14	19°48	2°54	27°36	28°53	28°42	18°R55	19°17	27°10	6°28	M26
T 27	8 59 34	16°10'45	27°50	1°24	24°48	25°31	19°58	2°49	27°38	28°54	28°41	18°55	19°13	27°17	6°32	T 27
W28	9 3 31	17°11'24	9°45	2°59	25°59	25°47	20° 8	2°45	27°39	28°54	28°39	18°54	19°10	27°23	6°36	W28
T 29	9 7 27	18°12'02	21°36	4°35	27°11	26° 3	20°18	2°40	27°40	28°55	28°38	18°54	19° 7	27°30	6°39	T 29
F 30	9 11 24	19°12'39	3°25	6°12	28°22	26°19	20°28	2°36	27°42	28°56	28°37	18°D54	19° 4	27°37	6°43	F 30
S 31	9 15 20	20°13'14	15°19	7°50	29°34	26°34	20°38	2°31	27°43	28°57	28°36	18°54	19° 1	27°43	6°47	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	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	
T 1	22s 3	17s43	4n46	22s 1	1n26	15s21	1s38	4s22	2n12	5n21	1s14	11n35	1n47	19s16	0n13	T 1
F 2	21 53	19 11	4 14	22 12	1 16	14 55	1 37	4 31	2 12	5 23	1 14	11 36	1 48	19 17	0 13	F 2
S 3	21 44	19 49	3 31	22 23	1 7	14 29	1 36	4 40	2 13	5 26	1 14	11 37	1 48	19 18	0 13	S 3
S 4	21 34	19 35	2 38	22 33	0 57	14 3	1 34	4 49	2 13	5 29	1 13	11 38	1 48	19 18	0 13	S 4
M 5	21 24	18 27	1 38	22 42	0 48	13 36	1 33	4 58	2 14	5 32	1 13	11 40	1 48	19 19	0 13	M 5
T 6	21 13	16 28	0 33	22 51	0 39	13 9	1 31	5 7	2 14	5 35	1 13	11 41	1 49	19 19	0 13	T 6
W 7	21 2	13 43	0s34	22 59	0 30	12 41	1 30	5 15	2 15	5 38	1 13	11 42	1 49	19 20	0 13	W 7
T 8	20 50	10 19	1 41	23 5	0 21	12 13	1 28	5 24	2 16	5 41	1 12	11 44	1 49	19 20	0 13	T 8
F 9	20 38	6 24	2 44	23 11	0 13	11 45	1 26	5 32	2 16	5 44	1 12	11 45	1 49	19 21	0 13	F 9
S 10	20 26	2 8	3 40	23 16	0 4	11 17	1 24	5 40	2 17	5 47	1 12	11 47	1 49	19 21	0 13	S 10
S 11	20 13	2n19	4 26	23 20	0s 4	10 48	1 23	5 58	2 17	5 50	1 12	11 48	1 50	19 22	0 13	S 11
M12	20 0	6 46	4 59	23 23	0 12	10 19	1 20	5 56	2 18	5 53	1 11	11 50	1 50	19 22	0 13	M12
T 13	19 46	10 58	5 15	23 25	0 20	9 50	1 18	6 4	2 18	5 56	1 11	11 51	1 50	19 23	0 13	T 13
W14	19 32	14 39	5 12	23 25	0 28	9 21	1 16	6 11	2 19	6 0	1 11	11 53	1 50	19 23	0 13	W14
T 15	19 18	17 33	4 50	23 24	0 35	8 51	1 14	6 19	2 19	6 3	1 10	11 54	1 50	19 24	0 13	T 15
F 16	19 4	19 20	4 9	23 23	0 42	8 21	1 12	6 26	2 20	6 6	1 10	11 56	1 50	19 24	0 13	F 16
S 17	18 49	19 48	3 10	23 19	0 49	7 51	1 9	6 34	2 21	6 10	1 10	11 57	1 51	19 25	0 13	S 17
S 18	18 33	18 52	1 58	23 15	0 56	7 21	1 7	6 41	2 21	6 13	1 10	11 59	1 51	19 25	0 13	S 18
M19	18 18	16 39	0 38	23 9	1 2	6 50	1 4	6 48	2 22	6 17	1 9	12 1	1 51	19 25	0 13	M19
T 20	18 2	13 23	0n42	23 2	1 8	6 20	1 1	6 54	2 22	6 21	1 9	12 2	1 51	19 26	0 13	T 20
W21	17 46	9 23	1 58	22 54	1 14	5 49	0 59	7 1	2 23	6 24	1 9	12 4	1 51	19 26	0 13	W21
T 22	17 29	5 1	3 5	22 44	1 20	5 18	0 56	7 7	2 23	6 28	1 9	12 6	1 52	19 27	0 13	T 22
F 23	17 12	0 32	4 0	22 33	1 25	4 47	0 53	7 14	2 24	6 32	1 8	12 7	1 52	19 27	0 13	F 23
S 24	16 55	3s50	4 40	22 21	1 30	4 16	0 50	7 20	2 24	6 35	1 8	12 9	1 52	19 27	0 13	S 24
S 25	16 38	7 54	5 6	22 7	1 35	3 45	0 47	7 26	2 25	6 39	1 8	12 11	1 52	19 28	0 13	S 25
M26	16 20	11 33	5 17	21 52	1 40	3 13	0 44	7 32	2 25	6 43	1 8	12 13	1 52	19 28	0 13	M26
T 27	16 2	14 38	5 14	21 35	1 44	2 42	0 41	7 37	2 26	6 47	1 8	12 14	1 52	19 28	0 13	T 27
W28	15 44	17 5	4 57	21 17	1 48	2 10	0 37	7 43	2 26	6 51	1 7	12 16	1 52	19 29	0 13	W28
T 29	15 25	18 47	4 27	20 58	1 51	1 39	0 34	7 48	2 27	6 55	1 7	12 18	1 53	19 29	0 13	T 29
F 30	15 6	19 41	3 47	20 37	1 54	1 7	0 31	7 54	2 27	6 59	1 7	12 20	1 53	19 29	0 13	F 30
S 31	14s47	19s42	2n56	20s15	1s57	0s36	0s27	7s59	2n28	7n 3	1 s 7	12n22	1n53	19s29	0n13	S 31

Julian Day Number = 2260897.5, Delta T = 05m37s

Ecliptic obliquity = 23°30'18", Nutation = - 0°00'10", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 17°27'27", Lahiri = 16°34'27" Julian Calendar 1 Jan. 1478 == Greg. Calendar 10 Jan. 1478

ASTRODIENST EPHEMERIS for the year 1478

geocentric

FEBRUARY 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	9 19 17	21°13'48	27°19	9°29	0°45	26°49	20°49	2°R26	27°44	28°57	28°R35	18°55	18°58	27°50	6°51	S 1
M 2	9 23 13	22°14'20	9°28	11° 9	1°56	27° 3	20°59	2°22	27°45	28°58	28°33	18°55	18°54	27°57	6°54	M 2
T 3	9 27 10	23°14'51	21°47	12°50	3° 7	27°17	21°10	2°17	27°46	28°59	28°32	18°R55	18°51	28° 4	6°58	T 3
W 4	9 31 7	24°15'20	4°19	14°31	4°18	27°30	21°20	2°12	27°47	28°59	28°31	18°55	18°48	28°10	7° 2	W 4
T 5	9 35 3	25°15'48	17° 4	16°14	5°29	27°42	21°31	2° 7	27°48	29° 0	28°30	18°54	18°45	28°17	7° 6	T 5
F 6	9 39 0	26°16'13	0°43	17°58	6°40	27°55	21°42	2° 3	27°49	29° 0	28°28	18°53	18°42	28°24	7°10	F 6
S 7	9 42 56	27°16'37	13°15	19°42	7°50	28° 6	21°53	1°58	27°50	29° 1	28°27	18°52	18°38	28°30	7°13	S 7
S 8	9 46 53	28°16'59	26°41	21°28	9° 1	28°17	22° 4	1°53	27°51	29° 1	28°26	18°51	18°35	28°37	7°17	S 8
M 9	9 50 49	29°17'19	10°30	23°14	10°11	28°28	22°16	1°48	27°51	29° 1	28°24	18°50	18°32	28°44	7°21	M 9
T 10	9 54 46	0°17'37	24°12	25° 2	11°21	28°37	22°27	1°43	27°52	29° 2	28°23	18°D50	18°29	28°50	7°25	T 10
W11	9 58 42	1°17'53	8°16	26°50	12°31	28°47	22°38	1°39	27°53	29° 2	28°21	18°50	18°26	28°57	7°29	W11
T 12	10 2 39	2°18'07	22°31	28°39	13°41	28°55	22°50	1°34	27°53	29° 2	28°20	18°50	18°23	29° 4	7°33	T 12
F 13	10 6 36	3°18'19	6°54	0°43	14°51	29° 4	23° 1	1°29	27°54	29° 3	28°19	18°51	18°19	29°10	7°36	F 13
S 14	10 10 32	4°18'29	21°23	2°21	16° 1	29°11	23°13	1°24	27°54	29° 3	28°17	18°52	18°16	29°17	7°40	S 14
S 15	10 14 29	5°18'36	5°52	4°14	17°10	29°18	23°25	1°19	27°55	29° 3	28°16	18°53	18°13	29°24	7°44	S 15
M16	10 18 25	6°18'42	20°18	6° 7	18°20	29°24	23°37	1°15	27°55	29° 3	28°14	18°R54	18°10	29°30	7°48	M16
T 17	10 22 22	7°18'45	4°33	8° 1	19°29	29°30	23°49	1°10	27°55	29° 3	28°13	18°53	18° 7	29°37	7°52	T 17
W18	10 26 18	8°18'47	18°35	9°57	20°38	29°35	24° 1	1° 5	27°55	29° 3	28°11	18°52	18° 4	29°44	7°56	W18
T 19	10 30 15	9°18'47	2°18	11°52	21°47	29°39	24°13	1° 0	27°56	29° 4	28°10	18°49	18° 0	29°51	8° 0	T 19
F 20	10 34 11	10°18'44	15°40	13°49	22°55	29°43	24°25	0°56	27°56	29°R 4	28° 8	18°46	17°57	29°57	8° 3	F 20
S 21	10 38 8	11°18'41	28°40	15°46	24° 4	29°46	24°37	0°51	27°56	29° 4	28° 6	18°42	17°54	0°54	8° 7	S 21
S 22	10 42 4	12°18'35	11°20	17°44	25°12	29°48	24°50	0°46	27°R56	29° 3	28° 5	18°39	17°51	0°11	8°11	S 22
M23	10 46 1	13°18'28	23°42	19°42	26°20	29°49	25° 2	0°42	27°56	29° 3	28° 3	18°37	17°48	0°17	8°15	M23
T 24	10 49 58	14°18'19	5°48	21°40	27°28	29°50	25°14	0°37	27°56	29° 3	28° 2	18°35	17°44	0°24	8°19	T 24
W25	10 53 54	15°18'08	17°45	23°38	28°36	29°R50	25°27	0°32	27°56	29° 3	28° 0	18°D35	17°41	0°31	8°23	W25
T 26	10 57 51	16°17'56	29°36	25°35	29°44	29°49	25°40	0°28	27°55	29° 3	27°58	18°36	17°38	0°37	8°27	T 26
F 27	11 1 47	17°17'42	11°27	27°32	0°51	29°48	25°52	0°23	27°55	29° 3	27°57	18°37	17°35	0°44	8°30	F 27
S 28	11 5 44	18°17'26	23°21	29°28	1°59	29°46	26° 5	0°19	27°55	29° 3	27°55	18°39	17°32	0°51	8°34	S 28

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
S 1	14s28	18s50	1n57	19s51	2s 0	0s 4	0s24	8s 3	2n28	7n 7	1s 6	12n23	1n53	19s30	0n13	18s20
M 2	14 8	17 6	0 52	19 26	2 2	0n28	0 20	8 8	2 29	7 11	1 6	12 25	1 53	19 30	0 13	18 20
T 3	13 48	14 32	0s16	18 59	2 3	0 59	0 17	8 12	2 29	7 16	1 6	12 27	1 53	19 30	0 13	18 20
W 4	13 28	11 16	1 25	18 30	2 5	1 31	0 13	8 17	2 30	7 20	1 6	12 29	1 53	19 30	0 13	18 20
T 5	13 8	7 25	2 30	18 1	2 6	2 2	0 10	8 21	2 30	7 24	1 6	12 31	1 53	19 31	0 13	18 20
F 6	12 48	3 10	3 29	17 29	2 6	2 34	0 6	8 25	2 31	7 28	1 5	12 32	1 54	19 31	0 13	18 20
S 7	12 27	1n17	4 18	16 57	2 6	3 5	0 2	8 29	2 31	7 33	1 5	12 34	1 54	19 31	0 13	18 20
S 8	12 6	5 45	4 54	16 23	2 6	3 37	0n 2	8 32	2 32	7 37	1 5	12 36	1 54	19 31	0 13	18 20
M 9	11 45	10 0	5 13	15 47	2 5	4 8	0 6	8 35	2 32	7 41	1 5	12 38	1 54	19 31	0 13	18 20
T 10	11 24	13 46	5 15	15 10	2 4	4 39	0 10	8 39	2 32	7 46	1 5	12 40	1 54	19 32	0 13	18 20
W11	11 3	16 49	4 59	14 31	2 2	5 10	0 14	8 41	2 33	7 50	1 4	12 42	1 54	19 32	0 13	18 20
T 12	10 41	18 54	4 24	13 51	2 0	5 41	0 18	8 44	2 33	7 55	1 4	12 43	1 54	19 32	0 13	18 20
F 13	10 19	19 48	3 32	13 9	1 57	6 12	0 22	8 47	2 33	7 59	1 4	12 45	1 54	19 32	0 13	18 20
S 14	9 57	19 23	2 26	12 26	1 54	6 43	0 26	8 49	2 34	8 4	1 4	12 47	1 54	19 32	0 13	18 20
S 15	9 35	17 42	1 11	11 42	1 50	7 14	0 30	8 51	2 34	8 8	1 4	12 49	1 54	19 32	0 13	18 20
M16	9 13	14 53	0n 8	10 56	1 46	7 44	0 34	8 53	2 34	8 13	1 3	12 51	1 54	19 32	0 13	18 20
T 17	8 51	11 12	1 26	10 9	1 41	8 14	0 38	8 55	2 35	8 17	1 3	12 52	1 54	19 32	0 13	18 20
W18	8 29	6 56	2 37	9 20	1 35	8 44	0 43	8 56	2 35	8 22	1 3	12 54	1 54	19 32	0 13	18 20
T 19	8 6	2 24	3 37	8 30	1 29	9 14	0 47	8 58	2 35	8 26	1 3	12 56	1 54	19 32	0 13	18 20
F 20	7 43	2s 7	4 24	7 39	1 23	9 44	0 51	8 59	2 35	8 31	1 3	12 58	1 55	19 32	0 13	18 20
S 21	7 21	6 25	4 56	6 47	1 16	10 13	0 56	9 0	2 35	8 36	1 2	12 59	1 55	19 32	0 13	18 20
S 22	6 58	10 19	5 12	5 54	1 8	10 42	1 0	9 0	2 35	8 40	1 2	13 1	1 55	19 32	0 13	18 20
M23	6 35	13 41	5 13	5 0	1 0	11 11	1 4	9 1	2 36	8 45	1 2	13 3	1 55	19 32	0 13	18 20
T 24	6 12	16 24	5 1 4	5 0	0 51	11 40	1 9	9 1	2 36	8 50	1 2	13 4	1 55	19 32	0 13	18 20
W25	5 48	18 23	4 35	3 10	0 41	12 9	1 13	9 1	2 36	8 55	1 2	13 6	1 55	19 32	0 13	18 20
T 26	5 25	19 33	3 58	2 14	0 31	12 37	1 17	9 1	2 36	8 59	1 2	13 8	1 55	19 32	0 13	18 20
F 27	5 2	19 51	3 10	1 18	0 21	13 5	1 22	9 0	2 36	9 4	1 1	13 9	1 55	19 32	0 13	18 20
S 28	4s39	19s16	2n15	0s22	0s10	13n32	1n26	8s59	2n36	9n 9	1s 1	13n11	1n55	19s32	0n13	18s20

Julian Day Number = 2260928.5, Delta T = 05m36s

Ecliptic obliquity = 23°30'19, Nutation = - 0°00'10, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 17°27'31, Lahiri = 16°34'31 Julian Calendar 1 Feb. 1478 == Greg. Calendar 10 Feb. 1478

ASTRODIENST EPHEMERIS for the year 1478

geocentric

MARCH 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	11 9 40	19°17'09	5°25	1°22	3°8	29°R43	26°V18	0°R14	27°R55	29°R 2	27°R54	18°J41	17°J29	0°Z57	8°K38	S 1
M 2	11 13 37	20°16'49	17°41	3°15	4°13	29°J39	26°31	0°M10	27°M54	29°M 2	27°M52	18°R41	17°25	1° 4	8°42	M 2
T 3	11 17 33	21°16'28	0°K13	5° 6	5°19	29°35	26°44	0° 6	27°54	29° 2	27°50	18°41	17°22	1°11	8°46	T 3
W 4	11 21 30	22°16'04	13° 2	6°54	6°26	29°29	26°57	0° 1	27°53	29° 1	27°49	18°38	17°19	1°17	8°49	W 4
T 5	11 25 27	23°15'39	26° 8	8°39	7°32	29°23	27°10	29°J57	27°53	29° 1	27°47	18°35	17°16	1°24	8°53	T 5
F 6	11 29 23	24°15'12	9°V32	10°20	8°38	29°16	27°23	29°53	27°52	29° 0	27°45	18°29	17°13	1°31	8°57	F 6
S 7	11 33 20	25°14'42	23°10	11°57	9°44	29° 9	27°36	29°49	27°51	29° 0	27°44	18°23	17°10	1°38	9° 1	S 7
S 8	11 37 16	26°14'10	7°K 1	13°30	10°49	29° 0	27°49	29°45	27°51	28°59	27°42	18°17	17° 6	1°44	9° 4	S 8
M 9	11 41 13	27°13'36	21° 1	14°58	11°54	28°51	28° 3	29°41	27°50	28°59	27°40	18°12	17° 3	1°51	9° 8	M 9
T 10	11 45 9	28°13'00	5°J 6	16°21	12°59	28°41	28°16	29°37	27°49	28°58	27°39	18° 8	17° 0	1°58	9°12	T 10
W11	11 49 6	29°12'22	19°15	17°39	14° 4	28°31	28°29	29°33	27°48	28°58	27°37	18° 6	16°57	2° 4	9°15	W11
T 12	11 53 2	0°V11'41	3°J24	18°50	15° 8	28°19	28°43	29°29	27°47	28°57	27°35	18°D 6	16°54	2°11	9°19	T 12
F 13	11 56 59	1°10'57	17°33	19°56	16°13	28° 7	28°56	29°25	27°46	28°56	27°34	18° 6	16°50	2°18	9°23	F 13
S 14	12 0 56	2°10'12	1°J40	20°55	17°17	27°54	29°10	29°22	27°45	28°56	27°32	18° 8	16°47	2°24	9°26	S 14
S 15	12 4 52	3° 9'24	15°42	21°47	18°20	27°41	29°23	29°18	27°44	28°55	27°30	18°R 9	16°44	2°31	9°30	S 15
M16	12 8 49	4° 8'33	29°40	22°33	19°23	27°26	29°37	29°15	27°43	28°54	27°29	18° 8	16°41	2°38	9°34	M16
T 17	12 12 45	5° 7'40	13°J29	23°11	20°26	27°11	29°51	29°11	27°42	28°54	27°27	18° 5	16°38	2°44	9°37	T 17
W18	12 16 42	6° 6'46	2° 7	23°43	21°29	26°56	0°K 4	29° 8	27°41	28°53	27°26	18° 1	16°35	2°51	9°41	W18
T 19	12 20 38	7° 5'49	10°J32	24° 7	22°31	26°39	0°18	29° 5	27°40	28°52	27°24	17°54	16°31	2°58	9°44	T 19
F 20	12 24 35	8° 4'49	23°42	24°25	23°33	26°22	0°32	29° 1	27°38	28°51	27°22	17°45	16°28	3° 4	9°48	F 20
S 21	12 28 31	9° 3'48	6°J35	24°35	24°35	26° 5	0°45	28°58	27°37	28°50	27°21	17°36	16°25	3°11	9°51	S 21
S 22	12 32 28	10° 2'46	19°12	24°R39	25°36	25°47	0°59	28°55	27°36	28°49	27°19	17°27	16°22	3°18	9°55	S 22
M23	12 36 24	11° 1'41	1°J32	24°36	26°37	25°28	1°13	28°52	27°34	28°48	27°17	17°19	16°19	3°24	9°58	M23
T 24	12 40 21	12° 0'34	13°38	24°26	27°37	25° 9	1°27	28°49	27°33	28°47	27°16	17°13	16°15	3°31	10° 2	T 24
W25	12 44 18	12°59'26	25°35	24°11	28°38	24°49	1°41	28°47	27°31	28°46	27°14	17° 9	16°12	3°38	10° 5	W25
T 26	12 48 14	13°58'16	7°J26	23°50	29°37	24°29	1°55	28°44	27°30	28°45	27°13	17° 7	16° 9	3°44	10° 8	T 26
F 27	12 52 11	14°57'04	19°17	23°23	0°J37	24° 8	2° 9	28°41	27°28	28°44	27°11	17°D 7	16° 6	3°51	10°12	F 27
S 28	12 56 7	15°55'51	1°J11	22°53	1°35	23°47	2°23	28°39	27°26	28°43	27°10	17° 8	16° 3	3°58	10°15	S 28
S 29	13 0 4	16°54'35	13°16	22°18	2°34	23°26	2°37	28°36	27°25	28°42	27° 8	17°R 9	16° 0	4° 5	10°18	S 29
M30	13 4 0	17°53'18	25°36	21°40	3°32	23° 4	2°51	28°34	27°23	28°41	27° 6	17° 8	15°56	4°11	10°21	M30
T 31	13 7 57	18°V51'59	8°K14	20°V59	4°J29	22°J42	3°K 5	28°J32	27°M21	28°M40	27°M 5	17°J 6	15°J53	4°J18	10°K25	T 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
S 1	4s15	17s48	1n12	0n35	0n 2	14n 0	1n31	8s59	2n36	9n14	1s 1	13n12	1n55	19s32	0n13	18s19
M 2	3 52	15 29	0 5	1 30	0 14	14 27	1 35	8 57	2 35	9 18	1 1	13 14	1 55	19 32	0 13	18 19
T 3	3 28	12 24	1s 3	2 25	0 26	14 54	1 39	8 56	2 35	9 23	1 1	13 15	1 55	19 32	0 13	18 19
W 4	3 5	8 40	2 9	3 20	0 38	15 20	1 44	8 54	2 35	9 28	1 1	13 17	1 55	19 32	0 13	18 19
T 5	2 41	4 27	3 10	4 13	0 51	15 46	1 48	8 52	2 35	9 33	1 1	13 18	1 55	19 32	0 13	18 19
F 6	2 17	0n 5	4 2	5 4	1 3	16 12	1 53	8 50	2 34	9 38	1 0	13 20	1 55	19 31	0 13	18 19
S 7	1 54	4 40	4 41	5 54	1 16	16 37	1 57	8 48	2 34	9 43	1 0	13 21	1 55	19 31	0 13	18 19
S 8	1 30	9 6	5 4	6 42	1 28	17 2	2 1	8 45	2 34	9 48	1 0	13 23	1 55	19 31	0 13	18 19
M 9	1 6	13 4	5 10	7 27	1 40	17 26	2 6	8 43	2 33	9 52	1 0	13 24	1 55	19 31	0 13	18 18
T 10	0 43	16 20	4 57	8 11	1 52	17 51	2 10	8 40	2 33	9 57	1 0	13 26	1 55	19 31	0 13	18 18
W11	0 19	18 39	4 26	8 51	2 4	18 14	2 14	8 36	2 32	10 2	1 0	13 27	1 55	19 31	0 13	18 18
T 12	0n 5	19 49	3 39	9 29	2 15	18 38	2 19	8 33	2 31	10 7	1 0	13 28	1 55	19 30	0 13	18 18
F 13	0 28	19 44	2 38	10 3	2 25	19 1	2 23	8 29	2 31	10 12	0 59	13 30	1 54	19 30	0 13	18 18
S 14	0 52	18 25	1 28	10 34	2 35	19 23	2 27	8 25	2 30	10 17	0 59	13 31	1 54	19 30	0 13	18 17
S 15	1 16	15 58	0 13	11 2	2 44	19 45	2 31	8 21	2 29	10 22	0 59	13 32	1 54	19 30	0 13	18 17
M16	1 39	12 35	1n 2	11 27	2 52	20 7	2 35	8 17	2 28	10 27	0 59	13 33	1 54	19 29	0 13	18 17
T 17	2 3	8 33	2 12	11 48	2 59	20 28	2 39	8 12	2 27	10 32	0 59	13 34	1 54	19 29	0 13	18 17
W18	2 26	4 7	3 14	12 5	3 4	20 49	2 43	8 8	2 26	10 37	0 59	13 35	1 54	19 29	0 13	18 17
T 19	2 49	0s26	4 4	12 19	3 9	21 9	2 47	8 3	2 25	10 41	0 59	13 37	1 54	19 29	0 13	18 16
F 20	3 13	4 53	4 40	12 28	3 13	21 29	2 51	7 58	2 24	10 46	0 59	13 38	1 54	19 28	0 13	18 16
S 21	3 36	9 1	5 1	12 34	3 15	21 48	2 55	7 53	2 23	10 51	0 59	13 39	1 54	19 28	0 13	18 16
S 22	3 59	12 39	5 6	12 36	3 15	22 7	2 59	7 47	2 22	10 56	0 58	13 40	1 54	19 28	0 13	18 16
M23	4 23	15 40	4 57	12 34	3 15	22 25	3 3	7 42	2 20	11 1	0 58	13 41	1 54	19 27	0 13	18 15
T 24	4 46	17 57	4 35	12 29	3 12	22 43	3 7	7 36	2 19	11 6	0 58	13 42	1 54	19 27	0 13	18 15
W25	5 9	19 25	4 1	12 19	3 9	23 0	3 10	7 30	2 18	11 11	0 58	13 42	1 54	19 27	0 13	18 15
T 26	5 32	20 2	3 16	12 7	3 3	23 17	3 14	7 24	2 16	11 16	0 58	13 43	1 54	19 26	0 13	18 15
F 27	5 54	19 45	2 24	11 50	2 56	23 33	3 17	7 18	2 14	11 21	0 58	13 44	1 54	19 26	0 13	18 14
S 28	6 17	18 35	1 24	11 31	2 48	23 49	3 21	7 12	2 13	11 26	0 58	13 45	1 54	19 26	0 13	18 14
S 29	6 40	16 33	0 21	11 9	2 38	24 4	3 24	7 6	2 11	11 31	0 58	13 46	1 53	19 25	0 13	18 14
M30	7 2	13 44	0s45	10 44	2 27	24 18	3 27	6 59	2 9	11 36	0 58	13 46	1 53	19 25	0 13	18 14
T 31	7n25	10s13	1s50	10n17	2n15	24n33	3n30	6s53	2n 7	11n40	0s57	13n47	1n53	19s25	0n13	18s13

Julian Day Number = 2260956.5, Delta T = 05m36s

Ecliptic obliquity = 23°30'19", Nutation = - 0°00'11", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 17°27'35", Lahiri = 16°34'35" Julian Calendar 1 March 1478 == Greg. Calendar 10 March 1478

ASTRODIENST EPHEMERIS for the year 1478

geocentric

APRIL 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	13 11 53	19°50'38	21°14'14	20°R17	5°II26	22°R20	3°819	28°R30	27°R20	28°R39	27°R 3	17°R 2	15°Ω50	4°325	10°K28	W 1
T 2	13 15 50	20°49'16	4°Y37	19°Y34	6°23	21°Δ58	3°33	28°Ω28	27°M18	28°M38	27°M 2	16°Ω55	15°47	4°31	10°31	T 2
F 3	13 19 47	21°47'51	18°23	18°51	7°19	21°35	3°47	28°26	27°16	28°36	27° 0	16°46	15°44	4°38	10°34	F 3
S 4	13 23 43	22°46'25	2°827	18° 9	8°14	21°12	4° 2	28°24	27°14	28°35	26°59	16°35	15°41	4°45	10°37	S 4
S 5	13 27 40	23°44'57	16°46	17°28	9° 9	20°50	4°16	28°22	27°12	28°34	26°58	16°25	15°37	4°51	10°40	S 5
M 6	13 31 36	24°43'26	1°II13	16°50	10° 3	20°27	4°30	28°21	27°10	28°33	26°56	16°15	15°34	4°58	10°43	M 6
T 7	13 35 33	25°41'54	15°41	16°14	10°57	20° 5	4°44	28°19	27° 8	28°31	26°55	16° 8	15°31	5° 5	10°46	T 7
W 8	13 39 29	26°40'20	0°Ω 6	15°42	11°50	19°42	4°58	28°18	27° 6	28°30	26°53	16° 3	15°28	5°11	10°49	W 8
T 9	13 43 26	27°38'43	14°23	15°13	12°43	19°20	5°13	28°16	27° 4	28°29	26°52	16° 0	15°25	5°18	10°52	T 9
F 10	13 47 22	28°37'04	28°30	14°48	13°35	18°57	5°27	28°15	27° 2	28°27	26°51	16°D 0	15°21	5°25	10°55	F 10
S 11	13 51 19	29°35'23	12°Ω27	14°28	14°26	18°35	5°41	28°14	27° 0	28°26	26°49	16°R 0	15°18	5°31	10°58	S 11
S 12	13 55 16	0°833'40	26°13	14°12	15°16	18°14	5°55	28°13	26°58	28°25	26°48	16° 0	15°15	5°38	11° 1	S 12
M13	13 59 12	1°31'55	9°M48	14° 1	16° 6	17°52	6°10	28°12	26°56	28°23	26°47	15°58	15°12	5°45	11° 3	M13
T 14	14 3 9	2°30'08	23°13	13°55	16°55	17°31	6°24	28°11	26°54	28°22	26°45	15°53	15° 9	5°51	11° 6	T 14
W15	14 7 5	3°28'19	6°Δ27	13°D54	17°43	17°11	6°38	28°11	26°51	28°20	26°44	15°46	15° 6	5°58	11° 9	W15
T 16	14 11 2	4°26'27	19°30	13°58	18°30	16°50	6°52	28°10	26°49	28°19	26°43	15°36	15° 2	6° 5	11°11	T 16
F 17	14 14 58	5°24'34	2°M22	14° 6	19°16	16°31	7° 7	28° 9	26°47	28°18	26°42	15°24	14°59	6°11	11°14	F 17
S 18	14 18 55	6°22'40	15° 0	14°19	20° 2	16°11	7°21	28° 9	26°45	28°16	26°40	15°11	14°56	6°18	11°16	S 18
S 19	14 22 51	7°20'43	27°26	14°37	20°46	15°53	7°35	28° 9	26°42	28°15	26°39	14°58	14°53	6°25	11°19	S 19
M20	14 26 48	8°18'46	9°M39	14°59	21°30	15°35	7°49	28° 9	26°40	28°13	26°38	14°46	14°50	6°31	11°21	M20
T 21	14 30 45	9°16'46	21°42	15°25	22°12	15°17	8° 4	28°D 8	26°38	28°12	26°37	14°37	14°46	6°38	11°24	T 21
W22	14 34 41	10°14'46	3°Ω36	15°56	22°54	15° 0	8°18	28° 9	26°35	28°10	26°36	14°30	14°43	6°45	11°26	W22
T 23	14 38 38	11°12'43	15°26	16°31	23°34	14°44	8°32	28° 9	26°33	28° 9	26°35	14°26	14°40	6°51	11°29	T 23
F 24	14 42 34	12°10'40	27°15	17°10	24°14	14°28	8°46	28° 9	26°31	28° 7	26°34	14°24	14°37	6°58	11°31	F 24
S 25	14 46 31	13° 8'35	9°Ω 9	17°52	24°52	14°13	9° 1	28° 9	26°28	28° 6	26°33	14°23	14°34	7° 5	11°33	S 25
S 26	14 50 27	14° 6'29	21°12	18°38	25°29	13°59	9°15	28°10	26°26	28° 4	26°32	14°23	14°31	7°11	11°35	S 26
M27	14 54 24	15° 4'21	3°K31	19°28	26° 4	13°45	9°29	28°10	26°23	28° 2	26°31	14°22	14°27	7°18	11°38	M27
T 28	14 58 20	16° 2'12	16°11	20°20	26°39	13°32	9°43	28°11	26°21	28° 1	26°30	14°20	14°24	7°25	11°40	T 28
W29	15 2 17	17° 0'02	29°15	21°17	27°12	13°20	9°58	28°12	26°18	27°59	26°29	14°15	14°21	7°31	11°42	W29
T 30	15 6 14	17°8'57'51	12°Y46	22°Y16	27°II44	13°Δ 9	10°812	28°Ω13	26°M16	27°M58	26°M28	14°Ω 8	14°Ω18	7°Ω38	11°K44	T 30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	7n47	6s 6	2s51	9n49	2n 1	24n46	3n33	6s47	2n 5	11n45	0s57	13n48	1n53	19s24	0n13	18s13
T 2	8 9	1 36	3 45	9 19	1 46	24 59	3 36	6 40	2 3	11 50	0 57	13 48	1 53	19 24	0 13	18 13
F 3	8 31	3n 7	4 27	8 49	1 31	25 12	3 39	6 34	2 1	11 55	0 57	13 49	1 53	19 23	0 13	18 12
S 4	8 53	7 46	4 54	8 18	1 15	25 24	3 42	6 27	1 59	12 0	0 57	13 50	1 53	19 23	0 13	18 12
S 5	9 15	12 3	5 3	7 47	0 58	25 35	3 45	6 21	1 57	12 5	0 57	13 50	1 53	19 22	0 13	18 12
M 6	9 36	15 41	4 53	7 16	0 42	25 46	3 47	6 14	1 55	12 10	0 57	13 51	1 53	19 22	0 13	18 12
T 7	9 58	18 22	4 24	6 47	0 25	25 56	3 49	6 8	1 53	12 15	0 57	13 51	1 53	19 22	0 13	18 11
W 8	10 19	19 52	3 38	6 19	0 8	26 6	3 52	6 2	1 50	12 19	0 57	13 51	1 52	19 21	0 13	18 11
T 9	10 40	20 5	2 40	5 52	0s 9	26 15	3 54	5 55	1 48	12 24	0 57	13 52	1 52	19 21	0 13	18 11
F 10	11 1	19 1	1 31	5 28	0 25	26 24	3 56	5 49	1 45	12 29	0 57	13 52	1 52	19 20	0 13	18 10
S 11	11 21	16 49	0 19	5 5	0 41	26 32	3 58	5 43	1 43	12 34	0 57	13 52	1 52	19 20	0 13	18 10
S 12	11 42	13 40	0n54	4 45	0 56	26 39	3 59	5 37	1 40	12 39	0 57	13 53	1 52	19 19	0 13	18 10
M13	12 2	9 48	2 3	4 28	1 11	26 46	4 1	5 31	1 38	12 43	0 56	13 53	1 52	19 19	0 13	18 9
T 14	12 22	5 30	3 3	4 12	1 25	26 53	4 2	5 26	1 35	12 48	0 56	13 53	1 52	19 18	0 13	18 9
W15	12 42	1 0	3 53	4 0	1 38	26 59	4 4	5 20	1 33	12 53	0 56	13 53	1 52	19 18	0 13	18 9
T 16	13 2	3s29	4 30	3 50	1 50	27 4	4 5	5 15	1 30	12 58	0 56	13 53	1 52	19 17	0 13	18 8
F 17	13 22	7 44	4 53	3 42	2 2	27 9	4 6	5 10	1 27	13 2	0 56	13 53	1 51	19 17	0 13	18 8
S 18	13 41	11 35	5 0	3 38	2 12	27 13	4 6	5 5	1 25	13 7	0 56	13 53	1 51	19 16	0 13	18 8
S 19	14 0	14 52	4 53	3 35	2 22	27 17	4 7	5 0	1 22	13 12	0 56	13 53	1 51	19 16	0 13	18 7
M20	14 19	17 27	4 33	3 36	2 31	27 21	4 7	4 56	1 19	13 16	0 56	13 53	1 51	19 15	0 13	18 7
T 21	14 38	19 14	4 1	3 38	2 39	27 23	4 7	4 52	1 16	13 21	0 56	13 53	1 51	19 15	0 13	18 7
W22	14 56	20 9	3 18	3 44	2 46	27 26	4 7	4 48	1 14	13 26	0 56	13 53	1 51	19 14	0 13	18 6
T 23	15 14	20 11	2 27	3 51	2 53	27 28	4 7	4 44	1 11	13 30	0 56	13 53	1 51	19 13	0 13	18 6
F 24	15 32	19 18	1 29	4 1	2 58	27 29	4 6	4 40	1 8	13 35	0 56	13 53	1 51	19 13	0 13	18 6
S 25	15 50	17 34	0 28	4 12	3 3	27 30	4 6	4 37	1 6	13 40	0 56	13 52	1 50	19 12	0 13	18 5
S 26	16 7	15 2	0s36	4 26	3 7	27 30	4 5	4 34	1 3	13 44	0 56	13 52	1 50	19 12	0 13	18 5
M27	16 24	11 47	1 40	4 42	3 10	27 30	4 3	4 31	1 0	13 49	0 56	13 52	1 50	19 11	0 13	18 4
T 28	16 41	7 55	2 40	5 0	3 12	27 29	4 2	4 29	0 57	13 53	0 56	13 51	1 50	19 11	0 13	18 4
W29	16 58	3 34	3 34	5 19	3 14	27 28	4 0	4 26	0 55	13 58	0 56	13 51	1 50	19 10	0 13	18 4
T 30	17n14	1n 6	4s17	5n41	3s15	27n27	3n58	4s25	0n52	14n 2	0s56	13n51	1n50	19s10	0n13	18s 3

Julian Day Number = 2260987.5, Delta T = 05m36s

Ecliptic obliquity = 23°30'19, Nutation = - 0°00'13, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 17°27'39, Lahiri = 16°34'39 Julian Calendar 1 Apr. 1478 == Greg. Calendar 10 Apr. 1478

ASTRODIENST EPHEMERIS for the year 1478

geocentric

MAY 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	15 10 10	18♂55'38	26♂43	23♂18	28♂14	12°R59	10♂26	28♂14	26°R14	27°R56	26°R27	13°R58	14♂15	7♂45	11♂46	F 1
S 2	15 14 7	19°53'25	11♂5	24°24	28°43	12♂49	10°40	28°15	26♂11	27♂54	26♂26	13♂47	14°12	7°52	11°48	S 2
S 3	15 18 3	20°51'10	25°46	25°32	29°10	12°40	10°54	28°16	26°9	27°53	26°26	13°36	14°8	7°58	11°50	S 3
M 4	15 22 0	21°48'53	10♂36	26°43	29°36	12°32	11°8	28°17	26°6	27°51	26°25	13°25	14°5	8°5	11°51	M 4
T 5	15 25 5	22°46'35	25°29	27°57	29°59	12°25	11°23	28°18	26°4	27°50	26°24	13°17	14°2	8°12	11°53	T 5
W 6	15 29 53	23°44'16	10♂15	29°13	0♂22	12°18	11°37	28°20	26°1	27°48	26°23	13°11	13°59	8°18	11°55	W 6
T 7	15 33 49	24°41'55	24°49	0♂32	0°42	12°12	11°51	28°22	25°59	27°46	26°23	13°8	13°56	8°25	11°57	T 7
F 8	15 37 46	25°39'33	9♂6	1°54	1°1	12°8	12°5	28°23	25°56	27°45	26°22	13°D8	13°52	8°32	11°58	F 8
S 9	15 41 43	26°37'09	23°5	3°18	1°18	12°4	12°19	28°25	25°54	27°43	26°21	13°R8	13°49	8°38	12°0	S 9
S 10	15 45 39	27°34'43	6♂46	4°45	1°32	12°1	12°33	28°27	25°51	27°42	26°21	13°7	13°46	8°45	12°1	S 10
M 11	15 49 36	28°32'16	20°11	6°14	1°45	11°58	12°47	28°29	25°49	27°40	26°20	13°6	13°43	8°52	12°3	M 11
T 12	15 53 32	29°29'47	3♂20	7°45	1°55	11°57	13°1	28°31	25°46	27°38	26°20	13°2	13°40	8°58	12°4	T 12
W 13	15 57 29	0♂27'18	16°16	9°20	2°4	11°D56	13°15	28°33	25°44	27°37	26°19	12°55	13°37	9°5	12°6	W 13
T 14	16 1 25	1°24'46	29°0	10°56	2°10	11°56	13°28	28°36	25°41	27°35	26°19	12°46	13°33	9°12	12°7	T 14
F 15	16 5 22	2°22'14	11♂33	12°35	2°14	11°57	13°42	28°38	25°39	27°33	26°18	12°35	13°30	9°18	12°8	F 15
S 16	16 9 18	3°19'41	23°55	14°17	2°R15	11°58	13°56	28°40	25°36	27°32	26°18	12°23	13°27	9°25	12°9	S 16
S 17	16 13 15	4°17'06	6♂8	16°0	2°14	12°1	14°10	28°43	25°34	27°30	26°17	12°11	13°24	9°32	12°10	S 17
M 18	16 17 12	5°14'31	18°12	17°47	2°11	12°4	14°24	28°46	25°31	27°29	26°17	12°0	13°21	9°38	12°12	M 18
T 19	16 21 8	6°11'54	0♂8	19°35	2°6	12°8	14°37	28°48	25°29	27°27	26°17	11°51	13°18	9°45	12°13	T 19
W 20	16 25 5	7°9'17	11°59	21°26	1°58	12°12	14°51	28°51	25°26	27°25	26°16	11°44	13°14	9°52	12°14	W 20
T 21	16 29 1	8°6'39	23°47	23°20	1°47	12°18	15°5	28°54	25°24	27°24	26°16	11°41	13°11	9°58	12°15	T 21
F 22	16 32 58	9°4'01	5♂36	25°15	1°34	12°24	15°18	28°57	25°22	27°22	26°16	11°39	13°8	10°5	12°15	F 22
S 23	16 36 54	10°1'21	17°29	27°13	1°19	12°30	15°32	29°0	25°19	27°21	26°16	11°D39	13°5	10°12	12°16	S 23
S 24	16 40 51	10°58'42	29°32	29°13	1°2	12°38	15°45	29°4	25°17	27°19	26°16	11°40	13°2	10°18	12°17	S 24
M 25	16 44 47	11°56'01	11♂50	1♂15	0°42	12°46	15°59	29°7	25°15	27°17	26°15	11°R40	12°58	10°25	12°18	M 25
T 26	16 48 44	12°53'20	24°28	3°19	0°20	12°55	16°12	29°10	25°12	27°16	26°15	11°39	12°55	10°32	12°18	T 26
W 27	16 52 41	13°50'39	7♂30	5°25	29♂56	13°4	16°26	29°14	25°10	27°14	26°15	11°37	12°52	10°38	12°19	W 27
T 28	16 56 37	14°47'57	20°59	7°32	29°29	13°15	16°39	29°17	25°8	27°13	26°15	11°32	12°49	10°45	12°20	T 28
F 29	17 0 34	15°45'15	4♂58	9°41	29°1	13°25	16°52	29°21	25°5	27°11	26°D15	11°26	12°46	10°52	12°20	F 29
S 30	17 4 30	16°42'33	19°24	11°51	28°31	13°37	17°6	29°25	25°3	27°10	26°15	11°18	12°43	10°58	12°21	S 30
S 31	17 8 27	17♂39'50	4♂13	14♂1	28♂0	13♂49	17♂19	29♂29	25♂1	27♂8	26♂15	11♂10	12♂39	11♂5	12♂21	S 31

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
F 1	17n30	5n52	4s47	6n4	3s15	27n25	3n56	4s23	0n49	14n7	0s55	13n50	1n50	19s9	0n13	18s3	1n45	16n54	16n56	16n41	16n36	20s13	2s34	4n58	
S 2	17 46	10 26	5 0	6 28	3 14	27 23	3 53	4 22	0 47	14 11	0 55	13 50	1 50	19 8	0 13	18 3	1 45	16 54	16 56	16 44	16 37	20 13	2 33	4 59	
S 3	18 1	14 29	4 54	6 54	3 13	27 20	3 50	4 21	0 44	14 16	0 55	13 49	1 49	19 8	0 13	18 2	1 45	16 54	16 55	16 47	16 38	20 14	2 32	4 59	
M 4	18 16	17 41	4 28	7 21	3 11	27 17	3 47	4 20	0 41	14 20	0 55	13 49	1 49	19 7	0 13	18 2	1 45	16 54	16 55	16 50	16 39	20 14	2 32	4 59	
T 5	18 31	19 42	3 44	7 50	3 9	27 13	3 43	4 19	0 39	14 24	0 55	13 48	1 49	19 7	0 13	18 2	1 45	16 54	16 55	16 53	16 40	20 14	2 31	4 59	
W 6	18 46	20 22	2 45	8 20	3 5	27 9	3 39	4 19	0 36	14 29	0 55	13 47	1 49	19 6	0 13	18 1	1 45	16 54	16 54	16 54	16 41	20 15	2 30	4 59	
T 7	19 0	19 40	1 35	8 51	3 2	27 5	3 35	4 19	0 33	14 33	0 55	13 47	1 49	19 6	0 13	18 1	1 45	16 54	16 54	16 55	16 42	20 15	2 29	5 0	
F 8	19 14	17 41	0 21	9 24	2 57	27 0	3 30	4 20	0 31	14 38	0 55	13 46	1 49	19 5	0 13	18 0	1 45	16 54	16 53	16 55	16 43	20 15	2 28	5 0	
S 9	19 27	14 41	0n53	9 57	2 52	26 55	3 25	4 21	0 28	14 42	0 55	13 45	1 49	19 4	0 13	18 0	1 45	16 53	16 53	16 55	16 43	20 16	2 27	5 0	
S 10	19 40	10 56	2 2	10 31	2 47	26 49	3 19	4 22	0 26	14 46	0 55	13 44	1 48	19 4	0 13	18 0	1 45	16 53	16 52	16 55	16 44	20 16	2 27	5 0	
M11	19 53	6 42	3 3	11 6	2 41	26 43	3 14	4 23	0 23	14 50	0 55	13 44	1 48	19 3	0 13	17 59	1 45	16 53	16 52	16 56	16 45	20 16	2 26	5 1	
T 12	20 6	2 14	3 53	11 43	2 34	26 37	3 7	4 25	0 21	14 55	0 55	13 43	1 48	19 3	0 13	17 59	1 45	16 53	16 51	16 57	16 46	20 16	2 25	5 1	
W13	20 18	2s15	4 30	12 19	2 27	26 30	3 1	4 27	0 19	14 59	0 55	13 42	1 48	19 2	0 13	17 59	1 45	16 53	16 51	16 59	16 47	20 17	2 24	5 1	
T 14	20 30	6 34	4 53	12 57	2 19	26 23	2 54	4 29	0 16	15 3	0 55	13 41	1 48	19 1	0 13	17 58	1 45	16 52	16 50	17 2	16 48	20 17	2 24	5 1	
F 15	20 42	10 33	5 2	13 35	2 11	26 15	2 46	4 31	0 14	15 7	0 55	13 40	1 48	19 1	0 13	17 58	1 45	16 52	16 50	17 5	16 49	20 17	2 23	5 1	
S 16	20 53	14 1	4 56	14 13	2 2	26 7	2 38	4 34	0 12	15 11	0 55	13 39	1 48	19 0	0 13	17 58	1 45	16 52	16 50	17 8	16 50	20 18	2 22	5 2	
S 17	21 4	16 51	4 36	14 52	1 53	25 59	2 30	4 37	0 9	15 15	0 55	13 38	1 48	19 0	0 13	17 57	1 45	16 52	16 49	17 11	16 51	20 18	2 22	5 2	
M18	21 14	18 55	4 5	15 31	1 44	25 50	2 21	4 40	0 7	15 20	0 55	13 37	1 47	18 59	0 13	17 57	1 45	16 51	16 49	17 14	16 52	20 18	2 21	5 2	
T 19	21 24	20 8	3 22	16 10	1 34	25 41	2 11	4 44	0 5	15 24	0 55	13 36	1 47	18 59	0 13	17 57	1 45	16 51	16 48	17 17	16 53	20 18	2 20	5 2	
W20	21 34	20 27	2 31	16 49	1 24	25 31	2 2	4 48	0 3	15 28	0 55	13 35	1 47	18 58	0 13	17 56	1 45	16 51	16 48	17 19	16 53	20 19	2 20	5 3	
T 21	21 43	19 52	1 34	17 28	1 14	25 21	1 51	4 52	0 1	15 32	0 55	13 34	1 47	18 57	0 13	17 56	1 45	16 50	16 47	17 20	16 54	20 19	2 19	5 3	
F 22	21 52	18 24	0 32	18 6	1 3	25 10	1 41	4 56	0s2	15 36	0 55	13 32	1 47	18 57	0 13	17 56	1 45	16 50	16 47	17 20	16 55	20 19	2 19	5 3	
S 23	22 1	16 8	0s31	18 44	0 53	24 59	1 29	5 1	0 4	15 40	0 55	13 31	1 47	18 56	0 13	17 55	1 45	16 50	16 46	17 20	16 56	20 19	2 18	5 3	
S 24	22 9	13 8	1 34	19 22	0 42	24 48	1 18	5 5	0 6	15 43	0 55	13 30	1 47	18 56	0 13	17 55	1 45	16 49	16 46	17 20	16 57	20 20	2 18	5 4	
M25	22 17	9 31	2 34	19 58	0 31	24 36	1 6	5 11	0 8	15 47	0 55	13 29	1 47	18 55	0 13	17 55	1 45	16 49	16 45	17 20	16 58	20 20	2 17	5 4	
T 26	22 24	5 24	3 29	20 33	0 20	24 24	0 54	5 16	0 10	15 51	0 55	13 27	1 47	18 55	0 13	17 54	1 45	16 48	16 45	17 20	16 59	20 20	2 17	5 4	
W27	22 31	0 54	4 14	21 7	0 9	24 11	0 41	5 21	0 12	15 55	0 55	13 26	1 46	18 54	0 13	17 54	1 45	16 48	16 44	17 21	17 0	20 20	2 16	5 4	
T 28	22 38	3n47	4 47	21 40	0n2	23 58	0 28	5 27	0 14	15 59	0 55	13 25	1 46	18 54	0 13	17 54	1 45	16 48	16 44	17 22	17 1	20 20	2 16	5 5	
F 29	22 44	8 26	5 4	22 10	0 13	23 45	0 14	5 33	0 15	16 3	0 55	13 23	1 46	18 53	0 13	17 53	1 45	16 47	16 43	17 24	17 2	20 21	2 15	5 5	
S 30	22 50	12 46	5 3	22 39	0 23	23 31	0 1	5 39	0 17	16 6	0 55	13 22	1 46	18 52	0 13	17 53	1 45	16 47	16 43	17 26	17 2	20 21	2 15	5 5	
S 31	22n56	16n26	4s42	23n6	0n33	23n16	0s13	5s46	0s19	16n10	0s55	13n20	1n46	18s52	0n13	17s53	1n45	16n46	16n42	17n28	17n3	20s21	2s15	5n5	

ASTRODIENST EPHEMERIS for the year 1478

geocentric

JULY 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	19 10 40	17°51'30"	28°4'4"	12°5'5"	15°11'52"	24°21'37"	23°8'37"	2°11'5"	24°R 6	26°R30	26°11'33"	9°R53	11°11'1"	14°33'32"	12°R 6	W 1
T 2	19 14 37	18°10'21"	13°10'6"	13°27'	15°59'	24°48'	23°48'	2°12'	24°M 5	26°M29	26°35'	9°D53	10°58'	14°38'	12°H 4	T 2
F 3	19 18 33	19°7'37"	27°50'	14°46'	16°9'	25°15'	23°59'	2°18'	24°4'	26°29'	26°36'	9°L53	10°55'	14°45'	12°3'	F 3
S 4	19 22 30	20°4'53"	12°11'12"	16°3'	16°20'	25°43'	24°9'	2°24'	24°3'	26°28'	26°37'	9°54'	10°51'	14°52'	12°2'	S 4
S 5	19 26 26	21°2'09"	26°8'	17°18'	16°34'	26°11'	24°20'	2°30'	24°2'	26°27'	26°38'	9°56'	10°48'	14°58'	12°0'	S 5
M 6	19 30 23	21°59'25"	9°23'39"	18°30'	16°49'	26°39'	24°30'	2°36'	24°1'	26°26'	26°39'	9°57'	10°45'	15°5'	11°59'	M 6
T 7	19 34 19	22°56'42"	22°45'	19°40'	17°6'	27°8'	24°41'	2°43'	24°0'	26°26'	26°40'	9°R57	10°42'	15°11'	11°57'	T 7
W 8	19 38 16	23°54'00"	5°11'29"	20°47'	17°26'	27°37'	24°51'	2°49'	24°0'	26°25'	26°42'	9°57'	10°39'	15°18'	11°55'	W 8
T 9	19 42 12	24°51'17"	17°56'	21°52'	17°47'	28°6'	25°1'	2°56'	23°59'	26°24'	26°43'	9°56'	10°36'	15°25'	11°54'	T 9
F 10	19 46 9	25°48'35"	0°21'9"	22°54'	18°9'	28°36'	25°12'	3°2'	23°58'	26°24'	26°44'	9°54'	10°32'	15°31'	11°52'	F 10
S 11	19 50 6	26°45'54"	12°10'	23°53'	18°34'	29°6'	25°22'	3°9'	23°57'	26°23'	26°46'	9°52'	10°29'	15°38'	11°50'	S 11
S 12	19 54 2	27°43'13"	24°5'	24°49'	19°0'	29°36'	25°31'	3°15'	23°57'	26°22'	26°47'	9°50'	10°26'	15°45'	11°48'	S 12
M13	19 57 59	28°40'33"	5°35'55"	25°43'	19°27'	0°M 7	25°41'	3°22'	23°56'	26°22'	26°48'	9°49'	10°23'	15°51'	11°47'	M13
T 14	20 1 55	29°37'54"	17°44'	26°33'	19°56'	0°37'	25°51'	3°29'	23°55'	26°21'	26°50'	9°48'	10°20'	15°58'	11°45'	T 14
W15	20 5 52	0°13'51'16"	29°34'	27°19'	20°27'	1°8'	26°0'	3°35'	23°55'	26°21'	26°51'	9°47'	10°16'	16°5'	11°43'	W15
T 16	20 9 48	1°32'38"	11°22'26"	28°3'	20°59'	1°40'	26°10'	3°42'	23°54'	26°20'	26°53'	9°D47	10°13'	16°11'	11°41'	T 16
F 17	20 13 45	2°30'01"	23°23'	28°42'	21°32'	2°11'	26°19'	3°49'	23°54'	26°20'	26°54'	9°47'	10°10'	16°18'	11°39'	F 17
S 18	20 17 41	3°27'26"	5°H 28'	29°18'	22°7'	2°43'	26°28'	3°56'	23°54'	26°19'	26°56'	9°48'	10°7'	16°25'	11°37'	S 18
S 19	20 21 38	4°24'51"	17°43'	29°49'	22°43'	3°15'	26°38'	4°3'	23°53'	26°19'	26°57'	9°48'	10°4'	16°31'	11°35'	S 19
M20	20 25 35	5°22'17"	0°Y 10'	0°M 17'	23°20'	3°47'	26°46'	4°9'	23°53'	26°19'	26°59'	9°49'	10°1'	16°38'	11°32'	M20
T 21	20 29 31	6°19'45"	12°53'	0°40'	23°58'	4°20'	26°55'	4°16'	23°53'	26°18'	27°1'	9°49'	9°57'	16°45'	11°30'	T 21
W22	20 33 28	7°17'14"	25°54'	0°59'	24°37'	4°53'	27°4'	4°23'	23°53'	26°18'	27°2'	9°49'	9°54'	16°51'	11°28'	W22
T 23	20 37 24	8°14'45"	9°B 16'	1°12'	25°18'	5°26'	27°13'	4°30'	23°53'	26°18'	27°4'	9°R49	9°51'	16°58'	11°26'	T 23
F 24	20 41 21	9°12'17"	23°0'	1°21'	25°59'	5°59'	27°21'	4°37'	23°53'	26°18'	27°5'	9°49'	9°48'	17°5'	11°23'	F 24
S 25	20 45 17	10°9'50"	7°II 6'	1°R24'	26°42'	6°32'	27°29'	4°44'	23°D53	26°18'	27°7'	9°D49	9°45'	17°11'	11°21'	S 25
S 26	20 49 14	11°7'25"	21°35'	1°23'	27°26'	7°6'	27°38'	4°52'	23°53'	26°17'	27°9'	9°49'	9°41'	17°18'	11°19'	S 26
M27	20 53 10	12°5'02"	6°B 21'	1°15'	28°10'	7°40'	27°46'	4°59'	23°53'	26°17'	27°11'	9°49'	9°38'	17°25'	11°16'	M27
T 28	20 57 7	13°2'40"	21°20'	1°3'	28°55'	8°14'	27°54'	5°6'	23°53'	26°17'	27°12'	9°50'	9°35'	17°31'	11°14'	T 28
W29	21 1 4	14°0'19"	6°L23'	0°44'	29°41'	8°49'	28°1'	5°13'	23°53'	26°17'	27°14'	9°R50	9°32'	17°38'	11°12'	W29
T 30	21 5 0	14°57'59"	21°23'	0°21'	0°B 29'	9°23'	28°9'	5°20'	23°53'	26°D17	27°16'	9°50'	9°29'	17°45'	11°9'	T 30
F 31	21 8 57	15°55'41"	6°M 10'	29°L52'	1°B 16'	9°M 58'	28°B 16'	5°M 28'	23°M 54'	26°M 17'	27°M 18'	9°L49	9°L26	17°B 51'	11°H 7'	F 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
W 1	22n24	19n33	1s 5	17n53	0n42	17n37	5s10	10s26	1s 3	17n49	0s56	12n22	1n43	18s39	0n12	17s45
T 2	22 16	17 13	0n18	17 21	0 33	17 36	5 12	10 37	1 4	17 52	0 56	12 20	1 43	18 39	0 12	17 45
F 3	22 8	13 47	1 38	16 50	0 24	17 35	5 13	10 48	1 5	17 55	0 56	12 17	1 43	18 39	0 12	17 45
S 4	22 0	9 36	2 49	16 18	0 14	17 35	5 14	11 0	1 6	17 57	0 56	12 15	1 43	18 38	0 12	17 45
S 5	21 51	5 2	3 49	15 46	0 4	17 36	5 15	11 11	1 7	18 0	0 56	12 13	1 43	18 38	0 12	17 44
M 6	21 42	0 21	4 33	15 14	0s 6	17 37	5 16	11 22	1 8	18 2	0 56	12 10	1 43	18 38	0 12	17 44
T 7	21 33	4s12	5 2	14 42	0 16	17 38	5 16	11 33	1 9	18 5	0 56	12 8	1 43	18 38	0 12	17 44
W 8	21 23	8 26	5 15	14 11	0 27	17 40	5 16	11 45	1 10	18 7	0 56	12 6	1 43	18 38	0 12	17 44
T 9	21 13	12 12	5 13	13 40	0 38	17 43	5 15	11 56	1 11	18 10	0 57	12 3	1 43	18 37	0 12	17 44
F 10	21 3	15 24	4 57	13 9	0 49	17 45	5 14	12 8	1 12	18 12	0 57	12 1	1 43	18 37	0 12	17 44
S 11	20 52	17 53	4 28	12 39	1 1	17 48	5 13	12 19	1 13	18 14	0 57	11 59	1 43	18 37	0 12	17 44
S 12	20 40	19 35	3 47	12 9	1 12	17 52	5 12	12 31	1 14	18 17	0 57	11 56	1 43	18 37	0 12	17 44
M13	20 29	20 26	2 57	11 40	1 24	17 56	5 10	12 42	1 15	18 19	0 57	11 54	1 43	18 37	0 12	17 44
T 14	20 17	20 21	1 59	11 12	1 36	18 0	5 9	12 54	1 15	18 21	0 57	11 51	1 43	18 37	0 12	17 44
W15	20 5	19 23	0 56	10 44	1 48	18 4	5 7	13 6	1 16	18 23	0 57	11 49	1 43	18 37	0 12	17 44
T 16	19 52	17 33	0s 9	10 18	2 1	18 8	5 4	13 17	1 17	18 25	0 57	11 46	1 43	18 37	0 12	17 43
F 17	19 39	14 36	1 15	9 53	2 13	18 13	5 2	13 29	1 18	18 28	0 57	11 44	1 43	18 36	0 12	17 43
S 18	19 26	11 40	2 18	9 29	2 25	18 17	4 59	13 41	1 19	18 30	0 57	11 41	1 43	18 36	0 12	17 43
S 19	19 13	7 52	3 16	9 6	2 38	18 22	4 57	13 53	1 19	18 32	0 57	11 39	1 43	18 36	0 12	17 43
M20	18 59	3 41	4 5	8 45	2 50	18 27	4 54	14 4	1 20	18 34	0 57	11 36	1 43	18 36	0 12	17 43
T 21	18 45	0n45	4 43	8 26	3 2	18 32	4 51	14 16	1 21	18 36	0 57	11 34	1 42	18 36	0 12	17 43
W22	18 30	5 14	5 9	8 8	3 14	18 37	4 47	14 28	1 22	18 37	0 57	11 31	1 42	18 36	0 12	17 43
T 23	18 15	9 36	5 18	7 53	3 25	18 41	4 44	14 40	1 22	18 39	0 58	11 28	1 42	18 36	0 12	17 43
F 24	18 0	13 35	5 9	7 39	3 36	18 46	4 40	14 51	1 23	18 41	0 58	11 26	1 42	18 36	0 12	17 43
S 25	17 45	16 55	4 43	7 28	3 47	18 51	4 37	15 3	1 24	18 43	0 58	11 23	1 42	18 36	0 12	17 43
S 26	17 29	19 17	3 57	7 19	3 57	18 56	4 33	15 15	1 24	18 45	0 58	11 21	1 42	18 36	0 12	17 43
M27	17 13	20 26	2 56	7 13	4 7	19 0	4 29	15 27	1 25	18 47	0 58	11 18	1 42	18 36	0 12	17 43
T 28	16 57	20 9	1 41	7 9	4 15	19 5	4 25	15 39	1 26	18 48	0 58	11 15	1 42	18 36	0 12	17 43
W29	16 40	18 25	0 19	7 8	4 23	19 9	4 21	15 50	1 26	18 50	0 58	11 13	1 42	18 36	0 12	17 43
T 30	16 23	15 25	1n 4	7 10	4 30	19 14	4 17	16 2	1 27	18 51	0 58	11 10	1 42	18 36	0 12	17 44
F 31	16n 6	11n28	2n21	7n16	4s35	19n18	4s12	16s14	1s28	18n53	0s58	11n 7	1n42	18s37	0n12	17s44

Julian Day Number = 2261078.5, Delta T = 05m36s
 Ecliptic obliquity = 23°30'19", Nutation = - 0°00'12", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 17°27'52", Lahiri = 16°34'52" Julian Calendar 1 July 1478 == Greg. Calendar 10 July 1478

ASTRODIENST EPHEMERIS for the year 1478

geocentric

AUGUST 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	21 12 53	16♌53'24	20♍37	29°R17	2♊5	10♍33	28♌24	5♍35	23♍54	26♍17	27♍20	9°R49	9♌22	17♊58	11°R 4	S 1
S 2	21 16 50	17°51'08	4♌41	28♌38	2°54	11° 8	28°31	5°42	23°54	26°17	27°22	9♌48	9°19	18° 5	11♋ 2	S 2
M 3	21 20 46	18°48'53	18°18	27°55	3°44	11°44	28°38	5°49	23°55	26°17	27°23	9°47	9°16	18°11	10°59	M 3
T 4	21 24 43	19°46'39	1♍30	27° 8	4°35	12°20	28°45	5°57	23°55	26°17	27°25	9°46	9°13	18°18	10°56	T 4
W 5	21 28 39	20°44'27	14°17	26°18	5°26	12°55	28°52	6° 4	23°56	26°18	27°27	9°46	9°10	18°25	10°54	W 5
T 6	21 32 36	21°42'16	26°44	25°26	6°18	13°31	28°58	6°11	23°56	26°18	27°29	9°D46	9° 7	18°31	10°51	T 6
F 7	21 36 33	22°40'06	8♌55	24°32	7°11	14° 8	29° 5	6°19	23°57	26°18	27°31	9°46	9° 3	18°38	10°48	F 7
S 8	21 40 29	23°37'57	20°54	23°38	8° 4	14°44	29°11	6°26	23°58	26°18	27°33	9°47	9° 0	18°44	10°46	S 8
S 9	21 44 26	24°35'49	2♊45	22°46	8°58	15°21	29°17	6°34	23°59	26°19	27°35	9°48	8°57	18°51	10°43	S 9
M10	21 48 22	25°33'43	14°34	21°55	9°52	15°57	29°23	6°41	23°59	26°19	27°37	9°50	8°54	18°58	10°40	M10
T 11	21 52 19	26°31'39	26°23	21° 7	10°47	16°34	29°29	6°49	24° 0	26°19	27°39	9°51	8°51	19° 4	10°38	T 11
W12	21 56 15	27°29'35	8♌16	20°24	11°43	17°12	29°35	6°56	24° 1	26°20	27°41	9°R51	8°47	19°11	10°35	W12
T 13	22 0 12	28°27'34	20°15	19°45	12°39	17°49	29°40	7° 4	24° 2	26°20	27°43	9°51	8°44	19°18	10°32	T 13
F 14	22 4 8	29°25'33	2♋24	19°13	13°35	18°26	29°45	7°11	24° 3	26°21	27°45	9°50	8°41	19°24	10°29	F 14
S 15	22 8 5	0♍23'35	14°42	18°48	14°32	19° 4	29°50	7°19	24° 4	26°21	27°47	9°47	8°38	19°31	10°26	S 15
S 16	22 12 2	1°21'38	27°13	18°30	15°30	19°42	29°55	7°26	24° 5	26°22	27°49	9°44	8°35	19°38	10°24	S 16
M17	22 15 58	2°19'43	9♌56	18°20	16°28	20°20	0♍ 0	7°34	24° 7	26°22	27°52	9°41	8°32	19°44	10°21	M17
T 18	22 19 55	3°17'50	22°53	18°D19	17°26	20°58	0° 5	7°41	24° 8	26°23	27°54	9°37	8°28	19°51	10°18	T 18
W19	22 23 51	4°15'58	6♌ 4	18°26	18°25	21°36	0° 9	7°49	24° 9	26°23	27°56	9°35	8°25	19°58	10°15	W19
T 20	22 27 48	5°14'09	19°30	18°42	19°24	22°15	0°14	7°56	24°10	26°24	27°58	9°33	8°22	20° 4	10°12	T 20
F 21	22 31 44	6°12'22	3♍11	19° 7	20°24	22°53	0°18	8° 4	24°12	26°25	28° 0	9°D32	8°19	20°11	10° 9	F 21
S 22	22 35 41	7°10'37	17° 9	19°40	21°24	23°32	0°22	8°11	24°13	26°25	28° 2	9°32	8°16	20°18	10° 7	S 22
S 23	22 39 37	8° 8'55	1♊22	20°22	22°24	24°11	0°25	8°19	24°15	26°26	28° 5	9°33	8°13	20°24	10° 4	S 23
M24	22 43 34	9° 7'14	15°48	21°11	23°25	24°50	0°29	8°26	24°16	26°27	28° 7	9°35	8° 9	20°31	10° 1	M24
T 25	22 47 31	10° 5'36	0♌25	22° 8	24°26	25°29	0°32	8°34	24°18	26°28	28° 9	9°36	8° 6	20°38	9°58	T 25
W26	22 51 27	11° 3'59	15° 7	23°13	25°28	26° 8	0°35	8°41	24°19	26°29	28°11	9°R36	8° 3	20°44	9°55	W26
T 27	22 55 24	12° 2'25	29°49	24°24	26°30	26°48	0°38	8°49	24°21	26°30	28°13	9°35	8° 0	20°51	9°52	T 27
F 28	22 59 20	13° 0'52	14♍24	25°41	27°32	27°28	0°41	8°56	24°23	26°30	28°16	9°32	7°57	20°58	9°49	F 28
S 29	23 3 17	13°59'21	28°45	27° 4	28°35	28° 7	0°44	9° 4	24°25	26°31	28°18	9°27	7°53	21° 4	9°46	S 29
S 30	23 7 13	14°57'52	12♌47	28°32	29°37	28°47	0°46	9°11	24°26	26°32	28°20	9°22	7°50	21°11	9°44	S 30
M31	23 11 10	15♍56'25	26♌26	0♍ 5	0♌40	29♍27	0♍48	9♍19	24♍28	26♍33	28♍22	9♌16	7♌47	21♊17	9♋41	M31

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat	
S 1	15n49	6n54	3n28	7n24	4s39	19n21	4 s 8	16s25	1s28	18n55	0s58	11n 5	1n42	18s37	0n12	17s44	1n42	15n56	16n15	17n50	17n57	20s26	2s33	5n16	
S 2	15 31	2 7	4 20	7 35	4 41	19 25	4 4	16 37	1 29	18 56	0 58	11 2	1 42	18 37	0 12	17 44	1 42	15 55	16 14	17 51	17 58	20 26	2 34	5 16	
M 3	15 14	2s39	4 55	7 49	4 42	19 28	3 59	16 49	1 29	18 58	0 59	10 59	1 42	18 37	0 12	17 44	1 42	15 54	16 14	17 51	17 59	20 26	2 35	5 17	
T 4	14 55	7 7	5 14	8 5	4 41	19 31	3 54	17 0	1 30	18 59	0 59	10 57	1 42	18 37	0 12	17 44	1 41	15 53	16 14	17 51	18 0	20 26	2 36	5 17	
W 5	14 37	11 8	5 16	8 25	4 39	19 34	3 50	17 12	1 30	19 0	0 59	10 54	1 42	18 37	0 12	17 44	1 41	15 52	16 14	17 51	18 1	20 26	2 37	5 17	
T 6	14 19	14 33	5 4	8 47	4 34	19 37	3 45	17 23	1 31	19 2	0 59	10 51	1 42	18 37	0 12	17 44	1 41	15 51	16 13	17 51	18 2	20 25	2 38	5 17	
F 7	14 0	17 17	4 37	9 10	4 28	19 39	3 40	17 34	1 31	19 3	0 59	10 48	1 42	18 38	0 11	17 44	1 41	15 50	16 13	17 51	18 2	20 25	2 39	5 17	
S 8	13 41	19 13	3 59	9 36	4 19	19 41	3 35	17 46	1 32	19 4	0 59	10 46	1 42	18 38	0 11	17 44	1 41	15 48	16 13	17 51	18 3	20 25	2 40	5 17	
S 9	13 22	20 17	3 11	10 3	4 9	19 42	3 30	17 57	1 32	19 5	0 59	10 43	1 43	18 38	0 11	17 44	1 41	15 47	16 13	17 51	18 4	20 25	2 41	5 17	
M10	13 2	20 28	2 16	10 30	3 57	19 43	3 25	18 8	1 33	19 7	0 59	10 40	1 43	18 38	0 11	17 45	1 41	15 46	16 12	17 50	18 5	20 25	2 42	5 17	
T 11	12 42	19 43	1 14	10 58	3 43	19 44	3 20	18 20	1 33	19 8	0 59	10 37	1 43	18 38	0 11	17 45	1 41	15 45	16 12	17 50	18 6	20 25	2 43	5 17	
W12	12 23	18 6	0 9	11 26	3 28	19 45	3 15	18 31	1 34	19 9	0 59	10 35	1 43	18 39	0 11	17 45	1 41	15 44	16 12	17 50	18 7	20 25	2 44	5 17	
T 13	12 3	15 41	0s57	11 54	3 12	19 45	3 10	18 42	1 34	19 10	0 59	10 32	1 43	18 39	0 11	17 45	1 41	15 43	16 12	17 50	18 8	20 25	2 45	5 17	
F 14	11 42	12 32	2 1	12 20	2 55	19 44	3 5	18 53	1 34	19 11	1 0	10 29	1 43	18 39	0 11	17 45	1 41	15 42	16 11	17 50	18 8	20 25	2 46	5 17	
S 15	11 22	8 49	3 1	12 45	2 37	19 44	3 0	19 3	1 35	19 12	1 0	10 26	1 43	18 40	0 11	17 45	1 41	15 41	16 11	17 51	18 9	20 25	2 47	5 17	
S 16	11 1	4 40	3 52	13 8	2 18	19 42	2 55	19 14	1 35	19 13	1 0	10 24	1 43	18 40	0 11	17 46	1 41	15 40	16 11	17 52	18 10	20 24	2 48	5 17	
M17	10 40	0 15	4 33	13 29	2 0	19 41	2 50	19 25	1 36	19 14	1 0	10 21	1 43	18 40	0 11	17 46	1 41	15 39	16 11	17 53	18 11	20 24	2 49	5 17	
T 18	10 19	4n15	5 1	13 47	1 41	19 39	2 44	19 35	1 36	19 15	1 0	10 18	1 43	18 40	0 11	17 46	1 41	15 38	16 11	17 53	18 12	20 24	2 50	5 17	
W19	9 58	8 38	5 14	14 2	1 22	19 36	2 39	19 46	1 36	19 16	1 0	10 15	1 43	18 41	0 11	17 46	1 41	15 37	16 10	17 54	18 13	20 24	2 51	5 17	
T 20	9 37	12 41	5 10	14 15	1 4	19 33	2 34	19 56	1 37	19 16	1 0	10 12	1 43	18 41	0 11	17 46	1 41	15 36	16 10	17 55	18 13	20 24	2 52	5 17	
F 21	9 16	16 8	4 48	14 24	0 46	19 30	2 29	20 7	1 37	19 17	1 0	10 10	1 43	18 42	0 11	17 47	1 40	15 35	16 10	17 55	18 14	20 24	2 53	5 17	
S 22	8 54	18 45	4 9	14 30	0 29	19 26	2 24	20 17	1 37	19 18	1 0	10 7	1 43	18 42	0 11	17 47	1 40	15 34	16 10	17 55	18 15	20 24	2 55	5 17	
S 23	8 32	20 15	3 15	14 33	0 12	19 22	2 18	20 27	1 38	19 19	1 1	10 4	1 43	18 42	0 11	17 47	1 40	15 33	16 10	17 55	18 16	20 23	2 56	5 17	
M24	8 10	20 28	2 7	14 32	0n 3	19 17	2 13	20 37	1 38	19 19	1 1	10 1	1 43	18 43	0 11	17 47	1 40	15 32	16 10	17 54	18 17	20 23	2 57	5 17	
T 25	7 48	19 18	0 50	14 27	0 18	19 12	2 8	20 47	1 38	19 20	1 1	9 59	1 43	18 43	0 11	17 48	1 40	15 31	16 10	17 54	18 17	20 23	2 58	5 17	
W26	7 26	16 50	0n30	14 19	0 32	19 6	2 3	20 56	1 39	19 20	1 1	9 56	1 43	18 43	0 11	17 48	1 40	15 30	16 9	17 54	18 18	20 23	2 59	5 16	
T 27	7 4	13 16	1 48	14 7	0 44	19 0	1 57	21 6	1 39	19 21	1 1	9 53	1 43	18 44	0 11	17 48	1 40	15 29	16 9	17 54	18 19	20 23	3 0	5 16	
F 28	6 41	8 54	2 59	13 52	0 56	18 53	1 52	21 15	1 39	19 21	1 1	9 50	1 43	18 44	0 11	17 48	1 40	15 28	16 9	17 55	18 20	20 23	3 1	5 16	
S 29	6 19	4 7	3 57	13 33	1 6	18 45	1 47	21 25	1 39	19 22	1 1	9 47	1 43	18 45	0 11	17 49	1 40	15 27	16 9	17 56	18 21	20 22	3 3	5 16	
S 30	5 56	0s47	4 39	13 12	1 15	18 38	1 42	21 34	1 39	19 22	1 1	9 45	1 44	18 45	0 11	17 49	1 40	15 26	16 9	17 58	18 22	20 22	3 4	5 16	
M31	5n34	5s30	5n 3	12n47	1n23	18n29	1s37	21s43	1s40	19n23	1 s 1	9n42	1n44	18s46	0n11	17s49	1n40	15n25	16n 9	17n59	18n22	20s22	3s 5	5n16	

ASTRODIENST EPHEMERIS for the year 1478

geocentric

SEPTEMBER 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	23 15 6	16 ^m 55'00	9 ^m 40	1 ^m 41	1 ^m 44	0 ^m 8	0 ^m 15	9 ^m 26	24 ^m 30	26 ^m 34	28 ^m 25	9°R10	7 ^m 44	21 ^m 32	9°R38	T 1
W 2	23 19 3	17°53'36	22°30	3°20	2°48	0°48	0°52	9°34	24°32	26°35	28°27	9°Ω 6	7°41	21°31	9°R35	W 2
T 3	23 22 59	18°52'14	4 ^m 59	5° 2	3°52	1°29	0°54	9°41	24°34	26°37	28°29	9° Ω 3	7°38	21°37	9°32	T 3
F 4	23 26 56	19°50'54	17°11	6°47	4°56	2° 9	0°55	9°49	24°36	26°38	28°32	9°D 2	7°34	21°44	9°29	F 4
S 5	23 30 53	20°49'35	29° 9	8°33	6° 0	2°50	0°57	9°56	24°38	26°39	28°34	9° Ω 3	7°31	21°51	9°27	S 5
S 6	23 34 49	21°48'19	11 ^m 30	10°20	7° 5	3°31	0°58	10° 4	24°40	26°40	28°36	9° Ω 4	7°28	21°57	9°24	S 6
M 7	23 38 46	22°47'04	22°49	12° 9	8°10	4°12	0°58	10°11	24°42	26°41	28°38	9° Ω 6	7°25	22° 4	9°21	M 7
T 8	23 42 42	23°45'51	4 ^m 39	13°58	9°15	4°53	0°59	10°19	24°45	26°42	28°41	9°R 7	7°22	22°11	9°18	T 8
W 9	23 46 39	24°44'39	16°36	15°48	10°21	5°34	1° 0	10°26	24°47	26°44	28°43	9° Ω 6	7°19	22°17	9°16	W 9
T 10	23 50 35	25°43'30	28°44	17°38	11°27	6°15	1° 0	10°33	24°49	26°45	28°45	9° Ω 4	7°15	22°24	9°13	T 10
F 11	23 54 32	26°42'22	11 ^m 4	19°28	12°33	6°57	1°R 0	10°41	24°51	26°46	28°48	9° Ω 0	7°12	22°31	9°10	F 11
S 12	23 58 28	27°41'16	23°39	21°18	13°39	7°39	1° 0	10°48	24°54	26°48	28°50	8°54	7° 9	22°37	9° 8	S 12
S 13	0 2 25	28°40'12	6 ^m 29	23° 7	14°45	8°20	0°59	10°55	24°56	26°49	28°52	8°46	7° 6	22°44	9° 5	S 13
M14	0 6 22	29°39'11	19°35	24°56	15°52	9° 2	0°59	11° 3	24°59	26°50	28°55	8°37	7° 3	22°51	9° 2	M14
T 15	0 10 18	0 ^m 38'11	2 ^m 54	26°44	16°59	9°44	0°58	11°10	25° 1	26°52	28°57	8°28	6°59	22°57	9° 0	T 15
W16	0 14 15	1°37'14	16°24	28°32	18° 6	10°26	0°57	11°17	25° 4	26°53	28°59	8°20	6°56	23° 4	8°57	W16
T 17	0 18 11	2°36'19	0 ^m 11	0 ^m 19	19°14	11° 8	0°56	11°24	25° 6	26°55	29° 1	8°14	6°53	23°11	8°55	T 17
F 18	0 22 8	3°35'27	13°56	2° 6	20°21	11°50	0°55	11°32	25° 9	26°56	29° 4	8°10	6°50	23°17	8°52	F 18
S 19	0 26 4	4°34'37	27°54	3°51	21°29	12°33	0°53	11°39	25°11	26°58	29° 6	8° 8	6°47	23°24	8°50	S 19
S 20	0 30 1	5°33'49	11 ^m 58	5°37	22°37	13°15	0°51	11°46	25°14	26°59	29° 8	8°D 8	6°44	23°30	8°47	S 20
M21	0 33 57	6°33'04	26° 8	7°21	23°45	13°58	0°49	11°53	25°17	27° 1	29°11	8° 9	6°40	23°37	8°45	M21
T 22	0 37 54	7°32'21	10 ^m 23	9° 4	24°53	14°40	0°47	12° 0	25°20	27° 2	29°13	8°R 9	6°37	23°44	8°42	T 22
W23	0 41 51	8°31'40	24°40	10°47	26° 2	15°23	0°45	12° 7	25°22	27° 4	29°15	8° 8	6°34	23°50	8°40	W23
T 24	0 45 47	9°31'01	8 ^m 56	12°29	27°10	16° 6	0°42	12°14	25°25	27° 6	29°18	8° 5	6°31	23°57	8°37	T 24
F 25	0 49 44	10°30'25	23° 8	14°10	28°19	16°49	0°39	12°21	25°28	27° 7	29°20	7°58	6°28	24° 4	8°35	F 25
S 26	0 53 40	11°29'51	7 ^m 10	15°51	29°28	17°32	0°36	12°28	25°31	27° 9	29°22	7°50	6°24	24°10	8°33	S 26
S 27	0 57 37	12°29'19	20°58	17°30	0 ^m 37	18°15	0°33	12°35	25°34	27°11	29°24	7°39	6°21	24°17	8°31	S 27
M28	1 1 33	13°28'49	4 ^m 18	19° 9	1°47	18°58	0°30	12°42	25°37	27°13	29°27	7°28	6°18	24°24	8°28	M28
T 29	1 5 30	14°28'21	17°37	20°48	2°56	19°42	0°26	12°49	25°40	27°14	29°29	7°17	6°15	24°30	8°26	T 29
W30	1 9 26	15°27'55	0 ^m 25	22°26	4 ^m 6	20°25	0°12	12 ^m 55	25 ^m 43	27 ^m 16	29 ^m 31	7°Ω 7	6°Ω12	24°37	8°R24	W30

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	5n11	9s50	5n11	12n19	1n30	18n21	1s31	21s52	1s40	19n23	1s 1	9n39	1n44	18s46	0n11	17s49	1n40	15n24	16n 9	18n 1	18n23	20s22	3s 6	5n16	
W 2	4 48	13 34	5 3	11 48	1 36	18 11	1 26	22 0	1 40	19 23	1 2	9 36	1 44	18 47	0 11	17 50	1 40	15 23	16 9	18 2	18 24	20 22	3 7	5 16	
T 3	4 25	16 36	4 40	11 15	1 41	18 2	1 21	22 9	1 40	19 23	1 2	9 34	1 44	18 47	0 11	17 50	1 40	15 22	16 9	18 2	18 25	20 22	3 8	5 16	
F 4	4 2	18 49	4 5	10 40	1 45	17 51	1 16	22 17	1 40	19 24	1 2	9 31	1 44	18 48	0 11	17 50	1 40	15 22	16 9	18 3	18 26	20 21	3 9	5 16	
S 5	3 39	20 10	3 20	10 3	1 48	17 40	1 11	22 26	1 41	19 24	1 2	9 28	1 44	18 48	0 11	17 51	1 40	15 21	16 9	18 3	18 26	20 21	3 11	5 15	
S 6	3 16	20 37	2 27	9 24	1 50	17 29	1 6	22 34	1 41	19 24	1 2	9 25	1 44	18 49	0 11	17 51	1 40	15 20	16 9	18 2	18 27	20 21	3 12	5 15	
M 7	2 52	20 8	1 27	8 44	1 51	17 17	1 1	22 42	1 41	19 24	1 2	9 23	1 44	18 49	0 11	17 51	1 40	15 19	16 9	18 2	18 28	20 21	3 13	5 15	
T 8	2 29	18 46	0 24	8 2	1 51	17 5	0 56	22 49	1 41	19 24	1 2	9 20	1 44	18 50	0 11	17 52	1 39	15 18	16 9	18 2	18 29	20 20	3 14	5 15	
W 9	2 6	16 33	0s41	7 19	1 51	16 52	0 51	22 57	1 41	19 24	1 2	9 17	1 44	18 50	0 11	17 52	1 39	15 17	16 9	18 2	18 30	20 20	3 15	5 15	
T 10	1 42	13 34	1 44	6 35	1 50	16 39	0 47	23 4	1 41	19 24	1 2	9 14	1 44	18 51	0 11	17 52	1 39	15 16	16 9	18 2	18 31	20 20	3 16	5 15	
F 11	1 19	9 58	2 44	5 50	1 48	16 25	0 42	23 12	1 41	19 24	1 2	9 12	1 45	18 52	0 11	17 53	1 39	15 15	16 9	18 3	18 31	20 20	3 17	5 15	
S 12	0 55	5 50	3 37	5 5	1 46	16 11	0 37	23 19	1 41	19 24	1 3	9 9	1 45	18 52	0 11	17 53	1 39	15 14	16 9	18 5	18 32	20 20	3 19	5 14	
S 13	0 32	1 23	4 20	4 19	1 43	15 56	0 32	23 26	1 41	19 24	1 3	9 6	1 45	18 53	0 11	17 53	1 39	15 13	16 9	18 7	18 33	20 19	3 20	5 14	
M14	0 8	3n12	4 50	3 33	1 40	15 41	0 28	23 32	1 42	19 23	1 3	9 4	1 45	18 53	0 11	17 54	1 39	15 12	16 9	18 9	18 34	20 19	3 21	5 14	
T 15	0s15	7 44	5 5	2 46	1 36	15 25	0 23	23 39	1 42	19 23	1 3	9 1	1 45	18 54	0 11	17 54	1 39	15 12	16 9	18 12	18 35	20 19	3 22	5 14	
W16	0 39	11 57	5 3	2 0	1 32	15 9	0 19	23 45	1 42	19 23	1 3	8 58	1 45	18 55	0 11	17 55	1 39	15 11	16 9	18 14	18 35	20 19	3 23	5 14	
T 17	1 2	15 35	4 44	1 13	1 28	14 53	0 14	23 51	1 42	19 22	1 3	8 56	1 45	18 55	0 11	17 55	1 39	15 10	16 9	18 15	18 36	20 18	3 24	5 14	
F 18	1 26	18 25	4 9	0 26	1 23	14 35	0 10	23 57	1 42	19 22	1 3	8 53	1 45	18 56	0 11	17 55	1 39	15 9	16 9	18 17	18 37	20 18	3 25	5 13	
S 19	1 49	20 11	3 18	0s21	1 18	14 18	0 5	24 3	1 42	19 22	1 3	8 50	1 45	18 57	0 11	17 56	1 39	15 8	16 9	18 17	18 38	20 18	3 27	5 13	
S 20	2 13	20 43	2 16	1 8	1 12	14 0	0 1	24 8	1 42	19 21	1 3	8 48	1 46	18 57	0 11	17 56	1 39	15 7	16 9	18 17	18 39	20 17	3 28	5 13	
M21	2 36	19 56	1 4	1 54	1 7	13 42	0n 3	24 13	1 42	19 21	1 3	8 45	1 46	18 58	0 11	17 57	1 39	15 6	16 9	18 17	18 39	20 17	3 29	5 13	
T 22	3 0	17 53	0n12	2 40	1 1	13 23	0 8	24 18	1 42	19 20	1 3	8 43	1 46	18 59	0 11	17 57	1 39	15 6	16 9	18 17	18 40	20 17	3 30	5 13	
W23	3 23	14 42	1 27	3 26	0 55	13 4	0 12	24 23	1 42	19 20	1 3	8 40	1 46	18 59	0 11	17 57	1 39	15 5	16 9	18 17	18 41	20 17	3 31	5 12	
T 24	3 47	10 40	2 37	4 12	0 49	12 44	0 16	24 28	1 42	19 19	1 4	8 37	1 46	19 0	0 11	17 58	1 39	15 4	16 10	18 18	18 42	20 16	3 32	5 12	
F 25	4 10	6 2	3 36	4 57	0 43	12 24	0 20	24 32	1 41	19 18	1 4	8 35	1 46	19 1	0 11	17 58	1 39	15 3	16 10	18 19	18 43	20 16	3 33	5 12	
S 26	4 34	1 9	4 21	5 42	0 36	12 3	0 24	24 36	1 41	19 18	1 4	8 32	1 46	19 1	0 11	17 59	1 39	15 2	16 10	18 22	18 43	20 16	3 34	5 12	
S 27	4 57	3s43	4 50	6 26	0 30	11 43	0 27	24 40	1 41	19 17	1 4	8 30	1 47	19 2	0 11	17 59	1 39	15 2	16 10	18 24	18 44	20 15	3 35	5 11	
M28	5 20	8 17	5 3	7 10	0 23	11 21	0 31	24 44	1 41	19 16	1 4	8 27	1 47	19 3	0 11	17 59	1 38	15 1	16 10	18 27	18 45	20 15	3 36	5 11	
T 29	5 43	12 22	4 58	7 53	0 16	11 0	0 35	24 47	1 41	19 16	1 4	8 25	1 47	19 3	0 11	18 0	1 38	15 0	16 10	18 30	18 46	20 15	3 37	5 11	
W30	6s 6	15s45	4n39	8s36	0n10	10n38	0n38	24s50	1s41	19n15	1s 4	8n22	1n47	19s 4	0n11	18s 0	1n38	14n59	16n10	18n33	18n47	20s14	3s38	5n16	

ASTRODIENST EPHEMERIS for the year 1478
geocentric

OCTOBER 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	1 13 23	16♂2731	12♂54	24♂ 3	5♍16	21♌ 9	0°R19	13♍ 2	25♍46	27♍18	29♍33	7°R 0	6♏ 9	24♂44	8°R22	T 1
F 2	1 17 20	17°27'08	25° 5	25°39	6°26	21°52	0II15	13° 9	25°49	27°20	29°36	6♏55	6° 5	24°50	8°20	F 2
S 3	1 21 16	18°26'48	7♂ 4	27°15	7°36	22°36	0°10	13°15	25°52	27°22	29°38	6°53	6° 2	24°57	8°18	S 3
S 4	1 25 13	19°26'29	18°54	28°50	8°46	23°20	0° 6	13°22	25°55	27°23	29°40	6°D52	5°59	25° 4	8°16	S 4
M 5	1 29 9	20°26'12	0♏42	0♍24	9°56	24° 4	0° 1	13°29	25°58	27°25	29°42	6°R53	5°56	25°10	8°14	M 5
T 6	1 33 6	21°25'57	12°33	1°58	11° 7	24°48	29♂56	13°35	26° 2	27°27	29°44	6°53	5°53	25°17	8°12	T 6
W 7	1 37 2	22°25'43	24°33	3°32	12°17	25°32	29°52	13°42	26° 5	27°29	29°47	6°51	5°50	25°23	8°10	W 7
T 8	1 40 59	23°25'31	6♌45	5° 4	13°28	26°16	29°46	13°48	26° 8	27°31	29°49	6°48	5°46	25°30	8° 9	T 8
F 9	1 44 55	24°25'21	19°14	6°37	14°39	27° 0	29°41	13°54	26°11	27°33	29°51	6°41	5°43	25°37	8° 7	F 9
S 10	1 48 52	25°25'13	2♌ 3	8° 8	15°50	27°44	29°36	14° 1	26°15	27°35	29°53	6°33	5°40	25°43	8° 5	S 10
S 11	1 52 48	26°25'07	15°12	9°40	17° 1	28°29	29°30	14° 7	26°18	27°37	29°55	6°21	5°37	25°50	8° 3	S 11
M12	1 56 45	27°25'02	28°40	11°10	18°12	29°13	29°24	14°13	26°21	27°39	29°57	6° 9	5°34	25°57	8° 2	M12
T 13	2 0 42	28°24'59	12♂24	12°40	19°24	29°57	29°18	14°19	26°25	27°41	29°59	5°56	5°30	26° 3	8° 0	T 13
W14	2 4 38	29°24'59	26°22	14°10	20°35	0♂42	29°12	14°25	26°28	27°43	0♂ 1	5°45	5°27	26°10	7°59	W14
T 15	2 8 35	0♍25'00	10II28	15°39	21°47	1°27	29° 6	14°31	26°31	27°45	0° 3	5°36	5°24	26°17	7°57	T 15
F 16	2 12 31	1°25'04	24°38	17° 8	22°58	2°11	29° 0	14°37	26°35	27°47	0° 6	5°29	5°21	26°23	7°56	F 16
S 17	2 16 28	2°25'10	8♂49	18°36	24°10	2°56	28°53	14°43	26°38	27°49	0° 8	5°26	5°18	26°30	7°55	S 17
S 18	2 20 24	3°25'18	22°57	20° 3	25°22	3°41	28°46	14°49	26°42	27°51	0°10	5°24	5°15	26°37	7°53	S 18
M19	2 24 21	4°25'28	7♏ 3	21°30	26°34	4°26	28°40	14°55	26°45	27°53	0°12	5°24	5°11	26°43	7°52	M19
T 20	2 28 17	5°25'41	21° 5	22°56	27°46	5°11	28°33	15° 0	26°49	27°55	0°14	5°24	5° 8	26°50	7°51	T 20
W21	2 32 14	6°25'55	5♍ 2	24°22	28°58	5°56	28°26	15° 6	26°52	27°58	0°16	5°22	5° 5	26°57	7°50	W21
T 22	2 36 11	7°26'11	18°54	25°47	0♂11	6°41	28°19	15°12	26°56	28° 0	0°18	5°17	5° 2	27° 3	7°49	T 22
F 23	2 40 7	8°26'30	2♂39	27°11	1°23	7°26	28°11	15°17	26°59	28° 2	0°19	5°10	4°59	27°10	7°48	F 23
S 24	2 44 4	9°26'50	16°16	28°35	2°36	8°11	28° 4	15°23	27° 3	28° 4	0°21	5° 0	4°55	27°16	7°47	S 24
S 25	2 48 0	10°27'12	29°41	29°58	3°48	8°56	27°57	15°28	27° 6	28° 6	0°23	4°47	4°52	27°23	7°46	S 25
M26	2 51 57	11°27'36	12♍52	1♌19	5° 1	9°42	27°49	15°33	27°10	28° 8	0°25	4°43	4°49	27°30	7°45	M26
T 27	2 55 53	12°28'02	25°47	2°40	6°14	10°27	27°41	15°38	27°14	28°11	0°27	4°20	4°46	27°36	7°44	T 27
W28	2 59 50	13°28'29	8♌26	3°59	7°27	11°12	27°34	15°44	27°17	28°13	0°29	4° 8	4°43	27°43	7°43	W28
T 29	3 3 46	14°28'58	20°49	5°18	8°40	11°58	27°26	15°49	27°21	28°15	0°31	3°59	4°40	27°50	7°43	T 29
F 30	3 7 43	15°29'28	2♂57	6°34	9°52	12°43	27°18	15°54	27°24	28°17	0°32	3°52	4°36	27°56	7°42	F 30
S 31	3 11 40	16♍30'00	14♂54	7♌49	11♂ 6	13♂29	27♂10	15♍59	27♍28	28♍19	0♂34	3♏49	4♏33	28♂ 3	7♌41	S 31

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	6s29	18s20	4n 6	9s18	0n 3	10n16	0n42	24s53	1s41	19n14	1s 4	8n20	1n47	19s 5	0n11	18s 1	1n38	14n59	16n11	18n34	18n47	20s14	3s39	5n10	
F 2	6 52	20 2	3 23	10 0	0s 4	9 53	0 45	24 56	1 41	19 13	1 4	8 17	1 47	19 6	0 11	18 1	1 38	14 58	16 11	18 36	18 48	20 14	3 40	5 10	
S 3	7 15	20 48	2 32	10 41	0 11	9 30	0 49	24 58	1 41	19 12	1 4	8 15	1 47	19 6	0 10	18 2	1 38	14 57	16 11	18 36	18 49	20 13	3 41	5 10	
S 4	7 38	20 37	1 34	11 22	0 18	9 7	0 52	25 1	1 41	19 11	1 4	8 13	1 48	19 7	0 10	18 2	1 38	14 57	16 11	18 36	18 50	20 13	3 42	5 10	
M 5	8 0	19 31	0 33	12 2	0 24	8 43	0 55	25 3	1 40	19 10	1 4	8 10	1 48	19 8	0 10	18 3	1 38	14 56	16 11	18 36	18 50	20 13	3 43	5 9	
T 6	8 23	17 34	0s30	12 41	0 31	8 19	0 58	25 4	1 40	19 9	1 4	8 8	1 48	19 9	0 10	18 3	1 38	14 55	16 12	18 36	18 51	20 12	3 44	5 9	
W 7	8 45	14 50	1 32	13 19	0 38	7 55	1 2	25 6	1 40	19 8	1 4	8 6	1 48	19 9	0 10	18 4	1 38	14 55	16 12	18 37	18 52	20 12	3 45	5 9	
T 8	9 7	11 24	2 31	13 57	0 45	7 31	1 4	25 7	1 40	19 7	1 4	8 3	1 48	19 10	0 10	18 4	1 38	14 54	16 12	18 38	18 53	20 12	3 46	5 9	
F 9	9 30	7 24	3 25	14 34	0 51	7 6	1 7	25 8	1 40	19 6	1 4	8 1	1 48	19 11	0 10	18 5	1 38	14 53	16 12	18 39	18 54	20 11	3 47	5 8	
S 10	9 51	2 59	4 9	15 10	0 58	6 41	1 10	25 9	1 39	19 4	1 4	7 59	1 49	19 12	0 10	18 5	1 38	14 53	16 13	18 41	18 54	20 11	3 48	5 8	
S 11	10 13	1n41	4 41	15 46	1 4	6 16	1 13	25 9	1 39	19 3	1 4	7 56	1 49	19 13	0 10	18 5	1 38	14 52	16 13	18 44	18 55	20 11	3 49	5 8	
M12	10 35	6 23	4 58	16 21	1 11	5 50	1 15	25 9	1 39	19 2	1 4	7 54	1 49	19 13	0 10	18 6	1 38	14 52	16 13	18 47	18 56	20 10	3 50	5 7	
T 13	10 56	10 52	4 59	16 54	1 17	5 24	1 18	25 9	1 39	19 1	1 4	7 52	1 49	19 14	0 10	18 6	1 38	14 51	16 13	18 50	18 57	20 10	3 50	5 7	
W14	11 18	14 50	4 42	17 28	1 23	4 58	1 20	25 9	1 39	18 59	1 4	7 50	1 49	19 15	0 10	18 7	1 38	14 50	16 14	18 53	18 58	20 9	3 51	5 7	
T 15	11 39	18 0	4 7	18 0	1 29	4 32	1 23	25 8	1 38	18 58	1 4	7 48	1 49	19 16	0 10	18 7	1 38	14 50	16 14	18 55	18 58	20 9	3 52	5 6	
F 16	12 0	20 6	3 18	18 31	1 35	4 6	1 25	25 7	1 38	18 57	1 4	7 45	1 50	19 17	0 10	18 8	1 38	14 49	16 14	18 57	18 59	20 9	3 53	5 6	
S 17	12 21	20 57	2 16	19 1	1 41	3 39	1 27	25 6	1 38	18 55	1 4	7 43	1 50	19 17	0 10	18 8	1 38	14 49	16 15	18 58	19 0	20 8	3 54	5 6	
S 18	12 41	20 28	1 5	19 31	1 46	3 13	1 29	25 5	1 38	18 54	1 4	7 41	1 50	19 18	0 10	18 9	1 38	14 48	16 15	18 58	19 1	20 8	3 54	5 6	
M19	13 2	18 42	0n 9	19 59	1 52	2 46	1 31	25 3	1 37	18 52	1 4	7 39	1 50	19 19	0 10	18 9	1 38	14 48	16 15	18 58	19 1	20 7	3 55	5 5	
T 20	13 22	15 48	1 22	20 27	1 57	2 19	1 33	25 1	1 37	18 51	1 4	7 37	1 50	19 20	0 10	18 10	1 38	14 47	16 16	18 58	19 2	20 7	3 56	5 5	
W21	13 42	12 1	2 30	20 53	2 2	1 52	1 35	24 59	1 37	18 49	1 4	7 35	1 51	19 21	0 10	18 10	1 38	14 47	16 16	18 59	19 3	20 7	3 57	5 5	
T 22	14 2	7 36	3 28	21 18	2 7	1 24	1 37	24 56	1 36	18 48	1 4	7 33	1 51	19 22	0 10	18 11	1 38	14 46	16 16	19 0	19 4	20 6	3 57	5 4	
F 23	14 21	2 49	4 14	21 43	2 11	0 57	1 38	24 54	1 36	18 46	1 4	7 31	1 51	19 22	0 10	18 11	1 38	14 46	16 17	19 2	19 4	20 6	3 58	5 4	
S 24	14 41	2s 2	4 45	22 6	2 15	0 29	1 40	24 51	1 36	18 45	1 4	7 29	1 51	19 23	0 10	18 12	1 38	14 45	16 17	19 4	19 5	20 5	3 59	5 4	
S 25	15 0	6 43	4 59	22 28	2 19	0 2	1 41	24 47	1 35	18 43	1 4	7 27	1 51	19 24	0 10	18 12	1 38	14 45	16 17	19 7	19 6	20 5	3 59	5 3	
M26	15 19	11 1	4 57	22 48	2 23	0s26	1 43	24 44	1 35	18 41	1 4	7 25	1 52	19 25	0 10	18 13	1 38	14 45	16 18	19 11	19 7	20 4	4 0	5 3	
T 27	15 37	14 43	4 40	23 8	2 26	0 54	1 44	24 40	1 35	18 40	1 4	7 24	1 52	19 26	0 10	18 13	1 38	14 44	16 18	19 14	19 8	20 4	4 1	5 3	
W28	15 56	17 40	4 9	23 26	2 29	1 21	1 45	24 36	1 34	18 38	1 4	7 22	1 52	19 27	0 10	18 14	1 38	14 44	16 18	19 17	19 8	20 4	4 1	5 2	
T 29	16 14	19 45	3 27	23 43	2 31	1 49	1 46	24 31	1 34	18 36	1 4	7 20	1 52	19 27	0 10	18 14	1 38	14 44	16 19	19 19	19 9	20 3	4 2	5 2	
F 30	16 31	20 53	2 36	23 59	2 33	1 17	1 47	24 27	1 34	18 34	1 4	7 18	1 53	19 28	0 10	18 15	1 38	14 43	16 19	19 20	19 10	20 3	4 2	5 2	
S 31	16s49	21s 2	1n39	24s13	2s34	2s45	1n48	24s22	1s33	18n33	1s 4	7n17	1n53	19s29	0n10	18s15	1n38	14n43	16n20	19n21	19n11	20s 2	4s 3	5n 1	

ASTRODIENST EPHEMERIS for the year 1478

geocentric

NOVEMBER 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	3 15 36	17 ¹⁷ 30'33	26 ²⁶ 43	9 ⁹ 3	12 ¹² 19	14 ¹⁴ 15	27 ²⁷ R 2	16 ¹⁶ 4	27 ²⁷ 32	28 ²⁸ 22	0 ⁰ 36	3 ³ R47	4 ⁴ 30	28 ²⁸ 10	7 ⁷ R41	S 1
M 2	3 19 33	18 ¹⁸ 31'07	8 ⁸ 30	10 ¹⁰ 14	13 ¹³ 32	15 ¹⁵ 0	26 ²⁶ 54	16 ¹⁶ 8	27 ²⁷ 35	28 ²⁸ 24	0 ⁰ 38	3 ³ D47	4 ⁴ 27	28 ²⁸ 16	7 ⁷ 40	M 2
T 3	3 23 29	19 ¹⁹ 31'43	20 ²⁰ 20	11 ¹¹ 23	14 ¹⁴ 45	15 ¹⁵ 46	26 ²⁶ 46	16 ¹⁶ 13	27 ²⁷ 39	28 ²⁸ 26	0 ⁰ 39	3 ³ R47	4 ⁴ 24	28 ²⁸ 23	7 ⁷ 40	T 3
W 4	3 27 26	20 ²⁰ 32'20	2 ² 18	12 ¹² 29	15 ¹⁵ 58	16 ¹⁶ 32	26 ²⁶ 38	16 ¹⁶ 18	27 ²⁷ 43	28 ²⁸ 28	0 ⁰ 41	3 ³ 47	4 ⁴ 21	28 ²⁸ 30	7 ⁷ 40	W 4
T 5	3 31 22	21 ²¹ 32'58	14 ¹⁴ 31	13 ¹³ 32	17 ¹⁷ 12	17 ¹⁷ 18	26 ²⁶ 30	16 ¹⁶ 22	27 ²⁷ 46	28 ²⁸ 31	0 ⁰ 43	3 ³ 44	4 ⁴ 17	28 ²⁸ 36	7 ⁷ 39	T 5
F 6	3 35 19	22 ²² 33'37	27 ²⁷ 2	14 ¹⁴ 32	18 ¹⁸ 25	18 ¹⁸ 3	26 ²⁶ 22	16 ¹⁶ 27	27 ²⁷ 50	28 ²⁸ 33	0 ⁰ 44	3 ³ 39	4 ⁴ 14	28 ²⁸ 43	7 ⁷ 39	F 6
S 7	3 39 15	23 ²³ 34'17	9 ⁹ 56	15 ¹⁵ 28	19 ¹⁹ 39	18 ¹⁸ 49	26 ²⁶ 14	16 ¹⁶ 31	27 ²⁷ 54	28 ²⁸ 35	0 ⁰ 46	3 ³ 32	4 ⁴ 11	28 ²⁸ 49	7 ⁷ 39	S 7
S 8	3 43 12	24 ²⁴ 34'59	23 ²³ 14	16 ¹⁶ 19	20 ²⁰ 52	19 ¹⁹ 35	26 ²⁶ 5	16 ¹⁶ 35	27 ²⁷ 57	28 ²⁸ 37	0 ⁰ 47	3 ³ 22	4 ⁴ 8	28 ²⁸ 56	7 ⁷ 39	S 8
M 9	3 47 9	25 ²⁵ 35'42	6 ⁶ 58	17 ¹⁷ 6	22 ²² 6	20 ²⁰ 21	25 ²⁵ 57	16 ¹⁶ 39	28 ²⁸ 1	28 ²⁸ 40	0 ⁰ 49	3 ³ 11	4 ⁴ 5	29 ²⁹ 3	7 ⁷ D39	M 9
T 10	3 51 5	26 ²⁶ 36'26	21 ²¹ 3	17 ¹⁷ 47	23 ²³ 20	21 ²¹ 7	25 ²⁵ 49	16 ¹⁶ 43	28 ²⁸ 5	28 ²⁸ 42	0 ⁰ 50	3 ³ 0	4 ⁴ 1	29 ²⁹ 9	7 ⁷ 39	T 10
W11	3 55 2	27 ²⁷ 37'11	5 ⁵ 26	18 ¹⁸ 21	24 ²⁴ 33	21 ²¹ 53	25 ²⁵ 41	16 ¹⁶ 48	28 ²⁸ 9	28 ²⁸ 44	0 ⁰ 52	2 ² 49	3 ³ 58	29 ²⁹ 16	7 ⁷ 39	W11
T 12	3 58 58	28 ²⁸ 37'58	19 ¹⁹ 59	18 ¹⁸ 48	25 ²⁵ 47	22 ²² 39	25 ²⁵ 33	16 ¹⁶ 51	28 ²⁸ 12	28 ²⁸ 46	0 ⁰ 53	2 ² 41	3 ³ 55	29 ²⁹ 23	7 ⁷ 39	T 12
F 13	4 2 55	29 ²⁹ 38'46	4 ⁴ 36	19 ¹⁹ 8	27 ²⁷ 1	23 ²³ 25	25 ²⁵ 25	16 ¹⁶ 55	28 ²⁸ 16	28 ²⁸ 49	0 ⁰ 55	2 ² 36	3 ³ 52	29 ²⁹ 29	7 ⁷ 39	F 13
S 14	4 6 51	0 ⁰ 39'36	19 ¹⁹ 11	19 ¹⁹ 18	28 ²⁸ 15	24 ²⁴ 12	25 ²⁵ 16	16 ¹⁶ 59	28 ²⁸ 20	28 ²⁸ 51	0 ⁰ 56	2 ² 33	3 ³ 49	29 ²⁹ 36	7 ⁷ 39	S 14
S 15	4 10 48	1 ¹ 40'26	3 ³ 37	19 ¹⁹ R19	29 ²⁹ 29	24 ²⁴ 58	25 ²⁵ 8	17 ¹⁷ 3	28 ²⁸ 23	28 ²⁸ 53	0 ⁰ 58	2 ² D32	3 ³ 46	29 ²⁹ 43	7 ⁷ 40	S 15
M16	4 14 44	2 ² 41'19	17 ¹⁷ 53	19 ¹⁹ 10	0 ⁰ 43	25 ²⁵ 44	25 ²⁵ 0	17 ¹⁷ 6	28 ²⁸ 27	28 ²⁸ 55	0 ⁰ 59	2 ² 32	3 ³ 42	29 ²⁹ 49	7 ⁷ 40	M16
T 17	4 18 41	3 ³ 42'13	1 ¹ 56	18 ¹⁸ 50	1 ¹ 57	26 ²⁶ 30	24 ²⁴ 52	17 ¹⁷ 10	28 ²⁸ 31	28 ²⁸ 58	1 ¹ 0	2 ² R33	3 ³ 39	29 ²⁹ 56	7 ⁷ 40	T 17
W18	4 22 38	4 ⁴ 43'08	15 ¹⁵ 46	18 ¹⁸ 18	3 ³ 11	27 ²⁷ 16	24 ²⁴ 44	17 ¹⁷ 13	28 ²⁸ 34	29 ²⁹ 0	1 ¹ 1	2 ² 32	3 ³ 36	0 ⁰ 33	7 ⁷ 41	W18
T 19	4 26 34	5 ⁵ 44'04	29 ²⁹ 24	17 ¹⁷ 36	4 ⁴ 25	28 ²⁸ 3	24 ²⁴ 36	17 ¹⁷ 16	28 ²⁸ 38	29 ²⁹ 2	1 ¹ 3	2 ² 30	3 ³ 33	0 ⁰ 9	7 ⁷ 41	T 19
F 20	4 30 31	6 ⁶ 45'02	12 ¹² 49	16 ¹⁶ 43	5 ⁵ 40	28 ²⁸ 49	24 ²⁴ 29	17 ¹⁷ 20	28 ²⁸ 42	29 ²⁹ 4	1 ¹ 4	2 ² 25	3 ³ 30	0 ⁰ 16	7 ⁷ 42	F 20
S 21	4 34 27	7 ⁷ 46'01	26 ²⁶ 2	15 ¹⁵ 39	6 ⁶ 54	29 ²⁹ 35	24 ²⁴ 21	17 ¹⁷ 23	28 ²⁸ 45	29 ²⁹ 7	1 ¹ 5	2 ² 17	3 ³ 27	0 ⁰ 23	7 ⁷ 43	S 21
S 22	4 38 24	8 ⁸ 47'01	9 ⁹ 3	14 ¹⁴ 28	8 ⁸ 8	0 ⁰ 22	24 ²⁴ 13	17 ¹⁷ 26	28 ²⁸ 49	29 ²⁹ 9	1 ¹ 6	2 ² 8	3 ³ 23	0 ⁰ 29	7 ⁷ 43	S 22
M23	4 42 20	9 ⁹ 48'02	21 ²¹ 52	13 ¹³ 10	9 ⁹ 22	1 ¹ 8	24 ²⁴ 5	17 ¹⁷ 29	28 ²⁸ 53	29 ²⁹ 11	1 ¹ 7	1 ¹ 58	3 ³ 20	0 ⁰ 36	7 ⁷ 44	M23
T 24	4 46 17	10 ¹⁰ 49'04	4 ⁴ 28	11 ¹¹ 48	10 ¹⁰ 37	1 ¹ 55	23 ²³ 58	17 ¹⁷ 31	28 ²⁸ 56	29 ²⁹ 13	1 ¹ 9	1 ¹ 48	3 ³ 17	0 ⁰ 42	7 ⁷ 45	T 24
W25	4 50 13	11 ¹¹ 50'07	16 ¹⁶ 52	10 ¹⁰ 25	11 ¹¹ 51	2 ² 41	23 ²³ 51	17 ¹⁷ 34	29 ²⁹ 0	29 ²⁹ 16	1 ¹ 10	1 ¹ 39	3 ³ 14	0 ⁰ 49	7 ⁷ 46	W25
T 26	4 54 10	12 ¹² 51'11	29 ²⁹ 4	9 ⁹ 4	13 ¹³ 6	3 ³ 27	23 ²³ 43	17 ¹⁷ 37	29 ²⁹ 4	29 ²⁹ 18	1 ¹ 11	1 ¹ 32	3 ³ 11	0 ⁰ 56	7 ⁷ 47	T 26
F 27	4 58 7	13 ¹³ 52'16	11 ¹¹ 3	7 ⁷ 47	14 ¹⁴ 20	4 ⁴ 14	23 ²³ 36	17 ¹⁷ 39	29 ²⁹ 7	29 ²⁹ 20	1 ¹ 12	1 ¹ 27	3 ³ 7	1 ¹ 2	7 ⁷ 48	F 27
S 28	5 2 3	14 ¹⁴ 53'21	22 ²² 59	6 ⁶ 36	15 ¹⁵ 35	5 ⁵ 0	23 ²³ 29	17 ¹⁷ 41	29 ²⁹ 11	29 ²⁹ 22	1 ¹ 13	1 ¹ 25	3 ³ 4	1 ¹ 9	7 ⁷ 49	S 28
S 29	5 6 0	15 ¹⁵ 54'27	4 ⁴ 46	5 ⁵ 35	16 ¹⁶ 49	5 ⁵ 47	23 ²³ 22	17 ¹⁷ 44	29 ²⁹ 14	29 ²⁹ 24	1 ¹ 14	1 ¹ D25	3 ³ 1	1 ¹ 16	7 ⁷ 50	S 29
M30	5 9 56	16 ¹⁶ 55'33	16 ¹⁶ 32	4 ⁴ 43	18 ¹⁸ 4	6 ⁶ 33	23 ²³ 15	17 ¹⁷ 46	29 ²⁹ 18	29 ²⁹ 27	1 ¹ 14	1 ¹ 26	2 ² 58	1 ¹ 22	7 ⁷ 51	M30

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑	♒	♓	♈			
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat		
S 1	17s 6	20s15	0n37	24s26	2s35	3s13	1n49	24s17	1s33	18n31	1s 4	7n15	1n53	19s30	0n10	18s16	1n38	14n43	16n20	19n22	19n11	20s 2	4s 3	5n 1
M 2	17 23	18 35	0s25	24 37	2 36	3 41	1 49	24 11	1 32	18 29	1 4	7 13	1 53	19 31	0 10	18 16	1 38	14 42	16 20	19 22	19 12	20 1	4 4	5 1
T 3	17 40	16 7	1 27	24 46	2 35	4 8	1 50	24 6	1 32	18 27	1 4	7 12	1 53	19 32	0 10	18 17	1 38	14 42	16 21	19 22	19 13	20 1	4 4	5 0
W 4	17 56	12 57	2 26	24 55	2 35	4 36	1 50	24 0	1 32	18 26	1 3	7 10	1 54	19 32	0 10	18 17	1 38	14 42	16 21	19 22	19 14	20 0	4 5	5 0
T 5	18 12	9 10	3 19	25 1	2 33	5 4	1 51	23 53	1 31	18 24	1 3	7 8	1 54	19 33	0 10	18 18	1 37	14 41	16 22	19 22	19 14	20 0	4 5	5 0
F 6	18 28	4 55	4 4	25 6	2 31	5 32	1 51	23 47	1 31	18 22	1 3	7 7	1 54	19 34	0 10	18 18	1 37	14 41	16 22	19 23	19 15	19 59	4 5	4 59
S 7	18 43	0 19	4 38	25 9	2 27	5 59	1 51	23 40	1 30	18 20	1 3	7 5	1 54	19 35	0 10	18 19	1 37	14 41	16 23	19 25	19 16	19 59	4 6	4 59
S 8	18 58	4n26	4 58	25 10	2 23	6 27	1 52	23 33	1 30	18 19	1 3	7 4	1 55	19 36	0 10	18 19	1 37	14 41	16 23	19 27	19 17	19 58	4 6	4 59
M 9	19 13	9 7	5 2	25 10	2 18	6 54	1 52	23 26	1 29	18 17	1 3	7 3	1 55	19 37	0 10	18 20	1 37	14 41	16 24	19 30	19 17	19 58	4 7	4 58
T 10	19 27	13 26	4 48	25 7	2 11	7 21	1 52	23 18	1 29	18 15	1 3	7 1	1 55	19 37	0 10	18 20	1 37	14 40	16 24	19 33	19 18	19 57	4 7	4 58
W11	19 41	17 4	4 16	25 3	2 4	7 49	1 52	23 11	1 28	18 13	1 3	7 0	1 55	19 38	0 10	18 21	1 37	14 40	16 25	19 35	19 19	19 57	4 7	4 58
T 12	19 55	19 42	3 26	24 57	1 55	8 16	1 51	23 2	1 28	18 11	1 2	6 59	1 56	19 39	0 10	18 21	1 37	14 40	16 25	19 37	19 20	19 56	4 7	4 57
F 13	20 8	21 2	2 23	24 48	1 45	8 43	1 51	22 54	1 27	18 10	1 2	6 57	1 56	19 40	0 10	18 22	1 37	14 40	16 25	19 38	19 20	19 56	4 8	4 57
S 14	20 21	20 58	1 11	24 38	1 33	9 9	1 51	22 46	1 27	18 8	1 2	6 56	1 56	19 41	0 10	18 22	1 37	14 40	16 26	19 39	19 21	19 55	4 8	4 57
S 15	20 33	19 29	0n 6	24 25	1 20	9 36	1 50	22 37	1 26	18 6	1 2	6 55	1 56	19 42	0 10	18 23	1 37	14 40	16 26	19 39	19 22	19 55	4 8	4 56
M16	20 45	16 48	1 21	24 10	1 6	10 2	1 50	22 28	1 26	18 4	1 2	6 54	1 57	19 42	0 10	18 23	1 37	14 40	16 27	19 39	19 23	19 54	4 8	4 56
T 17	20 57	13 9	2 31	23 52	0 50	10 29	1 49	22 19	1 25	18 2	1 2	6 53	1 57	19 43	0 10	18 24	1 37	14 40	16 27	19 39	19 23	19 54	4 9	4 55
W18	21 8	8 51	3 30	23 32	0 33	10 55	1 49	22 9	1 25	18 1	1 2	6 51	1 57	19 44	0 10	18 24	1 37	14 40	16 28	19 39	19 24	19 53	4 9	4 55
T 19	21 19	4 10	4 17	23 10	0 14	11 20	1 48	21 59	1 24	17 59	1 1	6 50	1 57	19 45	0 10	18 25	1 37	14 40	16 29	19 39	19 25	19 53	4 9	4 55
F 20	21 30	0s39	4 48	22 45	0n 5	11 46	1 47	21 49	1 24	17 57	1 1	6 49	1 58	19 46	0 10	18 25	1 37	14 40	16 29	19 41	19 26	19 52	4 9	4 54
S 21	21 40	5 21	5 4	22 19	0 25	12 11	1 46	21 39	1 23	17 55	1 1	6 48	1 58	19 47	0 10	18 26	1 37	14 40	16 30	19 42	19 26	19 51	4 9	4 54
S 22	21 50	9 45	5 4	21 51	0 46	12 36	1 45	21 29	1 23	17 54	1 1	6 48	1 58	19 47	0 10	18 26	1 37	14 40	16 30	19 44	19 27	19 51	4 9	4 54
M23	21 59	13 39	4 48	21 21	1 6	13 1	1 44	21 18	1 22	17 52	1 1	6 47	1 58	19 48	0 10	18 27	1 37	14 40	16 31	19 47	19 28	19 50	4 9	4 53
T 24	22 8	16 52	4 18	20 51	1 25	13 25	1 43	21 7	1 22	17 50	1 1	6 46	1 59	19 49	0 10	18 27	1 37	14 40	16 31	19 49	19 29	19 50	4 9	4 53
W25	22 16	19 16	3 37	20 22	1 44	13 49	1 42	20 56	1 21	17 49	1 0	6 45	1 59	19 50	0 10	18 28	1 37	14 40	16 32	19 51	19 29	19 49	4 9	4 53
T 26	22 24	20 45	2 46	19 53	2 0	14 13	1 41	20 44	1 21	17 47	1 0	6 44	1 59	19 51	0 10	18 28	1 37	14 40	16 32	19 52	19 30	19 49	4 9	4 52
F 27	22 32	21 15	1 48	19 27	2 15	14 36	1 39	20 33	1 20	17 45	1 0	6 43	1 59	19 51	0 10	18 29	1 37	14 40	16 33	19 53	19 31	19 48	4 9	4 52
S 28	22 39	19 28	0 46	19 3	2 27	14 59	1 38	20 21	1 19	17 44	1 0	6 43	2 0	19 52	0 10	18 29	1 37	14 40	16 33	19 54	19 32	19 47	4 9	4 52
S 29	22 45	19 25	0s18	18 43	2 27	15 22	1 36	20 9	1 19	17 42	1 0	6 42	2 0	19 53	0 10	18 30	1 38	14 40	16 34	19 54	19 32	19 47	4 9	4 51
M30	22s52	17s13	1s21	18s26	2n45	15s44	1n35	19s57	1s18	17n41	0s59	6n42	2n 0	19s54	0n10	18s30	1n38	14n40	16n34	19n54	19n33	19s46	4s 9	4n51

ASTRODIENST EPHEMERIS for the year 1478
geocentric

DECEMBER 1478 JC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	5 13 53	17 [♌] 56'40	28 [♊] 21	4 [♋] R 2	19 [♍] 18	7 [♌] 20	23 [♋] R 8	17 [♏] 48	29 [♍] 22	29 [♍] 29	1 [♊] 15	1 [♏] 27	2 [♏] 55	1 [♌] 29	7 [♏] 52	T 1
W 2	5 17 49	18 [♌] 57'47	10 [♋] 17	3 [♌] 31	20 [♋] 33	8 [♋] 7	23 [♌] 1	17 [♌] 50	29 [♋] 25	29 [♋] 31	1 [♋] 16	1 [♋] 29	2 [♋] 52	1 [♋] 36	7 [♋] 54	W 2
T 3	5 21 46	19 [♌] 58'54	22 [♋] 27	3 [♌] 12	21 [♋] 47	8 [♋] 53	22 [♋] 55	17 [♋] 52	29 [♋] 29	29 [♋] 33	1 [♋] 17	1 [♋] R29	2 [♋] 48	1 [♋] 42	7 [♋] 55	T 3
F 4	5 25 42	21 [♋] 0'01	4 [♋] Y55	3 [♋] D 4	23 [♋] 2	9 [♋] 40	22 [♋] 49	17 [♋] 54	29 [♋] 32	29 [♋] 35	1 [♋] 18	1 [♋] 28	2 [♋] 45	1 [♋] 49	7 [♋] 56	F 4
S 5	5 29 39	22 [♋] 1'09	17 [♋] 45	3 [♋] 5	24 [♋] 17	10 [♋] 26	22 [♋] 42	17 [♋] 55	29 [♋] 36	29 [♋] 37	1 [♋] 18	1 [♋] 25	2 [♋] 42	1 [♋] 56	7 [♋] 58	S 5
S 6	5 33 36	23 [♋] 2'16	1 [♋] 2	3 [♋] 16	25 [♋] 31	11 [♋] 13	22 [♋] 36	17 [♋] 57	29 [♋] 39	29 [♋] 39	1 [♋] 19	1 [♋] 20	2 [♋] 39	2 [♋] 2	7 [♋] 59	S 6
M 7	5 37 32	24 [♋] 3'24	14 [♋] 47	3 [♋] 35	26 [♋] 46	11 [♋] 59	22 [♋] 30	17 [♋] 58	29 [♋] 43	29 [♋] 42	1 [♋] 20	1 [♋] 15	2 [♋] 36	2 [♋] 9	8 [♋] 1	M 7
T 8	5 41 29	25 [♋] 4'33	28 [♋] 58	4 [♋] 2	28 [♋] 1	12 [♋] 46	22 [♋] 25	17 [♋] 59	29 [♋] 46	29 [♋] 44	1 [♋] 20	1 [♋] 9	2 [♋] 33	2 [♋] 15	8 [♋] 2	T 8
W 9	5 45 25	26 [♋] 5'41	13 [♋] II33	4 [♋] 35	29 [♋] 15	13 [♋] 33	22 [♋] 19	18 [♋] 1	29 [♋] 50	29 [♋] 46	1 [♋] 21	1 [♋] 3	2 [♋] 29	2 [♋] 22	8 [♋] 4	W 9
T 10	5 49 22	27 [♋] 6'50	28 [♋] 25	5 [♋] 15	0 [♋] X30	14 [♋] 19	22 [♋] 14	18 [♋] 2	29 [♋] 53	29 [♋] 48	1 [♋] 22	0 [♋] 59	2 [♋] 26	2 [♋] 29	8 [♋] 6	T 10
F 11	5 53 18	28 [♋] 7'59	13 [♋] ☾26	6 [♋] 1	1 [♋] 45	15 [♋] 6	22 [♋] 8	18 [♋] 3	29 [♋] 56	29 [♋] 50	1 [♋] 22	0 [♋] 56	2 [♋] 23	2 [♋] 35	8 [♋] 7	F 11
S 12	5 57 15	29 [♋] 9'08	28 [♋] 26	6 [♋] 52	3 [♋] 0	15 [♋] 53	22 [♋] 3	18 [♋] 4	29 [♋] 59	29 [♋] 52	1 [♋] 23	0 [♋] D55	2 [♋] 20	2 [♋] 42	8 [♋] 9	S 12
S 13	6 1 12	0 [♋] 310'18	13 [♋] Ω17	7 [♋] 46	4 [♋] 15	16 [♋] 39	21 [♋] 58	18 [♋] 4	0 [♋] X 3	29 [♋] 54	1 [♋] 23	0 [♋] 55	2 [♋] 17	2 [♋] 49	8 [♋] 11	S 13
M14	6 5 8	1 [♋] 11'28	27 [♋] 54	8 [♋] 45	5 [♋] 29	17 [♋] 26	21 [♋] 53	18 [♋] 5	0 [♋] 6	29 [♋] 56	1 [♋] 24	0 [♋] 57	2 [♋] 13	2 [♋] 55	8 [♋] 13	M14
T 15	6 9 5	2 [♋] 12'38	12 [♋] 12	9 [♋] 47	6 [♋] 44	18 [♋] 12	21 [♋] 49	18 [♋] 6	0 [♋] 10	29 [♋] 58	1 [♋] 24	0 [♋] 58	2 [♋] 10	3 [♋] 2	8 [♋] 15	T 15
W16	6 13 1	3 [♋] 13'48	26 [♋] 10	10 [♋] 53	7 [♋] 59	18 [♋] 59	21 [♋] 44	18 [♋] 6	0 [♋] 13	29 [♋] 59	1 [♋] 24	0 [♋] 59	2 [♋] 7	3 [♋] 9	8 [♋] 17	W16
T 17	6 16 58	4 [♋] 14'59	9 [♋] ☾46	12 [♋] 0	9 [♋] 14	19 [♋] 46	21 [♋] 40	18 [♋] 6	0 [♋] 16	0 [♋] X 2	1 [♋] 25	0 [♋] R59	2 [♋] 4	3 [♋] 15	8 [♋] 19	T 17
F 18	6 20 54	5 [♋] 16'11	23 [♋] 3	13 [♋] 11	10 [♋] 29	20 [♋] 32	21 [♋] 36	18 [♋] 7	0 [♋] 19	0 [♋] 4	1 [♋] 25	0 [♋] 58	2 [♋] 1	3 [♋] 22	8 [♋] 21	F 18
S 19	6 24 51	6 [♋] 17'22	6 [♋] Ω 3	14 [♋] 23	11 [♋] 44	21 [♋] 19	21 [♋] 32	18 [♋] 7	0 [♋] 22	0 [♋] 6	1 [♋] 25	0 [♋] 56	1 [♋] 58	3 [♋] 29	8 [♋] 23	S 19
S 20	6 28 47	7 [♋] 18'34	18 [♋] 46	15 [♋] 38	12 [♋] 59	22 [♋] 5	21 [♋] 29	18 [♋] R 7	0 [♋] 26	0 [♋] 8	1 [♋] 25	0 [♋] 52	1 [♋] 54	3 [♋] 35	8 [♋] 26	S 20
M21	6 32 44	8 [♋] 19'45	1 [♋] X17	16 [♋] 54	14 [♋] 14	22 [♋] 52	21 [♋] 25	18 [♋] 7	0 [♋] 29	0 [♋] 9	1 [♋] 26	0 [♋] 49	1 [♋] 51	3 [♋] 42	8 [♋] 28	M21
T 22	6 36 41	9 [♋] 20'57	13 [♋] 35	18 [♋] 11	15 [♋] 29	23 [♋] 39	21 [♋] 22	18 [♋] 6	0 [♋] 32	0 [♋] 11	1 [♋] 26	0 [♋] 45	1 [♋] 48	3 [♋] 49	8 [♋] 30	T 22
W23	6 40 37	10 [♋] 22'09	25 [♋] 44	19 [♋] 30	16 [♋] 44	24 [♋] 25	21 [♋] 19	18 [♋] 6	0 [♋] 35	0 [♋] 13	1 [♋] 26	0 [♋] 41	1 [♋] 45	3 [♋] 55	8 [♋] 33	W23
T 24	6 44 34	11 [♋] 23'20	7 [♋] ☾44	20 [♋] 50	17 [♋] 59	25 [♋] 12	21 [♋] 16	18 [♋] 6	0 [♋] 38	0 [♋] 15	1 [♋] 26	0 [♋] 39	1 [♋] 42	4 [♋] 2	8 [♋] 35	T 24
F 25	6 48 30	12 [♋] 24'31	19 [♋] 38	22 [♋] 12	19 [♋] 14	25 [♋] 58	21 [♋] 13	18 [♋] 5	0 [♋] 41	0 [♋] 17	1 [♋] 26	0 [♋] 37	1 [♋] 39	4 [♋] 8	8 [♋] 37	F 25
S 26	6 52 27	13 [♋] 25'42	1 [♋] ☾27	23 [♋] 34	20 [♋] 28	26 [♋] 45	21 [♋] 11	18 [♋] 4	0 [♋] 44	0 [♋] 19	1 [♋] R26	0 [♋] D37	1 [♋] 35	4 [♋] 15	8 [♋] 40	S 26
S 27	6 56 23	14 [♋] 26'53	13 [♋] 14	24 [♋] 57	21 [♋] 43	27 [♋] 31	21 [♋] 8	18 [♋] 4	0 [♋] 47	0 [♋] 20	1 [♋] 26	0 [♋] 38	1 [♋] 32	4 [♋] 22	8 [♋] 42	S 27
M28	7 0 20	15 [♋] 28'02	25 [♋] 1	26 [♋] 22	22 [♋] 58	28 [♋] 18	21 [♋] 6	18 [♋] 3	0 [♋] 50	0 [♋] 22	1 [♋] 26	0 [♋] 39	1 [♋] 29	4 [♋] 28	8 [♋] 45	M28
T 29	7 4 16	16 [♋] 29'12	6 [♋] X51	27 [♋] 47	24 [♋] 13	29 [♋] 4	21 [♋] 4	18 [♋] 2	0 [♋] 53	0 [♋] 24	1 [♋] 26	0 [♋] 40	1 [♋] 26	4 [♋] 35	8 [♋] 48	T 29
W30	7 8 13	17 [♋] 30'20	18 [♋] 58	29 [♋] 13	25 [♋] 28	29 [♋] 51	21 [♋] 3	18 [♋] 1	0 [♋] 55	0 [♋] 26	1 [♋] 26	0 [♋] 41	1 [♋] 23	4 [♋] 42	8 [♋] 50	W30
T 31	7 12 10	18 [♋] 31'28	0 [♋] Y57	0 [♋] 339	26 [♋] X43	0 [♋] X37	21 [♋] 8	18 [♋] 0	0 [♋] X58	0 [♋] X27	1 [♋] ☾25	0 [♋] Ω42	1 [♋] Ω19	4 [♋] ☾48	8 [♋] X53	T 31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
T 1	22s57	14s17	2s21	18s13	2n51	16s 6	1n33	19s44	1s18	17n39	0s59	6n41	2n 1	19s55	0n10	18s30	1n38	14n41	16n35	19n53	19n34	19s46	4s 9	4n51
W 2	23 3	10 45	3 16	18 4	2 54	16 28	1 32	19 32	1 17	17 38	0 59	6 40	2 1	19 55	0 10	18 31	1 38	14 41	16 36	19 53	19 34	19 45	4 8	4 50
T 3	23 8	6 43	4 2	17 59	2 56	16 49	1 30	19 19	1 16	17 36	0 59	6 40	2 1	19 56	0 10	18 31	1 38	14 41	16 36	19 53	19 35	19 44	4 8	4 50
F 4	23 12	2 18	4 39	17 57	2 56	17 10	1 28	19 6	1 16	17 35	0 58	6 40	2 1	19 57	0 10	18 32	1 38	14 41	16 37	19 53	19 36	19 44	4 8	4 50
S 5	23 16	2n19	5 3	17 59	2 54	17 30	1 26	18 53	1 15	17 34	0 58	6 39	2 2	19 58	0 10	18 32	1 38	14 41	16 37	19 54	19 37	19 43	4 8	4 49
S 6	23 19	7 0	5 11	18 4	2 51	17 50	1 24	18 39	1 15	17 32	0 58	6 39	2 2	19 58	0 10	18 33	1 38	14 42	16 38	19 55	19 37	19 42	4 8	4 49
M 7	23 22	11 29	5 3	18 12	2 47	18 9	1 23	18 26	1 14	17 31	0 58	6 39	2 2	19 59	0 10	18 33	1 38	14 42	16 38	19 56	19 38	19 42	4 7	4 49
T 8	23 25	15 30	4 36	18 22	2 42	18 28	1 21	18 12	1 13	17 30	0 58	6 38	2 2	20 0	0 10	18 33	1 38	14 42	16 39	19 58	19 39	19 41	4 7	4 48
W 9	23 27	18 41	3 50	18 33	2 36	18 46	1 19	17 58	1 13	17 29	0 57	6 38	2 3	20 1	0 10	18 34	1 38	14 42	16 40	19 59	19 40	19 41	4 7	4 48
T 10	23 28	20 41	2 48	18 47	2 30	19 4	1 17	17 44	1 12	17 27	0 57	6 38	2 3	20 1	0 10	18 34	1 38	14 43	16 40	20 0	19 40	19 40	4 6	4 48
F 11	23 30	21 16	1 34	19 2	2 23	19 21	1 14	17 29	1 11	17 26	0 57	6 38	2 3	20 2	0 10	18 35	1 38	14 43	16 41	20 0	19 41	19 39	4 6	4 47
S 12	23 30	20 19	0 14	19 18	2 15	19 38	1 12	17 15	1 11	17 25	0 57	6 38	2 4	20 3	0 10	18 35	1 38	14 43	16 41	20 1	19 42	19 39	4 6	4 47
S 13	23 30	17 57	1n 7	19 34	2 8	19 54	1 10	17 0	1 10	17 24	0 56	6 38	2 4	20 3	0 10	18 36	1 38	14 44	16 42	20 0	19 42	19 38	4 5	4 47
M14	23 30	14 28	2 23	19 51	2 0	20 10	1 8	16 45	1 9	17 23	0 56	6 38	2 4	20 4	0 10	18 36	1 38	14 44	16 42	20 0	19 43	19 37	4 5	4 47
T 15	23 29	10 12	3 28	20 9	1 51	20 25	1 6	16 30	1 9	17 22	0 56	6 38	2 4	20 5	0 10	18 36	1 38	14 44	16 43	20 0	19 44	19 37	4 4	4 46
W16	23 28	5 29	4 18	20 26	1 43	20 40	1 3	16 15	1 8	17 21	0 56	6 38	2 5	20 6	0 10	18 37	1 38	14 45	16 44	20 0	19 45	19 36	4 4	4 46
T 17	23 26	0 37	4 53	20 44	1 35	20 54	1 1	16 0	1 7	17 21	0 55	6 38	2 5	20 6	0 10	18 37	1 38	14 45	16 44	20 0	19 45	19 35	4 3	4 46
F 18	23 24	4s10	5 12	21 1	1 26	21 7	0 59	15 44	1 7	17 20	0 55	6 38	2 5	20 7	0 10	18 38	1 38	14 46	16 45	20 0	19 46	19 35	4 3	4 45
S 19	23 21	8 38	5 13	21 18	1 17	21 20	0 56	15 29	1 6	17 19	0 55	6 38	2 6	20 8	0 10	18 38	1 38	14 46	16 45	20 0	19 47	19 34	4 2	4 45
S 20	23 18	12 39	4 59	21 35	1 9	21 32	0 54	15 13	1 5	17 18	0 54	6 38	2 6	20 8	0 10	18 38	1 38	14 47	16 46	20 1	19 47	19 33	4 2	4 45
M21	23 15	16 2	4 32	21 51	1 0	21 43	0 51	14 57	1 5	17 18	0 54	6 39	2 6	20 9	0 10	18 39	1 38	14 47	16 47	20 2	19 48	19 32	4 1	4 44
T 22	23 10	18 40	3 51	22 7	0 52	21 54	0 49	14 41	1 4	17 17	0 54	6 39	2 6	20 10	0 10	18 39	1 38	14 47	16 47	20 3	19 49	19 32	4 1	4 44
W23	23 6	20 25	3 1	22 22	0 44	22 4	0 46	14 25	1 3	17 16	0 54	6 39	2 7	20 10	0 10	18 39	1 38	14 48	16 48	20 4	19 50	19 31	4 0	4 44
T 24	23 1	21 14	2 3	22 36	0 35	22 14	0 44	14 9	1 3	17 16	0 53	6 40	2 7	20 11	0 10	18 40	1 38	14 48	16 48	20 4	19 50	19 30	3 59	4 44
F 25	22 55	21 4	1 0	22 50	0 27	22 23	0 41	13 52	1 2	17 16	0 53	6 40	2 7	20 11	0 10	18 40	1 38	14 49	16 49	20 4	19 51	19 30	3 59	4 43
S 26	22 50	19 58	0s 5	23 2	0 19	22 31	0 39	13 36	1 1	17 15	0 53	6 41	2 7	20 12	0 10	18 40	1 38	14 50	16 49	20 4	19 52	19 29	3 58	4 43
S 27	22 43	18 0	1 9	23 14	0 11	22 39	0 36	13 19	1 1	17 15	0 53	6 41	2 8	20 13	0 10	18 41	1 38	14 50	16 50	20 4	19 52	19 28	3 57	4 43
M28	22 36	15 17	2 11	23 24	0 3	22 46	0 33	13 2	1 0	17 15	0 52	6 42	2 8	20 13	0 10	18 41	1 38	14 51	16 51	20 4	19 53	19 27	3 57	4 43
T 29	22 29	11 56	3 8	23 34	0s 5	22 52	0 31	12 45	0 59	17 14	0 52	6 43	2 8	20 14	0 10	18 41	1 38	14 51	16 51	20 4	19 54	19 27	3 56	4 42
W30	22 21	8 4	3 57	23 42	0 12	22 57	0 28	12 28	0 59	17 14	0 52	6 43	2 9	20 14	0 10	18 42	1 38	14 52	16 52	20 4	19 54	19 26	3 55	4 42
T 31	22s13	3s50	4s36	23s50	0s20	23s 2	0n26	12s11	0s58	17n14	0s52	6n44	2n 9	20s15	0n10	18s42	1n38	14n52	16n52	20n 3	19n55	19s25	3s54	4n42