



Astrodienst Ephemeris Tables for the year 1470

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 1470
geocentric

JANUARY 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	7 16 51	19°34'09	2°38	22°R 0	22°44'1	17°8'35	3°R40	6°8 7	21°13 3	11°M20	10°R35	24°R59	25°320	28°344	27°340	M 1
T 2	7 20 47	20°45'16	14°30	20°343	23°54	17°50	3°M36	6° 7	21° 4	11°21	10°M34	24°359	25°17	28°51	27°45	T 2
W 3	7 24 44	21°46'23	26°18	19°25	25° 8	18° 6	3°32	6° 8	21° 5	11°22	10°33	24°D59	25°14	28°57	27°50	W 3
T 4	7 28 40	22°47'29	8°5	18° 9	26°22	18°22	3°27	6° 8	21° 6	11°23	10°32	24°59	25°11	29° 4	27°55	T 4
F 5	7 32 37	23°48'35	19°53	16°56	27°35	18°38	3°23	6° 9	21° 6	11°24	10°31	24°59	25° 8	29°11	28° 0	F 5
S 6	7 36 33	24°49'39	1°45	15°49	28°49	18°55	3°18	6°10	21° 7	11°25	10°30	24°R59	25° 5	29°17	28° 5	S 6
S 7	7 40 30	25°50'43	13°43	14°49	0°X 2	19°12	3°13	6°11	21° 7	11°26	10°29	24°59	25° 1	29°24	28°10	S 7
M 8	7 44 26	26°51'45	25°51	13°57	1°15	19°30	3° 8	6°12	21° 8	11°27	10°28	24°59	24°58	29°30	28°15	M 8
T 9	7 48 23	27°52'46	8°Y12	13°13	2°29	19°48	3° 3	6°13	21° 8	11°28	10°27	24°58	24°55	29°37	28°20	T 9
W10	7 52 20	28°53'47	20°50	12°38	3°42	20° 6	2°57	6°14	21° 9	11°29	10°26	24°58	24°52	29°44	28°25	W10
T 11	7 56 16	29°54'46	3°B49	12°13	4°55	20°25	2°52	6°15	21° 9	11°29	10°25	24°D58	24°49	29°50	28°30	T 11
F 12	8 0 13	0°55'44	17°12	11°56	6° 8	20°45	2°46	6°17	21° 9	11°30	10°24	24°58	24°45	29°57	28°35	F 12
S 13	8 4 9	1°56'40	1°II 0	11°47	7°21	21° 5	2°41	6°19	21°10	11°31	10°23	24°59	24°42	0°4	28°40	S 13
S 14	8 8 6	2°57'36	15°16	11°D47	8°34	21°25	2°35	6°20	21°10	11°32	10°21	25° 0	24°39	0°10	28°45	S 14
M15	8 12 2	3°58'30	29°55	11°54	9°47	21°46	2°29	6°22	21°10	11°32	10°20	25° 0	24°36	0°17	28°50	M15
T 16	8 15 59	4°59'23	14°55	12° 8	11° 0	22° 7	2°22	6°24	21°R10	11°33	10°19	25° 1	24°33	0°24	28°55	T 16
W17	8 19 56	6° 0'14	0°Ω 7	12°29	12°12	22°28	2°16	6°26	21°10	11°33	10°18	25°R 1	24°30	0°30	29° 0	W17
T 18	8 23 52	7° 1'05	15°21	12°55	13°25	22°49	2°10	6°28	21°10	11°34	10°17	25° 0	24°26	0°37	29° 4	T 18
F 19	8 27 49	8° 1'54	0°M29	13°27	14°38	23°11	2° 3	6°30	21°10	11°35	10°15	24°59	24°23	0°44	29° 9	F 19
S 20	8 31 45	9° 2'42	15°21	14° 4	15°50	23°34	1°56	6°33	21° 9	11°35	10°14	24°58	24°20	0°50	29°14	S 20
S 21	8 35 42	10° 3'29	29°49	14°46	17° 3	23°56	1°50	6°35	21° 9	11°35	10°13	24°56	24°17	0°57	29°19	S 21
M22	8 39 38	11° 4'15	13°51	15°31	18°15	24°19	1°43	6°38	21° 9	11°36	10°11	24°54	24°14	1° 4	29°24	M22
T 23	8 43 35	12° 5'00	27°24	16°21	19°27	24°43	1°36	6°40	21° 9	11°36	10°10	24°52	24°11	1°10	29°29	T 23
W24	8 47 31	13° 5'44	10°M31	17°14	20°39	25° 6	1°29	6°43	21° 8	11°37	10° 9	24°D52	24° 7	1°17	29°34	W24
T 25	8 51 28	14° 6'27	23°13	18°10	21°52	25°30	1°21	6°46	21° 8	11°37	10° 7	24°52	24° 4	1°23	29°39	T 25
F 26	8 55 25	15° 7'09	5°X36	19° 9	23° 4	25°54	1°14	6°49	21° 7	11°37	10° 6	24°53	24° 1	1°30	29°44	F 26
S 27	8 59 21	16° 7'49	17°44	20°11	24°16	26°19	1° 7	6°52	21° 7	11°37	10° 4	24°55	23°58	1°37	29°48	S 27
S 28	9 3 18	17° 8'29	29°40	21°15	25°27	26°43	0°59	6°55	21° 6	11°38	10° 3	24°56	23°55	1°43	29°53	S 28
M29	9 7 14	18° 9'07	11°30	22°22	26°39	27° 8	0°52	6°59	21° 5	11°38	10° 2	24°58	23°51	1°50	29°58	M29
T 30	9 11 11	19° 9'44	23°16	23°30	27°51	27°33	0°44	7° 2	21° 5	11°38	10° 0	24°R59	23°48	1°57	0°4	T 30
W31	9 15 7	20°10'19	5°3	24°341	29°X 2	27°B59	0°M37	7°B 5	21°13 4	11°M38	9°M59	24°358	23°345	2°3	0°4	W31

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
M 1	22s 3	25s30	2s 1	18s48	2n57	15s33	1s39	19n 3	2n 0	11n19	1n12	11n20	2s24	7s40	0n37	13s34
T 2	21 54	23 41	0 58	18 48	3 9	15 7	1 38	19 7	2 0	11 21	1 13	11 21	2 23	7 40	0 37	13 34
W 3	21 45	20 50	0n 7	18 50	3 18	14 42	1 36	19 12	2 1	11 23	1 13	11 21	2 23	7 41	0 37	13 35
T 4	21 35	17 8	1 12	18 53	3 25	14 15	1 35	19 17	2 1	11 24	1 13	11 22	2 23	7 41	0 37	13 35
F 5	21 24	12 46	2 14	18 58	3 30	13 49	1 34	19 21	2 1	11 26	1 13	11 22	2 23	7 41	0 37	13 35
S 6	21 13	7 55	3 11	19 4	3 31	13 22	1 32	19 26	2 1	11 28	1 14	11 23	2 22	7 41	0 37	13 35
S 7	21 2	2 44	3 59	19 11	3 31	12 54	1 31	19 31	2 1	11 30	1 14	11 23	2 22	7 41	0 37	13 36
M 8	20 51	2n36	4 38	19 19	3 29	12 27	1 29	19 36	2 1	11 32	1 14	11 24	2 22	7 42	0 37	13 36
T 9	20 39	7 55	5 5	19 28	3 24	11 59	1 27	19 41	2 1	11 34	1 14	11 24	2 21	7 42	0 37	13 36
W10	20 26	13 3	5 17	19 37	3 19	11 31	1 26	19 46	2 2	11 37	1 15	11 25	2 21	7 42	0 37	13 36
T 11	20 14	17 45	5 14	19 46	3 11	11 2	1 24	19 52	2 2	11 39	1 15	11 26	2 21	7 42	0 37	13 36
F 12	20 1	21 43	4 55	19 56	3 3	10 33	1 22	19 57	2 2	11 41	1 15	11 27	2 20	7 42	0 37	13 37
S 13	19 47	24 37	4 17	20 6	2 54	10 4	1 20	20 2	2 2	11 43	1 15	11 27	2 20	7 42	0 37	13 37
S 14	19 33	26 4	3 24	20 15	2 44	9 35	1 18	20 8	2 2	11 46	1 16	11 28	2 20	7 42	0 37	13 37
M15	19 19	25 46	2 15	20 25	2 34	9 5	1 15	20 13	2 2	11 48	1 16	11 29	2 19	7 42	0 37	13 37
T 16	19 4	23 36	0 56	20 34	2 23	8 35	1 13	20 18	2 2	11 50	1 16	11 30	2 19	7 42	0 37	13 37
W17	18 50	19 44	0s28	20 43	2 12	8 5	1 11	20 24	2 2	11 53	1 16	11 31	2 19	7 42	0 38	13 37
T 18	18 34	14 31	1 51	20 52	2 1	7 35	1 8	20 30	2 2	11 55	1 16	11 32	2 19	7 42	0 38	13 37
F 19	18 19	8 27	3 4	21 0	1 50	7 5	1 6	20 35	2 2	11 58	1 17	11 33	2 18	7 42	0 38	13 38
S 20	18 3	2 2	4 4	21 7	1 39	6 34	1 3	20 41	2 2	12 1	1 17	11 34	2 18	7 42	0 38	13 38
S 21	17 47	4s19	4 47	21 14	1 28	6 4	1 1	20 46	2 2	12 3	1 17	11 35	2 18	7 42	0 38	13 38
M22	17 30	10 15	5 11	21 20	1 17	5 33	0 58	20 52	2 1	12 6	1 17	11 36	2 17	7 42	0 38	13 38
T 23	17 13	15 29	5 16	21 25	1 6	5 2	0 55	20 58	2 1	12 8	1 17	11 37	2 17	7 41	0 38	13 38
W24	16 56	19 50	5 5	21 29	0 55	4 31	0 52	21 3	2 1	12 11	1 17	11 39	2 17	7 41	0 38	13 38
T 25	16 39	23 8	4 39	21 32	0 45	4 0	0 49	21 9	2 1	12 14	1 18	11 40	2 17	7 41	0 38	13 38
F 26	16 21	25 14	4 0	21 34	0 34	3 28	0 46	21 15	2 1	12 17	1 18	11 41	2 16	7 41	0 38	13 38
S 27	16 3	26 7	3 12	21 35	0 24	2 57	0 43	21 21	2 1	12 19	1 18	11 42	2 16	7 41	0 38	13 38
S 28	15 45	25 46	2 15	21 35	0 15	2 25	0 40	21 26	2 1	12 22	1 18	11 44	2 16	7 40	0 38	13 38
M29	15 26	24 14	1 14	21 34	0 5	1 54	0 37	21 32	2 1	12 25	1 18	11 45	2 15	7 40	0 38	13 38
T 30	15 7	21 39	0 9	21 32	0s 4	1 22	0 34	21 38	2 1	12 28	1 18	11 46	2 15	7 40	0 38	13 38
W31	14s48	18s10	0n55	21s28	0s13	0s51	0s30	21n43	2n 0	12n31	1n19	11n48	2s15	7s39	0n38	13s38

Julian Day Number = 2257975.5, Delta T = 05m52s

Ecliptic obliquity = 23°30'33", Nutation = 0°00'16", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 17°20'45", Lahiri = 16°27'46" Julian Calendar 1 Jan. 1470 == Greg. Calendar 10 Jan. 1470

ASTRODIENST EPHEMERIS for the year 1470

geocentric

FEBRUARY 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	9 19 4	21 ¹⁰ 53	16 ⁵²	25 ³⁵	0 ¹⁴	28 ⁸	0 ²⁹	7 ⁸	21 ³	11 ³⁸	9 ⁵⁷	24 ⁵⁶	23 ⁴²	2 ¹⁰	0 ¹²	T 1
F 2	9 23 0	22 ¹¹ 26	28 ⁴⁶	27 ⁸	1 ²⁵	28 ⁵¹	0 ²¹	7 ¹³	21 ²	11 ³⁸	9 ⁵⁶	24 ⁵³	23 ³⁹	2 ¹⁷	0 ¹⁷	F 2
S 3	9 26 57	23 ¹¹ 56	10 ⁴⁶	28 ²⁴	2 ³⁷	29 ¹⁷	0 ¹⁴	7 ¹⁶	21 ¹	11 ³⁸	9 ⁵⁴	24 ⁴⁹	23 ³⁶	2 ²³	0 ²²	S 3
S 4	9 30 54	24 ¹² 25	22 ⁵⁵	29 ⁴¹	3 ⁴⁸	29 ⁴³	0 ⁶	7 ²⁰	21 ⁰	11 ³⁸	9 ⁵³	24 ⁴³	23 ³²	2 ³⁰	0 ²⁶	S 4
M 5	9 34 50	25 ¹² 52	5 ¹³	1 ⁰	4 ⁵⁹	0 ¹⁰	29 ⁵⁸	7 ²⁴	20 ⁵⁹	11 ³⁸	9 ⁵¹	24 ³⁸	23 ²⁹	2 ³⁷	0 ³¹	M 5
T 6	9 38 47	26 ¹³ 18	17 ⁴³	2 ²¹	6 ¹⁰	0 ³⁷	29 ⁵⁰	7 ²⁸	20 ⁵⁸	11 ³⁸	9 ⁵⁰	24 ³³	23 ²⁶	2 ⁴³	0 ³⁶	T 6
W 7	9 42 43	27 ¹³ 41	0 ²⁶	3 ⁴²	7 ²⁰	1 ⁴	29 ⁴²	7 ³²	20 ⁵⁷	11 ³⁸	9 ⁴⁸	24 ²⁹	23 ²³	2 ⁵⁰	0 ⁴⁰	W 7
T 8	9 46 40	28 ¹⁴ 03	13 ²⁶	5 ⁶	8 ³¹	1 ³¹	29 ³⁴	7 ³⁷	20 ⁵⁶	11 ³⁸	9 ⁴⁷	24 ²⁶	23 ²⁰	2 ⁵⁷	0 ⁴⁵	T 8
F 9	9 50 36	29 ¹⁴ 22	26 ⁴³	6 ³⁰	9 ⁴²	1 ⁵⁹	29 ²⁶	7 ⁴¹	20 ⁵⁵	11 ³⁸	9 ⁴⁵	24 ²⁵	23 ¹⁷	3 ³	0 ⁴⁹	F 9
S 10	9 54 33	0 ¹⁴ 40	10 ²¹	7 ⁵⁵	10 ⁵²	2 ²⁶	29 ¹⁹	7 ⁴⁵	20 ⁵³	11 ³⁷	9 ⁴³	24 ²⁶	23 ¹³	3 ¹⁰	0 ⁵⁴	S 10
S 11	9 58 29	1 ¹⁴ 55	24 ²⁰	9 ²²	12 ³	2 ⁵⁴	29 ¹¹	7 ⁵⁰	20 ⁵²	11 ³⁷	9 ⁴²	24 ²⁷	23 ¹⁰	3 ¹⁶	0 ⁵⁸	S 11
M 12	10 2 26	2 ¹⁵ 09	8 ⁴¹	10 ⁵⁰	13 ¹³	3 ²²	29 ³	7 ⁵⁵	20 ⁵¹	11 ³⁷	9 ⁴⁰	24 ²⁸	23 ⁷	3 ²³	1 ³	M 12
T 13	10 6 23	3 ¹⁵ 20	23 ²¹	12 ¹⁹	14 ²³	3 ⁵¹	28 ⁵⁵	7 ⁵⁹	20 ⁴⁹	11 ³⁶	9 ³⁹	24 ²⁹	23 ⁴	3 ³⁰	1 ⁷	T 13
W 14	10 10 19	4 ¹⁵ 29	8 ¹⁷	13 ⁵⁰	15 ³³	4 ¹⁹	28 ⁴⁷	8 ⁴	20 ⁴⁸	11 ³⁶	9 ³⁷	24 ²⁸	23 ¹	3 ³⁶	1 ¹¹	W 14
T 15	10 14 16	5 ¹⁵ 37	23 ²⁰	15 ²¹	16 ⁴²	4 ⁴⁸	28 ³⁹	8 ⁹	20 ⁴⁶	11 ³⁶	9 ³⁶	24 ²⁶	22 ⁵⁷	3 ⁴³	1 ¹⁶	T 15
F 16	10 18 12	6 ¹⁵ 42	8 ²³	16 ⁵³	17 ⁵²	5 ¹⁷	28 ³²	8 ¹⁴	20 ⁴⁵	11 ³⁵	9 ³⁴	24 ²¹	22 ⁵⁴	3 ⁵⁰	1 ²⁰	F 16
S 17	10 22 9	7 ¹⁵ 45	23 ¹⁷	18 ²⁷	19 ²	5 ⁴⁶	28 ²⁴	8 ¹⁹	20 ⁴³	11 ³⁵	9 ³²	24 ¹⁵	22 ⁵¹	3 ⁵⁶	1 ²⁴	S 17
S 18	10 26 5	8 ¹⁵ 47	7 ⁵²	20 ²	20 ¹¹	6 ¹⁵	28 ¹⁶	8 ²⁴	20 ⁴²	11 ³⁴	9 ³¹	24 ⁸	22 ⁴⁸	4 ³	1 ²⁹	S 18
M 19	10 30 2	9 ¹⁵ 46	22 ²	21 ³⁸	21 ²⁰	6 ⁴⁴	28 ⁹	8 ²⁹	20 ⁴⁰	11 ³⁴	9 ²⁹	24 ¹	22 ⁴⁵	4 ¹⁰	1 ³³	M 19
T 20	10 33 58	10 ¹⁵ 44	5 ¹⁴	23 ¹⁵	22 ²⁹	7 ¹³	28 ¹	8 ³⁴	20 ³⁸	11 ³³	9 ²⁸	23 ⁵⁵	22 ⁴²	4 ¹⁶	1 ³⁷	T 20
W 21	10 37 55	11 ¹⁵ 41	18 ⁵⁹	24 ⁵³	23 ³⁸	7 ⁴³	27 ⁵⁴	8 ³⁹	20 ³⁶	11 ³³	9 ²⁶	23 ⁵⁰	22 ³⁸	4 ²³	1 ⁴¹	W 21
T 22	10 41 51	12 ¹⁵ 36	1 ⁴⁷	26 ³²	24 ⁴⁷	8 ¹³	27 ⁴⁶	8 ⁴⁵	20 ³⁵	11 ³²	9 ²⁴	23 ⁴⁸	22 ³⁵	4 ³⁰	1 ⁴⁵	T 22
F 23	10 45 48	13 ¹⁵ 29	14 ¹²	28 ¹²	25 ⁵⁵	8 ⁴²	27 ³⁹	8 ⁵⁰	20 ³³	11 ³¹	9 ²³	23 ⁴⁷	22 ³²	4 ³⁶	1 ⁴⁹	F 23
S 24	10 49 45	14 ¹⁵ 20	26 ²⁰	29 ⁵⁴	27 ⁴	9 ¹²	27 ³¹	8 ⁵⁶	20 ³¹	11 ³¹	9 ²¹	23 ⁴⁸	22 ²⁹	4 ⁴³	1 ⁵³	S 24
S 25	10 53 41	15 ¹⁵ 10	8 ³⁵	1 ³⁷	28 ¹²	9 ⁴³	27 ²⁴	9 ¹	20 ²⁹	11 ³⁰	9 ²⁰	23 ⁴⁹	22 ²⁶	4 ⁵⁰	1 ⁵⁷	S 25
M 26	10 57 38	16 ¹⁴ 58	20 ³	3 ²¹	29 ²⁰	10 ¹³	27 ¹⁷	9 ⁷	20 ²⁷	11 ²⁹	9 ¹⁸	23 ⁵⁰	22 ²³	4 ⁵⁶	2 ¹	M 26
T 27	11 1 34	17 ¹⁴ 44	1 ⁴⁹	5 ⁶	0 ²⁸	10 ⁴³	27 ¹⁰	9 ¹³	20 ²⁵	11 ²⁹	9 ¹⁷	23 ⁵⁰	22 ¹⁹	5 ³	2 ⁵	T 27
W 28	11 5 31	18 ¹⁴ 28	13 ³⁷	6 ⁵²	1 ³⁵	11 ¹⁴	27 ¹³	9 ¹⁹	20 ²³	11 ²⁸	9 ¹⁵	23 ⁴⁷	22 ¹⁶	5 ⁹	2 ⁹	W 28

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
T 1	14s29	13s57	1n58	21s24	0s22	0s19	0s27	21n49	2n 0	12n34	1n19	11n49	2s15	7s39	0n38	13s38	1n50	21n31	14n49	21s12	21s25	19s 0	13s49	6n29			
F 2	14 9	9 12	2 55	21 18	0 31	0n12	0 23	21 55	2 0	12 36	1 19	11 51	2 14	7 39	0 38	13 38	1 50	21 32	14 49	21 13	21 26	18 57	13 48	6 30			
S 3	13 49	4 4	3 45	21 10	0 39	0 44	0 20	22 0	2 0	12 39	1 19	11 52	2 14	7 38	0 38	13 38	1 50	21 32	14 50	21 14	21 26	18 55	13 47	6 30			
S 4	13 29	1n15	4 26	21 2	0 47	1 16	0 16	22 6	2 0	12 42	1 19	11 54	2 14	7 38	0 38	13 38	1 50	21 33	14 50	21 15	21 27	18 53	13 46	6 30			
M 5	13 9	6 35	4 55	20 52	0 54	1 47	0 13	22 11	2 0	12 45	1 19	11 55	2 13	7 38	0 38	13 38	1 50	21 34	14 50	21 16	21 28	18 50	13 45	6 30			
T 6	12 49	11 45	5 10	20 41	1 1	2 19	0 9	22 17	1 59	12 48	1 19	11 57	2 13	7 37	0 38	13 38	1 50	21 35	14 50	21 16	21 28	18 48	13 44	6 30			
W 7	12 28	16 30	5 11	20 29	1 8	2 50	0 5	22 23	1 59	12 51	1 19	11 58	2 13	7 37	0 38	13 37	1 50	21 36	14 50	21 17	21 29	18 46	13 42	6 30			
T 8	12 7	20 36	4 56	20 16	1 15	3 22	0 2	22 28	1 59	12 54	1 19	12 0	2 13	7 36	0 38	13 37	1 50	21 36	14 51	21 18	21 29	18 43	13 41	6 31			
F 9	11 46	23 46	4 24	20 1	1 21	3 53	0n 2	22 33	1 59	12 56	1 19	12 2	2 12	7 36	0 38	13 37	1 50	21 37	14 51	21 18	21 30	18 41	13 40	6 31			
S 10	11 25	25 39	3 38	19 45	1 27	4 24	0 6	22 39	1 59	12 59	1 20	12 3	2 12	7 35	0 38	13 37	1 50	21 38	14 51	21 18	21 30	18 38	13 39	6 31			
S 11	11 4	26 0	2 37	19 27	1 33	4 56	0 10	22 44	1 58	13 2	1 20	12 5	2 12	7 35	0 38	13 37	1 50	21 39	14 51	21 18	21 31	18 36	13 38	6 31			
M 12	10 42	24 38	1 25	19 8	1 38	5 27	0 14	22 49	1 58	13 5	1 20	12 7	2 12	7 34	0 38	13 37	1 50	21 39	14 51	21 17	21 31	18 34	13 37	6 32			
T 13	10 20	21 35	0 6	18 48	1 43	5 58	0 18	22 55	1 58	13 8	1 20	12 8	2 11	7 34	0 38	13 37	1 50	21 40	14 51	21 17	21 32	18 31	13 36	6 32			
W 14	9 59	17 3	1s14	18 26	1 47	6 28	0 22	23 0	1 58	13 11	1 20	12 10	2 11	7 33	0 38	13 37	1 50	21 41	14 51	21 17	21 32	18 29	13 34	6 32			
T 15	9 37	11 25	2 30	18 3	1 52	6 59	0 26	23 5	1 57	13 13	1 20	12 12	2 11	7 33	0 38	13 36	1 50	21 41	14 51	21 18	21 33	18 26	13 33	6 32			
F 16	9 14	5 7	3 36	17 39	1 55	7 30	0 30	23 10	1 57	13 16	1 20	12 14	2 11	7 32	0 38	13 36	1 50	21 42	14 52	21 19	21 33	18 24	13 32	6 32			
S 17	8 52	1s23	4 26	17 13	1 59	8 0	0 34	23 15	1 57	13 19	1 20	12 16	2 10	7 31	0 38	13 36	1 50	21 43	14 52	21 20	21 34	18 22	13 31	6 33			
S 18	8 30	7 40	4 57	16 46	2 2	8 30	0 38	23 20	1 57	13 22	1 20	12 17	2 10	7 31	0 38	13 36	1 51	21 43	14 52	21 21	21 35	18 19	13 30	6 33			
M 19	8 7	13 23	5 9	16 18	2 5	9 0	0 43	23 25	1 56	13 24	1 20	12 19	2 10	7 30	0 38	13 36	1 51	21 44	14 52	21 22	21 35	18 17	13 29	6 33			
T 20	7 45	18 13	5 3	15 48	2 7	9 30	0 47	23 29	1 56	13 27	1 20	12 21	2 10	7 29	0 38	13 35	1 51	21 45	14 52	21 23	21 36	18 14	13 28	6 33			
W 21	7 22	22 0	4 40	15 17	2 9	9 59	0 51	23 34	1 56	13 30	1 20	12 23	2 10	7 29	0 38	13 35	1 51	21 46	14 52	21 24	21 36	18 12	13 26	6 34			
T 22	6 59	24 34	4 4	14 45	2 10	10 29	0 55	23 39	1 56	13 32	1 20	12 25	2 9	7 28	0 38	13 35	1 51	21 46	14 52	21 24	21 37	18 10	13 25	6 34			
F 23	6 36	25 50	3 17	14 11	2 11	10 58	1 0	23 43	1 55	13 35	1 20	12 27	2 9	7 27	0 38	13 35	1 51	21 47	14 52	21 25	21 37	18 7	13 24	6 34			
S 24	6 13	25 50	2 23	13 36	2 12	11 27	1 4	23 47	1 55	13 37	1 20	12 29	2 9	7 27	0 38	13 34	1 51	21 47	14 52	21 24	21 38	18 5	13 23	6 35			
S 25	5 50	24 38	1 23	12 59	2 12	11 55	1 8	23 52	1 55	13 40	1 20	12 31	2 9	7 26	0 38	13 34	1 51	21 48	14 52	21 24	21 38	18 2	13 22	6 35			
M 26	5 26	22 21	0 20	12 21	2 11	11 24	1 13	23 56	1 55	13 42	1 20	12 33	2 8	7 25	0 38	13 34	1 51	21 49	14 52	21 24	21 39	18 0	13 21	6 35			
T 27	5 3 19	7 0n43	11 42	2 11	12 52	1 17	24 0	1 54	13 45	1 20	12 35	2 8	7 24	0 38	13 34	1 51	21 49	14 52	21 24	21 39	17 57	13 20	6 36				
W 28	4s40	15s 7	1n44	11s 1	2s 9	13n20	1n21	24n 4	1n54	13n47	1n20	12n37	2s 8	7s24	0n38	13s33	1n51	21n50	14n52	21s24	21s40	17s55	13s18	6n36			

ASTRODIENST EPHEMERIS for the year 1470
geocentric

MARCH 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	11 9 27	19 ¹⁴ 11'11"	25 ³⁰ 30	8 ⁴⁰ 40	2 ⁴³ 43	11 ⁴⁴ 44	26 ⁵⁶ 56	9 ²⁴ 24	20 ²¹ 21	11 ²⁷ 27	9 ¹³ 13	23 ⁴³ 43	22 ¹³ 13	5 ¹⁶ 16	2 ¹³ 13	T 1
F 2	11 13 24	20 ¹³ 51	7 ³² 32	10 ²⁸ 28	3 ⁵⁰ 50	12 ¹⁵ 15	26 ⁴⁹ 49	9 ³⁰ 30	20 ¹⁹ 19	11 ²⁶ 26	9 ¹² 12	23 ³⁶ 36	22 ¹⁰ 10	5 ²³ 23	2 ¹⁶ 16	F 2
S 3	11 17 20	21 ¹³ 30	19 ⁴⁴ 44	12 ¹⁸ 18	4 ⁵⁷ 57	12 ⁴⁶ 46	26 ⁴³ 43	9 ³⁶ 36	20 ¹⁷ 17	11 ²⁵ 25	9 ¹⁰ 10	23 ²⁶ 26	22 ⁷ 7	5 ²⁹ 29	2 ²⁰ 20	S 3
S 4	11 21 17	22 ¹³ 06	2 ⁷ 7	14 ¹⁰ 10	6 ⁴ 4	13 ¹⁷ 17	26 ³⁶ 36	9 ⁴² 42	20 ¹⁵ 15	11 ²⁴ 24	9 ⁹ 9	23 ¹⁵ 15	22 ³ 3	5 ³⁶ 36	2 ²⁴ 24	S 4
M 5	11 25 14	23 ¹² 40	14 ⁴² 42	16 ² 2	7 ¹¹ 11	13 ⁴⁸ 48	26 ³⁰ 30	9 ⁴⁹ 49	20 ¹³ 13	11 ²³ 23	9 ⁷ 7	23 ⁴ 4	22 ⁰ 0	5 ⁴³ 43	2 ²⁷ 27	M 5
T 6	11 29 10	24 ¹² 13	27 ²⁸ 28	17 ⁵⁶ 56	8 ¹⁷ 17	14 ²⁰ 20	26 ²³ 23	9 ⁵⁵ 55	20 ¹⁰ 10	11 ²² 22	9 ⁶ 6	22 ⁵³ 53	21 ⁵⁷ 57	5 ⁴⁹ 49	2 ³¹ 31	T 6
W 7	11 33 7	25 ¹¹ 43	10 ²⁷ 27	19 ⁵¹ 51	9 ²³ 23	14 ⁵¹ 51	26 ¹⁷ 17	10 ¹ 1	20 ⁸ 8	11 ²¹ 21	9 ⁴ 4	22 ⁴⁴ 44	21 ⁵⁴ 54	5 ⁵⁶ 56	2 ³⁴ 34	W 7
T 8	11 37 3	26 ¹¹ 10	23 ³⁸ 38	21 ⁴⁷ 47	10 ²⁹ 29	15 ²³ 23	26 ¹¹ 11	10 ⁷ 7	20 ⁶ 6	11 ²⁰ 20	9 ³ 3	22 ³⁸ 38	21 ⁵¹ 51	6 ³ 3	2 ³⁸ 38	T 8
F 9	11 41 0	27 ¹⁰ 36	7 ² 2	23 ⁴⁴ 44	11 ³⁵ 35	15 ⁵⁴ 54	26 ⁵ 5	10 ¹⁴ 14	20 ⁴ 4	11 ¹⁹ 19	9 ¹ 1	22 ³³ 33	21 ⁴⁸ 48	6 ⁹ 9	2 ⁴¹ 41	F 9
S 10	11 44 56	28 ⁹ 59	20 ³⁹ 39	25 ⁴³ 43	12 ⁴⁰ 40	16 ²⁶ 26	26 ⁰ 0	10 ²⁰ 20	20 ¹ 1	11 ¹⁸ 18	9 ⁰ 0	22 ³² 32	21 ⁴⁴ 44	6 ¹⁶ 16	2 ⁴⁴ 44	S 10
S 11	11 48 53	29 ⁹ 20	4 ³⁰ 30	27 ⁴² 42	13 ⁴⁶ 46	16 ⁵⁸ 58	25 ⁵⁴ 54	10 ²⁷ 27	19 ⁵⁹ 59	11 ¹⁷ 17	8 ⁵⁸ 58	22 ³² 32	21 ⁴¹ 41	6 ²³ 23	2 ⁴⁸ 48	S 11
M 12	11 52 49	0 ⁷ 8'38"	18 ³⁶ 36	29 ⁴³ 43	14 ⁵¹ 51	17 ³⁰ 30	25 ⁴⁹ 49	10 ³³ 33	19 ⁵⁷ 57	11 ¹⁶ 16	8 ⁵⁷ 57	22 ³² 32	21 ³⁸ 38	6 ²⁹ 29	2 ⁵¹ 51	M 12
T 13	11 56 46	1 ⁷ 54	2 ⁵⁶ 56	1 ⁴⁵ 45	15 ⁵⁶ 56	18 ¹ 1	25 ⁴³ 43	10 ⁴⁰ 40	19 ⁵⁴ 54	11 ¹⁵ 15	8 ⁵⁵ 55	22 ³² 32	21 ³⁵ 35	6 ³⁶ 36	2 ⁵⁴ 54	T 13
W 14	12 0 43	2 ⁷ 08	17 ²⁹ 29	3 ⁴⁷ 47	17 ⁰ 0	18 ³⁴ 34	25 ³⁸ 38	10 ⁴⁶ 46	19 ⁵² 52	11 ¹⁴ 14	8 ⁵⁴ 54	22 ²⁹ 29	21 ³² 32	6 ⁴³ 43	2 ⁵⁷ 57	W 14
T 15	12 4 39	3 ⁶ 19	2 ⁹ 9	5 ⁵⁰ 50	18 ⁴ 4	19 ⁶ 6	25 ³³ 33	10 ⁵³ 53	19 ⁵⁰ 50	11 ¹³ 13	8 ⁵² 52	22 ²⁵ 25	21 ²⁹ 29	6 ⁴⁹ 49	3 ⁰ 0	T 15
F 16	12 8 36	4 ⁵ 28	16 ⁵² 52	7 ⁵³ 53	19 ⁸ 8	19 ³⁸ 38	25 ²⁸ 28	11 ⁰ 0	19 ⁴⁷ 47	11 ¹¹ 11	8 ⁵¹ 51	22 ¹⁷ 17	21 ²⁵ 25	6 ⁵⁶ 56	3 ³ 3	F 16
S 17	12 12 32	5 ⁴ 35	1 ²⁹ 29	9 ⁵⁷ 57	20 ¹² 12	20 ¹⁰ 10	25 ²³ 23	11 ⁶ 6	19 ⁴⁵ 45	11 ¹⁰ 10	8 ⁵⁰ 50	22 ⁷ 7	21 ²² 22	7 ² 2	3 ⁶ 6	S 17
S 18	12 16 29	6 ³ 40	15 ⁵⁴ 54	12 ¹ 1	21 ¹⁵ 15	20 ⁴³ 43	25 ¹⁹ 19	11 ¹³ 13	19 ⁴² 42	11 ⁹ 9	8 ⁴⁸ 48	21 ⁵⁶ 56	21 ¹⁹ 19	7 ⁹ 9	3 ⁹ 9	S 18
M 19	12 20 25	7 ² 42	29 ⁵⁹ 59	14 ⁵ 5	22 ¹⁸ 18	21 ¹⁵ 15	25 ¹⁵ 15	11 ²⁰ 20	19 ⁴⁰ 40	11 ⁸ 8	8 ⁴⁷ 47	21 ⁴⁵ 45	21 ¹⁶ 16	7 ¹⁶ 16	3 ¹² 12	M 19
T 20	12 24 22	8 ¹ 43	13 ⁴⁰ 40	16 ⁸ 8	23 ²¹ 21	21 ⁴⁸ 48	25 ¹⁰ 10	11 ²⁷ 27	19 ³⁷ 37	11 ⁶ 6	8 ⁴⁵ 45	21 ³⁵ 35	21 ¹³ 13	7 ²² 22	3 ¹⁵ 15	T 20
W 21	12 28 18	9 ⁰ 42	26 ⁵⁶ 56	18 ¹¹ 11	24 ²³ 23	22 ²⁰ 20	25 ⁶ 6	11 ³⁴ 34	19 ³⁵ 35	11 ⁵ 5	8 ⁴⁴ 44	21 ²⁶ 26	21 ⁹ 9	7 ²⁹ 29	3 ¹⁸ 18	W 21
T 22	12 32 15	9 ⁵⁹ 40	9 ⁴⁷ 47	20 ¹² 12	25 ²⁵ 25	22 ⁵³ 53	25 ² 2	11 ⁴¹ 41	19 ³² 32	11 ⁴ 4	8 ⁴³ 43	21 ²⁰ 20	21 ⁶ 6	7 ³⁶ 36	3 ²⁰ 20	T 22
F 23	12 36 12	10 ⁵⁸ 35	22 ¹⁵ 15	22 ¹² 12	26 ²⁷ 27	23 ²⁶ 26	24 ⁵⁹ 59	11 ⁴⁸ 48	19 ³⁰ 30	11 ² 2	8 ⁴¹ 41	21 ¹⁷ 17	21 ³ 3	7 ⁴² 42	3 ²³ 23	F 23
S 24	12 40 8	11 ⁵⁷ 29	4 ²⁶ 26	24 ¹⁰ 10	27 ²⁸ 28	23 ⁵⁹ 59	24 ⁵⁵ 55	11 ⁵⁵ 55	19 ²⁷ 27	11 ¹ 1	8 ⁴⁰ 40	21 ¹⁶ 16	21 ⁰ 0	7 ⁴⁹ 49	3 ²⁵ 25	S 24
S 25	12 44 5	12 ⁵⁶ 20	16 ²³ 23	26 ⁷ 7	28 ²⁹ 29	24 ³² 32	24 ⁵² 52	12 ² 2	19 ²⁵ 25	11 ⁰ 0	8 ³⁹ 39	21 ¹⁶ 16	20 ⁵⁷ 57	7 ⁵⁶ 56	3 ²⁸ 28	S 25
M 26	12 48 1	13 ⁵⁵ 11	28 ¹² 12	28 ⁰ 0	29 ²⁹ 29	25 ⁵ 5	24 ⁴⁸ 48	12 ⁹ 9	19 ²² 22	10 ⁵⁸ 58	8 ³⁸ 38	21 ¹⁶ 16	20 ⁵⁴ 54	8 ² 2	3 ³⁰ 30	M 26
T 27	12 51 58	14 ⁵³ 59	9 ⁵⁹ 59	29 ⁵¹ 51	0 ³⁰ 30	25 ³⁸ 38	24 ⁴⁵ 45	12 ¹⁷ 17	19 ²⁰ 20	10 ⁵⁷ 57	8 ³⁶ 36	21 ¹⁵ 15	20 ⁵⁰ 50	8 ⁹ 9	3 ³³ 33	T 27
W 28	12 55 54	15 ⁵² 45	21 ⁵⁰ 50	1 ³⁹ 39	1 ²⁹ 29	26 ¹¹ 11	24 ⁴³ 43	12 ²⁴ 24	19 ¹⁷ 17	10 ⁵⁶ 56	8 ³⁵ 35	21 ¹¹ 11	20 ⁴⁷ 47	8 ¹⁶ 16	3 ³⁵ 35	W 28
T 29	12 59 51	16 ⁵¹ 30	3 ⁴⁸ 48	3 ²³ 23	2 ²⁹ 29	26 ⁴⁵ 45	24 ⁴⁰ 40	12 ³¹ 31	19 ¹⁴ 14	10 ⁵⁴ 54	8 ³⁴ 34	21 ⁶ 6	20 ⁴⁴ 44	8 ²² 22	3 ³⁷ 37	T 29
F 30	13 3 47	17 ⁵⁰ 13	15 ⁵⁷ 57	5 ³ 3	3 ²⁸ 28	27 ¹⁸ 18	24 ³⁷ 37	12 ³⁹ 39	19 ¹² 12	10 ⁵³ 53	8 ³³ 33	20 ⁵⁷ 57	20 ⁴¹ 41	8 ²⁹ 29	3 ⁴⁰ 40	F 30
S 31	13 7 44	18 ⁴⁸ 54	28 ⁴⁸ 48	6 ³⁹ 39	4 ²⁶ 26	27 ⁵¹ 51	24 ³⁵ 35	12 ⁴⁶ 46	19 ⁹ 9	10 ⁵¹ 51	8 ³² 32	20 ⁴⁶ 46	20 ³⁸ 38	8 ³⁶ 36	3 ⁴² 42	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	decl	lat	decl	lat	decl	lat	decl	lat
T 1	4s16	10s31	2n42	10s19	2s 8	13n47	1n26	24n 8	1n54	13n49	1n20	12n39	2s 8	7s23	0n38	13s33	1n51	21n51	14n52	21s25	21s40	17s53	13s17	6n36									
F 2	3 53	5 29	3 32	9 36	2 5	14 14	1 30	24 12	1 53	13 52	1 20	12 41	2 8	7 22	0 39	13 33	1 51	21 51	14 52	21 27	21 41	17 50	13 16	6 36									
S 3	3 29	0 11	4 14	8 51	2 3	14 41	1 34	24 16	1 53	13 54	1 20	12 43	2 7	7 21	0 39	13 32	1 51	21 52	14 52	21 28	21 41	17 48	13 15	6 37									
S 4	3 6	5n11	4 44	8 5	2 0	15 8	1 39	24 20	1 53	13 56	1 20	12 45	2 7	7 20	0 39	13 32	1 51	21 52	14 52	21 30	21 42	17 45	13 14	6 37									
M 5	2 42	10 25	5 1	7 18	1 56	15 34	1 43	24 23	1 53	13 58	1 20	12 47	2 7	7 20	0 39	13 32	1 51	21 53	14 52	21 32	21 42	17 43	13 13	6 37									
T 6	2 19	15 19	5 3	6 30	1 52	16 0	1 47	24 27	1 52	14 0	1 20	12 49	2 7	7 19	0 39	13 31	1 51	21 53	14 52	21 34	21 43	17 43	13 12	6 38									
W 7	1 55	19 35	4 50	5 40	1 47	16 25	1 52	24 30	1 52	14 2	1 20	12 52	2 7	7 18	0 39	13 31	1 51	21 54	14 52	21 35	21 43	17 38	13 11	6 38									
T 8	1 31	22 57	4 21	4 49	1 41	16 51	1 56	24 33	1 52	14 4	1 20	12 54	2 6	7 17	0 39	13 31	1 51	21 54	14 52	21 36	21 44	17 35	13 9	6 39									
F 9	1 8	25 7	3 38	3 57	1 36	17 15	2 0	24 36	1 51	14 6	1 20	12 56	2 6	7 16	0 39	13 30	1 51	21 55	14 52	21 37	21 44	17 33	13 8	6 39									
S 10	0 44	25 52	2 41	3 4	1 29	17 40	2 4	24 39	1 51	14 8	1 19	12 58	2 6	7 15	0 39	13 30	1 52	21 55	14 52	21 37	21 45	17 30	13 7	6 39									
S 11	0 20	25 0	1 35	2 10	1 22	18 4	2 9	24 42	1 51	14 10	1 19	13 0	2 6	7 14	0 39	13 30	1 52	21 56	14 52	21 37	21 45	17 28	13 6	6 40									
M 12	0n 3	22 34	0 21	1 15	1 15	18 27	2 13	24 45	1 50	14 12	1 19	13 3	2 6	7 14	0 39	13 29	1 52	21 56	14 51	21 37	21 46	17 26	13 5	6 40									
T 13	0 27	18 40	0s55	0 20	1 7	18 50	2 17	24 48	1 50	14 14	1 19	13 5	2 5	7 13	0 39	13 29	1 52	21 57	14 51	21 37	21 46	17 23	13 4	6 40									
W 14	0 51	13 36	2 9	0n37	0 58	19 13	2 21	24 50	1 50	14 15	1 19	13 7	2 5	7 12	0 39	13 28	1 52	21 57	14 51	21 38	21 47	17 21	13 3	6 41									
T 15	1 14	7 43	3 14	1 34	0 49	19 35	2 25	24 53	1 49	14 17	1 19	13 9	2 5	7 11	0 39	13 28	1 52	21 58	14 51	21 38	21 47	17 18	13 2	6 41									
F 16	1 38	1 25	4 7	2 32	0 40	19 57	2 29	24 55	1 49	14 18	1 19	13 11	2 5	7 10	0 39	13 28	1 52	21 58	14 51	21 40	21 48	17 16	13 1	6 42									
S 17	2 1	4s55	4 43	3 29	0 30	20 18	2 33	24 57	1 49	14 20	1 19	13 14	2 5	7 9	0 39	13 27	1 52	21 59	14 51	21 41	21 48	17 13	13 0	6 42									
S 18	2 25	10 53	5 0	4 28	0 20	20 39	2 37	24 59	1 48	14 21	1 19	13 16	2 5	7 8	0 39	13 27	1 52	21 59	14 51	21 43	21 49	17 11	12 59	6 42									
M 19	2 48	16 9	4 59	5 26	0 9	21 0	2 41	25 1	1 48	14 23	1 19	13 18	2 4	7 7	0 39	13 26	1 52	21 59	14 50	21 45	21 49	17 8	12 58	6 43									
T 20	3 12	20 36	4 40	6 23	0n 2	21 20	2 45	25 3	1 48	14 24	1 19	13 20	2 4	7 6	0 39	13 26	1 52	22 0	14 50	21 46	21 50	17 6	12 57	6 43									
W 21	3 35	23 31	4 6	7 21	0 13	21 39	2 49	25 5	1 47	14 25	1 18	13 23	2 4	7 5	0 39	13 25	1 52	22 0	14 50	21 48	21 50	17 3	12 56	6 44									
T 22	3 58	25 18	3 21	8 17	0 24	21 58	2 53	25 6	1 47	14 27	1 18	13 25	2 4	7 4	0 39	13 25	1 52	22 0	14 50	21 49	21 51	17 1	12 55	6 44									
F 23	4 21	25 44	2 27	9 13	0 35	22 17	2 57	25 7	1 47	14 28	1 18	13 27	2 4	7 3	0 39	13 25	1 52	22 1	14 50	21 49	21 51	16 58	12 54	6 44									
S 24	4 44	24 54	1 28	10 8	0 47	22 35	3 0	25 9	1 46	14 29	1 18	13 30	2 4	7 2	0 39	13 24	1 52	22 1	14 50	21 49	21 52	16 56	12 53	6 45									
S 25	5 7	22 56	0 26	11 1	0 58	22 52	3 4	25 10	1 46	14 30	1 18	13 32	2 4	7 1	0 39	13 24	1 52	22 1	14 49	21 49	21 52	16 53	12 52	6 45									
M 26	5 30	19 59	0n37	11 53	1 10	23 9	3 8	25 11	1 46	14 31	1 18	13 34	2 3	7 0	0 39	13 23	1 52	22 2	14 49	21 49	21 53	16 50	12 51	6 46									
T 27	5 53	16 14	1 38	12 42	1 21	23 26	3 11	25 12	1 45	14 32	1 18	13 37	2 3	6 59	0 39	13 23	1 52	22 2	14 49	21 50	21 53	16 48	12 50	6 46									
W 28	6 16	11 50	2 34	13 30	1 31	23 41	3 14	25 12	1 45	14 32	1 18	13 39	2 3	6 58	0 39	13 22	1 52	22 2	14 49	21 50	21 54	16 45	12 49	6 47									
T 29	6 39	6 58	3 25	14 16	1 42	23 57	3 18	25 13	1 45	14 33	1 17	13 41	2 3	6 57	0 39	13 22	1 52	22 2	14 49	21 51	21 54	16 43	12 48	6 47									
F 30	7 1	1 46	4 7	14 59	1 51	24 12	3 21	25 13	1 44	14 34	1 17	13 44	2 3	6 57	0 39	13 21	1 52	22 3	14 48	21 52	21 55	16 40	12 47	6 47									
S 31	7n24	3n35	4n38	15n40	2n 1	24n26	3n24	25n14	1n44	14n35	1n17	13n46	2s 3	6s56	0n39	13s21	1n52	22n 3	14n48	21s54	21s55	16s38	12s46	6n48									

ASTRODIENST EPHEMERIS for the year 1470

geocentric

APRIL 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	13 11 40	19°47'33	10°45'58	8°11	5°11'24	28°11'25	24°R33	12°8'53	19°R 7	10°R50	8°R31	20°R33	20°33'4	8°42	3°44	S 1
M 2	13 15 37	20°46'10	23°52	9°39	6°22	28°58	24°13'1	13° 1	19°4 4	10°M48	8°M30	20°32'0	20°31	8°49	3°46	M 2
T 3	13 19 34	21°44'45	7°8 0	11° 2	7°19	29°32	24°29	13° 8	19° 2	10°47	8°28	20° 7	20°28	8°56	3°48	T 3
W 4	13 23 30	22°43'18	20°21	12°20	8°16	0°56 6	24°28	13°15	18°59	10°45	8°27	19°56	20°25	9° 2	3°50	W 4
T 5	13 27 27	23°41'50	3°11'53	13°34	9°12	0°39	24°26	13°23	18°57	10°44	8°26	19°48	20°22	9° 9	3°51	T 5
F 6	13 31 23	24°40'19	17°34	14°42	10° 7	1°13	24°25	13°30	18°54	10°42	8°25	19°43	20°19	9°16	3°53	F 6
S 7	13 35 20	25°38'46	1°52'23	15°45	11° 2	1°47	24°24	13°38	18°51	10°41	8°24	19°40	20°15	9°22	3°55	S 7
S 8	13 39 16	26°37'11	15°19	16°43	11°57	2°21	24°23	13°46	18°49	10°39	8°23	19°39	20°12	9°29	3°56	S 8
M 9	13 43 13	27°35'33	29°22	17°36	12°51	2°55	24°23	13°53	18°46	10°37	8°23	19°39	20° 9	9°35	3°58	M 9
T 10	13 47 9	28°33'54	13°13'31	18°23	13°44	3°29	24°22	14° 1	18°44	10°36	8°22	19°38	20° 6	9°42	3°59	T 10
W11	13 51 6	29°32'12	27°45	19° 5	14°37	4° 3	24°22	14° 8	18°41	10°34	8°21	19°36	20° 3	9°49	4° 1	W11
T 12	13 55 3	0°13'30'28	12°11'2	19°41	15°28	4°37	24°D22	14°16	18°39	10°33	8°20	19°31	20° 0	9°55	4° 2	T 12
F 13	13 58 59	1°28'42	26°18	20°12	16°20	5°11	24°22	14°24	18°36	10°31	8°19	19°24	19°56	10° 2	4° 3	F 13
S 14	14 2 56	2°26'54	10°13'30	20°37	17°10	5°45	24°22	14°31	18°34	10°29	8°18	19°14	19°53	10° 9	4° 5	S 14
S 15	14 6 52	3°25'05	24°31	20°57	18° 0	6°20	24°23	14°39	18°31	10°28	8°17	19° 3	19°50	10°15	4° 6	S 15
M16	14 10 49	4°23'13	8°11'18	21°11	18°49	6°54	24°24	14°47	18°29	10°26	8°17	18°51	19°47	10°22	4° 7	M16
T 17	14 14 45	5°21'20	21°46	21°20	19°37	7°28	24°24	14°54	18°27	10°25	8°16	18°41	19°44	10°29	4° 8	T 17
W18	14 18 42	6°19'25	4°17'53	21°R24	20°25	8° 3	24°25	15° 2	18°24	10°23	8°15	18°32	19°40	10°35	4° 9	W18
T 19	14 22 38	7°17'29	17°39	21°22	21°11	8°37	24°27	15°10	18°22	10°21	8°15	18°26	19°37	10°42	4° 9	T 19
F 20	14 26 35	8°15'31	0°13'6	21°15	21°57	9°12	24°28	15°18	18°19	10°20	8°14	18°22	19°34	10°49	4°10	F 20
S 21	14 30 32	9°13'31	12°17	21° 4	22°42	9°46	24°30	15°25	18°17	10°18	8°13	18°20	19°31	10°55	4°11	S 21
S 22	14 34 28	10°11'31	24°15	20°48	23°26	10°21	24°31	15°33	18°15	10°16	8°13	18°D20	19°28	11° 2	4°12	S 22
M23	14 38 25	11° 9'29	6°11'6	20°28	24° 8	10°55	24°33	15°41	18°12	10°15	8°12	18°R21	19°25	11° 9	4°12	M23
T 24	14 42 21	12° 7'25	17°55	20° 4	24°50	11°30	24°35	15°49	18°10	10°13	8°12	18°21	19°21	11°15	4°13	T 24
W25	14 46 18	13° 5'20	29°47	19°37	25°31	12° 5	24°38	15°56	18° 8	10°12	8°11	18°19	19°18	11°22	4°13	W25
T 26	14 50 14	14° 3'14	11°11'48	19° 7	26°11	12°40	24°40	16° 4	18° 6	10°10	8°11	18°16	19°15	11°29	4°13	T 26
F 27	14 54 11	15° 1'06	24° 2	18°34	26°49	13°14	24°43	16°12	18° 3	10° 8	8°10	18°10	19°12	11°35	4°14	F 27
S 28	14 58 7	15°58'58	6°11'33	18° 1	27°27	13°49	24°45	16°20	18° 1	10° 7	8°10	18° 2	19° 9	11°42	4°14	S 28
S 29	15 2 4	16°56'48	19°22	17°26	28° 3	14°24	24°48	16°28	17°59	10° 5	8°10	17°52	19° 6	11°49	4°14	S 29
M30	15 6 1	17°54'36	2°13'31	16°15'50	28°11'38	14°56'59	24°15'52	16°18'35	17°15'57	10°11'3	8°11'9	17°34'2	19°13'2	11°15'55	4°14'14	M30

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	7n46	8n53	4n56	16n19	2n 9	24n40	3n27	25n14	1n44	14n35	1n17	13n48	2s 3	6s55	0n39	13s20	1n52	22n 3	14n48	21s56	21s56	16s35	12s45	6n48	
M 2	8 8	13 55	5 0	16 55	2 17	24 53	3 30	25 14	1 43	14 36	1 17	13 51	2 2	6 54	0 39	13 20	1 52	22 3	14 48	21 58	21 56	16 33	12 44	6 49	
T 3	8 30	18 25	4 47	17 28	2 25	25 6	3 33	25 14	1 43	14 36	1 17	13 53	2 2	6 53	0 39	13 19	1 52	22 4	14 47	22 0	21 57	16 30	12 43	6 49	
W 4	8 52	22 3	4 19	17 59	2 31	25 18	3 36	25 13	1 43	14 36	1 17	13 55	2 2	6 52	0 39	13 19	1 52	22 4	14 47	22 1	21 57	16 28	12 43	6 50	
T 5	9 14	24 32	3 37	18 27	2 37	25 29	3 38	25 13	1 42	14 37	1 16	13 58	2 2	6 51	0 39	13 18	1 52	22 4	14 47	22 3	21 58	16 25	12 42	6 50	
F 6	9 35	25 36	2 41	18 52	2 41	25 40	3 41	25 12	1 42	14 37	1 16	14 0	2 2	6 50	0 39	13 18	1 52	22 4	14 47	22 3	21 58	16 23	12 41	6 51	
S 7	9 57	25 5	1 35	19 14	2 45	25 51	3 43	25 12	1 42	14 37	1 16	14 2	2 2	6 49	0 39	13 17	1 52	22 4	14 46	22 4	21 59	16 20	12 40	6 51	
S 8	10 18	23 0	0 23	19 34	2 48	26 1	3 46	25 11	1 41	14 37	1 16	14 5	2 2	6 48	0 39	13 17	1 52	22 4	14 46	22 4	21 59	16 17	12 39	6 52	
M 9	10 39	19 30	0s51	19 50	2 50	26 10	3 48	25 10	1 41	14 37	1 16	14 7	2 2	6 47	0 39	13 16	1 52	22 4	14 46	22 4	22 0	16 15	12 38	6 52	
T 10	11 0	14 51	2 3	20 4	2 50	26 19	3 50	25 8	1 41	14 37	1 16	14 9	2 2	6 46	0 39	13 16	1 52	22 4	14 45	22 4	22 0	16 12	12 38	6 53	
W11	11 20	9 22	3 7	20 16	2 50	26 27	3 52	25 7	1 40	14 37	1 15	14 12	2 2	6 45	0 39	13 15	1 52	22 5	14 45	22 4	22 0	16 10	12 37	6 53	
T 12	11 41	3 22	4 0	20 24	2 48	26 35	3 54	25 6	1 40	14 37	1 15	14 14	2 1	6 44	0 38	13 15	1 52	22 5	14 45	22 5	22 1	16 7	12 36	6 53	
F 13	12 1	2s46	4 37	20 30	2 45	26 42	3 55	25 4	1 40	14 37	1 15	14 16	2 1	6 43	0 38	13 14	1 53	22 5	14 44	22 6	22 1	16 5	12 35	6 54	
S 14	12 21	8 44	4 58	20 33	2 41	26 49	3 57	25 2	1 39	14 37	1 15	14 19	2 1	6 42	0 38	13 14	1 53	22 5	14 44	22 8	22 2	16 2	12 35	6 54	
S 15	12 41	14 10	5 0	20 33	2 36	26 55	3 58	25 0	1 39	14 37	1 15	14 21	2 1	6 41	0 38	13 13	1 53	22 5	14 44	22 9	22 2	15 59	12 34	6 55	
M16	13 1	18 47	4 44	20 31	2 30	27 0	3 59	24 58	1 39	14 36	1 15	14 23	2 1	6 40	0 38	13 13	1 53	22 5	14 44	22 11	22 3	15 57	12 33	6 55	
T 17	13 21	22 20	4 13	20 26	2 22	27 5	4 0	24 56	1 38	14 36	1 15	14 26	2 1	6 39	0 38	13 12	1 53	22 5	14 43	22 12	22 3	15 54	12 32	6 56	
W18	13 40	24 36	3 29	20 19	2 14	27 10	4 1	24 53	1 38	14 35	1 14	14 28	2 1	6 39	0 38	13 12	1 53	22 5	14 43	22 13	22 4	15 52	12 32	6 56	
T 19	13 59	25 31	2 35	20 9	2 4	27 14	4 2	24 51	1 37	14 35	1 14	14 30	2 1	6 38	0 38	13 11	1 53	22 5	14 43	22 14	22 4	15 49	12 31	6 57	
F 20	14 18	25 6	1 35	19 56	1 53	27 17	4 2	24 48	1 37	14 34	1 14	14 33	2 1	6 37	0 38	13 11	1 53	22 4	14 42	22 15	22 5	15 46	12 30	6 57	
S 21	14 37	23 29	0 32	19 41	1 40	27 20	4 2	24 45	1 37	14 33	1 14	14 35	2 1	6 36	0 38	13 10	1 53	22 4	14 42	22 15	22 5	15 44	12 30	6 58	
S 22	14 55	20 49	0n13	19 24	1 27	27 23	4 2	24 42	1 36	14 33	1 14	14 37	2 1	6 35	0 38	13 10	1 53	22 4	14 41	22 15	22 6	15 41	12 29	6 58	
M23	15 13	17 18	1 33	19 5	1 13	27 25	4 2	24 39	1 36	14 32	1 14	14 40	2 1	6 34	0 38	13 9	1 53	22 4	14 41	22 15	22 6	15 39	12 29	6 59	
T 24	15 31	13 7	2 31	18 44	0 58	27 26	4 2	24 36	1 36	14 31	1 13	14 42	2 1	6 33	0 38	13 9	1 53	22 4	14 41	22 15	22 6	15 36	12 28	6 59	
W25	15 49	8 25	3 22	18 22	0 42	27 27	4 1	24 32	1 35	14 30	1 13	14 44	2 1	6 32	0 38	13 8	1 53	22 4	14 40	22 15	22 7	15 33	12 27	7 0	
T 26	16 6	3 23	4 5	17 58	0 26	27 27	4 0	24 29	1 35	14 29	1 13	14 46	2 0	6 32	0 38	13 8	1 53	22 4	14 40	22 16	22 7	15 31	12 27	7 0	
F 27	16 23	1n53	4 38	17 32	0 9	27 27	3 59	24 25	1 35	14 28	1 13	14 49	2 0	6 31	0 38	13 7	1 53	22 4	14 40	22 16	22 8	15 28	12 26	7 1	
S 28	16 40	7 10	4 58	17 6	0s 9	27 27	3 58	24 21	1 34	14 27	1 13	14 51	2 0	6 30	0 38	13 7	1 53	22 3	14 39	22 17	22 8	15 26	12 26	7 1	
S 29	16 57	12 17	5 4	16 40	0 26	27 26	3 56	24 17	1 34	14 26	1 13	14 53	2 0	6 29	0 38	13 6	1 53	22 3	14 39	22 19	22 9	15 23	12 25	7 2	
M30	17n13	16n59	4n54	16n13	0s44	27n25	3n55	24n13	1n33	14n25	1n12	14n55	2s 0	6s28	0n38	13s 6	1n53	22n 3	14n39	22s20	22s 9	15s20	12s25	7n 2	

ASTRODIENST EPHEMERIS for the year 1470

geocentric

MAY 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	15 9 57	18°52'24	15°59	16°R15	29°II11	15°34	24°55	16°843	17°R55	10°R 2	8°R 9	17°R32	18°359	12°2	4°R14	T 1
W 2	15 13 54	19°50'10	29°43	15°841	29°43	16° 9	24°58	16°51	17°53	10°M 0	8°M 9	17°323	18°56	12° 9	4°14	W 2
T 3	15 17 50	20°47'54	13°II40	15° 8	0°514	16°44	25° 2	16°59	17°51	9°59	8° 8	17°17	18°53	12°15	4°14	T 3
F 4	15 21 47	21°45'37	27°45	14°37	0°43	17°19	25° 6	17° 7	17°49	9°57	8° 8	17°13	18°50	12°22	4°14	F 4
S 5	15 25 43	22°43'19	11°56	14° 8	1°11	17°54	25°10	17°14	17°47	9°55	8° 8	17°D12	18°46	12°29	4°14	S 5
S 6	15 29 40	23°40'59	26° 9	13°42	1°37	18°30	25°14	17°22	17°45	9°54	8° 8	17°12	18°43	12°35	4°13	S 6
M 7	15 33 36	24°38'37	10°21	13°20	2° 2	19° 5	25°18	17°30	17°43	9°52	8° 8	17°13	18°40	12°42	4°13	M 7
T 8	15 37 33	25°36'14	24°31	13° 1	2°24	19°40	25°23	17°38	17°41	9°51	8° 8	17°R13	18°37	12°49	4°12	T 8
W 9	15 41 30	26°33'49	8°M38	12°46	2°45	20°15	25°27	17°45	17°39	9°49	8° 8	17°13	18°34	12°55	4°12	W 9
T 10	15 45 26	27°31'23	22°39	12°35	3° 4	20°51	25°32	17°53	17°38	9°48	8° 8	17°10	18°31	13° 2	4°11	T 10
F 11	15 49 23	28°28'55	6°34	12°28	3°21	21°26	25°37	18° 1	17°36	9°46	8°D 8	17° 6	18°27	13° 8	4°11	F 11
S 12	15 53 19	29°26'26	20°19	12°D26	3°37	22° 2	25°42	18° 8	17°34	9°45	8° 8	16°59	18°24	13°15	4°10	S 12
S 13	15 57 16	0°II23'56	3°M54	12°28	3°50	22°37	25°47	18°16	17°33	9°43	8° 8	16°52	18°21	13°22	4° 9	S 13
M14	16 1 12	1°21'24	17°16	12°35	4° 1	23°12	25°53	18°24	17°31	9°42	8° 8	16°44	18°18	13°28	4° 8	M14
T 15	16 5 9	2°18'51	0°23	12°46	4°10	23°48	25°58	18°31	17°29	9°40	8° 8	16°37	18°15	13°35	4° 7	T 15
W16	16 9 5	3°16'18	13°13	13° 1	4°17	24°24	26° 4	18°39	17°28	9°39	8° 8	16°31	18°11	13°42	4° 6	W16
T 17	16 13 2	4°13'43	25°48	13°21	4°21	24°59	26°10	18°47	17°26	9°37	8° 8	16°28	18° 8	13°48	4° 5	T 17
F 18	16 16 59	5°11'08	8°3	13°46	4°R23	25°35	26°16	18°54	17°25	9°36	8° 8	16°26	18° 5	13°55	4° 4	F 18
S 19	16 20 55	6° 8'31	20°13	14°14	4°23	26°10	26°22	19° 2	17°23	9°34	8° 9	16°D25	18° 2	14° 2	4° 3	S 19
S 20	16 24 52	7° 5'54	2°10	14°47	4°21	26°46	26°28	19° 9	17°22	9°33	8° 9	16°26	17°59	14° 8	4° 2	S 20
M21	16 28 48	8° 3'16	14° 1	15°24	4°16	27°22	26°34	19°17	17°21	9°32	8° 9	16°28	17°56	14°15	4° 0	M21
T 22	16 32 45	9° 0'38	25°50	16° 5	4° 9	27°58	26°41	19°25	17°19	9°30	8°10	16°29	17°52	14°22	3°59	T 22
W23	16 36 41	9°57'59	7°H43	16°50	3°59	28°33	26°48	19°32	17°18	9°29	8°10	16°R30	17°49	14°28	3°57	W23
T 24	16 40 38	10°55'19	19°45	17°39	3°47	29° 9	26°54	19°39	17°17	9°27	8°10	16°30	17°46	14°35	3°56	T 24
F 25	16 44 34	11°52'39	2°Y 0	18°32	3°33	29°45	27° 1	19°47	17°16	9°26	8°11	16°28	17°43	14°42	3°54	F 25
S 26	16 48 31	12°49'58	14°34	19°28	3°16	0°21	27° 8	19°54	17°15	9°25	8°11	16°25	17°40	14°48	3°53	S 26
S 27	16 52 28	13°47'17	27°28	20°28	2°57	0°57	27°16	20° 2	17°14	9°24	8°12	16°20	17°37	14°55	3°51	S 27
M28	16 56 24	14°44'36	10°844	21°31	2°36	1°33	27°23	20° 9	17°13	9°22	8°12	16°16	17°33	15° 2	3°49	M28
T 29	17 0 21	15°41'54	24°24	22°38	2°12	2° 9	27°30	20°16	17°12	9°21	8°13	16°11	17°30	15° 8	3°47	T 29
W30	17 4 17	16°39'11	8°II25	23°49	1°47	2°45	27°38	20°24	17°11	9°20	8°13	16° 7	17°27	15°15	3°46	W30
T 31	17 8 14	17°II36'29	22°II43	25°8 3	1°519	3°21	27°46	20°831	17°10	9°19	8°14	16°3	17°324	15°22	3°44	T 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	decl lat	decl lat	decl lat
T 1	17n29	20n56	4n28	15n47	1s 1	27n23	3n53	24n 8	1n33	14n23	1n12	14n58	2s 0	6s28	0n38	13s 5
W 2	17 45	23 49	3 46	15 20	1 18	27 21	3 50	24 4	1 33	14 22	1 12	15 0	2 0	6 27	0 38	13 5
T 3	18 0	25 19	2 50	14 55	1 34	27 18	3 48	23 59	1 32	14 21	1 12	15 2	2 0	6 26	0 38	13 4
F 4	18 16	25 12	1 42	14 31	1 50	27 15	3 45	23 54	1 32	14 19	1 12	15 4	2 0	6 25	0 38	13 4
S 5	18 30	23 26	0 28	14 8	2 6	27 11	3 41	23 49	1 32	14 18	1 12	15 7	2 0	6 25	0 38	13 3
S 6	18 45	20 12	0s48	13 46	2 20	27 8	3 38	23 44	1 31	14 16	1 11	15 9	2 0	6 24	0 38	13 3
M 7	18 59	15 45	2 1	13 27	2 33	27 3	3 34	23 39	1 31	14 15	1 11	15 11	2 0	6 23	0 38	13 2
T 8	19 13	10 27	3 7	13 9	2 46	26 59	3 29	23 33	1 30	14 13	1 11	15 13	2 0	6 23	0 38	13 2
W 9	19 27	4 38	4 1	12 54	2 57	26 54	3 25	23 28	1 30	14 11	1 11	15 15	2 0	6 22	0 38	13 1
T 10	19 40	1s22	4 40	12 41	3 7	26 48	3 20	23 22	1 30	14 9	1 11	15 17	2 0	6 21	0 38	13 1
F 11	19 53	7 14	5 2	12 30	3 17	26 42	3 14	23 16	1 29	14 8	1 11	15 20	2 0	6 21	0 38	13 0
S 12	20 5	12 42	5 7	12 22	3 25	26 36	3 9	23 10	1 29	14 6	1 11	15 22	2 0	6 20	0 38	13 0
S 13	20 18	17 28	4 54	12 16	3 32	26 30	3 3	23 4	1 29	14 4	1 10	15 24	2 0	6 19	0 38	12 59
M14	20 30	21 17	4 26	12 12	3 37	26 23	2 56	22 57	1 28	14 2	1 10	15 26	2 0	6 19	0 38	12 59
T 15	20 41	23 55	3 43	12 11	3 42	26 16	2 49	22 51	1 28	14 0	1 10	15 28	2 0	6 18	0 38	12 59
W16	20 52	25 16	2 50	12 12	3 46	26 8	2 42	22 44	1 27	13 58	1 10	15 30	2 0	6 18	0 38	12 58
T 17	21 3	25 16	1 50	12 16	3 48	26 0	2 34	22 37	1 27	13 56	1 10	15 32	2 0	6 17	0 38	12 58
F 18	21 14	24 0	0 45	12 22	3 50	25 52	2 26	22 30	1 27	13 53	1 10	15 34	2 0	6 17	0 38	12 57
S 19	21 24	21 38	0n21	12 29	3 50	25 43	2 17	22 23	1 26	13 51	1 9	15 36	2 0	6 16	0 38	12 57
S 20	21 33	18 22	1 25	12 39	3 50	25 34	2 8	22 16	1 26	13 49	1 9	15 38	2 0	6 16	0 38	12 56
M21	21 43	14 22	2 25	12 51	3 49	25 25	1 58	22 9	1 25	13 47	1 9	15 40	2 0	6 15	0 38	12 56
T 22	21 52	9 50	3 18	13 5	3 46	25 15	1 48	22 1	1 25	13 44	1 9	15 42	2 0	6 15	0 38	12 56
W23	22 1	4 56	4 4	13 21	3 43	25 5	1 38	21 53	1 25	13 42	1 9	15 44	2 0	6 14	0 37	12 55
T 24	22 9	0n12	4 39	13 38	3 40	24 54	1 27	21 46	1 24	13 39	1 9	15 46	2 0	6 14	0 37	12 55
F 25	22 17	5 25	5 2	13 57	3 35	24 43	1 16	21 38	1 24	13 37	1 9	15 48	2 0	6 13	0 37	12 54
S 26	22 24	10 33	5 12	14 17	3 30	24 32	1 4	21 30	1 23	13 34	1 9	15 50	2 0	6 13	0 37	12 54
S 27	22 31	15 21	5 6	14 38	3 24	24 20	0 52	21 21	1 23	13 32	1 8	15 52	2 0	6 13	0 37	12 54
M28	22 38	19 35	4 44	15 1	3 17	24 8	0 39	21 13	1 23	13 29	1 8	15 54	2 0	6 12	0 37	12 53
T 29	22 44	22 54	4 6	15 25	3 10	23 56	0 26	21 4	1 22	13 26	1 8	15 56	2 0	6 12	0 37	12 53
W30	22 50	24 56	3 12	15 50	3 2	23 43	0 13	20 56	1 22	13 24	1 8	15 58	2 0	6 12	0 37	12 53
T 31	22n56	25n23	2n 4	16n16	2s54	23n30	0s 0	20n47	1n21	13n21	1n 8	16n 0	2s 0	6s11	0n37	12s52

Julian Day Number = 2258095.5, Delta T = 05m52s

Ecliptic obliquity = 23°30'32", Nutation = 0°00'15", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 17°21'02", Lahiri = 16°28'02" Julian Calendar 1 May 1470 == Greg. Calendar 10 May 1470

ASTRODIENST EPHEMERIS for the year 1470

geocentric

JUNE 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	17 12 10	18 ^{II} 33'45	7 [☾] 14	26 [♂] 20	0°R50	3 [♂] 57	27 [♂] 53	20 [♂] 38	17°R 9	9°R17	8 [♂] 15	16°R 2	17 [♂] 21	15 [♂] 28	3°R42	F 1
S 2	17 16 7	19°31'01	21°50	27°40	0 [♂] 19	4°33	28° 1	20°45	17 [♂] 8	9 [♂] 16	8°15	16°D 2	17°18	15°35	3 [♂] 40	S 2
S 3	17 20 4	20°28'16	6 [♂] 26	29° 4	29 ^{II} 46	5° 9	28° 9	20°52	17° 8	9°15	8°16	16 [♂] 3	17°14	15°42	3°37	S 3
M 4	17 24 0	21°25'31	20°58	0 ^{II} 30	29°12	5°45	28°18	21° 0	17° 7	9°14	8°17	16° 5	17°11	15°48	3°35	M 4
T 5	17 27 57	22°22'44	5 [♂] 20	2° 0	28°37	6°22	28°26	21° 7	17° 6	9°13	8°18	16° 6	17° 8	15°55	3°33	T 5
W 6	17 31 53	23°19'57	19°30	3°34	28° 1	6°58	28°34	21°14	17° 6	9°12	8°18	16°R 6	17° 5	16° 2	3°31	W 6
T 7	17 35 50	24°17'10	3 [♂] 26	5°10	27°24	7°34	28°43	21°21	17° 5	9°11	8°19	16° 6	17° 2	16° 8	3°29	T 7
F 8	17 39 46	25°14'21	17° 8	6°49	26°47	8°10	28°52	21°28	17° 5	9°10	8°20	16° 5	16°58	16°15	3°26	F 8
S 9	17 43 43	26°11'33	0 [♂] 35	8°32	26° 9	8°47	29° 0	21°35	17° 5	9° 9	8°21	16° 3	16°55	16°22	3°24	S 9
S 10	17 47 39	27° 8'43	13°48	10°17	25°32	9°23	29° 9	21°41	17° 4	9° 8	8°22	16° 1	16°52	16°28	3°21	S 10
M 11	17 51 36	28° 5'54	26°46	12° 5	24°54	10° 0	29°18	21°48	17° 4	9° 7	8°23	15°58	16°49	16°35	3°19	M 11
T 12	17 55 33	29° 3'04	9 [♂] 31	13°57	24°18	10°36	29°27	21°55	17° 4	9° 6	8°24	15°56	16°46	16°42	3°16	T 12
W 13	17 59 29	0 [♂] 0'14	22° 2	15°50	23°41	11°12	29°36	22° 2	17° 3	9° 5	8°25	15°54	16°43	16°48	3°14	W 13
T 14	18 3 26	0°57'23	4 [♂] 22	17°47	23° 6	11°49	29°45	22° 8	17° 3	9° 4	8°26	15°53	16°39	16°55	3°11	T 14
F 15	18 7 22	1°54'33	16°30	19°46	22°32	12°25	29°55	22°15	17° 3	9° 3	8°27	15°D52	16°36	17° 2	3° 8	F 15
S 16	18 11 19	2°51'42	28°30	21°47	21°59	13° 2	0 [♂] 4	22°22	17°D 3	9° 3	8°28	15°53	16°33	17° 8	3° 6	S 16
S 17	18 15 15	3°48'52	10 [♂] 23	23°50	21°28	13°39	0°14	22°28	17° 3	9° 2	8°29	15°54	16°30	17°15	3° 3	S 17
M 18	18 19 12	4°46'02	22°13	25°55	20°58	14°15	0°23	22°35	17° 3	9° 1	8°30	15°55	16°27	17°22	3° 0	M 18
T 19	18 23 8	5°43'11	4 [♂] 2	28° 1	20°31	14°52	0°33	22°41	17° 3	9° 0	8°31	15°56	16°23	17°28	2°57	T 19
W 20	18 27 5	6°40'22	15°56	0 [♂] 9	20° 5	15°29	0°43	22°47	17° 4	9° 0	8°33	15°57	16°20	17°35	2°55	W 20
T 21	18 31 2	7°37'32	27°57	2°17	19°41	16° 5	0°53	22°54	17° 4	8°59	8°34	15°57	16°17	17°42	2°52	T 21
F 22	18 34 58	8°34'43	10 [♂] 11	4°27	19°20	16°42	1° 3	23° 0	17° 4	8°58	8°35	15°R57	16°14	17°48	2°49	F 22
S 23	18 38 55	9°31'54	22°43	6°36	19° 1	17°19	1°13	23° 6	17° 4	8°58	8°36	15°57	16°11	17°55	2°46	S 23
S 24	18 42 51	10°29'06	5 [♂] 35	8°46	18°44	17°56	1°23	23°12	17° 5	8°57	8°38	15°57	16° 8	18° 2	2°43	S 24
M 25	18 46 48	11°26'18	18°51	10°55	18°30	18°32	1°33	23°18	17° 5	8°57	8°39	15°56	16° 4	18° 8	2°40	M 25
T 26	18 50 44	12°23'31	2 ^{II} 33	13° 4	18°18	19° 9	1°44	23°25	17° 6	8°56	8°40	15°56	16° 1	18°15	2°37	T 26
W 27	18 54 41	13°20'45	16°40	15°13	18° 8	19°46	1°54	23°30	17° 6	8°56	8°42	15°55	15°58	18°22	2°34	W 27
T 28	18 58 37	14°17'59	1 [♂] 10	17°20	18° 1	20°23	2° 5	23°36	17° 7	8°55	8°43	15°55	15°55	18°28	2°30	T 28
F 29	19 2 34	15°15'13	15°57	19°27	17°56	21° 0	2°15	23°42	17° 7	8°55	8°44	15°D55	15°52	18°35	2°27	F 29
S 30	19 6 31	16°12'28	0 [♂] 54	21°32	17 ^{II} 53	21°♂37	2 [♂] 26	23 [♂] 48	17 [♂] 8	8 [♂] 54	8 [♂] 46	15°R55	15 [♂] 49	18 [♂] 42	2 [♂] 24	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
F 1	23n 1	24n 7	0n48	16n43	2s45	23n16	0s14	20n38	1n21	13n18	1n 8	16n 2	2s 0	6s11	0n37	12s52	1n52	21n50	14n26	22s33	22s23	13s55	12s19	7n16	
S 2	23 6	21 13	0s32	17 10	2 36	23 3	0 28	20 29	1 21	13 15	1 8	16 3	2 1	6 11	0 37	12 52	1 52	21 49	14 26	22 33	22 23	13 53	12 19	7 17	
S 3	23 10	16 57	1 50	17 38	2 26	22 49	0 42	20 20	1 20	13 12	1 7	16 5	2 1	6 11	0 37	12 51	1 52	21 48	14 26	22 32	22 24	13 50	12 19	7 17	
M 4	23 14	11 42	3 0	18 6	2 16	22 34	0 56	20 11	1 20	13 9	1 7	16 7	2 1	6 10	0 37	12 51	1 52	21 48	14 25	22 32	22 24	13 47	12 19	7 17	
T 5	23 17	5 53	3 59	18 35	2 5	22 20	1 10	20 1	1 19	13 6	1 7	16 9	2 1	6 10	0 37	12 51	1 52	21 47	14 25	22 32	22 24	13 44	12 19	7 18	
W 6	23 20	0s 9	4 42	19 3	1 54	22 5	1 24	19 52	1 19	13 3	1 7	16 11	2 1	6 10	0 37	12 50	1 51	21 46	14 24	22 32	22 25	13 42	12 19	7 18	
T 7	23 23	6 4	5 7	19 32	1 43	21 51	1 38	19 42	1 19	13 0	1 7	16 12	2 1	6 10	0 37	12 50	1 51	21 46	14 24	22 32	22 25	13 39	12 19	7 18	
F 8	23 25	11 36	5 15	20 0	1 32	21 36	1 52	19 32	1 18	12 57	1 7	16 14	2 1	6 10	0 37	12 50	1 51	21 45	14 24	22 32	22 26	13 36	12 20	7 19	
S 9	23 27	16 28	5 5	20 28	1 20	21 21	2 6	19 22	1 18	12 54	1 7	16 16	2 1	6 10	0 37	12 50	1 51	21 44	14 23	22 32	22 26	13 34	12 20	7 19	
S 10	23 29	20 27	4 39	20 56	1 8	21 6	2 20	19 12	1 17	12 51	1 7	16 18	2 1	6 9	0 37	12 49	1 51	21 44	14 23	22 33	22 26	13 31	12 20	7 19	
M 11	23 30	22 22	3 59	21 22	0 56	20 52	2 33	19 2	1 17	12 47	1 7	16 19	2 1	6 9	0 37	12 49	1 51	21 43	14 23	22 33	22 27	13 28	12 20	7 20	
T 12	23 30	25 2	3 8	21 48	0 45	20 37	2 46	18 51	1 17	12 44	1 6	16 21	2 1	6 9	0 37	12 49	1 51	21 42	14 22	22 33	22 27	13 25	12 21	7 20	
W 13	23 31	25 24	2 8	22 13	0 33	20 23	2 59	18 41	1 16	12 41	1 6	16 23	2 1	6 9	0 37	12 49	1 51	21 42	14 22	22 34	22 28	13 23	12 21	7 20	
T 14	23 30	24 29	1 3	22 36	0 21	20 9	3 11	18 30	1 16	12 37	1 6	16 24	2 1	6 9	0 37	12 48	1 51	21 41	14 21	22 34	22 28	13 20	12 21	7 20	
F 15	23 30	22 26	0n 4	22 57	0 9	19 56	3 22	18 20	1 15	12 34	1 6	16 26	2 1	6 9	0 37	12 48	1 51	21 40	14 21	22 34	22 28	13 17	12 22	7 21	
S 16	23 29	19 23	1 9	23 17	0n 2	19 43	3 33	18 9	1 15	12 30	1 6	16 27	2 1	6 9	0 37	12 48	1 51	21 39	14 21	22 34	22 29	13 15	12 22	7 21	
S 17	23 27	15 34	2 12	23 35	0 13	19 30	3 44	17 58	1 15	12 27	1 6	16 29	2 2	6 9	0 37	12 48	1 51	21 39	14 20	22 34	22 29	13 12	12 22	7 21	
M 18	23 25	11 11	3 8	23 50	0 24	19 18	3 54	17 47	1 14	12 24	1 6	16 30	2 2	6 9	0 36	12 48	1 51	21 38	14 20	22 33	22 30	13 9	12 23	7 21	
T 19	23 23	6 23	3 56	24 4	0 34	19 7	4 4	17 36	1 14	12 20	1 6	16 32	2 2	6 9	0 36	12 47	1 51	21 37	14 20	22 33	22 30	13 6	12 23	7 22	
W 20	23 20	1 21	4 35	24 14	0 44	18 56	4 13	17 25	1 13	12 16	1 6	16 34	2 2	6 10	0 36	12 47	1 51	21 36	14 19	22 33	22 30	13 4	12 23	7 22	
T 21	23 17	3n48	5 2	24 22	0 53	18 46	4 21	17 13	1 13	12 13	1 5	16 35	2 2	6 10	0 36	12 47	1 51	21 36	14 19	22 33	22 31	13 1	12 24	7 22	
F 22	23 14	8 53	5 16	24 28	1 2	18 37	4 29	17 2	1 12	12 9	1 5	16 36	2 2	6 10	0 36	12 47	1 51	21 35	14 19	22 33	22 31	12 58	12 24	7 22	
S 23	23 10	13 44	5 15	24 30	1 10	18 28	4 36	16 50	1 12	12 5	1 5	16 38	2 2	6 10	0 36	12 47	1 51	21 34	14 18	22 33	22 32	12 55	12 25	7 23	
S 24	23 6	18 7	4 59	24 30	1 17	18 20	4 43	16 38	1 12	12 2	1 5	16 39	2 2	6 10	0 36	12 47	1 51	21 33	14 18	22 33	22 32	12 53	12 25	7 23	
M 25	23 1	21 45	4 27	24 27	1 23	18 13	4 49	16 26	1 11	11 58	1 5	16 41	2 2	6 10	0 36	12 46	1 51	21 33	14 18	22 33	22 32	12 50	12 26	7 23	
T 26	22 56	24 18	3 38	24 21	1 29	18 6	4 54	16 15	1 11	11 54	1 5	16 42	2 2	6 11	0 36	12 46	1 50	21 32	14 18	22 33	22 33	12 47	12 26	7 23	
W 27	22 50	25 25	2 35	24 12	1 34	18 0	4 59	16 3	1 10	11 50	1 5	16 44	2 3	6 11	0 36	12 46	1 50	21 31	14 17	22 33	22 33	12 44	12 27	7 23	
T 28	22 44	24 51	1 21	24 1	1 39	17 55	5 4	15 50	1 10	11 46	1 5	16 45	2 3	6 11	0 36	12 46	1 50	21 30	14 17	22 33	22 33	12 42	12 27	7 23	
F 29	22 38	22 33	0s 0	23 47	1 42	17 51	5 8	15 38	1 10	11 43	1 5	16 46	2 3	6 11	0 36	12 46	1 50	21 29	14 17	22 33	22 34	12 39	12 28	7 24	
S 30	22n31	18n41	1s22	23n31	1n45	17n47	5s11	15n26	1n 9	11n39	1n 5	16n48	2s 3	6s12	0n36	12s46	1n50	21n28	14n16	22s33	22s34	12s36	12s28	7n24	

ASTRODIENST EPHEMERIS for the year 1470

geocentric

JULY 1470 JC

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	19 10 27	17°5 9'43	15°52'53	23°53'36	17°D53	22°14'14	2°17'37	23°54'54	17°11'9	8°R54	8°17'47	15°R55	15°34'45	18°34'48	2°R21	S 1
M 2	19 14 24	18° 6'58	0°17'47	25°38	17°II55	22°51	2°48	23°59	17°10	8°M54	8°49	15°355	15°42	18°55	2°18	M 2
T 3	19 18 20	19° 4'14	15°27	27°39	17°59	23°29	2°59	24° 5	17°11	8°53	8°50	15°55	15°39	19° 2	2°15	T 3
W 4	19 22 17	20° 1'29	29°50	29°38	18° 6	24° 6	3° 9	24°10	17°11	8°53	8°52	15°54	15°36	19° 8	2°11	W 4
T 5	19 26 13	20°58'45	13°51	1°13'36	18°14	24°43	3°21	24°16	17°12	8°53	8°53	15°54	15°33	19°15	2° 8	T 5
F 6	19 30 10	21°56'02	27°30	3°32	18°25	25°20	3°32	24°21	17°13	8°52	8°55	15°D54	15°29	19°22	2° 5	F 6
S 7	19 34 6	22°53'18	10°14'48	5°26	18°38	25°57	3°43	24°27	17°14	8°52	8°57	15°54	15°26	19°28	2° 2	S 7
S 8	19 38 3	23°50'35	23°47	7°19	18°53	26°35	3°54	24°32	17°16	8°52	8°58	15°55	15°23	19°35	1°58	S 8
M 9	19 42 0	24°47'53	6°17'29	9° 9	19° 9	27°12	4° 5	24°37	17°17	8°52	9° 0	15°56	15°20	19°42	1°55	M 9
T 10	19 45 56	25°45'11	18°56	10°58	19°28	27°49	4°17	24°42	17°18	8°52	9° 1	15°57	15°17	19°48	1°52	T 10
W11	19 49 53	26°42'30	1°13'11	12°46	19°48	28°27	4°28	24°47	17°19	8°52	9° 3	15°57	15°14	19°55	1°48	W11
T 12	19 53 49	27°39'49	13°17	14°31	20°11	29° 4	4°40	24°52	17°20	8°D52	9° 5	15°R58	15°10	20° 2	1°45	T 12
F 13	19 57 46	28°37'09	25°15	16°15	20°34	29°41	4°51	24°57	17°22	8°52	9° 7	15°58	15° 7	20° 8	1°42	F 13
S 14	20 1 42	29°34'30	7°38	17°58	21° 0	0°17'19	5° 3	25° 2	17°23	8°52	9° 8	15°57	15° 4	20°15	1°38	S 14
S 15	20 5 39	0°13'52	18°59	19°38	21°27	0°56	5°14	25° 6	17°25	8°52	9°10	15°55	15° 1	20°22	1°35	S 15
M16	20 9 36	1°29'14	0°14'48	21°17	21°56	1°34	5°26	25°11	17°26	8°52	9°12	15°53	14°58	20°28	1°32	M16
T 17	20 13 32	2°26'38	12°39	22°54	22°26	2°11	5°38	25°16	17°28	8°52	9°14	15°51	14°55	20°35	1°28	T 17
W18	20 17 29	3°24'02	24°34	24°30	22°57	2°49	5°50	25°20	17°29	8°52	9°15	15°48	14°51	20°42	1°25	W18
T 19	20 21 25	4°21'28	6°17'37	26° 3	23°30	3°27	6° 2	25°24	17°31	8°53	9°17	15°46	14°48	20°48	1°22	T 19
F 20	20 25 22	5°18'55	18°51	27°36	24° 5	4° 4	6°14	25°29	17°33	8°53	9°19	15°44	14°45	20°55	1°18	F 20
S 21	20 29 18	6°16'24	1°18'20	29° 6	24°40	4°42	6°26	25°33	17°34	8°53	9°21	15°D43	14°42	21° 2	1°15	S 21
S 22	20 33 15	7°13'54	14° 8	0°17'35	25°17	5°20	6°38	25°37	17°36	8°53	9°23	15°43	14°39	21° 8	1°12	S 22
M23	20 37 11	8°11'25	27°18	2° 2	25°55	5°58	6°50	25°41	17°38	8°54	9°25	15°44	14°35	21°15	1° 8	M23
T 24	20 41 8	9° 8'58	10°15'54	3°27	26°34	6°35	7° 2	25°45	17°40	8°54	9°27	15°46	14°32	21°22	1° 5	T 24
W25	20 45 5	10° 6'32	24°56	4°51	27°14	7°13	7°14	25°49	17°42	8°54	9°28	15°47	14°29	21°28	1° 2	W25
T 26	20 49 1	11° 4'08	9°52'24	6°12	27°55	7°51	7°26	25°53	17°44	8°55	9°30	15°R48	14°26	21°35	0°58	T 26
F 27	20 52 58	12° 1'45	24°14	7°32	28°38	8°29	7°39	25°56	17°46	8°55	9°32	15°48	14°23	21°42	0°55	F 27
S 28	20 56 54	12°59'23	9°12'20	8°51	29°21	9° 7	7°51	26° 0	17°48	8°56	9°34	15°46	14°20	21°48	0°52	S 28
S 29	21 0 51	13°57'02	24°34	10° 7	0°58	9°45	8° 3	26° 3	17°50	8°56	9°36	15°44	14°16	21°55	0°49	S 29
M30	21 4 47	14°54'43	9°17'44	11°21	0°50	10°23	8°16	26° 7	17°52	8°57	9°38	15°40	14°13	22° 2	0°45	M30
T 31	21 8 44	15°52'25	24°17'41	12°17'33	1°53'36	11°17'1	8°17'28	26°18'10	17°54	8°M57	9°17'40	15°36	14°10	22°38	0°42	T 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
S 1	22n24	13n35	2s39	23n12	1n47	17n44	5s14	15n13	1n 9	11n35	1n 5	16n49	2s 3	6s12	0n36	S 1
M 2	22 17	7 44	3 44	22 51	1 49	17 42	5 17	15 1	1 8	11 31	1 5	16 50	2 3	6 12	0 36	M 2
T 3	22 9	1 32	4 34	22 29	1 49	17 40	5 19	14 48	1 8	11 27	1 4	16 51	2 3	6 13	0 36	T 3
W 4	22 1	4s36	5 5	22 4	1 49	17 39	5 20	14 35	1 7	11 23	1 4	16 53	2 3	6 13	0 36	W 4
T 5	21 52	10 21	5 17	21 38	1 49	17 39	5 22	14 22	1 7	11 19	1 4	16 54	2 4	6 13	0 36	T 5
F 6	21 43	15 27	5 11	21 10	1 47	17 39	5 22	14 9	1 7	11 14	1 4	16 55	2 4	6 14	0 36	F 6
S 7	21 34	19 40	4 48	20 40	1 45	17 39	5 23	13 56	1 6	11 10	1 4	16 56	2 4	6 14	0 36	S 7
S 8	21 24	22 49	4 11	20 9	1 43	17 41	5 23	13 43	1 6	11 6	1 4	16 57	2 4	6 15	0 36	S 8
M 9	21 14	24 46	3 22	19 37	1 40	17 42	5 23	13 30	1 5	11 2	1 4	16 58	2 4	6 15	0 36	M 9
T 10	21 3	25 27	2 24	19 4	1 36	17 44	5 22	13 17	1 5	10 58	1 4	16 59	2 4	6 16	0 36	T 10
W11	20 52	24 51	1 21	18 30	1 32	17 46	5 21	13 3	1 4	10 53	1 4	17 1	2 4	6 16	0 36	W11
T 12	20 41	23 5	0 15	17 55	1 28	17 49	5 20	12 50	1 4	10 49	1 4	17 2	2 4	6 17	0 36	T 12
F 13	20 30	20 18	0n51	17 20	1 23	17 52	5 19	12 36	1 3	10 45	1 4	17 3	2 5	6 17	0 36	F 13
S 14	20 18	16 42	1 55	16 43	1 17	17 56	5 17	12 23	1 3	10 41	1 4	17 4	2 5	6 18	0 35	S 14
S 15	20 6	12 26	2 53	16 6	1 12	17 59	5 15	12 9	1 3	10 36	1 4	17 5	2 5	6 19	0 35	S 15
M16	19 53	7 44	3 44	15 29	1 5	18 3	5 13	11 55	1 2	10 32	1 4	17 6	2 5	6 19	0 35	M16
T 17	19 40	2 46	4 23	14 51	0 59	18 7	5 11	11 41	1 2	10 27	1 4	17 6	2 5	6 20	0 35	T 17
W18	19 27	2n20	4 54	14 13	0 52	18 11	5 8	11 27	1 1	10 23	1 4	17 7	2 5	6 20	0 35	W18
T 19	19 14	7 24	5 11	13 34	0 45	18 16	5 6	11 13	1 1	10 19	1 4	17 8	2 6	6 21	0 35	T 19
F 20	19 0	12 15	5 15	12 55	0 37	18 20	5 3	10 59	1 0	10 14	1 3	17 9	2 6	6 22	0 35	F 20
S 21	18 46	16 43	5 4	12 17	0 29	18 25	5 0	10 45	1 0	10 10	1 3	17 10	2 6	6 22	0 35	S 21
S 22	18 31	20 32	4 38	11 38	0 21	18 29	4 57	10 30	0 59	10 5	1 3	17 11	2 6	6 23	0 35	S 22
M23	18 16	23 27	3 56	10 59	0 13	18 34	4 53	10 16	0 59	10 1	1 3	17 12	2 6	6 24	0 35	M23
T 24	18 1	25 7	3 0	10 20	0 4	18 38	4 50	10 1	0 59	9 56	1 3	17 12	2 6	6 25	0 35	T 24
W25	17 46	25 17	1 52	9 41	0s 5	18 43	4 46	9 47	0 58	9 52	1 3	17 13	2 7	6 25	0 35	W25
T 26	17 30	23 46	0 35	9 3	0 14	18 47	4 42	9 32	0 58	9 47	1 3	17 14	2 7	6 26	0 35	T 26
F 27	17 14	20 34	0s46	8 25	0 23	18 52	4 38	9 18	0 57	9 42	1 3	17 14	2 7	6 27	0 35	F 27
S 28	16 58	15 57	2 6	7 47	0 32	18 56	4 34	9 3	0 57	9 38	1 3	17 15	2 7	6 28	0 35	S 28
S 29	16 41	10 17	3 17	7 9	0 42	19 0	4 30	8 48	0 56	9 33	1 3	17 16	2 7	6 29	0 35	S 29
M30	16 25	4 2	4 14	6 32	0 52	19 5	4 26	8 33	0 56	9 28	1 3	17 16	2 7	6 30	0 35	M30
T 31	16n 7	2s21	4s52	5n55	1s 2	19n 9	4s21	8n18	0n55	9n24	1n 3	17n17	2s 8	6s30	0n35	T 31

Julian Day Number = 2258156.5, Delta T = 05m51s

Ecliptic obliquity = 23°30'31", Nutation = 0°00'17", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 17°21'10", Lahiri = 16°28'11" Julian Calendar 1 July 1470 == Greg. Calendar 10 July 1470

ASTRODIENST EPHEMERIS for the year 1470

geocentric

AUGUST 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	21 12 40	16 ⁵⁰ 07	9 ¹⁹ 19	13 ⁴³ 43	2 ²³ 23	11 ³⁹ 39	8 ⁴⁰ 40	26 ¹³ 13	17 ⁵⁷ 57	8 ⁵⁸ 58	9 ⁴² 42	15 ³² 32	14 ³ 7	22 ¹⁵ 15	0 ³⁹ 39	W 1
T 2	21 16 37	17 ⁴⁷ 51	23 ³⁰ 30	14 ⁵¹ 51	3 ¹⁰ 10	12 ¹⁷ 17	8 ⁵³ 53	26 ¹⁶ 16	17 ⁵⁹ 59	8 ⁵⁹ 59	9 ⁴⁴ 44	15 ³² 32	14 ⁴ 4	22 ²² 22	0 ³⁶ 36	T 2
F 3	21 20 34	18 ⁴⁵ 37	7 ¹¹ 11	15 ⁵⁶ 56	3 ⁵⁹ 59	12 ⁵⁶ 56	9 ⁵ 5	26 ¹⁹ 19	18 ¹ 1	8 ⁵⁹ 59	9 ⁴⁶ 46	15 ²⁷ 27	14 ¹ 1	22 ²⁹ 29	0 ³³ 33	F 3
S 4	21 24 30	19 ⁴³ 23	20 ³³ 33	17 ⁰ 0	4 ⁴⁸ 48	13 ³⁴ 34	9 ¹⁸ 18	26 ²² 22	18 ⁴ 4	9 ⁰ 0	9 ⁴⁸ 48	15 ²⁶ 26	13 ⁵⁷ 57	22 ³⁵ 35	0 ³⁰ 30	S 4
S 5	21 28 27	20 ⁴¹ 10	3 ²⁶ 26	18 ⁰ 0	5 ³⁸ 38	14 ¹² 12	9 ³¹ 31	26 ²⁵ 25	18 ⁶ 6	9 ¹ 1	9 ⁵⁰ 50	15 ²⁷ 27	13 ⁵⁴ 54	22 ⁴² 42	0 ²⁷ 27	S 5
M 6	21 32 23	21 ³⁸ 59	15 ⁵⁹ 59	18 ⁵⁸ 58	6 ²⁸ 28	14 ⁵⁰ 50	9 ⁴³ 43	26 ²⁸ 28	18 ⁸ 8	9 ² 2	9 ⁵² 52	15 ²⁸ 28	13 ⁵¹ 51	22 ⁴⁹ 49	0 ²⁴ 24	M 6
T 7	21 36 20	22 ³⁶ 49	28 ¹⁶ 16	19 ⁵³ 53	7 ¹⁹ 19	15 ²⁹ 29	9 ⁵⁶ 56	26 ³⁰ 30	18 ¹¹ 11	9 ² 2	9 ⁵⁵ 55	15 ³⁰ 30	13 ⁴⁸ 48	22 ⁵⁵ 55	0 ²¹ 21	T 7
W 8	21 40 16	23 ³⁴ 40	10 ³² 32	20 ⁴⁶ 46	8 ¹¹ 11	16 ⁷ 7	10 ⁹ 9	26 ³³ 33	18 ¹³ 13	9 ³ 3	9 ⁵⁷ 57	15 ³¹ 31	13 ⁴⁵ 45	23 ² 2	0 ¹⁸ 18	W 8
T 9	21 44 13	24 ³² 33	22 ¹⁸ 18	21 ³⁵ 35	9 ⁴ 4	16 ⁴⁵ 45	10 ²¹ 21	26 ³⁵ 35	18 ¹⁶ 16	9 ⁴ 4	9 ⁵⁹ 59	15 ³¹ 31	13 ⁴¹ 41	23 ⁹ 9	0 ¹⁵ 15	T 9
F 10	21 48 9	25 ³⁰ 27	4 ⁸ 9	22 ²⁰ 20	9 ⁵⁷ 57	17 ²⁴ 24	10 ³⁴ 34	26 ³⁸ 38	18 ¹⁹ 19	9 ⁵ 5	10 ¹ 1	15 ²⁹ 29	13 ³⁸ 38	23 ¹⁵ 15	0 ¹² 12	F 10
S 11	21 52 6	26 ²⁸ 22	15 ⁵⁹ 59	23 ³ 3	10 ⁵⁰ 50	18 ² 2	10 ⁴⁷ 47	26 ⁴⁰ 40	18 ²¹ 21	9 ⁶ 6	10 ³ 3	15 ²⁵ 25	13 ³⁵ 35	23 ²² 22	0 ⁹ 9	S 11
S 12	21 56 3	27 ²⁶ 19	27 ⁴⁸ 48	23 ⁴¹ 41	11 ⁴⁵ 45	18 ⁴¹ 41	10 ⁵⁹ 59	26 ⁴² 42	18 ²⁴ 24	9 ⁷ 7	10 ⁵ 5	15 ²⁰ 20	13 ³² 32	23 ²⁹ 29	0 ⁶ 6	S 12
M13	21 59 59	28 ²⁴ 18	9 ⁴⁰ 40	24 ¹⁶ 16	12 ⁴⁰ 40	19 ¹⁹ 19	11 ¹² 12	26 ⁴⁴ 44	18 ²⁷ 27	9 ⁸ 8	10 ⁷ 7	15 ¹³ 13	13 ²⁹ 29	23 ³⁵ 35	0 ³ 3	M13
T 14	22 3 56	29 ²² 18	21 ³⁶ 36	24 ⁴⁶ 46	13 ³⁵ 35	19 ⁵⁸ 58	11 ²⁵ 25	26 ⁴⁶ 46	18 ²⁹ 29	9 ⁹ 9	10 ⁹ 9	15 ⁴ 4	13 ²⁶ 26	23 ⁴² 42	0 ¹ 1	T 14
W15	22 7 52	0 ²⁰ 20	3 ³⁷ 37	25 ¹² 12	14 ³¹ 31	20 ³⁶ 36	11 ³⁸ 38	26 ⁴⁸ 48	18 ³² 32	9 ¹⁰ 10	10 ¹¹ 11	14 ⁵⁶ 56	13 ²² 22	23 ⁴⁹ 49	29 ⁵⁸ 58	W15
T 16	22 11 49	1 ¹⁸ 24	15 ⁴⁵ 45	25 ³³ 33	15 ²⁷ 27	21 ¹⁵ 15	11 ⁵¹ 51	26 ⁴⁹ 49	18 ³⁵ 35	9 ¹¹ 11	10 ¹³ 13	14 ⁴⁸ 48	13 ¹⁹ 19	23 ⁵⁵ 55	29 ⁵⁵ 55	T 16
F 17	22 15 45	2 ¹⁶ 29	28 ⁴ 4	25 ⁴⁹ 49	16 ²⁴ 24	21 ⁵⁴ 54	12 ⁴ 4	26 ⁵¹ 51	18 ³⁸ 38	9 ¹² 12	10 ¹⁶ 16	14 ⁴² 42	13 ¹⁶ 16	24 ² 2	29 ⁵³ 53	F 17
S 18	22 19 42	3 ¹⁴ 37	10 ³⁵ 35	26 ⁰ 0	17 ²² 22	22 ³³ 33	12 ¹⁷ 17	26 ⁵³ 53	18 ⁴¹ 41	9 ¹³ 13	10 ¹⁸ 18	14 ³⁷ 37	13 ¹³ 13	24 ⁹ 9	29 ⁵⁰ 50	S 18
S 19	22 23 38	4 ¹² 46	23 ²¹ 21	26 ⁵ 5	18 ²⁰ 20	23 ¹¹ 11	12 ²⁹ 29	26 ⁵⁴ 54	18 ⁴⁴ 44	9 ¹⁴ 14	10 ²⁰ 20	14 ³⁵ 35	13 ¹⁰ 10	24 ¹⁵ 15	29 ⁴⁸ 48	S 19
M20	22 27 35	5 ¹⁰ 58	6 ¹¹ 27	26 ⁴ 4	19 ¹⁸ 18	23 ⁵⁰ 50	12 ⁴² 42	26 ⁵⁵ 55	18 ⁴⁷ 47	9 ¹⁶ 16	10 ²² 22	14 ³⁴ 34	13 ⁷ 7	24 ²² 22	29 ⁴⁵ 45	M20
T 21	22 31 31	6 ⁹ 12	19 ⁵⁴ 54	25 ⁵⁷ 57	20 ¹⁷ 17	24 ²⁹ 29	12 ⁵⁵ 55	26 ⁵⁶ 56	18 ⁵⁰ 50	9 ¹⁷ 17	10 ²⁴ 24	14 ³⁵ 35	13 ³ 3	24 ²⁹ 29	29 ⁴³ 43	T 21
W22	22 35 28	7 ⁷ 28	3 ⁴⁵ 45	25 ⁴⁴ 44	21 ¹⁶ 16	25 ⁸ 8	13 ⁸ 8	26 ⁵⁷ 57	18 ⁵³ 53	9 ¹⁸ 18	10 ²⁶ 26	14 ³⁶ 36	13 ⁰ 0	24 ³⁵ 35	29 ⁴⁰ 40	W22
T 23	22 39 25	8 ⁵ 46	18 ¹ 1	25 ²⁴ 24	22 ¹⁵ 15	25 ⁴⁷ 47	13 ²¹ 21	26 ⁵⁸ 58	18 ⁵⁶ 56	9 ¹⁹ 19	10 ²⁹ 29	14 ³⁶ 36	12 ⁵⁷ 57	24 ⁴² 42	29 ³⁸ 38	T 23
F 24	22 43 21	9 ⁴ 06	2 ⁴¹ 41	24 ⁵⁸ 58	23 ¹⁵ 15	26 ²⁶ 26	13 ³⁴ 34	26 ⁵⁹ 59	18 ⁵⁹ 59	9 ²¹ 21	10 ³¹ 31	14 ³⁵ 35	12 ⁵⁴ 54	24 ⁴⁹ 49	29 ³⁶ 36	F 24
S 25	22 47 18	10 ² 28	17 ⁴¹ 41	24 ²⁵ 25	24 ¹⁶ 16	27 ⁵ 5	13 ⁴⁷ 47	27 ⁰ 0	19 ² 2	9 ²² 22	10 ³³ 33	14 ³¹ 31	12 ⁵¹ 51	24 ⁵⁵ 55	29 ³³ 33	S 25
S 26	22 51 14	11 ⁰ 52	2 ⁵² 52	23 ⁴⁶ 46	25 ¹⁷ 17	27 ⁴⁴ 44	14 ⁰ 0	27 ¹ 1	19 ⁵ 5	9 ²³ 23	10 ³⁵ 35	14 ²⁵ 25	12 ⁴⁷ 47	25 ² 2	29 ³¹ 31	S 26
M27	22 55 11	11 ⁵⁹ 18	18 ⁵ 5	23 ¹ 1	26 ¹⁸ 18	28 ²³ 23	14 ¹³ 13	27 ¹ 1	19 ⁸ 8	9 ²⁵ 25	10 ³⁷ 37	14 ¹⁸ 18	12 ⁴⁴ 44	25 ⁹ 9	29 ²⁹ 29	M27
T 28	22 59 7	12 ⁵⁷ 46	3 ⁴¹ 41	22 ¹⁰ 10	27 ¹⁹ 19	29 ² 2	14 ²⁶ 26	27 ² 2	19 ¹¹ 11	9 ²⁶ 26	10 ³⁹ 39	14 ⁹ 9	12 ⁴¹ 41	25 ¹⁵ 15	29 ²⁷ 27	T 28
W29	23 3 4	13 ⁵⁶ 15	17 ⁵⁶ 56	21 ¹⁵ 15	28 ²¹ 21	29 ⁴¹ 41	14 ³⁹ 39	27 ² 2	19 ¹⁵ 15	9 ²⁸ 28	10 ⁴¹ 41	14 ⁰ 0	12 ³⁸ 38	25 ²² 22	29 ²⁵ 25	W29
T 30	23 7 0	14 ⁵⁴ 47	2 ¹¹ 18	20 ¹⁵ 15	29 ²³ 23	0 ²¹ 21	14 ⁵² 52	27 ² 2	19 ¹⁸ 18	9 ²⁹ 29	10 ⁴⁴ 44	13 ⁵² 52	12 ³⁵ 35	25 ²⁹ 29	29 ²³ 23	T 30
F 31	23 10 57	15 ⁵³ 20	16 ¹¹ 10	19 ¹⁴ 14	0 ²⁶ 26	1 ⁰ 0	15 ⁵ 5	27 ² 2	19 ²¹ 21	9 ³¹ 31	10 ⁴⁶ 46	13 ⁴⁶ 46	12 ³² 32	25 ³⁶ 36	29 ²¹ 21	F 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	decl	lat	
W 1	15n50	8s27	5s11	5n19	1s12	19n12	4s17	8n 3	0n55	9n19	1n 3	17n18	2s 8	6s31	0n35	12s49	1n48	21n 1	14n10	22s36	22s46	11s 7	12s51	7n23				
T 2	15 33	13 57	5 10	4 44	1 22	19 16	4 12	7 48	0 54	9 14	1 3	17 18	2 8	6 32	0 35	12 49	1 48	21 0	14 10	22 36	22 46	11 5	12 52	7 23				
F 3	15 15	18 32	4 51	4 9	1 32	19 19	4 8	7 33	0 54	9 9	1 3	17 19	2 8	6 33	0 35	12 50	1 48	20 59	14 10	22 37	22 46	11 2	12 53	7 23				
S 4	14 57	22 3	4 16	3 35	1 42	19 22	4 3	7 18	0 53	9 5	1 3	17 19	2 8	6 34	0 35	12 50	1 48	20 58	14 10	22 37	22 47	10 59	12 54	7 23				
S 5	14 38	24 20	3 30	3 2	1 52	19 25	3 58	7 3	0 53	9 0	1 3	17 20	2 8	6 35	0 35	12 50	1 48	20 57	14 9	22 37	22 47	10 56	12 54	7 22				
M 6	14 20	25 19	2 34	2 30	2 2	19 28	3 54	6 48	0 53	8 55	1 3	17 20	2 9	6 36	0 35	12 50	1 48	20 56	14 9	22 37	22 47	10 53	12 55	7 22				
T 7	14 1	25 3	1 33	1 59	2 12	19 30	3 49	6 32	0 52	8 50	1 3	17 21	2 9	6 37	0 35	12 51	1 48	20 55	14 9	22 36	22 47	10 50	12 56	7 22				
W 8	13 42	23 34	0 28	1 29	2 23	19 32	3 44	6 17	0 52	8 46	1 3	17 21	2 9	6 38	0 35	12 51	1 48	20 54	14 9	22 36	22 48	10 48	12 57	7 22				
T 9	13 23	21 3	0n37	1 1	2 33	19 34	3 39	6 2	0 51	8 41	1 3	17 21	2 9	6 39	0 35	12 51	1 48	20 54	14 9	22 36	22 48	10 45	12 58	7 21				
F 10	13 3	17 40	1 40	0 34	2 43	19 35	3 34	5 46	0 51	8 36	1 3	17 22	2 9	6 40	0 35	12 52	1 48	20 53	14 9	22 36	22 48	10 42	12 59	7 21				
S 11	12 44	13 35	2 38	0 8	2 52	19 36	3 29	5 31	0 50	8 31	1 3	17 22	2 10	6 41	0 35	12 52	1 48	20 52	14 9	22 37	22 49	10 39	13 0	7 21				
S 12	12 24	9 0	3 29	0s16	3 2	19 37	3 23	5 15	0 50	8 26	1 3	17 22	2 10	6 42	0 35	12 52	1 48	20 51	14 9	22 38	22 49	10 36	13 0	7 21				
M13	12 4	4 5	4 11	0 38	3 11	19 37	3 18	5 0	0 49	8 21	1 3	17 23	2 10	6 43	0 34	12 53	1 48	20 50	14 9	22 38	22 49	10 34	13 1	7 20				
T 14	11 44	0n59	4 43	0 59	3 20	19 37	3 13	4 44	0 49	8 16	1 3	17 23	2 10	6 44	0 34	12 53	1 48	20 49	14 9	22 39	22 50	10 31	13 2	7 20				
W15	11 23	6 3	5 2	1 17	3 29	19 36	3 8	4 28	0 48	8 11	1 3	17 23	2 10	6 45	0 34	12 54	1 47	20 48	14 9	22 40	22 50	10 28	13 3	7 20				
T 16	11 2	10 57	5 8	1 33	3 37	19 35	3 3	4 13	0 48	8 7	1 3	17 23	2 10	6 46	0 34	12 54	1 47	20 48	14 9	22 41	22 50	10 25	13 4	7 19				
F 17	10 42	15 28	5 0	1 46	3 45	19 34	2 57	3 57	0 47	8 2	1 3	17 23	2 11	6 47	0 34	12 54	1 47	20 47	14 9	22 42	22 51	10 22	13 5	7 19				
S 18	10 21	19 25	4 37	1 57	3 52	19 32	2 52	3 41	0 47	7 57	1 3	17 24	2 11	6 49	0 34	12 55	1 47	20 46	14 9	22 42	22 51	10 20	13 5	7 19				
S 19	10 0	22 32	4 0	2 5	3 58	19 30	2 47	3 25	0 46	7 52	1 3	17 24	2 11	6 50	0 34	12 55	1 47	20 45	14 9	22 43	22 51	10 17	13 6	7 18				
M20	9 38	24 35	3 11	2 9	4 4	19 27	2 41	3 9	0 46	7 47	1 3	17 24	2 11	6 51	0 34	12 56	1 47	20 44	14 9	22 43	22 52	10 14	13 7	7 18				
T 21	9 17	25 16	2 9	2 11	4 8	19 24	2 36	2 53	0 45	7 42	1 3	17 24	2 11	6 52	0 34	12 56	1 47	20 44	14 9	22 43	22 52	10 11	13 8	7 18				
W22	8 55	24 25	0 58	2 9	4 12	19 21	2 31	2 38	0 45	7 37	1 3	17 24	2 12	6 53	0 34	12 57	1 47	20 43	14 9	22 42	22 52	10 8	13 9	7 17				
T 23	8 33	21 59	0s18	2 3	4 14	19 16	2 25	2 22	0 44	7 32	1 3	17 24	2 12	6 54	0 34	12 57	1 47	20 42	14 9	22 42	22 53	10 5	13 9	7 17				
F 24	8 12	18 4	1 36	1 53	4 15	19 12	2 20	2 6	0 44	7 27	1 3	17 24	2 12	6 56	0 34	12 57	1 47	20 41	14 9	22 43	22 53	10 3	13 10	7 17				
S 25	7 50	12 55	2 48	1 40	4 14	19 7	2 15	1 50	0 43	7 22	1 3	17 24	2 12	6 57	0 34	12 58	1 47	20 40	14 9	22 43	22 53	10 0	13 11	7 16				
S 26	7 27	6 55	3 49	1 23	4 12	19 1	2 9	1 34	0 43	7 17	1 3	17 24	2 12	6 58	0 34	12 58	1 47	20 40	14 9	22 44	22 54	9 57	13 12	7 16				
M27	7 5	0 31	4 34	1 1	4 8	18 55	2 4	1 18	0 42	7 12	1 3	17 24	2 13	6 59	0 34	12 59	1 47	20 39	14 9	22 44	22 54	9 54	13 13	7 16				
T 28	6 43	5s50	4 59	0 36	4 3	18 49	1 59	1 1	0 42	7 7	1 3	17 24	2 13	7 0	0 34	12 59	1 47	20 38	14 9	22 45	22 54	9 51	13 14	7 15				
W29	6 20	11 44	5 4	0	0 7	3 55	18 42	1 53	0 45	0 41	7 2	1 3	17 24	2 13	7 2	0 34	13 0	1 47	20 37	14 9	22 46	22 54	9 48	13 14	7 15			
T 30	5 58	16 49	4 49	0n25	3 45	18 35	1 48	0 29	0 41	6 57	1 3	17 24	2 13	7 3	0 34	13 0	1 47	20 36	14 9	22 47	22 55	9 46	13 15	7 14				
F 31	5n35	20s50	4s18	1n 0	3s34	18n27	1s43	0n13	0n40	6n52	1n 3	17n23	2s13	7s 4	0n34	13s 1	1n47	20n36	14n10	22s48	22s55	9s43	13s16	7n14				

ASTRODIENST EPHEMERIS for the year 1470

geocentric

SEPTEMBER 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	23 14 54	16 ^h 51'54	29 ^m 32	18°R10	1 ^h 28	1 ^h 39	15 ^m 18	27°R 2	19 ^h 24	9 ^m 32	10 ^h 48	13°R43	12 ^h 28	25 ^h 42	29°R19	S 1
S 2	23 18 50	17°50'31	12 ^h 28	17 ^m 7	2°31	2°18	15°31	27 ^h 2	19°28	9°34	10°50	13°D41	12°25	25°49	29 ^h 17	S 2
M 3	23 22 47	18°49'09	25° 0	16° 5	3°35	2°58	15°44	27° 2	19°31	9°35	10°52	13 ^h 341	12°22	25°56	29°16	M 3
T 4	23 26 43	19°47'49	7 ^h 314	15° 7	4°38	3°37	15°57	27° 1	19°34	9°37	10°54	13°42	12°19	26° 2	29°14	T 4
W 5	23 30 40	20°46'30	19°14	14°13	5°42	4°17	16°10	27° 1	19°38	9°38	10°56	13°R42	12°16	26° 9	29°12	W 5
T 6	23 34 36	21°45'13	1 ^h 37	13°25	6°47	4°56	16°23	27° 0	19°41	9°40	10°59	13°40	12°13	26°16	29°11	T 6
F 7	23 38 33	22°43'58	12°56	12°45	7°51	5°36	16°36	27° 0	19°45	9°42	11° 1	13°36	12° 9	26°22	29° 9	F 7
S 8	23 42 29	23°42'45	24°45	12°13	8°56	6°15	16°49	26°59	19°48	9°43	11° 3	13°30	12° 6	26°29	29° 8	S 8
S 9	23 46 26	24°41'34	6 ^h 36	11°50	10° 1	6°55	17° 2	26°58	19°52	9°45	11° 5	13°21	12° 3	26°36	29° 7	S 9
M10	23 50 23	25°40'24	18°33	11°37	11° 6	7°35	17°15	26°57	19°55	9°47	11° 7	13° 9	12° 0	26°42	29° 5	M10
T 11	23 54 19	26°39'17	0 ^h Y37	11°D33	12°12	8°14	17°28	26°56	19°59	9°48	11° 9	12°56	11°57	26°49	29° 4	T 11
W12	23 58 16	27°38'12	12°49	11°41	13°18	8°54	17°41	26°55	20° 2	9°50	11°11	12°43	11°53	26°56	29° 3	W12
T 13	0 2 12	28°37'08	25°10	11°58	14°24	9°34	17°53	26°53	20° 6	9°52	11°13	12°30	11°50	27° 2	29° 2	T 13
F 14	0 6 9	29°36'07	7 ^h 340	12°25	15°30	10°14	18° 6	26°52	20° 9	9°54	11°15	12°19	11°47	27° 9	29° 1	F 14
S 15	0 10 5	0 ^h 35'09	20°20	13° 1	16°36	10°54	18°19	26°50	20°13	9°56	11°17	12°11	11°44	27°16	29° 0	S 15
S 16	0 14 2	1°34'12	3 ^h 113	13°47	17°43	11°34	18°32	26°49	20°17	9°57	11°20	12° 6	11°41	27°22	28°59	S 16
M17	0 17 58	2°33'18	16°20	14°40	18°50	12°14	18°45	26°47	20°20	9°59	11°22	12° 3	11°38	27°29	28°58	M17
T 18	0 21 55	3°32'26	29°44	15°41	19°57	12°54	18°58	26°45	20°24	10° 1	11°24	12° 2	11°34	27°36	28°57	T 18
W19	0 25 52	4°31'37	13 ^h 327	16°49	21° 5	13°34	19°10	26°43	20°28	10° 3	11°26	12° 2	11°31	27°42	28°56	W19
T 20	0 29 48	5°30'50	27°30	18° 3	22°12	14°14	19°23	26°41	20°31	10° 5	11°28	12° 2	11°28	27°49	28°56	T 20
F 21	0 33 45	6°30'05	11 ^h 353	19°22	23°20	14°54	19°36	26°39	20°35	10° 7	11°30	12° 0	11°25	27°56	28°55	F 21
S 22	0 37 41	7°29'23	26°34	20°46	24°28	15°34	19°49	26°37	20°39	10° 9	11°32	11°55	11°22	28° 3	28°55	S 22
S 23	0 41 38	8°28'43	11 ^h 328	22°14	25°36	16°14	20° 1	26°34	20°42	10°11	11°34	11°47	11°18	28° 9	28°54	S 23
M24	0 45 34	9°28'05	26°28	23°45	26°44	16°55	20°14	26°32	20°46	10°13	11°36	11°37	11°15	28°16	28°54	M24
T 25	0 49 31	10°27'29	11 ^h 323	25°19	27°53	17°35	20°26	26°29	20°50	10°15	11°38	11°25	11°12	28°23	28°54	T 25
W26	0 53 27	11°26'55	26° 6	26°56	29° 2	18°15	20°39	26°27	20°53	10°17	11°39	11°14	11° 9	28°29	28°53	W26
T 27	0 57 24	12°26'24	10 ^h 327	28°34	0 ^h 310	18°56	20°52	26°24	20°57	10°19	11°41	11° 3	11° 6	28°36	28°53	T 27
F 28	1 1 20	13°25'54	24°21	0 ^h 313	1°19	19°36	21° 4	26°21	21° 1	10°21	11°43	10°55	11° 3	28°43	28°53	F 28
S 29	1 5 17	14°25'26	7 ^h 348	1°54	2°29	20°17	21°16	26°18	21° 5	10°23	11°45	10°49	10°59	28°49	28°D53	S 29
S 30	1 9 14	15 ^h 25'00	20 ^h 347	3 ^h 336	3 ^h 338	20 ^h 357	21 ^h 329	26 ^h 315	21 ^h 318	10 ^h 325	11 ^h 347	10 ^h 346	10 ^h 356	28 ^h 356	28 ^h 353	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
S 1	5n12	23s35	3s33	1n37	3s20	18n18	1s38	0s 3	0n40	6n47	1n 3	17n23	2s13	7s 6	0n34	13s 1	1n47	20n35	14n10	22s48	22s55	9s40	13s17	7n14			
S 2	4 49	24 59	2 39	2 16	3 5	18 9	1 32	0 19	0 39	6 42	1 3	17 23	2 14	7 7	0 34	13 2	1 47	20 34	14 10	22 48	22 56	9 37	13 17	7 13			
M 3	4 26	25 3	1 38	2 55	2 48	18 0	1 27	0 35	0 39	6 37	1 3	17 23	2 14	7 8	0 34	13 3	1 46	20 33	14 10	22 48	22 56	9 34	13 18	7 13			
T 4	4 3	23 53	0 34	3 34	2 30	17 50	1 22	0 51	0 38	6 32	1 3	17 23	2 14	7 9	0 34	13 3	1 46	20 33	14 10	22 48	22 56	9 31	13 19	7 12			
W 5	3 40	21 38	0n30	4 13	2 11	17 40	1 17	1 8	0 38	6 27	1 4	17 22	2 14	7 11	0 34	13 4	1 46	20 32	14 10	22 48	22 56	9 29	13 20	7 12			
T 6	3 17	18 29	1 31	4 49	1 52	17 29	1 12	1 24	0 37	6 22	1 4	17 22	2 14	7 12	0 34	13 4	1 46	20 31	14 10	22 48	22 57	9 26	13 20	7 11			
F 7	2 54	14 36	2 29	5 23	1 32	17 17	1 7	1 40	0 37	6 17	1 4	17 22	2 15	7 13	0 34	13 5	1 46	20 31	14 10	22 49	22 57	9 23	13 21	7 11			
S 8	2 30	10 10	3 20	5 54	1 12	17 5	1 2	1 56	0 36	6 12	1 4	17 21	2 15	7 15	0 34	13 5	1 46	20 30	14 11	22 49	22 57	9 20	13 22	7 11			
S 9	2 7	5 22	4 2	6 21	0 52	16 53	0 57	2 12	0 36	6 7	1 4	17 21	2 15	7 16	0 34	13 6	1 46	20 29	14 11	22 50	22 58	9 17	13 23	7 10			
M10	1 43	0 20	4 34	6 44	0 32	16 40	0 52	2 29	0 35	6 2	1 4	17 21	2 15	7 17	0 34	13 6	1 46	20 29	14 11	22 51	22 58	9 14	13 23	7 10			
T 11	1 20	4n44	4 54	7 2	0 14	16 26	0 47	2 45	0 35	5 57	1 4	17 20	2 15	7 19	0 34	13 7	1 46	20 28	14 11	22 53	22 58	9 12	13 24	7 9			
W12	0 57	9 41	5 1	7 16	0n 4	16 13	0 42	3 1	0 34	5 52	1 4	17 20	2 15	7 20	0 34	13 8	1 46	20 27	14 11	22 54	22 59	9 9	13 25	7 9			
T 13	0 33	14 19	4 54	7 24	0 20	15 58	0 37	3 17	0 34	5 47	1 4	17 19	2 16	7 21	0 34	13 8	1 46	20 27	14 11	22 55	22 59	9 6	13 25	7 8			
F 14	0 10	18 23	4 32	7 28	0 35	15 43	0 32	3 33	0 33	5 42	1 4	17 19	2 16	7 23	0 34	13 9	1 46	20 26	14 12	22 56	22 59	9 3	13 26	7 8			
S 15	0s14	21 41	3 57	7 27	0 49	15 28	0 28	3 49	0 33	5 37	1 4	17 18	2 16	7 24	0 34	13 9	1 46	20 25	14 12	22 57	22 59	9 0	13 27	7 7			
S 16	0 38	23 58	3 10	7 21	1 2	15 12	0 23	4 6	0 32	5 32	1 4	17 18	2 16	7 26	0 34	13 10	1 46	20 25	14 12	22 57	23 0	8 57	13 27	7 7			
M17	1 1	24 59	2 11	7 11	1 13	14 56	0 18	4 22	0 32	5 27	1 4	17 17	2 16	7 27	0 34	13 11	1 46	20 24	14 12	22 58	23 0	8 54	13 28	7 6			
T 18	1 25	24 35	1 5	6 56	1 23	14 39	0 14	4 38	0 31	5 22	1 4	17 17	2 16	7 28	0 34	13 11	1 46	20 24	14 12	22 58	23 0	8 52	13 29	7 6			
W19	1 48	22 42	0s 7	6 37	1 32	14 22	0 9	4 54	0 31	5 17	1 4	17 16	2 17	7 30	0 34	13 12	1 46	20 23	14 13	22 58	23 0	8 49	13 29	7 5			
T 20	2 12	19 24	1 21	6 15	1 39	14 4	0 5	5 10	0 30	5 12	1 4	17 15	2 17	7 31	0 34	13 13	1 46	20 22	14 13	22 58	23 1	8 46	13 30	7 5			
F 21	2 35	14 52	2 31	5 49	1 45	13 46	0 1	5 26	0 29	5 7	1 5	17 15	2 17	7 32	0 34	13 13	1 46	20 22	14 13	22 58	23 1	8 43	13 30	7 4			
S 22	2 59	9 22	3 32	5 21	1 50	13 28	0n 4	5 42	0 29	5 2	1 5	17 14	2 17	7 34	0 34	13 14	1 46	20 21	14 13	22 58	23 1	8 40	13 31	7 4			
S 23	3 22	3 17	4 20	4 49	1 53	13 9	0 8	5 58	0 28	4 57	1 5	17 13	2 17	7 35	0 34	13 14	1 46	20 21	14 14	22 59	23 2	8 37	13 32	7 3			
M24	3 46	3s 1	4 50	4 15	1 56	12 50	0 12	6 14	0 28	4 52	1 5	17 13	2 17	7 37	0 34	13 15	1 46	20 20	14 14	23 0	23 2	8 34	13 32	7 3			
T 25	4 9	9 7	5 0	3 40	1 57	12 30	0 16	6 30	0 27	4 47	1 5	17 12	2 17	7 38	0 34	13 16	1 46	20 20	14 14	23 1	23 2	8 32	13 33	7 2			
W26	4 32	14 36	4 50	3 2	1 58	12 10	0 20	6 46	0 27	4 43	1 5	17 11	2 18	7 40	0 34	13 16	1 46	20 19	14 14	23 2	23 2	8 29	13 33	7 2			
T 27	4 56	19 8	4 22	2 23	1 58	11 49	0 24	7 2	0 26	4 38	1 5	17 10	2 18	7 41	0 34	13 17	1 46	20 19	14 15	23 3	23 3	8 26	13 34	7 1			
F 28	5 19	22 27	3 39	1 42	1 57	11 28	0 28	7 18	0 26	4 33	1 5	17 10	2 18	7 42	0 34	13 18	1 46	20 18	14 15	23 4	23 3	8 23	13 34	7 1			
S 29	5 42	24 23	2 45	1 0	1 56	11 7	0 32	7 34	0 25	4 28	1 5	17 9	2 18	7 44	0 34	13 18	1 46	20 18	14 15	23 4	23 3	8 20	13 35	7 0			
S 30	6s 5	24s55	1s44	0n18	1n53	10n45	0n36	7s49	0n25	4n23	1n 5	17n 8	2s18	7s45	0n34	13s19	1n46	20n17	14n16	23s 4	23s 3	8s17	13s35	7n			

ASTRODIENST EPHEMERIS for the year 1470
geocentric

OCTOBER 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	1 13 10	16♂24'36	3♂22	5♂18	4♂47	21♂38	21♂41	26°R12	21♂12	10♂27	11♂49	10°R45	10♂53	29°3	28♂53	M 1
T 2	1 17 7	17°24'13	15°37	7° 0	5°57	22°19	21°54	26♂ 9	21°16	10°29	11°51	10♂45	10°50	29° 9	28°53	T 2
W 3	1 21 3	18°23'53	27°39	8°43	7° 7	22°59	22° 6	26° 5	21°20	10°31	11°53	10°44	10°47	29°16	28°54	W 3
T 4	1 25 0	19°23'34	9♂31	10°26	8°17	23°40	22°18	26° 2	21°23	10°34	11°54	10°43	10°44	29°23	28°54	T 4
F 5	1 28 56	20°23'16	21°20	12° 8	9°27	24°21	22°30	25°59	21°27	10°36	11°56	10°39	10°40	29°29	28°55	F 5
S 6	1 32 53	21°23'01	3♂11	13°51	10°37	25° 2	22°43	25°55	21°31	10°38	11°58	10°33	10°37	29°36	28°55	S 6
S 7	1 36 49	22°22'47	15° 6	15°33	11°48	25°43	22°55	25°51	21°35	10°40	12° 0	10°24	10°34	29°43	28°56	S 7
M 8	1 40 46	23°22'35	27° 9	17°15	12°58	26°23	23° 7	25°48	21°39	10°42	12° 1	10°12	10°31	29°50	28°56	M 8
T 9	1 44 43	24°22'25	9♂23	18°56	14° 9	27° 4	23°19	25°44	21°42	10°44	12° 3	9°59	10°28	29°56	28°57	T 9
W10	1 48 39	25°22'17	21°48	20°38	15°19	27°45	23°31	25°40	21°46	10°46	12° 5	9°46	10°24	0♂ 3	28°58	W10
T 11	1 52 36	26°22'11	4♂25	22°18	16°30	28°27	23°43	25°36	21°50	10°49	12° 7	9°33	10°21	0°10	28°58	T 11
F 12	1 56 32	27°22'07	17°13	23°59	17°41	29° 8	23°55	25°32	21°54	10°51	12° 8	9°22	10°18	0°16	28°59	F 12
S 13	2 0 29	28°22'05	0♂11	25°38	18°52	29°49	24° 6	25°28	21°57	10°53	12°10	9°14	10°15	0°23	29° 0	S 13
S 14	2 4 25	29°22'05	13°21	27°18	20° 4	0♂30	24°18	25°24	22° 1	10°55	12°11	9° 8	10°12	0°30	29° 1	S 14
M15	2 8 22	0♂22'07	26°42	28°57	21°15	1°11	24°30	25°20	22° 5	10°58	12°13	9° 6	10° 9	0°36	29° 2	M15
T 16	2 12 18	1°22'11	10♂14	0♂35	22°27	1°52	24°41	25°16	22° 9	11° 0	12°15	9°D 5	10° 5	0°43	29° 4	T 16
W17	2 16 15	2°22'18	23°58	2°13	23°38	2°34	24°53	25°11	22°12	11° 2	12°16	9° 5	10° 2	0°50	29° 5	W17
T 18	2 20 12	3°22'26	7♂54	3°51	24°50	3°15	25° 4	25° 7	22°16	11° 4	12°18	9°R 5	9°59	0°56	29° 6	T 18
F 19	2 24 8	4°22'37	22° 4	5°28	26° 2	3°57	25°16	25° 3	22°20	11° 6	12°19	9° 4	9°56	1° 3	29° 8	F 19
S 20	2 28 5	5°22'50	6♂26	7° 4	27°14	4°38	25°27	24°58	22°23	11° 9	12°21	9° 1	9°53	1°10	29° 9	S 20
S 21	2 32 1	6°23'04	20°56	8°41	28°26	5°20	25°39	24°54	22°27	11°11	12°22	8°54	9°49	1°17	29°11	S 21
M22	2 35 58	7°23'21	5♂30	10°17	29°38	6° 1	25°50	24°49	22°31	11°13	12°23	8°46	9°46	1°23	29°12	M22
T 23	2 39 54	8°23'40	20° 1	11°52	0♂50	6°43	26° 1	24°45	22°35	11°15	12°25	8°36	9°43	1°30	29°14	T 23
W24	2 43 51	9°24'01	4♂24	13°27	2° 3	7°25	26°12	24°40	22°38	11°18	12°26	8°26	9°40	1°37	29°15	W24
T 25	2 47 47	10°24'23	18°30	15° 2	3°15	8° 6	26°23	24°35	22°42	11°20	12°28	8°17	9°37	1°43	29°17	T 25
F 26	2 51 44	11°24'47	2♂16	16°36	4°28	8°48	26°34	24°30	22°45	11°22	12°29	8°10	9°34	1°50	29°19	F 26
S 27	2 55 41	12°25'13	15°39	18°11	5°40	9°30	26°45	24°26	22°49	11°24	12°30	8° 5	9°30	1°57	29°21	S 27
S 28	2 59 37	13°25'41	28°37	19°44	6°53	10°12	26°56	24°21	22°53	11°27	12°31	8° 3	9°27	2° 3	29°23	S 28
M29	3 3 34	14°26'09	11♂14	21°18	8° 6	10°54	27° 6	24°16	22°56	11°29	12°33	8°D 2	9°24	2°10	29°25	M29
T 30	3 7 30	15°26'39	23°32	22°51	9°19	11°36	27°17	24°11	23° 0	11°31	12°34	8° 3	9°21	2°17	29°27	T 30
W31	3 11 27	16♂27'11	5♂35	24♂24	10♂31	12♂18	27♂27	24♂ 6	23♂ 3	11♂33	12♂35	8♂ 4	9♂18	2♂23	29♂29	W31

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
M 1	6s28	24s 7	0s39	0s25	1n51	10n23	0n39	8s 5	0n24	4n18	1n 5	17n 7	2s18	7s47	0n34	13s20
T 2	6 51	22 10	0n26	1 9	1 47	10 1	0 43	8 21	0 24	4 14	1 5	17 6	2 18	7 48	0 34	13 20
W 3	7 14	19 15	1 28	1 53	1 44	9 38	0 46	8 36	0 23	4 9	1 6	17 5	2 18	7 49	0 34	13 21
T 4	7 37	15 34	2 26	2 37	1 39	9 15	0 50	8 52	0 22	4 4	1 6	17 5	2 18	7 51	0 34	13 22
F 5	7 59	11 19	3 17	3 21	1 35	8 52	0 53	9 8	0 22	3 59	1 6	17 4	2 19	7 52	0 34	13 22
S 6	8 22	6 38	4 0	4 6	1 30	8 28	0 56	9 23	0 21	3 55	1 6	17 3	2 19	7 54	0 34	13 23
S 7	8 44	1 42	4 32	4 50	1 25	8 4	0 59	9 39	0 21	3 50	1 6	17 2	2 19	7 55	0 33	13 24
M 8	9 6	3n21	4 53	5 34	1 19	7 40	1 2	9 54	0 20	3 45	1 6	17 1	2 19	7 57	0 33	13 25
T 9	9 28	8 20	5 1	6 18	1 14	7 16	1 5	10 9	0 20	3 41	1 6	17 0	2 19	7 58	0 33	13 25
W10	9 50	13 4	4 54	7 2	1 8	6 51	1 8	10 25	0 19	3 36	1 6	16 59	2 19	7 59	0 33	13 26
T 11	10 12	17 19	4 53	7 45	1 2	6 26	1 11	10 40	0 18	3 31	1 7	16 58	2 19	8 1	0 33	13 27
F 12	10 34	20 50	3 58	8 28	0 56	6 1	1 14	10 55	0 18	3 27	1 7	16 57	2 19	8 2	0 33	13 27
S 13	10 55	23 21	3 11	9 11	0 49	5 35	1 16	11 10	0 17	3 22	1 7	16 56	2 19	8 4	0 33	13 28
S 14	11 17	24 39	2 12	9 53	0 43	5 9	1 19	11 25	0 17	3 18	1 7	16 55	2 19	8 5	0 33	13 29
M15	11 38	24 33	1 5	10 34	0 36	4 43	1 21	11 40	0 16	3 13	1 7	16 54	2 19	8 6	0 33	13 29
T 16	11 59	23 1	0s 6	11 15	0 30	4 17	1 24	11 55	0 16	3 9	1 7	16 53	2 19	8 8	0 33	13 30
W17	12 20	19 1	1 18	11 55	0 23	3 51	1 26	12 10	0 15	3 4	1 7	16 52	2 19	8 9	0 33	13 31
T 18	12 41	15 58	2 27	12 35	0 16	3 24	1 28	12 24	0 15	3 0	1 7	16 51	2 20	8 11	0 33	13 32
F 19	13 1	10 55	3 28	13 14	0 10	2 58	1 30	12 39	0 14	2 55	1 8	16 49	2 20	8 12	0 33	13 32
S 20	13 21	5 12	4 16	13 52	0 3	2 31	1 32	12 54	0 13	2 51	1 8	16 48	2 20	8 13	0 33	13 33
S 21	13 41	0s49	4 49	14 30	0s 4	2 4	1 34	13 8	0 13	2 46	1 8	16 47	2 20	8 15	0 33	13 34
M22	14 1	6 50	5 33	15 7	0 10	1 37	1 36	13 22	0 12	2 42	1 8	16 46	2 20	8 16	0 33	13 34
T 23	14 21	12 26	4 58	15 43	0 17	1 9	1 38	13 37	0 12	2 38	1 8	16 45	2 20	8 17	0 33	13 35
W24	14 40	17 19	4 34	16 18	0 24	0 42	1 39	13 51	0 11	2 33	1 8	16 44	2 20	8 19	0 33	13 36
T 25	14 59	21 7	3 53	16 52	0 30	0 15	1 41	14 5	0 10	2 29	1 8	16 43	2 20	8 20	0 33	13 37
F 26	15 18	23 36	2 59	17 26	0 37	0s13	1 42	14 19	0 10	2 25	1 9	16 42	2 20	8 22	0 33	13 37
S 27	15 37	24 40	1 57	17 59	0 43	0 41	1 44	14 33	0 9	2 21	1 9	16 40	2 20	8 23	0 33	13 38
S 28	15 55	24 20	0 50	18 31	0 49	1 8	1 45	14 47	0 9	2 17	1 9	16 39	2 20	8 24	0 33	13 38
M29	16 13	22 45	0n17	19 2	0 56	1 36	1 46	15 1	0 8	2 13	1 9	16 38	2 20	8 26	0 33	13 39
T 30	16 31	20 6	1 22	19 32	1 2	2 4	1 47	15 14	0 8	2 9	1 9	16 37	2 20	8 27	0 33	13 40
W31	16s48	16s37	2n23	20s 1	1s 8	2s31	1n48	15s28	0n 7	2n 4	1n 9	16n36	2s20	8s28	0n33	13s41

Julian Day Number = 2258248.5, Delta T = 05m51s
Ecliptic obliquity = 23°30'31", Nutation = 0°00'16", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 17°21'23", Lahiri = 16°28'23" Julian Calendar 1 Oct. 1470 == Greg. Calendar 10 Oct. 1470

ASTRODIENST EPHEMERIS for the year 1470

geocentric

NOVEMBER 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	3 15 23	17 ¹¹ 27'44	17 ¹¹ 30	25 ¹¹ 57	11 ¹¹ 44	13 ¹¹ 0	27 ¹¹ 38	24 ¹¹ R 2	23 ¹¹ 5 7	11 ¹¹ 36	12 ¹¹ 36	8 ¹¹ R 5	9 ¹¹ 315	2 ¹¹ 30	29 ¹¹ 32	T 1
F 2	3 19 20	18 ¹¹ 28'17	29 ¹¹ 20	27 ¹¹ 30	12 ¹¹ 57	13 ¹¹ 42	27 ¹¹ 48	23 ¹¹ 8'57	23 ¹¹ 10	11 ¹¹ 38	12 ¹¹ 37	8 ¹¹ 3 4	9 ¹¹ 11	2 ¹¹ 37	29 ¹¹ 34	F 2
S 3	3 23 16	19 ¹¹ 28'53	11 ¹¹ 12	29 ¹¹ 2	14 ¹¹ 11	14 ¹¹ 24	27 ¹¹ 58	23 ¹¹ 52	23 ¹¹ 14	11 ¹¹ 40	12 ¹¹ 38	8 ¹¹ 1	9 ¹¹ 8	2 ¹¹ 44	29 ¹¹ 36	S 3
S 4	3 27 13	20 ¹¹ 29'29	23 ¹¹ 9	0 ¹¹ 34	15 ¹¹ 24	15 ¹¹ 6	28 ¹¹ 9	23 ¹¹ 47	23 ¹¹ 17	11 ¹¹ 42	12 ¹¹ 39	7 ¹¹ 56	9 ¹¹ 5	2 ¹¹ 50	29 ¹¹ 39	S 4
M 5	3 31 10	21 ¹¹ 30'07	5 ¹¹ 17	2 ¹¹ 6	16 ¹¹ 37	15 ¹¹ 48	28 ¹¹ 19	23 ¹¹ 42	23 ¹¹ 21	11 ¹¹ 45	12 ¹¹ 41	7 ¹¹ 50	9 ¹¹ 2	2 ¹¹ 57	29 ¹¹ 41	M 5
T 6	3 35 6	22 ¹¹ 30'46	17 ¹¹ 38	3 ¹¹ 38	17 ¹¹ 50	16 ¹¹ 31	28 ¹¹ 29	23 ¹¹ 37	23 ¹¹ 24	11 ¹¹ 47	12 ¹¹ 42	7 ¹¹ 42	8 ¹¹ 59	3 ¹¹ 4	29 ¹¹ 44	T 6
W 7	3 39 3	23 ¹¹ 31'26	0 ¹¹ 14	5 ¹¹ 9	19 ¹¹ 4	17 ¹¹ 13	28 ¹¹ 38	23 ¹¹ 32	23 ¹¹ 28	11 ¹¹ 49	12 ¹¹ 42	7 ¹¹ 33	8 ¹¹ 55	3 ¹¹ 10	29 ¹¹ 46	W 7
T 8	3 42 59	24 ¹¹ 32'07	13 ¹¹ 6	6 ¹¹ 41	20 ¹¹ 17	17 ¹¹ 55	28 ¹¹ 48	23 ¹¹ 27	23 ¹¹ 31	11 ¹¹ 51	12 ¹¹ 43	7 ¹¹ 25	8 ¹¹ 52	3 ¹¹ 17	29 ¹¹ 49	T 8
F 9	3 46 56	25 ¹¹ 32'50	26 ¹¹ 13	8 ¹¹ 12	21 ¹¹ 31	18 ¹¹ 38	28 ¹¹ 58	23 ¹¹ 22	23 ¹¹ 34	11 ¹¹ 54	12 ¹¹ 44	7 ¹¹ 19	8 ¹¹ 49	3 ¹¹ 24	29 ¹¹ 52	F 9
S 10	3 50 52	26 ¹¹ 33'34	9 ¹¹ 35	9 ¹¹ 42	22 ¹¹ 44	19 ¹¹ 20	29 ¹¹ 7	23 ¹¹ 17	23 ¹¹ 38	11 ¹¹ 56	12 ¹¹ 45	7 ¹¹ 14	8 ¹¹ 46	3 ¹¹ 30	29 ¹¹ 54	S 10
S 11	3 54 49	27 ¹¹ 34'20	23 ¹¹ 10	11 ¹¹ 13	23 ¹¹ 58	20 ¹¹ 3	29 ¹¹ 17	23 ¹¹ 12	23 ¹¹ 41	11 ¹¹ 58	12 ¹¹ 46	7 ¹¹ 11	8 ¹¹ 43	3 ¹¹ 37	29 ¹¹ 57	S 11
M 12	3 58 45	28 ¹¹ 35'07	6 ¹¹ 54	12 ¹¹ 43	25 ¹¹ 12	20 ¹¹ 45	29 ¹¹ 26	23 ¹¹ 8	23 ¹¹ 44	12 ¹¹ 0	12 ¹¹ 47	7 ¹¹ D 10	8 ¹¹ 40	3 ¹¹ 44	0 ¹¹ 0	M 12
T 13	4 2 42	29 ¹¹ 35'55	20 ¹¹ 47	14 ¹¹ 13	26 ¹¹ 26	21 ¹¹ 28	29 ¹¹ 36	23 ¹¹ 3	23 ¹¹ 48	12 ¹¹ 2	12 ¹¹ 48	7 ¹¹ 10	8 ¹¹ 36	3 ¹¹ 51	0 ¹¹ 3	T 13
W 14	4 6 39	0 ¹¹ 36'45	4 ¹¹ 14	15 ¹¹ 42	27 ¹¹ 39	22 ¹¹ 10	29 ¹¹ 45	22 ¹¹ 58	23 ¹¹ 51	12 ¹¹ 4	12 ¹¹ 48	7 ¹¹ 12	8 ¹¹ 33	3 ¹¹ 57	0 ¹¹ 6	W 14
T 15	4 10 35	1 ¹¹ 37'37	18 ¹¹ 51	17 ¹¹ 12	28 ¹¹ 53	22 ¹¹ 53	29 ¹¹ 54	22 ¹¹ 53	23 ¹¹ 54	12 ¹¹ 7	12 ¹¹ 49	7 ¹¹ 13	8 ¹¹ 30	4 ¹¹ 4	0 ¹¹ 9	T 15
F 16	4 14 32	2 ¹¹ 38'29	2 ¹¹ 59	18 ¹¹ 40	0 ¹¹ 7	23 ¹¹ 36	0 ¹¹ 3	22 ¹¹ 48	23 ¹¹ 57	12 ¹¹ 9	12 ¹¹ 50	7 ¹¹ R 14	8 ¹¹ 27	4 ¹¹ 11	0 ¹¹ 12	F 16
S 17	4 18 28	3 ¹¹ 39'23	17 ¹¹ 9	20 ¹¹ 8	1 ¹¹ 21	24 ¹¹ 19	0 ¹¹ 11	22 ¹¹ 43	24 ¹¹ 0	12 ¹¹ 11	12 ¹¹ 51	7 ¹¹ 13	8 ¹¹ 24	4 ¹¹ 17	0 ¹¹ 15	S 17
S 18	4 22 25	4 ¹¹ 40'19	1 ¹¹ 20	21 ¹¹ 36	2 ¹¹ 35	25 ¹¹ 1	0 ¹¹ 20	22 ¹¹ 38	24 ¹¹ 3	12 ¹¹ 13	12 ¹¹ 51	7 ¹¹ 11	8 ¹¹ 21	4 ¹¹ 24	0 ¹¹ 18	S 18
M 19	4 26 21	5 ¹¹ 41'16	15 ¹¹ 28	23 ¹¹ 3	3 ¹¹ 49	25 ¹¹ 44	0 ¹¹ 29	22 ¹¹ 34	24 ¹¹ 6	12 ¹¹ 15	12 ¹¹ 52	7 ¹¹ 7	8 ¹¹ 17	4 ¹¹ 31	0 ¹¹ 22	M 19
T 20	4 30 18	6 ¹¹ 42'14	29 ¹¹ 30	24 ¹¹ 29	5 ¹¹ 3	26 ¹¹ 27	0 ¹¹ 37	22 ¹¹ 29	24 ¹¹ 10	12 ¹¹ 17	12 ¹¹ 52	7 ¹¹ 2	8 ¹¹ 14	4 ¹¹ 37	0 ¹¹ 25	T 20
W 21	4 34 14	7 ¹¹ 43'13	13 ¹¹ 24	25 ¹¹ 53	6 ¹¹ 18	27 ¹¹ 10	0 ¹¹ 45	22 ¹¹ 24	24 ¹¹ 13	12 ¹¹ 19	12 ¹¹ 53	6 ¹¹ 58	8 ¹¹ 11	4 ¹¹ 44	0 ¹¹ 28	W 21
T 22	4 38 11	8 ¹¹ 44'13	27 ¹¹ 4	27 ¹¹ 17	7 ¹¹ 32	27 ¹¹ 53	0 ¹¹ 54	22 ¹¹ 20	24 ¹¹ 16	12 ¹¹ 21	12 ¹¹ 53	6 ¹¹ 53	8 ¹¹ 8	4 ¹¹ 51	0 ¹¹ 32	T 22
F 23	4 42 8	9 ¹¹ 45'15	10 ¹¹ 30	28 ¹¹ 40	8 ¹¹ 46	28 ¹¹ 36	1 ¹¹ 2	22 ¹¹ 15	24 ¹¹ 18	12 ¹¹ 23	12 ¹¹ 54	6 ¹¹ 50	8 ¹¹ 5	4 ¹¹ 58	0 ¹¹ 35	F 23
S 24	4 46 4	10 ¹¹ 46'17	23 ¹¹ 38	0 ¹¹ 0	10 ¹¹ 0	29 ¹¹ 20	1 ¹¹ 10	22 ¹¹ 11	24 ¹¹ 21	12 ¹¹ 25	12 ¹¹ 54	6 ¹¹ 48	8 ¹¹ 1	5 ¹¹ 4	0 ¹¹ 39	S 24
S 25	4 50 1	11 ¹¹ 47'20	6 ¹¹ 27	1 ¹¹ 19	11 ¹¹ 15	0 ¹¹ 3	1 ¹¹ 18	22 ¹¹ 6	24 ¹¹ 24	12 ¹¹ 28	12 ¹¹ 55	6 ¹¹ D 47	7 ¹¹ 58	5 ¹¹ 11	0 ¹¹ 42	S 25
M 26	4 53 57	12 ¹¹ 48'24	19 ¹¹ 0	2 ¹¹ 36	12 ¹¹ 29	0 ¹¹ 46	1 ¹¹ 25	22 ¹¹ 2	24 ¹¹ 27	12 ¹¹ 30	12 ¹¹ 55	6 ¹¹ 47	7 ¹¹ 55	5 ¹¹ 18	0 ¹¹ 46	M 26
T 27	4 57 54	13 ¹¹ 49'29	1 ¹¹ 16	3 ¹¹ 50	13 ¹¹ 43	1 ¹¹ 29	1 ¹¹ 33	21 ¹¹ 57	24 ¹¹ 30	12 ¹¹ 32	12 ¹¹ 55	6 ¹¹ 49	7 ¹¹ 52	5 ¹¹ 24	0 ¹¹ 50	T 27
W 28	5 1 50	14 ¹¹ 50'33	13 ¹¹ 20	5 ¹¹ 1	14 ¹¹ 58	2 ¹¹ 13	1 ¹¹ 40	21 ¹¹ 53	24 ¹¹ 33	12 ¹¹ 34	12 ¹¹ 56	6 ¹¹ 51	7 ¹¹ 49	5 ¹¹ 31	0 ¹¹ 53	W 28
T 29	5 5 47	15 ¹¹ 51'39	25 ¹¹ 16	6 ¹¹ 9	16 ¹¹ 12	2 ¹¹ 56	1 ¹¹ 47	21 ¹¹ 49	24 ¹¹ 35	12 ¹¹ 35	12 ¹¹ 56	6 ¹¹ 52	7 ¹¹ 46	5 ¹¹ 38	0 ¹¹ 57	T 29
F 30	5 9 44	16 ¹¹ 52'44	7 ¹¹ 17	7 ¹¹ 13	17 ¹¹ 27	3 ¹¹ 39	1 ¹¹ 55	21 ¹¹ 8'44	24 ¹¹ 38	12 ¹¹ 37	12 ¹¹ 56	6 ¹¹ 53	7 ¹¹ 42	5 ¹¹ 44	1 ¹¹ 1	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	decl	lat
T 1	17s 6	12s31	3n16	20s29	1s14	2s59	1n49	15s41	0n 6	2n 0	1n10	16n35	2s20	8s29	0n34	13s41	1n45	20n 9	14n28	23s16	23s11	6s46	13s43	6n44			
F 2	17 22	7 59	4 1	20 57	1 19	3 27	1 50	15 54	0 6	1 57	1 10	16 34	2 20	8 31	0 34	13 42	1 45	20 9	14 29	23 16	23 11	6 43	13 43	6 44			
S 3	17 39	3 9	4 35	21 23	1 25	3 55	1 50	16 7	0 5	1 53	1 10	16 32	2 20	8 32	0 34	13 43	1 45	20 9	14 29	23 16	23 12	6 40	13 43	6 43			
S 4	17 55	1n50	4 58	21 48	1 30	4 23	1 51	16 20	0 5	1 49	1 10	16 31	2 19	8 33	0 34	13 43	1 45	20 9	14 29	23 16	23 12	6 37	13 43	6 43			
M 5	18 11	6 48	5 8	22 12	1 35	4 50	1 51	16 33	0 4	1 45	1 10	16 30	2 19	8 35	0 34	13 44	1 45	20 9	14 30	23 17	23 12	6 34	13 43	6 42			
T 6	18 27	11 36	5 3	22 35	1 41	5 18	1 52	16 46	0 3	1 41	1 10	16 29	2 19	8 36	0 34	13 45	1 45	20 9	14 30	23 17	23 12	6 31	13 43	6 42			
W 7	18 42	16 1	4 44	22 57	1 45	5 45	1 52	16 59	0 3	1 37	1 11	16 28	2 19	8 37	0 34	13 45	1 45	20 9	14 31	23 18	23 12	6 28	13 43	6 42			
T 8	18 57	19 48	4 11	23 18	1 50	6 13	1 52	17 11	0 2	1 34	1 11	16 27	2 19	8 38	0 34	13 46	1 45	20 10	14 31	23 18	23 13	6 25	13 43	6 41			
F 9	19 12	22 39	3 23	23 37	1 54	6 40	1 52	17 24	0 2	1 30	1 11	16 25	2 19	8 40	0 34	13 47	1 45	20 10	14 32	23 18	23 13	6 23	13 42	6 41			
S 10	19 27	24 19	2 24	23 55	1 58	7 8	1 53	17 36	0 1	1 26	1 11	16 24	2 19	8 41	0 34	13 47	1 45	20 10	14 32	23 19	23 13	6 20	13 42	6 40			
S 11	19 40	24 35	1 15	24 12	2 2	7 35	1 52	17 48	0 0	1 23	1 11	16 23	2 19	8 42	0 34	13 48	1 45	20 10	14 33	23 19	23 13	6 17	13 42	6 40			
M 12	19 54	23 21	0 1	24 28	2 6	8 2	1 52	18 0	0s 0	1 19	1 12	16 22	2 19	8 43	0 34	13 49	1 45	20 10	14 33	23 19	23 13	6 14	13 42	6 39			
T 13	20 7	20 41	1s14	24 42	2 9	8 29	1 52	18 12	0 1	1 16	1 12	16 21	2 19	8 44	0 34	13 49	1 45	20 10	14 34	23 19	23 14	6 11	13 42	6 39			
W 14	20 20	16 47	2 25	24 56	2 12	8 56	1 52	18 23	0 2	1 12	1 12	16 20	2 19	8 46	0 34	13 50	1 45	20 10	14 34	23 19	23 14	6 8	13 41	6 39			
T 15	20 33	11 55	3 28	25 7	2 15	9 22	1 52	18 35	0 2	1 9	1 12	16 19	2 19	8 47	0 34	13 51	1 45	20 10	14 35	23 19	23 14	6 5	13 41	6 38			
F 16	20 45	6 25	4 18	25 18	2 17	9 49	1 51	18 46	0 3	1 5	1 12	16 18	2 19	8 48	0 34	13 51	1 45	20 11	14 35	23 19	23 14	6 2	13 41	6 38			
S 17	20 57	0 35	4 53	25 27	2 19	10 15	1 51	18 57	0 3	1 2	1 13	16 16	2 18	8 49	0 34	13 52	1 45	20 11	14 36	23 19	23 14	6 0	13 41	6 37			
S 18	21 8	5s16	5 10	25 34	2 20	10 41	1 50	19 9	0 4	0 59	1 13	16 15	2 18	8 50	0 34	13 52	1 45	20 11	14 36	23 19	23 15	5 57	13 40	6 37			
M 19	21 19	10 51	5 9	25 40	2 21	11 7	1 49	19 19	0 5	0 55	1 13	16 14	2 18	8 51	0 34	13 53	1 45	20 11	14 37	23 19	23 15	5 54	13 40	6 37			
T 20	21 29	15 49	4 49	25 45	2 21	11 32	1 48	19 30	0 5	0 52	1 13	16 13	2 18	8 52	0 34	13 54	1 45	20 12	14 37	23 19	23 15	5 51	13 40	6 36			
W 21	21 40	19 54	4 12	25 48	2 21	11 58	1 48	19 41	0 6	0 49	1 13	16 12	2 18	8 54	0 34	13 54	1 46	20 12	14 38	23 19	23 15	5 48	13 40	6 36			
T 22	21 49	22 49	3 21	25 49	2 21	12 23	1 47	19 51	0 6	0 46	1 14	16 11	2 18	8 55	0 34	13 55	1 46	20 12	14 38	23 20	23 15	5 45	13 39	6 36			
F 23	21 59	24 23	2 19	25 49	2 19	12 48	1 46	20 1	0 7	0 43	1 14	16 10	2 18	8 56	0 34	13 55	1 46	20 12	14 39	23 20	23 16	5 42	13 39	6 35			
S 24	22 8	24 33	1 12	25 48	2 17	13 12	1 45	20 11	0 8	0 40	1 14	16 9	2 17	8 57	0 34	13 56	1 46	20 13	14 39	23 20	23 16	5 39	13 38	6 35			
S 25	22 16	23 23	0 2	25 45	2 15	13 36	1 44	20 21	0 8	0 37	1 14	16 8	2 17	8 58	0 34	13 57	1 46	20 13	14 40	23 20	23 16	5 36	13 38	6 34			
M 26	22 24	21 3	1n 7	25 41	2 12	14 0	1 42	20 31	0 9	0 34	1 14	16 7	2 17	8 59	0 34	13 57	1 46	20 13	14 41	23 20	23 16	5 34	13 38	6 34			
T 27	22 32	17 48	2 11	25 35	2 7	14 24	1 41	20 40	0 10	0 32	1 15	16 6	2 17	9 0	0 34	13 58	1 46	20 14	14 41	23 20	23 16	5 31	13 37	6 34			
W 28	22 39	13 52	3 8	25 27	2 2	14 47	1 40	20 50	0 10	0 29	1 15	16 5	2 17	9 1	0 34	13 58	1 46	20 14	14 42	23 20	23 17	5 28	13 37	6 33			
T 29	22 45	9 25	3 56	25 18	1 57	15 10	1 38	20 59	0 11	0 26	1 15	16 4	2 17	9 2	0 34	13 59	1 46	20 14	14 42	23 20	23 17	5 25	13 36	6 33			
F 30	22s52	4s41	4n34	25s 8	1s50	15s32	1n37	21s 8	0s11	0n23	1n15	16n 3	2s16	9s 3	0n34	14s 0	1n46	20n15	14n43	23s20	23s17	5s22	13s36	6n33			

ASTRODIENST EPHEMERIS for the year 1470

geocentric

DECEMBER 1470 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	5 13 40	17°53'50	18°59	8°32	18°41	4°23	2°2	21°R40	24°41	12°M39	12°M56	6°R54	7°39	5°51	1°5	S 1
S 2	5 17 37	18°54'57	0°56	9° 5	19°56	5° 6	2° 8	21°R36	24°43	12°41	12°57	6°53	7°36	5°58	1° 8	S 2
M 3	5 21 33	19°56'03	13° 4	9°53	21°10	5°50	2°15	21°32	24°46	12°43	12°57	6°52	7°33	6° 5	1°12	M 3
T 4	5 25 30	20°57'10	25°26	10°34	22°25	6°33	2°22	21°28	24°48	12°45	12°57	6°50	7°30	6°11	1°16	T 4
W 5	5 29 26	21°58'18	8° 6	11° 7	23°39	7°17	2°28	21°24	24°51	12°47	12°57	6°48	7°27	6°18	1°20	W 5
T 6	5 33 23	22°59'25	21° 6	11°31	24°54	8° 1	2°34	21°20	24°53	12°49	12°57	6°45	7°23	6°25	1°24	T 6
F 7	5 37 19	24° 0'33	4°27	11°46	26° 9	8°44	2°40	21°17	24°56	12°51	12°R57	6°44	7°20	6°31	1°28	F 7
S 8	5 41 16	25° 1'41	18° 8	11°R51	27°23	9°28	2°46	21°13	24°58	12°52	12°57	6°42	7°17	6°38	1°32	S 8
S 9	5 45 13	26° 2'50	2° 7	11°44	28°38	10°12	2°52	21° 9	25° 0	12°54	12°57	6°D42	7°14	6°45	1°36	S 9
M10	5 49 9	27° 3'58	16°20	11°26	29°53	10°56	2°58	21° 6	25° 2	12°56	12°57	6°42	7°11	6°52	1°41	M10
T 11	5 53 6	28° 5'07	0°43	10°56	1° 7	11°40	3° 3	21° 2	25° 5	12°58	12°57	6°43	7° 7	6°58	1°45	T 11
W12	5 57 2	29° 6'17	15°10	10°14	2°22	12°24	3° 9	20°59	25° 7	12°59	12°57	6°43	7° 4	7° 5	1°49	W12
T 13	6 0 59	0° 7'27	29°36	9°21	3°37	13° 7	3°14	20°56	25° 9	13° 1	12°56	6°44	7° 1	7°12	1°53	T 13
F 14	6 4 55	1° 8'37	13°M57	8°19	4°52	13°52	3°19	20°53	25°11	13° 3	12°56	6°44	6°58	7°18	1°57	F 14
S 15	6 8 52	2° 9'47	28°10	7° 8	6° 6	14°36	3°24	20°50	25°13	13° 4	12°56	6°R45	6°55	7°25	2° 2	S 15
S 16	6 12 48	3°10'58	12°14	5°51	7°21	15°20	3°28	20°47	25°15	13° 6	12°56	6°45	6°52	7°32	2° 6	S 16
M17	6 16 45	4°12'09	26° 5	4°30	8°36	16° 4	3°33	20°44	25°17	13° 8	12°55	6°44	6°48	7°38	2°10	M17
T 18	6 20 42	5°13'21	9°M44	3° 9	9°51	16°48	3°37	20°41	25°19	13° 9	12°55	6°44	6°45	7°45	2°15	T 18
W19	6 24 38	6°14'33	23°10	1°50	11° 6	17°32	3°42	20°38	25°21	13°11	12°55	6°D44	6°42	7°52	2°19	W19
T 20	6 28 35	7°15'45	6°24	0°34	12°21	18°17	3°46	20°36	25°22	13°12	12°54	6°44	6°39	7°59	2°24	T 20
F 21	6 32 31	8°16'57	19°23	29°25	13°36	19° 1	3°49	20°33	25°24	13°14	12°54	6°44	6°36	8° 5	2°28	F 21
S 22	6 36 28	9°18'09	2°310	28°24	14°50	19°45	3°53	20°31	25°26	13°15	12°53	6°R44	6°33	8°12	2°33	S 22
S 23	6 40 24	10°19'20	14°44	27°32	16° 5	20°30	3°57	20°28	25°27	13°17	12°53	6°44	6°29	8°19	2°37	S 23
M24	6 44 21	11°20'32	27° 5	26°49	17°20	21°14	4° 0	20°26	25°29	13°18	12°52	6°44	6°26	8°25	2°42	M24
T 25	6 48 17	12°21'43	9°M16	26°16	18°35	21°59	4° 3	20°24	25°31	13°19	12°52	6°44	6°23	8°32	2°46	T 25
W26	6 52 14	13°22'53	21°17	25°54	19°50	22°43	4° 6	20°22	25°32	13°21	12°51	6°43	6°20	8°39	2°51	W26
T 27	6 56 11	14°24'03	3°M12	25°41	21° 5	23°28	4° 9	20°20	25°33	13°22	12°50	6°42	6°17	8°46	2°55	T 27
F 28	7 0 7	15°25'13	15° 3	25°D36	22°20	24°12	4°11	20°18	25°35	13°23	12°50	6°40	6°13	8°52	3° 0	F 28
S 29	7 4 4	16°26'22	26°54	25°41	23°35	24°57	4°14	20°17	25°36	13°25	12°49	6°39	6°10	8°59	3° 5	S 29
S 30	7 8 0	17°27'29	8°Y50	25°53	24°50	25°42	4°16	20°15	25°37	13°26	12°48	6°39	6° 7	9° 6	3° 9	S 30
M31	7 11 57	18°28'37	20°Y54	26°13	26° 5	26°26	4°18	20°14	25°39	13°M27	12°M47	6°D39	6°3 4	9°M12	3°M14	M31

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	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	decl	lat
S 1	22s57	0n14	5n 1	24s57	1s42	15s54	1n35	21s17	0s12	0n21	1n16	16n 2	2s16	9s 4	0n34	14s 0	1n46	20n15	14n43	23s20	23s17	5s19	13s35	6n32	
S 2	23 3	5 10	5 14	24 44	1 33	16 16	1 34	21 25	0 13	0 18	1 16	16 2	2 16	9 5	0 34	14 1	1 46	20 16	14 44	23 20	23 17	5 16	13 35	6 32	
M 3	23 8	9 59	5 14	24 31	1 23	16 37	1 32	21 34	0 13	0 16	1 16	16 1	2 16	9 6	0 34	14 1	1 46	20 16	14 44	23 20	23 18	5 13	13 34	6 32	
T 4	23 12	14 30	4 59	24 16	1 11	16 58	1 30	21 42	0 14	0 14	1 16	16 0	2 16	9 6	0 34	14 2	1 46	20 16	14 45	23 20	23 18	5 11	13 34	6 32	
W 5	23 16	18 30	4 30	24 1	0 59	17 19	1 28	21 50	0 15	0 11	1 17	15 59	2 15	9 7	0 34	14 2	1 46	20 17	14 45	23 20	23 18	5 8	13 33	6 31	
T 6	23 19	21 43	3 46	23 45	0 45	17 39	1 27	21 57	0 15	0 9	1 17	15 58	2 15	9 8	0 34	14 3	1 46	20 17	14 46	23 20	23 18	5 5	13 33	6 31	
F 7	23 22	23 52	2 49	23 29	0 30	17 58	1 25	22 5	0 16	0 7	1 17	15 58	2 15	9 9	0 34	14 3	1 46	20 18	14 46	23 20	23 18	5 2	13 32	6 31	
S 8	23 25	24 39	1 41	23 12	0 13	18 17	1 23	22 12	0 17	0 5	1 17	15 57	2 15	9 10	0 34	14 4	1 46	20 18	14 47	23 20	23 18	4 59	13 31	6 30	
S 9	23 27	23 55	0 25	22 55	0n 4	18 36	1 21	22 20	0 17	0 2	1 18	15 56	2 15	9 11	0 34	14 4	1 46	20 19	14 47	23 20	23 19	4 56	13 31	6 30	
M10	23 29	21 37	0s53	22 38	0 23	18 54	1 19	22 26	0 18	0 0	1 18	15 55	2 14	9 12	0 34	14 5	1 46	20 19	14 48	23 20	23 19	4 53	13 30	6 30	
T 11	23 30	17 57	2 9	22 22	0 42	19 11	1 17	22 33	0 18	0s 2	1 18	15 55	2 14	9 12	0 34	14 5	1 46	20 20	14 48	23 20	23 19	4 50	13 30	6 30	
W12	23 30	13 11	3 18	22 5	1 2	19 29	1 15	22 40	0 19	0 3	1 18	15 54	2 14	9 13	0 34	14 6	1 46	20 20	14 49	23 20	23 19	4 48	13 29	6 29	
T 13	23 30	7 42	4 13	21 49	1 21	19 45	1 12	22 46	0 20	0 5	1 19	15 53	2 14	9 14	0 34	14 6	1 46	20 21	14 49	23 20	23 19	4 45	13 28	6 29	
F 14	23 30	1 50	4 53	21 34	1 41	20 1	1 10	22 52	0 20	0 7	1 19	15 53	2 13	9 15	0 34	14 7	1 46	20 21	14 50	23 20	23 19	4 42	13 28	6 29	
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