



Astrodienst Ephemeris Tables for the year 1440

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 1440
geocentric

JANUARY 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	7 13 56	19°00'00	26°11'5	6°15'15	21°45'5	19°R 7	4°26'26	28°Y36	28°R44	5°R51	18°R54	4°R14	5°m37	7°m56	12°Y52	F 1
S 2	7 17 52	20° 1'08	9°27'31	7°47'7	21°53'5	18°II55	4°40'40	28°37'37	28°8'43	5°m50	18°52'52	4°m7	5°33'33	8° 3'3	12°53'3	S 2
S 3	7 21 49	21° 2'15	23°23'23	9°21'21	21°59'5	18°44'4	4°54'54	28°38'38	28°42'42	5°49'49	18°51'51	4° 0'0	5°30'30	8°10'10	12°54'4	S 3
M 4	7 25 46	22° 3'21	7°34'40	10°55'55	22° 2'2	18°34'4	5° 8'8	28°39'39	28°40'40	5°48'48	18°50'50	3°53'53	5°27'27	8°16'16	12°55'5	M 4
T 5	7 29 42	23° 4'27	22°15'15	12°29'29	22°R 3	18°24'2	5°23'23	28°41'41	28°39'39	5°47'47	18°48'48	3°47'47	5°24'24	8°23'23	12°56'6	T 5
W 6	7 33 39	24° 5'33	7°22'3	14° 4'4	22° 2'2	18°16'2	5°37'37	28°42'42	28°38'38	5°46'46	18°47'47	3°42'42	5°21'21	8°29'29	12°57'7	W 6
T 7	7 37 35	25° 6'37	21°55'55	15°39'39	21°58'8	18° 8'8	5°51'51	28°44'44	28°37'37	5°45'45	18°46'46	3°40'40	5°17'17	8°36'36	12°59'9	T 7
F 8	7 41 32	26° 7'40	6°14'43	17°15'15	21°52'2	18° 1'1	6° 5'5	28°46'46	28°36'36	5°44'44	18°45'45	3°D39	5°14'14	8°43'43	13° 0'0	F 8
S 9	7 45 28	27° 8'43	21°21'21	18°52'52	21°43'3	17°55'5	6°19'19	28°48'48	28°35'35	5°42'42	18°43'43	3°40'40	5°11'11	8°49'49	13° 1'1	S 9
S 10	7 49 25	28° 9'44	5°Y45	20°29'29	21°31'1	17°50'0	6°34'34	28°50'50	28°34'34	5°41'41	18°42'42	3°42'42	5° 8'8	8°56'56	13° 3'3	S 10
M 11	7 53 21	29°10'44	19°51'51	22° 7'7	21°17'7	17°46'6	6°48'48	28°52'52	28°33'33	5°40'40	18°41'41	3°43'43	5° 5'5	9° 3'3	13° 4'4	M 11
T 12	7 57 18	0°21'42	3°8'40	23°46'46	21° 1'1	17°42'2	7° 2'2	28°54'54	28°32'32	5°39'39	18°39'39	3°R43	5° 2'2	9° 9'9	13° 6'6	T 12
W 13	8 1 15	1°12'40	17°11'11	25°25'25	20°42'2	17°40'0	7°16'16	28°56'56	28°31'31	5°37'37	18°38'38	3°42'42	4°58'58	9°16'16	13° 7'7	W 13
T 14	8 5 11	2°13'36	0°II25	27° 5'5	20°20'0	17°38'8	7°31'31	28°59'59	28°31'31	5°36'36	18°37'37	3°39'39	4°55'55	9°23'23	13° 9'9	T 14
F 15	8 9 8	3°14'31	13°25'25	28°46'46	19°57'7	17°36'6	7°45'45	29° 1'1	28°30'30	5°35'35	18°35'35	3°35'35	4°52'52	9°29'29	13°11'11	F 15
S 16	8 13 4	4°15'24	26°10'10	0°27'27	19°31'1	17°D36	7°59'59	29° 4'4	28°29'29	5°33'33	18°34'34	3°30'30	4°49'49	9°36'36	13°13'13	S 16
S 17	8 17 1	5°16'16	8°54'44	2° 9'9	19° 3'3	17°36'6	8°14'14	29° 7'7	28°29'29	5°32'32	18°33'33	3°25'25	4°46'46	9°43'43	13°14'14	S 17
M 18	8 20 57	6°17'07	21° 5'5	3°52'52	18°33'3	17°37'7	8°28'28	29°10'10	28°28'28	5°31'31	18°32'32	3°20'20	4°43'43	9°49'49	13°16'16	M 18
T 19	8 24 54	7°17'57	3°17'57	5°36'36	18° 2'2	17°39'9	8°42'42	29°13'13	28°28'28	5°29'29	18°30'30	3°17'17	4°39'39	9°56'56	13°18'18	T 19
W 20	8 28 50	8°18'46	15°19'19	7°20'20	17°29'9	17°42'2	8°56'56	29°16'16	28°27'27	5°28'28	18°29'29	3°14'14	4°36'36	10° 3'3	13°20'20	W 20
T 21	8 32 47	9°19'33	27°14'14	9° 5'5	16°54'4	17°45'5	9°11'11	29°19'19	28°27'27	5°26'26	18°28'28	3°13'13	4°33'33	10° 9'9	13°22'22	T 21
F 22	8 36 44	10°20'19	9°m4	10°51'51	16°19'9	17°49'9	9°25'25	29°22'22	28°26'26	5°25'25	18°27'27	3°D13	4°30'30	10°16'16	13°24'24	F 22
S 23	8 40 40	11°21'04	20°51'51	12°37'37	15°43'3	17°53'3	9°39'39	29°25'25	28°26'26	5°23'23	18°26'26	3°14'14	4°27'27	10°22'22	13°26'26	S 23
S 24	8 44 37	12°21'47	2°23'39	14°24'24	15° 6'6	17°59'9	9°54'54	29°29'29	28°26'26	5°22'22	18°24'24	3°15'15	4°23'23	10°29'29	13°29'29	S 24
M 25	8 48 33	13°22'30	14°31'31	16°12'12	14°28'8	18° 5'5	10° 8'8	29°32'32	28°26'26	5°20'20	18°23'23	3°17'17	4°20'20	10°36'36	13°31'31	M 25
T 26	8 52 30	14°23'11	26°32'32	18° 1'1	13°51'1	18°11'1	10°22'22	29°36'36	28°26'26	5°19'19	18°22'22	3°18'18	4°17'17	10°42'42	13°33'33	T 26
W 27	8 56 26	15°23'52	8°m46	19°50'50	13°14'4	18°19'9	10°37'37	29°40'40	28°25'25	5°17'17	18°21'21	3°19'19	4°14'14	10°49'49	13°35'35	W 27
T 28	9 0 23	16°24'31	21°17'17	21°40'40	12°37'7	18°26'6	10°51'51	29°44'44	28°D25	5°16'16	18°20'20	3°R19	4°11'11	10°56'56	13°38'38	T 28
F 29	9 4 19	17°25'09	4°m11	23°30'30	12° 1'1	18°35'5	11° 5'5	29°47'47	28°25'25	5°14'14	18°19'19	3°19'19	4° 8'8	11° 2'2	13°40'40	F 29
S 30	9 8 16	18°25'45	17°31'31	25°20'20	11°25'5	18°44'4	11°20'20	29°52'52	28°26'26	5°13'13	18°17'17	3°17'17	4° 1'1	11° 9'9	13°42'42	S 30
S 31	9 12 13	19°26'21	1°18'18	27°21'21	10°25'5	18°II54	11°23'23	29°Y56	28°8'26	5°m11	18°51'51	3°m16	4°m1	11°m16	13°Y45	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
F 1	22s10	14s22	5n 6	24s26	1s 5	11s45	2n42	26n29	3n26	19s48	0s36	8n42	2s28	19n48	0s 8	10n14	0n54	24n 6	1n57	9n59	9n29	8n49	6n 8	1n 7			
S 2	22 1	16 52	5 8	24 27	1 10	11 29	2 55	26 28	3 26	19 44	0 36	8 42	2 28	19 48	0 8	10 14	0 54	24 6	1 57	10 2	9 30	8 47	6 8	1 7			
S 3	21 52	18 29	4 52	24 26	1 16	11 14	3 9	26 27	3 26	19 41	0 36	8 43	2 28	19 47	0 8	10 14	0 54	24 6	1 57	10 4	9 31	8 45	6 8	1 7			
M 4	21 42	19 0	4 18	24 24	1 21	11 0	3 23	26 26	3 25	19 38	0 37	8 44	2 27	19 47	0 8	10 15	0 54	24 6	1 57	10 7	9 32	8 44	6 9	1 7			
T 5	21 32	18 17	3 26	24 21	1 26	10 46	3 38	26 24	3 25	19 34	0 37	8 45	2 27	19 47	0 8	10 15	0 54	24 7	1 57	10 9	9 34	8 42	6 9	1 7			
W 6	21 21	16 19	2 20	24 16	1 31	10 33	3 52	26 23	3 24	19 31	0 37	8 46	2 27	19 47	0 8	10 16	0 54	24 7	1 57	10 11	9 35	8 40	6 9	1 7			
T 7	21 10	13 14	1 4	24 10	1 35	10 20	4 7	26 22	3 24	19 28	0 37	8 46	2 27	19 46	0 8	10 16	0 54	24 7	1 57	10 12	9 36	8 39	6 10	1 7			
F 8	20 59	9 20	0s17	24 2	1 39	10 8	4 21	26 21	3 23	19 24	0 37	8 47	2 26	19 46	0 8	10 17	0 54	24 7	1 57	10 12	9 37	8 37	6 10	1 6			
S 9	20 47	4 54	1 35	23 53	1 43	9 57	4 36	26 19	3 23	19 21	0 37	8 48	2 26	19 46	0 8	10 17	0 54	24 8	1 57	10 12	9 38	8 35	6 10	1 6			
S 10	20 35	0 15	2 46	23 42	1 47	9 47	4 51	26 18	3 22	19 17	0 37	8 49	2 26	19 46	0 8	10 18	0 54	24 8	1 57	10 11	9 39	8 34	6 11	1 6			
M11	20 23	4n18	3 46	23 30	1 50	9 37	5 5	26 17	3 21	19 14	0 37	8 50	2 25	19 46	0 8	10 18	0 54	24 8	1 57	10 11	9 41	8 32	6 11	1 6			
T 12	20 10	8 31	4 31	23 16	1 53	9 29	5 20	26 16	3 21	19 10	0 37	8 51	2 25	19 45	0 8	10 19	0 54	24 8	1 57	10 10	9 42	8 30	6 12	1 6			
W13	19 57	12 13	5 0	23 1	1 56	9 21	5 34	26 15	3 20	19 6	0 37	8 52	2 25	19 45	0 8	10 19	0 54	24 9	1 57	10 11	9 43	8 29	6 12	1 6			
T 14	19 43	15 12	5 12	22 44	1 58	9 14	5 49	26 14	3 19	19 3	0 37	8 54	2 24	19 45	0 8	10 20	0 54	24 9	1 57	10 12	9 44	8 27	6 13	1 6			
F 15	19 29	17 22	5 8	22 26	2 0	9 8	6 2	26 13	3 18	18 59	0 37	8 55	2 24	19 45	0 8	10 20	0 54	24 9	1 57	10 13	9 45	8 25	6 13	1 5			
S 16	19 15	18 38	4 49	22 6	2 2	9 3	6 16	26 12	3 17	18 56	0 37	8 56	2 24	19 45	0 8	10 21	0 54	24 9	1 57	10 15	9 46	8 23	6 14	1 5			
S 17	19 0	18 58	4 16	21 44	2 3	8 59	6 29	26 12	3 17	18 52	0 37	8 57	2 24	19 45	0 8	10 21	0 54	24 10	1 57	10 17	9 48	8 22	6 15	1 5			
M18	18 45	18 22	3 31	21 21	2 4	8 56	6 42	26 11	3 16	18 48	0 38	8 58	2 23	19 45	0 8	10 22	0 54	24 10	1 58	10 19	9 49	8 20	6 15	1 5			
T 19	18 30	16 56	2 37	20 56	2 4	8 54	6 54	26 10	3 15	18 45	0 38	9 0	2 23	19 45	0 8	10 22	0 55	24 10	1 58	10 20	9 50	8 18	6 16	1 5			
W20	18 14	14 45	1 37	20 30	2 4	8 53	7 6	26 9	3 14	18 41	0 38	9 1	2 23	19 44	0 8	10 23	0 55	24 10	1 58	10 21	9 51	8 17	6 16	1 5			
T 21	17 58	11 57	0 33	20 2	2 4	8 52	7 16	26 9	3 13	18 37	0 38	9 2	2 22	19 44	0 8	10 23	0 55	24 11	1 58	10 21	9 52	8 15	6 17	1 5			
F 22	17 42	8 41	0n32	19 32	2 3	8 53	7 27	26 8	3 12	18 33	0 38	9 4	2 22	19 44	0 8	10 24	0 55	24 11	1 58	10 21	9 53	8 13	6 18	1 5			
S 23	17 25	5 6	1 36	19 1	2 1	8 54	7 36	26 8	3 11	18 30	0 38	9 5	2 22	19 44	0 8	10 25	0 55	24 11	1 58	10 21	9 55	8 12	6 19	1 4			
S 24	17 9	1 19	2 36	18 28	2 0	8 57	7 44	26 7	3 10	18 26	0 38	9 7	2 22	19 44	0 8	10 25	0 55	24 11	1 58	10 20	9 56	8 10	6 19	1 4			
M25	16 51	2s32	3 29	17 53	1 57	9 0	7 52	26 7	3 9	18 22	0 38	9 8	2 21	19 44	0 8	10 26	0 55	24 11	1 58	10 20	9 57	8 8	6 20	1 4			
T 26	16 34	6 19	4 14	17 17	1 54	9 4	7 59	26 6	3 8	18 18	0 38	9 10	2 21	19 44	0 8	10 26	0 55	24 12	1 58	10 19	9 58	8 6	6 21	1 4			
W27	16 16	9 54	4 48	16 40	1 51	9 8	8 5	26 6	3 7	18 15	0 38	9 11	2 21	19 44	0 8	10 27	0 55	24 12	1 58	10 19	9 59	8 5	6 22	1 4			
T 28	15 58	13 9	5 10	16 1	1 47	9 14	8 10	26 6	3 6	18 11	0 38	9 13	2 20	19 44	0 8	10 27	0 55	24 12	1 58	10 19	10 0	8 3	6 22	1 4			
F 29	15 40	15 51	5 17	15 20	1 42	9 20	8 14	26 5	3 5	18 7	0 39	9 15	2 20	19 44	0 8	10 28	0 55	24 12	1 58	10 19	10 2	8 1	6 23	1 4			
S 30	15 21	17 49	5 7	14 38	1 37	9 26	8 17	26 5	3 4	18 3	0 39	9 16	2 20	19 44	0 8	10 29	0 55	24 12	1 58	10 20	10 3	8 0	6 24	1 4			
S 31	15s 2	18s50	4n40	13s54	1s31	9s33	8n19	26n 5	3n 3	17s59	0s39	9n18	2s20	19n44	0s 8	10n29	0n55	24n13	1n58	10n20	10n 4	7n58	6n25	1n 3			

ASTRODIENST EPHEMERIS for the year 1440

geocentric

FEBRUARY 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	9 16 9	20 ²⁶ 55	15 ³ 32	29 ² 2	10 ¹⁸ 18	19 ^{II} 4	11 ⁴⁸ 48	29 ^Y 59	28 ⁸ 26	5 ^R 9	18 ^R 15	3 ^R 14	3 ^m 58	11 ^m 22	13 ^Y 47	M 1
T 2	9 20 6	21 ²⁷ 28	0 ¹¹ 11	0 ^X 53	9 ⁴⁷ 47	19 ¹⁵ 15	12 ² 2	0 ⁸ 4	28 ²⁶ 26	5 ^m 8	18 ¹⁴ 14	3 ^m 12	3 ⁵⁵ 55	11 ²⁹ 29	13 ⁵⁰ 50	T 2
W 3	9 24 2	22 ²⁷ 59	15 ⁸ 8	2 ⁴⁴ 44	9 ¹⁸ 18	19 ²⁷ 27	12 ¹⁷ 17	0 ⁹ 9	28 ²⁶ 26	5 ⁶ 6	18 ¹³ 13	3 ¹¹ 11	3 ⁵² 52	11 ³⁶ 36	13 ⁵³ 53	W 3
T 4	9 27 59	23 ²⁸ 29	0 ^X 15	4 ³⁴ 34	8 ⁵⁰ 50	19 ³⁹ 39	12 ³¹ 31	0 ¹³ 13	28 ²⁷ 27	5 ⁴ 4	18 ¹² 12	3 ^D 11	3 ⁴⁸ 48	11 ⁴² 42	13 ⁵⁵ 55	T 4
F 5	9 31 55	24 ²⁸ 57	15 ²⁴ 24	6 ²⁴ 24	8 ²⁵ 25	19 ⁵¹ 51	12 ⁴⁵ 45	0 ¹⁸ 18	28 ²⁷ 27	5 ³ 3	18 ¹¹ 11	3 ¹¹ 11	3 ⁴⁵ 45	11 ⁴⁹ 49	13 ⁵⁸ 58	F 5
S 6	9 35 52	25 ²⁹ 23	0 ^Y 25	8 ¹² 12	8 ¹ 1	20 ⁴ 4	12 ⁵⁹ 59	0 ²² 22	28 ²⁸ 28	5 ¹ 1	18 ¹⁰ 10	3 ¹² 12	3 ⁴² 42	11 ⁵⁶ 56	14 ¹ 1	S 6
S 7	9 39 48	26 ²⁹ 48	15 ¹⁰ 10	9 ⁵⁹ 59	7 ⁴⁰ 40	20 ¹⁸ 18	13 ¹³ 13	0 ²⁷ 27	28 ²⁸ 28	5 ⁰ 0	18 ⁹ 9	3 ¹² 12	3 ³⁹ 39	12 ² 2	14 ³ 3	S 7
M 8	9 43 45	27 ³⁰ 10	29 ³⁴ 34	11 ⁴⁴ 44	7 ²¹ 21	20 ³² 32	13 ²⁸ 28	0 ³² 32	28 ²⁹ 29	4 ⁵⁸ 58	18 ⁸ 8	3 ¹³ 13	3 ³⁶ 36	12 ⁹ 9	14 ⁶ 6	M 8
T 9	9 47 42	28 ³⁰ 30	13 ³⁴ 34	13 ²⁷ 27	7 ⁴ 4	20 ⁴⁷ 47	13 ⁴² 42	0 ³⁷ 37	28 ²⁹ 29	4 ⁵⁶ 56	18 ⁷ 7	3 ¹³ 13	3 ³³ 33	12 ¹⁵ 15	14 ⁹ 9	T 9
W10	9 51 38	29 ³⁰ 49	27 ¹⁰ 10	15 ⁷ 7	6 ⁵⁰ 50	21 ² 2	13 ⁵⁶ 56	0 ⁴² 42	28 ³⁰ 30	4 ⁵⁵ 55	18 ⁶ 6	3 ^R 13	3 ²⁹ 29	12 ²² 22	14 ¹² 12	W10
T 11	9 55 35	0 ^X 31'05	10 ^{II} 22	16 ⁴³ 43	6 ³⁸ 38	21 ¹⁷ 17	14 ¹⁰ 10	0 ⁴⁷ 47	28 ³¹ 31	4 ⁵³ 53	18 ⁵ 5	3 ¹³ 13	3 ²⁶ 26	12 ²⁹ 29	14 ¹⁵ 15	T 11
F 12	9 59 31	1 ³¹ 19	23 ¹³ 13	18 ¹⁶ 16	6 ²⁹ 29	21 ³³ 33	14 ²⁴ 24	0 ⁵² 52	28 ³² 32	4 ⁵¹ 51	18 ⁴ 4	3 ¹³ 13	3 ²³ 23	12 ³⁵ 35	14 ¹⁸ 18	F 12
S 13	10 3 28	2 ³¹ 32	5 ⁴⁷ 47	19 ⁴⁴ 44	6 ²² 22	21 ⁵⁰ 50	14 ³⁸ 38	0 ⁵⁷ 57	28 ³² 32	4 ⁵⁰ 50	18 ³ 3	3 ¹³ 13	3 ²⁰ 20	12 ⁴² 42	14 ²¹ 21	S 13
S 14	10 7 24	3 ³¹ 42	18 ⁶ 6	21 ⁷ 7	6 ¹⁸ 18	22 ⁷ 7	14 ⁵² 52	1 ² 2	28 ³³ 33	4 ⁴⁸ 48	18 ² 2	3 ^D 13	3 ¹⁷ 17	12 ⁴⁹ 49	14 ²⁴ 24	S 14
M15	10 11 21	4 ³¹ 50	0 ¹⁴ 14	22 ²⁵ 25	6 ^D 16	22 ²⁴ 24	15 ⁶ 6	1 ⁸ 8	28 ³⁴ 34	4 ⁴⁶ 46	18 ² 2	3 ¹³ 13	3 ¹⁴ 14	12 ⁵⁵ 55	14 ²⁷ 27	M15
T 16	10 15 17	5 ³¹ 56	12 ¹³ 13	23 ³⁶ 36	6 ¹⁷ 17	22 ⁴² 42	15 ²⁰ 20	1 ¹³ 13	28 ³⁵ 35	4 ⁴⁵ 45	18 ¹ 1	3 ¹³ 13	3 ¹⁰ 10	13 ² 2	14 ³⁰ 30	T 16
W17	10 19 14	6 ³² 00	24 ⁶ 6	24 ⁴⁰ 40	6 ²⁰ 20	23 ⁰ 0	15 ³³ 33	1 ¹⁹ 19	28 ³⁶ 36	4 ⁴³ 43	18 ⁰ 0	3 ¹³ 13	3 ⁷ 7	13 ⁹ 9	14 ³³ 33	W17
T 18	10 23 11	7 ³² 02	5 ^m 56	25 ³⁷ 37	6 ²⁵ 25	23 ¹⁸ 18	15 ⁴⁷ 47	1 ²⁴ 24	28 ³⁷ 37	4 ⁴¹ 41	17 ⁵⁹ 59	3 ^R 14	3 ⁴ 4	13 ¹⁵ 15	14 ³⁶ 36	T 18
F 19	10 27 7	8 ³² 02	17 ⁴⁴ 44	26 ²⁷ 27	6 ³² 32	23 ³⁷ 37	16 ¹ 1	1 ³⁰ 30	28 ³⁸ 38	4 ⁴⁰ 40	17 ⁵⁸ 58	3 ¹³ 13	3 ¹ 1	13 ²² 22	14 ³⁹ 39	F 19
S 20	10 31 4	9 ³² 01	29 ³² 32	27 ⁸ 8	6 ⁴² 42	23 ⁵⁷ 57	16 ¹⁵ 15	1 ³⁵ 35	28 ⁴⁰ 40	4 ³⁸ 38	17 ⁵⁸ 58	3 ¹³ 13	2 ⁵⁸ 58	13 ²⁹ 29	14 ⁴³ 43	S 20
S 21	10 35 0	10 ³¹ 57	11 ²⁴ 24	27 ⁴¹ 41	6 ⁵⁴ 54	24 ¹⁶ 16	16 ²⁹ 29	1 ⁴¹ 41	28 ⁴¹ 41	4 ³⁶ 36	17 ⁵⁷ 57	3 ¹² 12	2 ⁵⁴ 54	13 ³⁵ 35	14 ⁴⁶ 46	S 21
M22	10 38 57	11 ³¹ 52	23 ²¹ 21	28 ⁵ 5	7 ⁸ 8	24 ³⁶ 36	16 ⁴² 42	1 ⁴⁷ 47	28 ⁴² 42	4 ³⁵ 35	17 ⁵⁶ 56	3 ¹¹ 11	2 ⁵¹ 51	13 ⁴² 42	14 ⁴⁹ 49	M22
T 23	10 42 53	12 ³¹ 44	5 ^m 26	28 ²⁰ 20	7 ²⁵ 25	24 ⁵⁷ 57	16 ⁵⁶ 56	1 ⁵³ 53	28 ⁴³ 43	4 ³³ 33	17 ⁵⁵ 55	3 ¹⁰ 10	2 ⁴⁸ 48	13 ⁴⁸ 48	14 ⁵² 52	T 23
W24	10 46 50	13 ³¹ 36	17 ⁴² 42	28 ^R 27	7 ⁴³ 43	25 ¹⁷ 17	17 ¹⁰ 10	1 ⁵⁹ 59	28 ⁴⁵ 45	4 ³¹ 31	17 ⁵⁵ 55	3 ⁸ 8	2 ⁴⁵ 45	13 ⁵⁵ 55	14 ⁵⁶ 56	W24
T 25	10 50 46	14 ³¹ 25	0 ^X 14	28 ²⁴ 24	8 ³ 3	25 ³⁸ 38	17 ²³ 23	2 ⁵ 5	28 ⁴⁶ 46	4 ³⁰ 30	17 ⁵⁴ 54	3 ⁷ 7	2 ⁴² 42	14 ² 2	14 ⁵⁹ 59	T 25
F 26	10 54 43	15 ³¹ 13	13 ⁴ 4	28 ¹⁴ 14	8 ²⁵ 25	26 ⁰ 0	17 ³⁷ 37	2 ¹¹ 11	28 ⁴⁸ 48	4 ²⁸ 28	17 ⁵⁴ 54	3 ^D 7	2 ³⁹ 39	14 ⁸ 8	15 ² 2	F 26
S 27	10 58 39	16 ³⁰ 59	26 ¹⁶ 16	27 ⁵⁵ 55	8 ⁴⁹ 49	26 ²¹ 21	17 ⁵⁰ 50	2 ¹⁷ 17	28 ⁴⁹ 49	4 ²⁶ 26	17 ⁵³ 53	3 ⁷ 7	2 ³⁵ 35	14 ¹⁵ 15	15 ⁶ 6	S 27
S 28	11 2 36	17 ³⁰ 43	9 ⁵² 52	27 ²⁹ 29	9 ¹⁴ 14	26 ⁴³ 43	18 ⁴ 4	2 ²³ 23	28 ⁵¹ 51	4 ²⁵ 25	17 ⁵² 52	3 ⁸ 8	2 ³² 32	14 ²² 22	15 ⁹ 9	S 28
M29	11 6 33	18 ^X 30'26	23 ⁵⁴ 54	26 ^X 55	9 ⁴¹ 41	27 ^{II} 6	18 ¹⁷ 17	2 ³⁰ 30	28 ⁵³ 53	4 ^m 23	17 ⁵² 52	3 ^m 9	2 ^m 29	14 ^m 28	15 ^Y 13	M29

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
M 1	14s43	18s43	3n55	13s10	1s24	9s41	8n20	26n 5	3n 2	17s55	0s39	9n20	2s19	19n44	0s 8	10n30	0n55	24n13	1n58	10n21	10n 5	7n56	6n26	1n 3			
T 2	14 24	17 21	2 53	12 24	1 17	9 48	8 20	26 5	3 1	17 51	0 39	9 21	2 19	19 44	0 8	10 30	0 55	24 13	1 58	10 22	10 6	7 54	6 27	1 3			
W 3	14 4	14 46	1 39	11 37	1 10	9 56	8 20	26 4	3 0	17 47	0 39	9 23	2 19	19 45	0 8	10 31	0 55	24 13	1 58	10 22	10 7	7 53	6 27	1			
T 4	13 44	11 10	0 16	10 49	1 10	5 8	18 26	4 2	5 9	17 44	0 39	9 25	2 19	19 45	0 8	10 32	0 55	24 13	1 58	10 22	10 8	7 51	6 28	1			
F 5	13 24	6 48	1s 7	10 0	0 52	10 13	8 16	26 4	2 58	17 40	0 39	9 27	2 18	19 45	0 8	10 32	0 55	24 14	1 58	10 22	10 10	7 49	6 29	1			
S 6	13 4	2 4	2 26	9 10	0 42	10 22	8 13	26 4	2 56	17 36	0 39	9 29	2 18	19 45	0 8	10 33	0 55	24 14	1 58	10 22	10 11	7 47	6 30	1			
S 7	12 43	2n43	3 33	8 20	0 31	10 31	8 9	26 4	2 55	17 32	0 39	9 31	2 18	19 45	0 8	10 34	0 55	24 14	1 58	10 22	10 12	7 46	6 31	1			
M 8	12 23	7 13	4 25	7 30	0 20	10 40	8 5	26 4	2 54	17 28	0 40	9 32	2 18	19 45	0 8	10 34	0 55	24 14	1 58	10 21	10 13	7 44	6 32	1			
T 9	12 2	11 11	5 0	6 40	0 9	10 49	8 0	26 4	2 53	17 24	0 40	9 34	2 17	19 45	0 8	10 35	0 55	24 14	1 58	10 21	10 14	7 42	6 33	1			
W10	11 41	14 27	5 16	5 50	0n 4	10 58	7 54	26 4	2 52	17 20	0 40	9 36	2 17	19 45	0 8	10 35	0 55	24 14	1 59	10 21	10 15	7 41	6 34	1			
T 11	11 19	16 52	5 16	5 0	0 17	11 6	7 48	26 4	2 51	17 16	0 40	9 38	2 17	19 46	0 8	10 36	0 55	24 15	1 59	10 21	10 17	7 39	6 35	1			
F 12	10 58	18 22	4 59	4 12	0 30	11 15	7 41	26 4	2 50	17 12	0 40	9 40	2 17	19 46	0 8	10 37	0 55	24 15	1 59	10 21	10 18	7 37	6 36	1			
S 13	10 36	18 55	4 28	3 25	0 44	11 24	7 34	26 4	2 49	17 8	0 40	9 42	2 16	19 46	0 8	10 37	0 55	24 15	1 59	10 21	10 19	7 35	6 37	1			
S 14	10 15	18 33	3 46	2 39	0 58	11 32	7 27	26 4	2 48	17 4	0 40	9 44	2 16	19 46	0 8	10 38	0 55	24 15	1 59	10 21	10 20	7 34	6 38	1			
M15	9 53	17 20	2 54	1 55	1 12	11 40	7 19	26 4	2 47	17 0	0 40	9 46	2 16	19 46	0 8	10 39	0 55	24 15	1 59	10 21	10 21	7 32	6 40	1			
T 16	9 31	15 21	1 54	1 14	1 26	11 48	7 11	26 4	2 46	16 56	0 40	9 49	2 16	19 47	0 8	10 39	0 55	24 15	1 59	10 21	10 22	7 30	6 41	1			
W17	9 8	12 44	0 51	0 35	1 40	11 55	7 3	26 4	2 45	16 52	0 41	9 51	2 16	19 47	0 8	10 40	0 55	24 15	1 59	10 21	10 23	7 28	6 42	1			
T 18	8 46	9 36	0n15	0n 0	1 54	12 2	6 54	26 4	2 44	16 48	0 41	9 53	2 15	19 47	0 8	10 40	0 55	24 16	1 59	10 21	10 25	7 27	6 43	1			
F 19	8 24	6 5	1 20	0 33	2 8	12 9	6 45	26 4	2 43	16 44	0 41	9 55	2 15	19 47	0 8	10 41	0 55	24 16	1 59	10 21	10 26	7 25	6 44	1			
S 20	8 1	2 21	2 21	1 1	2 22	12 15	6 36	26 4	2 42	16 40	0 41	9 57	2 15	19 48	0 8	10 42	0 55	24 16	1 59	10 21	10 27	7 23	6 45	1			
S 21	7 38	1s30	3 17	1 26	2 35	12 21	6 27	26 4	2 41	16 36	0 41	9 59	2 15	19 48	0 8	10 42	0 55	24 16	1 59	10 22	10 28	7 21	6 46	1			
M22	7 16	5 19	4 4	1 47	2 47	12 27	6 17	26 4	2 40	16 32	0 41	10 2	2 14	19 48	0 8	10 43	0 55	24 16	1 59	10 22	10 29	7 19	6 47	1			
T 23	6 53	8 57	4 41	2 3	2 58	12 32	6 8	26 3	2 39	16 28	0 41	10 4	2 14	19 49	0 8	10 44	0 55	24 16	1 59	10 23	10 30	7 18	6 49	1			
W24	6 30	12 16	5 6	2 15	3 8	12 37	5 58	26 3	2 38	16 24	0 41	10 6	2 14	19 49	0 8	10 44	0 55	24 16	1 59	10 23	10 31	7 16	6 50	1			
T 25	6 7	15 6	5 17	2 22	3 16	12 41	5 49	26 3	2 37	16 20	0 42	10 8	2 14	19 49	0 8	10 45	0 55	24 16	1 59	10 23	10 33	7 14	6 51	1			
F 26	5 43	17 16	5 13	2 25	3 24	12 45	5 39	26 3	2 36	16 16	0 42	10 11	2 14	19 50	0 8	10 45	0 55	24 16	1 59	10 23	10 34	7 12	6 52	1			
S 27	5 20	18 36	4 52	2 22	3 30	12 48	5 30	26 2	2 35	16 12	0 42	10 13	2 13	19 50	0 8	10 46	0 55	24 17	1 59	10 23	10 35	7 11	6 53	1			
S 28	4 57	18 55	4 15	2 16	3 34	12 51	5 20	26 2	2 34	16 8	0 42	10 15	2 13	19 50	0 8	10 47	0 55	24 17	1 59	10 23	10 36	7 9	6 55	1			
M29	4s34	18s 5	3n21	2n 5	3n36	12s53	5n10	26n 1	2n33	16s 4	0s42	10n17	2s13	19n51	0s 8	10n47	0n55	24n17	1n59	10n23	10n37	7n 7	6n56	1n 0			

ASTRODIENST EPHEMERIS for the year 1440

geocentric

MARCH 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	11 10 29	19°30'07	8°21	26°R16	10°28	27°11	18°30	28°36	28°54	4°R21	17°R51	3°10	2°26	14°35	15°16	T 1
W 2	11 14 26	20°29'46	23°10	25°32	10°40	27°51	18°43	2°43	28°56	4°20	17°51	3°11	2°23	14°42	15°20	W 2
T 3	11 18 22	21°29'23	8°15	24°43	11°12	28°14	18°57	2°49	28°58	4°18	17°50	3°R11	2°20	14°48	15°23	T 3
F 4	11 22 19	22°28'58	23°28	23°52	11°45	28°38	19°10	2°55	28°59	4°17	17°50	3°10	2°16	14°55	15°27	F 4
S 5	11 26 15	23°28'31	8°38	22°59	12°20	29° 2	19°23	3° 2	29° 1	4°15	17°49	3° 9	2°13	15° 2	15°30	S 5
S 6	11 30 12	24°28'01	23°38	22° 5	12°56	29°26	19°36	3° 9	29° 3	4°14	17°49	3° 6	2°10	15° 8	15°34	S 6
M 7	11 34 8	25°27'30	8°17	21°11	13°33	29°50	19°49	3°15	29° 5	4°12	17°49	3° 3	2° 7	15°15	15°37	M 7
T 8	11 38 5	26°26'56	22°31	20°19	14°11	0°15	20° 2	3°22	29° 7	4°10	17°48	3° 0	2° 4	15°22	15°41	T 8
W 9	11 42 2	27°26'20	6°18	19°30	14°50	0°39	20°15	3°29	29° 9	4° 9	17°48	2°58	2° 0	15°28	15°45	W 9
T 10	11 45 58	28°25'42	19°36	18°44	15°31	1° 4	20°28	3°36	29°11	4° 7	17°47	2°56	1°57	15°35	15°48	T 10
F 11	11 49 55	29°25'02	2°29	18° 1	16°13	1°30	20°40	3°43	29°13	4° 6	17°47	2°D56	1°54	15°41	15°52	F 11
S 12	11 53 51	0°24'19	15° 0	17°24	16°55	1°55	20°53	3°49	29°16	4° 5	17°47	2°57	1°51	15°48	15°55	S 12
S 13	11 57 48	1°23'33	27°14	16°51	17°39	2°21	21° 6	3°56	29°18	4° 3	17°47	2°58	1°48	15°55	15°59	S 13
M14	12 1 44	2°22'46	9°14	16°24	18°23	2°47	21°18	4° 3	29°20	4° 2	17°46	3° 0	1°45	16° 1	16° 3	M14
T 15	12 5 41	3°21'56	21° 7	16° 2	19° 9	3°13	21°31	4°10	29°22	4° 0	17°46	3° 2	1°41	16° 8	16° 7	T 15
W16	12 9 37	4°21'03	2°10	15°46	19°55	3°40	21°43	4°17	29°25	3°59	17°46	3°R 2	1°38	16°15	16°10	W16
T 17	12 13 34	5°20'09	14°42	15°35	20°42	4° 6	21°55	4°25	29°27	3°57	17°46	3° 1	1°35	16°21	16°14	T 17
F 18	12 17 31	6°19'12	26°30	15°D31	21°30	4°33	22° 7	4°32	29°29	3°56	17°46	2°59	1°32	16°28	16°18	F 18
S 19	12 21 27	7°18'14	8°23	15°31	22°19	5° 0	22°20	4°39	29°32	3°55	17°46	2°55	1°29	16°35	16°21	S 19
S 20	12 25 24	8°17'13	20°22	15°37	23° 9	5°27	22°32	4°46	29°34	3°53	17°46	2°50	1°25	16°41	16°25	S 20
M21	12 29 20	9°16'10	2°10	15°49	23°59	5°54	22°44	4°53	29°37	3°52	17°46	2°43	1°22	16°48	16°29	M21
T 22	12 33 17	10°15'05	14°45	16° 5	24°50	6°22	22°56	5° 1	29°39	3°51	17°D46	2°36	1°19	16°55	16°33	T 22
W23	12 37 13	11°13'59	27°11	16°26	25°42	6°50	23° 8	5° 8	29°42	3°50	17°46	2°30	1°16	17° 1	16°36	W23
T 24	12 41 10	12°12'50	9°15	16°52	26°34	7°18	23°19	5°15	29°44	3°48	17°46	2°25	1°13	17° 8	16°40	T 24
F 25	12 45 6	13°11'40	22°45	17°22	27°27	7°46	23°31	5°23	29°47	3°47	17°46	2°21	1°10	17°15	16°44	F 25
S 26	12 49 3	14°10'28	5°35	17°57	28°20	8°14	23°43	5°30	29°50	3°46	17°46	2°19	1° 6	17°21	16°48	S 26
S 27	12 52 59	15° 9'15	19°25	18°35	29°15	8°42	23°54	5°38	29°52	3°45	17°46	2°D19	1° 3	17°28	16°51	S 27
M28	12 56 56	16° 8'00	3°15	19°17	0°18	9°11	24° 5	5°45	29°55	3°44	17°46	2°20	1° 0	17°35	16°55	M28
T 29	13 0 53	17° 6'43	17°26	20° 3	1° 4	9°40	24°17	5°53	29°58	3°42	17°46	2°21	0°57	17°41	16°59	T 29
W30	13 4 49	18° 5'24	1°18	20°53	2° 0	10° 8	24°28	6° 0	0°11	3°41	17°46	2°R22	0°54	17°48	17° 3	W30
T 31	13 8 46	19° 4'03	16°14	21°18	2°18	10°37	24°39	6° 8	0°11	3°40	17°47	2°10	0°51	17°54	17° 7	T 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	4s10	16s 5	2n13	1n50	3n37	12s55	5n 1	26n 1	2n32	16s 0	0s42	10n20	2s13	19n51	0s 8	10n48
W 2	3 47	12 58	0 55	1 31	3 35	12 57	4 51	26 0	2 31	15 56	0 42	10 22	2 13	19 51	0 8	10 48
T 3	3 23	8 56	0s28	1 8	3 32	12 57	4 41	26 0	2 30	15 52	0 43	10 25	2 13	19 52	0 8	10 49
F 4	2 59	4 17	1 50	0 43	3 27	12 58	4 32	25 59	2 29	15 48	0 43	10 27	2 12	19 52	0 7	10 49
S 5	2 36	0n37	3 4	0 16	3 20	12 57	4 22	25 58	2 28	15 44	0 43	10 29	2 12	19 53	0 7	10 50
S 6	2 12	5 25	4 4	0s14	3 11	12 56	4 13	25 57	2 27	15 40	0 43	10 32	2 12	19 53	0 7	10 51
M 7	1 49	9 47	4 46	0 44	3 1	12 55	4 3	25 57	2 26	15 36	0 43	10 34	2 12	19 54	0 7	10 51
T 8	1 25	13 27	5 10	1 15	2 49	12 53	3 54	25 56	2 25	15 32	0 43	10 37	2 12	19 54	0 7	10 52
W 9	1 1	16 15	5 15	1 46	2 36	12 51	3 45	25 55	2 24	15 28	0 43	10 39	2 12	19 55	0 7	10 52
T 10	0 38	18 5	5 2	2 17	2 23	12 48	3 36	25 53	2 23	15 24	0 44	10 42	2 11	19 55	0 7	10 53
F 11	0 14	18 55	4 34	2 47	2 8	12 44	3 27	25 52	2 22	15 20	0 44	10 44	2 11	19 55	0 7	10 53
S 12	0n10	18 47	3 54	3 16	1 53	12 40	3 18	25 51	2 21	15 16	0 44	10 46	2 11	19 56	0 7	10 54
S 13	0 33	17 46	3 4	3 43	1 38	12 35	3 9	25 50	2 20	15 12	0 44	10 49	2 11	19 56	0 7	10 54
M14	0 57	15 57	2 7	4 8	1 22	12 30	3 0	25 48	2 19	15 8	0 44	10 51	2 11	19 57	0 7	10 55
T 15	1 21	13 29	1 5	4 31	1 6	12 25	2 51	25 47	2 19	15 4	0 44	10 54	2 11	19 57	0 7	10 55
W16	1 44	10 27	0 1	4 51	0 35	12 18	2 43	25 45	2 18	15 1	0 45	10 56	2 10	19 58	0 7	10 56
T 17	2 8	7 1	1n 4	5 9	0 51	12 12	2 34	25 43	2 17	14 57	0 45	10 59	2 10	19 58	0 7	10 56
F 18	2 31	3 18	2 5	5 25	0 20	12 4	2 26	25 42	2 16	14 53	0 45	11 1	2 10	19 59	0 7	10 57
S 19	2 54	0s34	3 1	5 39	0 5	11 56	2 18	25 40	2 15	14 49	0 45	11 4	2 10	19 59	0 7	10 57
S 20	3 18	4 26	3 50	5 49	0s 9	11 48	2 10	25 38	2 14	14 45	0 45	11 7	2 10	20 0	0 7	10 58
M21	3 41	8 10	4 29	5 58	0 23	11 39	2 2	25 36	2 13	14 42	0 45	11 9	2 10	20 1	0 7	10 58
T 22	4 4	11 36	4 56	6 3	0 36	11 30	1 54	25 34	2 12	14 38	0 46	11 12	2 10	20 1	0 7	10 59
W23	4 27	14 34	5 9	6 7	0 48	11 20	1 46	25 31	2 12	14 34	0 46	11 14	2 10	20 2	0 7	10 59
T 24	4 50	16 55	5 8	6 8	1 0	11 9	1 38	25 29	2 11	14 30	0 46	11 17	2 9	20 2	0 7	11 0
F 25	5 13	18 28	4 51	6 6	1 12	10 58	1 31	25 27	2 10	14 27	0 46	11 19	2 9	20 3	0 7	11 0
S 26	5 36	19 4	4 19	6 3	1 23	10 47	1 23	25 24	2 9	14 23	0 46	11 22	2 9	20 3	0 7	11 1
S 27	5 59	18 36	3 32	5 57	1 33	10 35	1 16	25 21	2 8	14 19	0 46	11 24	2 9	20 4	0 7	11 1
M28	6 22	17 2	2 31	5 49	1 42	10 22	1 9	25 18	2 7	14 16	0 47	11 27	2 9	20 5	0 7	11 1
T 29	6 44	14 23	1 20	5 39	1 51	10 10	1 2	25 16	2 6	14 12	0 47	11 30	2 9	20 5	0 7	11 2
W30	7 7	10 47	0 2	5 27	1 59	9 56	0 55	25 13	2 6	14 9	0 47	11 32	2 9	20 6	0 7	11 2
T 31	7n29	6s26	1s17	5s13	2s 6	9s42	0n48	25n 9	2n 5	14s 5	0s47	11n35	2s 9	20n 6	0s 7	11n 3

Julian Day Number = 2247077.5, Delta T = 06m47s

Ecliptic obliquity = 23°30'36", Nutation = - 0°00'07", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 16°55'48", Lahiri = 16°02'49" Julian Calendar 1 March 1440 == Greg. Calendar 10 March 1440

ASTRODIENST EPHEMERIS for the year 1440

geocentric

APRIL 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	13 12 42	20°41'	1°45'	22°41'	3°53'	11°57'	24°50'	6°15'	0°11'	3°39'	17°47'	2°18'	0°47'	18°11'	17°10'	F 1
S 2	13 16 39	21° 1'17"	16°48'	23°39'	4°50'	11°36'	25° 1'	6°23'	0° 9'	3°38'	17°47'	2°13'	0°44'	18° 8'	17°14'	S 2
S 3	13 20 35	21°59'51"	1°45'	24°41'	5°48'	12° 5'	25°12'	6°30'	0°12'	3°37'	17°47'	2° 6'	0°41'	18°14'	17°18'	S 3
M 4	13 24 32	22°58'23"	16°27'	25°45'	6°45'	12°35'	25°23'	6°38'	0°15'	3°36'	17°48'	1°58'	0°38'	18°21'	17°22'	M 4
T 5	13 28 28	23°56'52"	0°14'47"	26°52'	7°44'	13° 5'	25°33'	6°46'	0°18'	3°35'	17°48'	1°50'	0°35'	18°28'	17°25'	T 5
W 6	13 32 25	24°55'20"	14°40'	28° 1'	8°43'	13°35'	25°44'	6°53'	0°21'	3°34'	17°48'	1°43'	0°31'	18°34'	17°29'	W 6
T 7	13 36 22	25°53'46"	28° 5'	29°13'	9°42'	14° 5'	25°54'	7° 1'	0°24'	3°33'	17°49'	1°37'	0°28'	18°41'	17°33'	T 7
F 8	13 40 18	26°52'10"	11°52' 2"	0°12'27"	10°41'	14°35'	26° 5'	7° 9'	0°27'	3°33'	17°49'	1°34'	0°25'	18°48'	17°37'	F 8
S 9	13 44 15	27°50'31"	23°36'	1°43'	11°41'	15° 5'	26°15'	7°16'	0°30'	3°32'	17°50'	1°D33'	0°22'	18°54'	17°40'	S 9
S 10	13 48 11	28°48'51"	5°12'50"	3° 2'	12°41'	15°36'	26°25'	7°24'	0°33'	3°31'	17°50'	1°33'	0°19'	19° 1'	17°44'	S 10
M 11	13 52 8	29°47'08"	17°50'	4°22'	13°42'	16° 6'	26°35'	7°32'	0°37'	3°30'	17°50'	1°34'	0°16'	19° 8'	17°48'	M 11
T 12	13 56 4	0°34'52"3	29°41'	5°45'	14°42'	16°37'	26°45'	7°39'	0°40'	3°29'	17°51'	1°R34'	0°12'	19°14'	17°52'	T 12
W 13	14 0 1	1°43'36"	11°17'28"	7°10'	15°44'	17° 8'	26°55'	7°47'	0°43'	3°29'	17°51'	1°34'	0° 9'	19°21'	17°55'	W 13
T 14	14 3 57	2°41'47"	23°16'	8°37'	16°45'	17°39'	27° 4'	7°55'	0°46'	3°28'	17°52'	1°31'	0° 6'	19°28'	17°59'	T 14
F 15	14 7 54	3°39'56"	5°12' 8"	10° 6'	17°47'	18°10'	27°14'	8° 3'	0°49'	3°27'	17°53'	1°26'	0° 3'	19°34'	18° 3'	F 15
S 16	14 11 51	4°38'04"	17° 7'	11°37'	18°49'	18°41'	27°23'	8°10'	0°52'	3°27'	17°53'	1°19'	29°15'9"	19°41'	18° 6'	S 16
S 17	14 15 47	5°36'09"	29°16'	13°10'	19°51'	19°12'	27°33'	8°18'	0°56'	3°26'	17°54'	1° 9'	29°56'	19°48'	18°10'	S 17
M 18	14 19 44	6°34'13"	11°13'36"	14°44'	20°53'	19°44'	27°42'	8°26'	0°59'	3°25'	17°54'	0°58'	29°53'	19°54'	18°14'	M 18
T 19	14 23 40	7°32'15"	24° 7'	16°21'	21°56'	20°15'	27°51'	8°34'	1° 2'	3°25'	17°55'	0°46'	29°50'	20° 1'	18°17'	T 19
W 20	14 27 37	8°30'16"	6°12'51"	18° 0'	22°59'	20°47'	28° 0'	8°42'	1° 6'	3°24'	17°56'	0°35'	29°47'	20° 8'	18°21'	W 20
T 21	14 31 33	9°28'15"	19°46'	19°41'	24° 2'	21°18'	28° 9'	8°49'	1° 9'	3°24'	17°57'	0°25'	29°44'	20°14'	18°24'	T 21
F 22	14 35 30	10°26'13"	2°35'53"	21°23'	25° 6'	21°50'	28°17'	8°57'	1°12'	3°23'	17°57'	0°18'	29°41'	20°21'	18°28'	F 22
S 23	14 39 26	11°24'09"	16°13'	23° 8'	26°10'	22°22'	28°26'	9° 5'	1°16'	3°23'	17°58'	0°13'	29°37'	20°27'	18°31'	S 23
S 24	14 43 23	12°22'04"	29°45'	24°54'	27°14'	22°54'	28°34'	9°13'	1°19'	3°23'	17°59'	0°11'	29°34'	20°34'	18°35'	S 24
M 25	14 47 20	13°19'58"	13°33'32"	26°43'	28°18'	23°26'	28°42'	9°20'	1°22'	3°22'	18° 0'	0°D10'	29°31'	20°41'	18°39'	M 25
T 26	14 51 16	14°17'50"	27°33'	28°33'	29°22'	23°58'	28°51'	9°28'	1°26'	3°22'	18° 0'	0°R10'	29°28'	20°47'	18°42'	T 26
W 27	14 55 13	15°15'41"	11°14'48"	0°32'26"	0°12'27"	24°30'	28°59'	9°36'	1°29'	3°22'	18° 1'	0°10'	29°25'	20°54'	18°46'	W 27
T 28	14 59 9	16°13'31"	26°16'	2°20'	1°32'	25° 3'	29° 7'	9°44'	1°33'	3°21'	18° 2'	0° 8'	29°22'	21° 1'	18°49'	T 28
F 29	15 3 6	17°11'20"	10°12'54"	4°16'	2°37'	25°35'	29°14'	9°51'	1°36'	3°21'	18° 3'	0° 3'	29°18'	21° 7'	18°52'	F 29
S 30	15 7 2	18°12'08"	25°12'36"	6°14'	3°12'42"	26°58'	29°22'	9°59'	1°40'	3°21'	18°54'	29°15'6"	29°15'	21°14'	18°56'	S 30

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	
F 1	7n52	1s38	2s32	4s57	2s13	9s28	0n42	25n 6	2n 4	14s 1	0s47	11n37	2s 9	20n 7	0s 7	F 1
S 2	8 14	3n17	3 37	4 40	2 19	9 13	0 35	25 3	2 3	13s 58	0 48	11 40	2 9	20 8	0 7	S 2
S 3	8 36	7 58	4 26	4 20	2 25	8 58	0 29	24 59	2 2	13s 55	0 48	11 42	2 8	20 8	0 7	S 3
M 4	8 57	12 4	4 56	3 59	2 30	8 43	0 22	24 56	2 2	13s 51	0 48	11 45	2 8	20 9	0 7	M 4
T 5	9 19	15 22	5 7	3 37	2 34	8 27	0 16	24 52	2 1	13s 48	0 48	11 48	2 8	20 10	0 7	T 5
W 6	9 41	17 40	4 59	3 12	2 38	8 10	0 10	24 48	2 0	13s 44	0 48	11 50	2 8	20 10	0 7	W 6
T 7	10 2	18 54	4 35	2 47	2 41	7 53	0 4	24 44	1 59	13s 41	0 49	11 53	2 8	20 11	0 7	T 7
F 8	10 23	19 6	3 58	2 19	2 44	7 36	0s 2	24 40	1 58	13s 38	0 49	11 55	2 8	20 11	0 7	F 8
S 9	10 44	18 20	3 10	1 51	2 46	7 19	0 7	24 36	1 58	13s 34	0 49	11 58	2 8	20 12	0 7	S 9
S 10	11 5	16 42	2 14	1 21	2 47	7 1	0 13	24 32	1 57	13s 31	0 49	12 0	2 8	20 13	0 7	S 10
M 11	11 26	14 22	1 13	0 49	2 48	6 43	0 18	24 27	1 56	13s 28	0 49	12 3	2 8	20 13	0 7	M 11
T 12	11 46	11 27	0 10	0 16	2 48	6 24	0 23	24 23	1 55	13s 25	0 50	12 5	2 8	20 14	0 7	T 12
W 13	12 7	8 6	0n53	0n18	2 47	6 5	0 28	24 18	1 54	13s 21	0 50	12 8	2 8	20 15	0 7	W 13
T 14	12 27	4 25	1 53	0 53	2 46	5 46	0 33	24 13	1 54	13s 18	0 50	12 11	2 8	20 15	0 7	T 14
F 15	12 47	0 33	2 49	1 29	2 45	5 26	0 38	24 8	1 53	13s 15	0 50	12 13	2 8	20 16	0 7	F 15
S 16	13 6	3s23	3 38	2 7	2 43	5 6	0 43	24 3	1 52	13s 12	0 50	12 16	2 8	20 17	0 7	S 16
S 17	13 26	7 14	4 18	2 45	2 40	4 46	0 48	23 58	1 51	13s 9	0 51	12 18	2 8	20 18	0 7	S 17
M 18	13 45	10 49	4 46	3 25	2 37	4 25	0 52	23 53	1 51	13s 6	0 51	12 21	2 8	20 18	0 7	M 18
T 19	14 4	14 0	5 1	4 6	2 33	4 4	0 57	23 47	1 50	13s 3	0 51	12 23	2 7	20 19	0 7	T 19
W 20	14 23	16 34	5 1	4 48	2 28	3 43	1 1	23 42	1 49	13s 0	0 51	12 26	2 7	20 20	0 7	W 20
T 21	14 41	18 22	4 46	5 30	2 24	3 22	1 5	23 36	1 48	12s 58	0 52	12 28	2 7	20 20	0 7	T 21
F 22	15 0	19 13	4 16	6 14	2 18	3 0	1 9	23 30	1 48	12s 55	0 52	12 31	2 7	20 21	0 7	F 22
S 23	15 18	19 2	3 31	6 58	2 12	2 39	1 13	23 24	1 47	12s 52	0 52	12 33	2 7	20 22	0 7	S 23
S 24	15 36	17 45	2 34	7 43	2 6	2 16	1 16	23 18	1 46	12s 49	0 52	12 36	2 7	20 22	0 7	S 24
M 25	15 53	15 25	1 27	8 29	1 59	1 54	1 20	23 12	1 45	12s 47	0 53	12 38	2 7	20 23	0 7	M 25
T 26	16 11	12 9	0 14	9 15	1 52	1 32	1 24	23 6	1 45	12s 44	0 53	12 41	2 7	20 24	0 7	T 26
W 27	16 28	8 6	1s 1	10 2	1 44	1 9	1 27	22 59	1 44	12s 41	0 53	12 43	2 7	20 24	0 7	W 27
T 28	16 44	3 32	2 14	10 49	1 36	0 46	1 30	22 53	1 43	12s 39	0 53	12 46	2 7	20 25	0 7	T 28
F 29	17 1	1n18	3 18	11 37	1 27	0 23	1 33	22 46	1 43	12s 36	0 53	12 48	2 7	20 26	0 7	F 29
S 30	17n17	6n 3	4s 9	12n25	1s18	0n 0	1s36	22n39	1n42	12s34	0s54	12n50	2s 7	20n27	0s 7	S 30

Julian Day Number = 2247108.5, Delta T = 06m47s

Ecliptic obliquity = 23°30'36", Nutation = - 0°00'09", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 16°55'53", Lahiri = 16°02'53" Julian Calendar 1 Apr. 1440 == Greg. Calendar 10 Apr. 1440

ASTRODIENST EPHEMERIS for the year 1440

geocentric

MAY 1440 JC

00:00 UT

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

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
S 1	17n33	10n26	4s44	13n13	1s 9	0n23	1s39	22n32	1n41	12s32	0s54	12n53	2s 7	20n27	0s 7	11n 9
M 2	17 49	14 9	5 0	14 1	0 59	0 47	1 42	22 25	1 40	12 29	0 54	12 55	2 7	20 28	0 7	11 9
T 3	18 4	16 58	4 57	14 48	0 49	1 11	1 44	22 18	1 40	12 27	0 54	12 58	2 7	20 29	0 7	11 9
W 4	18 19	18 43	4 36	15 36	0 39	1 34	1 47	22 11	1 39	12 25	0 55	13 0	2 7	20 29	0 7	11 9
T 5	18 34	19 21	4 1	16 23	0 28	1 58	1 49	22 3	1 38	12 23	0 55	13 2	2 7	20 30	0 7	11 9
F 6	18 49	18 56	3 14	17 9	0 18	2 22	1 51	21 55	1 38	12 20	0 55	13 5	2 7	20 31	0 7	11 9
S 7	19 3	17 35	2 19	17 54	0 7	2 46	1 54	21 48	1 37	12 18	0 55	13 7	2 7	20 32	0 7	11 9
S 8	19 16	15 26	1 18	18 38	0n 3	3 10	1 56	21 40	1 36	12 16	0 56	13 9	2 7	20 32	0 7	11 9
M 9	19 30	12 39	0 15	19 20	0 14	3 34	1 58	21 32	1 35	12 14	0 56	13 12	2 7	20 33	0 7	11 9
T 10	19 43	9 23	0n47	20 1	0 24	3 59	1 59	21 24	1 35	12 12	0 56	13 14	2 7	20 34	0 7	11 9
W 11	19 56	5 45	1 48	20 41	0 35	4 23	2 1	21 16	1 34	12 11	0 57	13 16	2 7	20 34	0 7	11 9
T 12	20 9	1 54	2 44	21 18	0 45	4 47	2 2	21 7	1 33	12 9	0 57	13 19	2 7	20 35	0 7	11 9
F 13	20 21	2s 3	3 33	21 53	0 54	5 11	2 4	20 59	1 33	12 7	0 57	13 21	2 7	20 36	0 7	11 9
S 14	20 32	5 59	4 13	22 26	1 3	5 36	2 5	20 50	1 32	12 5	0 57	13 23	2 7	20 37	0 7	11 9
S 15	20 44	9 43	4 42	22 56	1 12	6 0	2 6	20 41	1 31	12 4	0 58	13 25	2 8	20 37	0 7	11 9
M 16	20 55	13 7	4 58	23 24	1 20	6 24	2 7	20 32	1 30	12 2	0 58	13 28	2 8	20 38	0 7	11 8
T 17	21 6	15 58	4 59	23 49	1 27	6 48	2 8	20 23	1 31	12 1	0 58	13 30	2 8	20 39	0 7	11 8
W 18	21 16	18 4	4 45	24 12	1 34	7 12	2 9	20 14	1 29	11 59	0 58	13 32	2 8	20 39	0 7	11 8
T 19	21 26	19 15	4 16	24 31	1 41	7 37	2 10	20 5	1 29	11 58	0 59	13 34	2 8	20 40	0 7	11 8
F 20	21 36	19 22	3 32	24 48	1 46	8 1	2 11	19 56	1 28	11 57	0 59	13 36	2 8	20 41	0 7	11 8
S 21	21 45	18 21	2 35	25 2	1 51	8 25	2 11	19 46	1 27	11 55	0 59	13 39	2 8	20 41	0 7	11 8
S 22	21 54	16 16	1 28	25 14	1 55	8 49	2 12	19 37	1 27	11 54	1 0	13 41	2 8	20 42	0 7	11 7
M 23	22 3	13 12	0 16	25 23	1 58	9 12	2 12	19 27	1 26	11 53	1 0	13 43	2 8	20 43	0 7	11 7
T 24	22 11	9 21	0s58	25 29	2 1	9 36	2 12	19 17	1 25	11 52	1 0	13 45	2 8	20 43	0 7	11 7
W 25	22 19	4 58	2 9	25 33	2 3	10 0	2 12	19 7	1 25	11 51	1 0	13 47	2 8	20 44	0 7	11 7
T 26	22 26	0 16	3 13	25 34	2 4	10 23	2 13	18 57	1 24	11 50	1 1	13 49	2 8	20 45	0 7	11 6
F 27	22 33	4n27	4 4	25 34	2 4	10 46	2 12	18 47	1 23	11 49	1 1	13 51	2 8	20 46	0 7	11 6
S 28	22 40	8 55	4 41	25 31	2 4	11 9	2 12	18 37	1 23	11 48	1 1	13 53	2 8	20 46	0 7	11 6
S 29	22 46	12 51	5 0	25 26	2 3	11 32	2 12	18 26	1 22	11 48	1 2	13 55	2 8	20 47	0 7	11 6
M 30	22 52	16 1	5 0	25 19	2 1	11 55	2 12	18 16	1 21	11 47	1 2	13 57	2 8	20 48	0 6	11 5
T 31	22n57	18n13	4s43	25n11	1n58	12n18	2s11	18n 5	1n21	11s46	1s 2	13n59	2s 8	20n48	0s 6	11n 5

Julian Day Number = 2247138.5, Delta T = 06m46s

Ecliptic obliquity = 23°30'35", Nutation = - 0°00'10", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 16°55'57", Lahiri = 16°02'57" Julian Calendar 1 May 1440 == Greg. Calendar 10 May 1440

ASTRODIENST EPHEMERIS for the year 1440

geocentric

JULY 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	19 11 29	17°23'53	5♈20	3°R45	14♈41	2♈ 2	1°R38	16♈57	5♈ 7	4♈10	19°30	24°R32	25♈58	28♈ 7	21♈19	F 1
S 2	19 15 25	18°21'09	17°43	3♈29	15°52	2°39	1°R35	17° 2	5°10	4°11	19°31	24°R30	25°55	28°14	21°19	S 2
S 3	19 19 22	19°18'25	29°53	3° 7	17° 3	3°16	1°31	17° 7	5°12	4°13	19°33	24°D30	25°52	28°20	21°20	S 3
M 4	19 23 18	20°15'41	11♈52	2°42	18°14	3°52	1°27	17°12	5°15	4°15	19°35	24°31	25°49	28°27	21°21	M 4
T 5	19 27 15	21°12'58	23°44	2°12	19°26	4°29	1°23	17°17	5°18	4°17	19°36	24°33	25°46	28°34	21°22	T 5
W 6	19 31 12	22°10'15	5♈33	1°38	20°37	5° 6	1°18	17°21	5°20	4°18	19°38	24°34	25°42	28°40	21°22	W 6
T 7	19 35 8	23° 7'33	17°25	1° 2	21°48	5°43	1°14	17°26	5°23	4°20	19°40	24°35	25°39	28°47	21°23	T 7
F 8	19 39 5	24° 4'51	29°23	0°22	23° 0	6°20	1° 9	17°31	5°26	4°22	19°41	24°R35	25°36	28°54	21°23	F 8
S 9	19 43 1	25° 2'09	11♈34	29°40	24°11	6°57	1° 4	17°35	5°28	4°24	19°43	24°34	25°33	29° 0	21°24	S 9
S 10	19 46 58	25°59'28	24° 1	28°57	25°23	7°34	0°59	17°39	5°31	4°25	19°44	24°32	25°30	29° 7	21°24	S 10
M 11	19 50 54	26°56'47	6♈48	28°14	26°34	8°11	0°54	17°44	5°33	4°27	19°46	24°28	25°26	29°14	21°25	M 11
T 12	19 54 51	27°54'07	19°57	27°30	27°46	8°48	0°49	17°48	5°36	4°29	19°48	24°24	25°23	29°20	21°25	T 12
W 13	19 58 47	28°51'28	3♈30	26°47	28°58	9°25	0°43	17°52	5°38	4°31	19°49	24°21	25°20	29°27	21°25	W 13
T 14	20 2 44	29°48'49	17°24	26° 5	0°10	10° 2	0°38	17°56	5°41	4°33	19°51	24°17	25°17	29°34	21°25	T 14
F 15	20 6 41	0♈46'12	1♈37	25°26	1°22	10°40	0°32	18° 0	5°43	4°35	19°53	24°15	25°14	29°40	21°25	F 15
S 16	20 10 37	1°43'35	16° 4	24°51	2°33	11°17	0°26	18° 4	5°45	4°37	19°54	24°14	25°11	29°47	21°25	S 16
S 17	20 14 34	2°40'59	0♈39	24°19	3°45	11°54	0°20	18° 8	5°48	4°39	19°56	24°D14	25° 7	29°54	21°R25	S 17
M 18	20 18 30	3°38'24	15°17	23°51	4°57	12°32	0°14	18°12	5°50	4°41	19°57	24°14	25° 4	0° 0	21°25	M 18
T 19	20 22 27	4°35'50	29°52	23°29	6° 9	13° 9	0° 8	18°15	5°52	4°43	19°59	24°16	25° 1	0° 7	21°25	T 19
W 20	20 26 23	5°33'18	14♈18	23°13	7°22	13°47	0° 1	18°19	5°54	4°45	20° 1	24°17	24°58	0°14	21°25	W 20
T 21	20 30 20	6°30'47	28°33	23° 2	8°34	14°24	29°55	18°22	5°56	4°47	20° 2	24°18	24°55	0°20	21°25	T 21
F 22	20 34 16	7°28'17	12♈35	22°D58	9°46	15° 2	29°48	18°26	5°58	4°49	20° 4	24°R18	24°51	0°27	21°25	F 22
S 23	20 38 13	8°25'49	26°22	23° 0	10°58	15°40	29°41	18°29	6° 0	4°51	20° 5	24°17	24°48	0°34	21°24	S 23
S 24	20 42 10	9°23'22	9♈54	23° 9	12°11	16°18	29°34	18°32	6° 2	4°53	20° 7	24°16	24°45	0°40	21°24	S 24
M 25	20 46 6	10°20'57	23°11	23°25	13°23	16°55	29°27	18°35	6° 4	4°55	20° 8	24°14	24°42	0°47	21°24	M 25
T 26	20 50 3	11°18'33	6♈13	23°49	14°36	17°33	29°20	18°38	6° 6	4°57	20°10	24°12	24°39	0°54	21°23	T 26
W 27	20 53 59	12°16'11	19° 1	24°19	15°48	18°11	29°13	18°41	6° 8	4°59	20°12	24°11	24°36	1° 1	21°23	W 27
T 28	20 57 56	13°13'50	1♈36	24°56	17° 1	18°49	29° 6	18°44	6°10	5° 1	20°13	24° 9	24°32	1° 7	21°22	T 28
F 29	21 1 52	14°11'30	13°59	25°40	18°13	19°27	28°58	18°47	6°12	5° 3	20°15	24° 9	24°29	1°14	21°21	F 29
S 30	21 5 49	15° 9'11	26°10	26°31	19°26	20° 5	28°51	18°49	6°14	5° 5	20°16	24°D 9	24°26	1°21	21°21	S 30
S 31	21 9 45	16° 6'54	8♈12	27°29	20°39	20°43	28°44	18°52	6°15	5° 7	20°18	24° 9	24°23	1°27	21°20	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
F 1	22n22	17n20	1s43	15n51	3s37	21n18	1s20	11n44	1n 1	12s 2	1s11	14n50	2s12	21n 7	0s 6	10n50	0n53	24n 7	2n 3	13n23	12n54	3n16	9n10	0n54			
S 2	22 15	14 59	0 37	15 42	3 50	21 28	1 18	11 30	1 0	12 3	1 11	14 51	2 12	21 7	0 6	10 50	0 53	24 6	2 3	13 24	12 55	3 14	9 10	0 54			
S 3	22 7	12 0	0n29	15 36	4 2	21 38	1 15	11 16	1 0	12 5	1 12	14 52	2 13	21 8	0 6	10 49	0 53	24 6	2 3	13 24	12 56	3 12	9 10	0 54			
M 4	21 59	8 34	1 34	15 30	4 13	21 47	1 13	11 2	0 59	12 7	1 12	14 54	2 13	21 8	0 6	10 48	0 53	24 6	2 3	13 23	12 57	3 10	9 11	0 53			
T 5	21 50	4 50	2 33	15 27	4 23	21 55	1 10	10 48	0 59	12 8	1 12	14 55	2 13	21 9	0 6	10 48	0 53	24 6	2 3	13 23	12 58	3 8	9 11	0 53			
W 6	21 41	0 56	3 26	15 26	4 32	22 3	1 7	10 34	0 58	12 10	1 13	14 56	2 13	21 9	0 6	10 47	0 53	24 6	2 3	13 22	12 59	3 6	9 11	0 53			
T 7	21 31	3s 0	4 10	15 26	4 40	22 11	1 5	10 20	0 57	12 12	1 13	14 57	2 13	21 10	0 6	10 47	0 53	24 6	2 3	13 22	13 0	3 4	9 11	0 53			
F 8	21 21	6 52	4 44	15 29	4 46	22 18	1 2	10 6	0 57	12 14	1 13	14 58	2 14	21 10	0 6	10 46	0 53	24 5	2 3	13 22	13 1	3 2	9 11	0 53			
S 9	21 11	10 30	5 6	15 33	4 50	22 24	0 59	9 51	0 56	12 16	1 13	14 59	2 14	21 11	0 6	10 45	0 53	24 5	2 3	13 22	13 3	3 0	9 12	0 53			
S 10	21 1	13 46	5 14	15 38	4 53	22 29	0 56	9 37	0 55	12 18	1 14	15 0	2 14	21 11	0 6	10 45	0 53	24 5	2 3	13 23	13 4	2 58	9 12	0 53			
M11	20 50	16 28	5 6	15 46	4 55	22 34	0 54	9 22	0 55	12 20	1 14	15 1	2 14	21 11	0 6	10 44	0 53	24 5	2 3	13 24	13 5	2 56	9 12	0 53			
T 12	20 39	18 25	4 43	15 55	4 54	22 39	0 51	9 8	0 54	12 22	1 14	15 2	2 14	21 12	0 6	10 43	0 53	24 5	2 3	13 26	13 6	2 54	9 12	0 53			
W13	20 27	19 24	4 4	16 5	4 52	22 42	0 48	8 53	0 54	12 24	1 14	15 3	2 14	21 12	0 6	10 42	0 53	24 5	2 3	13 27	13 7	2 52	9 12	0 53			
T 14	20 15	19 15	3 9	16 17	4 48	22 45	0 45	8 39	0 53	12 27	1 15	15 4	2 15	21 13	0 6	10 42	0 53	24 4	2 3	13 28	13 8	2 50	9 12	0 53			
F 15	20 3	17 53	2 1	16 30	4 42	22 48	0 42	8 24	0 52	12 29	1 15	15 5	2 15	21 13	0 6	10 41	0 53	24 4	2 4	13 29	13 9	2 48	9 12	0 53			
S 16	19 50	15 21	0 45	16 43	4 34	22 50	0 40	8 9	0 52	12 31	1 15	15 6	2 15	21 14	0 6	10 40	0 53	24 4	2 4	13 29	13 10	2 46	9 12	0 53			
S 17	19 37	11 49	0s35	16 58	4 25	22 51	0 37	7 54	0 51	12 34	1 15	15 7	2 15	21 14	0 6	10 40	0 53	24 4	2 4	13 29	13 11	2 44	9 12	0 53			
M18	19 24	7 34	1 54	17 13	4 15	22 51	0 34	7 39	0 50	12 36	1 15	15 8	2 15	21 14	0 6	10 39	0 53	24 4	2 4	13 29	13 12	2 42	9 12	0 53			
T 19	19 10	2 52	3 4	17 28	4 3	22 51	0 31	7 24	0 50	12 38	1 16	15 9	2 16	21 15	0 6	10 38	0 53	24 4	2 4	13 28	13 13	2 40	9 12	0 53			
W20	18 56	1n56	4 2	17 43	3 50	22 50	0 28	7 9	0 49	12 41	1 16	15 9	2 16	21 15	0 6	10 37	0 53	24 3	2 4	13 28	13 14	2 38	9 12	0 53			
T 21	18 42	6 33	4 45	17 59	3 36	22 49	0 25	6 54	0 49	12 43	1 16	15 10	2 16	21 16	0 6	10 37	0 53	24 3	2 4	13 28	13 15	2 36	9 12	0 53			
F 22	18 27	10 44	5 10	18 14	3 22	22 47	0 22	6 39	0 48	12 46	1 16	15 11	2 16	21 16	0 6	10 36	0 53	24 3	2 4	13 28	13 16	2 34	9 12	0 53			
S 23	18 13	14 17	5 16	18 29	3 6	22 44	0 19	6 24	0 47	12 49	1 17	15 12	2 16	21 16	0 6	10 35	0 53	24 3	2 4	13 28	13 18	2 32	9 11	0 53			
S 24	17 57	16 59	5 5	18 43	2 50	22 40	0 17	6 9	0 47	12 51	1 17	15 12	2 17	21 17	0 6	10 35	0 53	24 3	2 4	13 28	13 19	2 30	9 11	0 53			
M25	17 42	18 43	4 37	18 57	2 34	22 36	0 14	5 53	0 46	12 54	1 17	15 13	2 17	21 17	0 6	10 34	0 53	24 3	2 4	13 29	13 20	2 28	9 11	0 53			
T 26	17 26	19 27	3 55	19 9	2 17	22 32	0 11	5 38	0 46	12 56	1 17	15 14	2 17	21 17	0 6	10 33	0 53	24 2	2 4	13 30	13 21	2 26	9 11	0 53			
W27	17 10	19 9	3 3	19 21	2 0	22 26	0 8	5 22	0 45	12 59	1 17	15 14	2 17	21 18	0 6	10 32	0 53	24 2	2 5	13 30	13 22	2 24	9 11	0 53			
T 28	16 54	17 53	2 2	19 31	1 43	22 20	0 5	5 7	0 44	13 2	1 17	15 15	2 17	21 18	0 6	10 31	0 53	24 2	2 5	13 31	13 23	2 22	9 10	0 53			
F 29	16 37	15 47	0 56	19 39	1 27	22 13	0 2	4 51	0 44	13 5	1 18	15 15	2 18	21 18	0 6	10 31	0 53	24 2	2 5	13 31	13 24	2 20	9 10	0 53			
S 30	16 20	13 1	0n11	19 46	1 10	22 6	0n 0	4 36	0 43	13 7	1 18	15 16	2 18	21 19	0 6	10 30	0 53	24 2	2 5	13 31	13 25	2 18	9 10	0 53			
S 31	16n 3	9n43	1n17	19n50	0s54	21n58	0n 3	4n20	0n43	13s10	1s18	15n16	2s18	21n19	0s 6	10n29	0n53	24n 2	2n 5	13n31	13n26	2n16	9n 9	0n53			

ASTRODIENST EPHEMERIS for the year 1440

geocentric

AUGUST 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	21 13 42	17°13'42"	20°13'42"	28°53'33"	21°52'52"	21°17'22"	28°13'36"	18°53'54"	6°11'17"	5°17'09"	20°51'19"	24°10'09"	24°10'20"	1°41'34"	21°18'19"	M 1
T 2	21 17 39	18°22'33"	1°45'56"	29°43'23"	23°4'22"	22°0'28"	28°28'28"	18°56'19"	5°12'20"	5°12'20"	20°21'24"	24°10'24"	24°17'14"	1°41'21"	21°18'18"	T 2
W 3	21 21 35	19°00'09"	13°45'00"	0°59'24"	24°17'22"	22°38'28"	28°21'18"	18°59'6"	5°14'20"	5°14'20"	20°22'24"	24°11'24"	24°13'14"	1°47'21"	21°17'17"	W 3
T 4	21 25 32	19°57'57"	25°36'20"	2°21'25"	25°30'23"	23°16'28"	28°13'19"	1°6'22"	5°16'20"	5°16'20"	20°24'24"	24°11'24"	24°10'13"	1°54'21"	21°16'16"	T 4
F 5	21 29 28	20°55'46"	7°13'34"	3°48'26"	26°43'23"	25°55'28"	28°5'19"	3°6'23"	5°18'20"	5°18'20"	20°25'24"	24°11'24"	24°7'2°	2°1'21"	21°15'15"	F 5
S 6	21 33 25	21°53'36"	19°43'5°	5°20'27"	27°56'24"	24°33'27"	27°57'19"	5°6'25"	5°20'20"	5°20'20"	20°26'24"	24°11'24"	24°4'2°	2°7'21"	21°14'14"	S 6
S 7	21 37 21	22°51'27"	2°17'7"	6°56'29"	29°9'25"	25°12'27"	27°50'19"	6°6'26"	5°22'20"	5°22'20"	20°28'24"	24°11'24"	24°1'2°	2°14'21"	21°13'13"	S 7
M 8	21 41 18	23°49'20"	14°52'8"	8°36'00"	22'22"	25°50'27"	27°42'19"	6°27'5°	5°25'20"	5°25'20"	20°29'24"	24°11'24"	23°57'2°	2°21'21"	21°12'12"	M 8
T 9	21 45 14	24°47'13"	27°59'10"	10°20'1°	26°29'27"	23°34'19"	19°10'6°	29'5°	5°27'20"	5°27'20"	20°31'24"	24°11'24"	23°54'2°	2°27'21"	21°11'11"	T 9
W10	21 49 11	25°45'09"	11°33'32"	12°7'2°	2°49'27"	8'27"	26'27"	19°11'6°	30'5°	30'5°	20°32'24"	24°12'24"	23°51'2°	2°34'21"	21°9'9"	W10
T 11	21 53 8	26°43'05"	25°31'13"	5°6'4°	2°27°	27°46'27"	18°19°	12°6°	31'5°	31'5°	20°33'24"	24°12'24"	23°48'2°	2°41'21"	21°8'8"	T 11
F 12	21 57 4	27°41'03"	9°54'15"	48°5°	15'28"	25°27°	10°19°	14°6°	32'5°	32'5°	20°35'24"	24°12'24"	23°45'2°	2°47'21"	21°7'7"	F 12
S 13	22 1 1	28°39'03"	24°37'17"	42°6°	29°4°	27°2°	19°15°	6°33'5°	36'20"	36'20"	20°36'24"	24°12'24"	23°42'2°	2°54'21"	21°5'5"	S 13
S 14	22 4 57	29°37'04"	9°13'37"	19°37'7"	29°43'26"	25°46'19"	17°6°	34'5°	38'20"	38'20"	20°38'24"	24°12'24"	23°38'3°	3°1'21"	21°4'4"	S 14
M15	22 8 54	0°13'35'	24°35'21"	32°8°	56'0°	22'26"	46'19"	17°6°	35'5°	35'5°	20°39'24"	24°11'24"	23°35'3°	3°7'21"	21°2'2"	M15
T 16	22 12 50	1°33'11"	9°13'33"	23°29'10°	9'1°	26°39'19"	18°6°	36'5°	42'20"	42'20"	20°40'24"	24°11'24"	23°32'3°	3°14'21"	21°0'0"	T 16
W17	22 16 47	2°31'18"	24°20'25"	26'11°	23'1°	40'26"	31'19"	18°6°	37'5°	37'5°	20°41'24"	24°10'24"	23°29'3°	3°21'20°	20°59'59"	W17
T 18	22 20 43	3°29'26"	8°13'50"	27°23'12°	36'2°	19'26"	23'19"	19°6°	38'5°	38'5°	20°43'24"	24°9'24"	23°26'3°	3°27'20°	20°57'57"	T 18
F 19	22 24 40	4°27'37"	23°0'29°	20'13°	50'2°	25°28'26°	15'19°	20°6°	39'5°	39'5°	20°44'24"	24°8'24"	23°23'3°	3°34'20°	20°55'55"	F 19
S 20	22 28 37	5°25'49"	6°11'46"	1°16'15°	4°3°	37'26°	7'19°	20°6°	40'5°	40'5°	20°45'24°	24°8'24"	23°19'3°	3°41'20°	20°54'54"	S 20
S 21	22 32 33	6°24'04"	20°11'3°	12°16°	17'4°	16'26°	0°19°	20°6°	40'5°	40'5°	20°46'24°	24°9'24"	23°16'3°	3°47'20°	20°52'52"	S 21
M22	22 36 30	7°22'21"	3°15'5°	7°17°	31'4°	56'25°	52'19°	20°6°	41'5°	41'5°	20°48'24°	24°9'24"	23°13'3°	3°54'20°	20°50'50"	M22
T 23	22 40 26	8°20'40"	16°1°7°	2°18°	45'5°	35'25°	44'19°	20°6°	42'5°	42'5°	20°49'24°	24°11'24"	23°10'4°	4°1'20°	20°48'48"	T 23
W24	22 44 23	9°19'01"	28°31'8°	56'19°	59'6°	14'25°	37'19°	20°6°	42'6°	42'6°	20°50'24°	24°12'24"	23°7'4°	4°7'20°	20°46'46"	W24
T 25	22 48 19	10°17'24"	10°17'24"	10°49'21°	13°6°	54'25°	30'19°	20°6°	43'6°	43'6°	20°51'24°	24°13'24"	23°3'4°	4°14'20°	20°44'44"	T 25
F 26	22 52 16	11°15'49"	22°57'12°	41'22°	27°33'25°	22'19°	20°6°	43'6°	4°20°	4°20°	20°52'24°	24°13'24"	23°0'4°	4°21'20°	20°42'42"	F 26
S 27	22 56 12	12°14'16"	4°17'57"	14°32'23°	41'8°	13'25°	15'19°	20°6°	43'6°	43'6°	20°53'24°	24°13'24"	22°57'4°	4°27'20°	20°40'40"	S 27
S 28	23 0 9	13°12'44"	16°51'16°	21°16°	24°55'8°	52'25°	8°19°	19°6°	44'6°	44'6°	20°55'24°	24°12'24"	22°54'4°	4°34'20°	20°38'38"	S 28
M29	23 4 6	14°11'15"	28°42'18°	10°26°	9°9°	32'25°	1°19°	19°6°	44'6°	44'6°	20°56'24°	24°9'24"	22°51'4°	4°41'20°	20°36'36"	M29
T 30	23 8 2	15°9'47"	10°48'19°	58'27°	23°10°	12'24°	54'19°	18°6°	44'6°	44'6°	20°57'24°	24°6'24"	22°48'4°	4°47'20°	20°34'34"	T 30
W31	23 11 59	16°17'8"	22°12'21"	17°45'28°	137'10°	52'24°	47'19°	17°6°	44'6°	44'6°	20°58'24°	24°13'24"	22°44'4°	4°54'20°	20°31'31"	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
M 1	15n46	6n 4	2n19	19n53	0s39	21n50	0n 6	4n 5	0n42	13s13	1s18	15n17	2s18	21n19	0s 6	10n28	0n53	24n 2	2n 5	13n31	13n27	2n14	9n 9	0n53			
T 2	15 28	2 12	3 15	19 53	0 23	21 40	0 9	3 49	0 41	13 16	1 18	15 17	2 18	21 19	0 6	10 28	0 53	24 1	2 5	13 30	13 28	2 12	9 9	0 53			
W 3	15 10	1s43	4 2	19 51	0 9	21 30	0 11	3 33	0 41	13 19	1 18	15 18	2 19	21 20	0 6	10 27	0 53	24 1	2 5	13 30	13 29	2 10	9 8	0 53			
T 4	14 52	5 36	4 39	19 46	0n 5	21 20	0 14	3 17	0 40	13 21	1 19	15 18	2 19	21 20	0 6	10 26	0 53	24 1	2 5	13 30	13 30	2 8	9 8	0 53			
F 5	14 34	9 16	5 4	19 39	0 18	21 9	0 17	3 2	0 39	13 24	1 19	15 18	2 19	21 20	0 6	10 25	0 53	24 1	2 5	13 30	13 31	2 6	9 8	0 53			
S 6	14 15	12 38	5 17	19 29	0 30	20 57	0 19	2 46	0 39	13 27	1 19	15 19	2 19	21 21	0 6	10 24	0 53	24 1	2 5	13 30	13 32	2 4	9 7	0 52			
S 7	13 56	15 30	5 15	19 16	0 42	20 45	0 22	2 30	0 38	13 30	1 19	15 19	2 19	21 21	0 6	10 24	0 53	24 1	2 5	13 30	13 33	2 2	9 7	0 52			
M 8	13 37	17 43	4 57	19 0	0 52	20 32	0 24	2 14	0 38	13 33	1 19	15 19	2 20	21 21	0 6	10 23	0 53	24 1	2 6	13 30	13 34	2 0	9 6	0 52			
T 9	13 18	19 5	4 24	18 42	1 2	20 18	0 27	1 58	0 37	13 36	1 19	15 19	2 20	21 21	0 6	10 22	0 53	24 1	2 6	13 30	13 36	1 58	9 6	0 52			
W10	12 58	19 26	3 36	18 20	1 11	20 4	0 29	1 42	0 36	13 38	1 19	15 20	2 20	21 21	0 6	10 21	0 53	24 0	2 6	13 30	13 37	1 56	9 5	0 52			
T 11	12 39	18 36	2 33	17 56	1 18	19 49	0 32	1 26	0 36	13 41	1 19	15 20	2 20	21 22	0 6	10 20	0 53	24 0	2 6	13 30	13 38	1 54	9 5	0 52			
F 12	12 19	16 33	1 19	17 30	1 25	19 34	0 34	1 10	0 35	13 44	1 19	15 20	2 21	21 22	0 6	10 20	0 53	24 0	2 6	13 30	13 39	1 52	9 4	0 52			
S 13	11 59	13 23	0s 2	17 1	1 31	19 18	0 37	0 54	0 35	13 47	1 20	15 20	2 21	21 22	0 6	10 19	0 53	24 0	2 6	13 30	13 40	1 50	9 3	0 52			
S 14	11 38	9 19	1 24	16 30	1 36	19 2	0 39	0 38	0 34	13 50	1 20	15 20	2 21	21 22	0 6	10 18	0 53	24 0	2 6	13 30	13 41	1 48	9 3	0 52			
M15	11 18	4 37	2 41	15 56	1 40	18 45	0 41	0 22	0 33	13 52	1 20	15 20	2 21	21 22	0 6	10 17	0 53	24 0	2 6	13 30	13 42	1 46	9 2	0 52			
T 16	10 57	0n20	3 46	15 21	1 43	18 27	0 44	0 6	0 33	13 55	1 20	15 20	2 21	21 23	0 6	10 16	0 53	24 0	2 6	13 30	13 43	1 44	9 2	0 52			
W17	10 36	5 12	4 35	14 44	1 45	18 9	0 46	0s10	0 32	13 58	1 20	15 20	2 22	21 23	0 6	10 15	0 53	24 0	2 6	13 30	13 44	1 42	9 1	0 52			
T 18	10 15	9 39	5 6	14 5	1 47	17 51	0 48	0 26	0 31	14 1	1 20	15 20	2 22	21 23	0 6	10 15	0 53	24 0	2 7	13 31	13 45	1 40	9 0	0 52			
F 19	9 54	13 28	5 17	13 25	1 47	17 31	0 50	0 43	0 31	14 3	1 20	15 20	2 22	21 23	0 6	10 14	0 53	24 0	2 7	13 31	13 46	1 38	9 0	0 52			
S 20	9 33	16 25	5 9	12 44	1 47	17 12	0 52	0 59	0 30	14 6	1 20	15 20	2 22	21 23	0 6	10 13	0 53	23 59	2 7	13 31	13 47	1 36	8 59	0 52			
S 21	9 11	18 24	4 45	12 1	1 47	16 52	0 54	1 15	0 30	14 9	1 20	15 20	2 22	21 23	0 6	10 12	0 53	23 59	2 7	13 31	13 48	1 34	8 58	0 52			
M22	8 50	19 22	4 6	11 18	1 45	16 31	0 56	1 31	0 29	14 11	1 20	15 20	2 23	21 23	0 6	10 11	0 53	23 59	2 7	13 31	13 49	1 32	8 57	0 52			
T 23	8 28	19 18	3 16	10 33	1 44	16 10	0 58	1 47	0 28	14 14	1 20	15 19	2 23	21 23	0 6	10 11	0 53	23 59	2 7	13 30	13 50	1 30	8 57	0 52			
W24	8 6	18 16	2 18	9 48	1 41	15 49	1 0	2 4	0 28	14 17	1 20	15 19	2 23	21 24	0 6	10 10	0 53	23 59	2 7	13 30	13 51	1 28	8 56	0 52			
T 25	7 44	16 24	1 14	9 3	1 38	15 27	1 2	2 20	0 27	14 19	1 20	15 19	2 23	21 24	0 6	10 9	0 53	23 59	2 7	13 29	13 52	1 25	8 55	0 52			
F 26	7 22	13 48	0 7	8 17	1 35	15 4	1 4	2 36	0 27	14 22	1 20	15 19	2 24	21 24	0 6	10 8	0 53	23 59	2 7	13 29	13 53	1 23	8 54	0 52			
S 27	6 59	10 38	0n59	7 31	1 31	14 42	1 5	2 52	0 26	14 24	1 20	15 18	2 24	21 24	0 6	10 7	0 53	23 59	2 8	13 29	13 54	1 21	8 53	0 52			
S 28	6 37	7 4	2 2	6 44	1 27	14 18	1 7	3 8	0 25	14 26	1 20	15 18	2 24	21 24	0 6	10 7	0 53	23 59	2 8	13 30	13 55	1 19	8 53	0 52			
M29	6 14	3 15	2 59	5 57	1 22	13 55	1 9	3 25	0 25	14 29	1 20	15 18	2 24	21 24	0 6	10 6	0 53	23 59	2 8	13 31	13 56	1 17	8 52	0 51			
T 30	5 52	0s41	3 48	5 10	1 18	13 31	1 10	3 41	0 24	14 31	1 20	15 17	2 24	21 24	0 6	10 5	0 53	23 59	2 8	13 32	13 58	1 15	8 51	0 51			
W31	5n29	4s35	4n28	4n23	1n12	13n 6	1n12	3s57	0n23	14s33	1s20	15n17	2s25	21n24	0s 6	10n 4	0n53	23n59	2n 8	13n33	13n59	1n13	8n50	0n51			

ASTRODIENST EPHEMERIS for the year 1440

geocentric

SEPTEMBER 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	23 15 55	17°17' 65S	4°11' 13N	23°17' 31S	29°02' 52S	11°02' 31S	24°R40	19°R16	6°II45	6°18' 18S	20°05' 59S	23°R59	22°02' 41S	5°01' 1S	20°R29	T 1
F 2	23 19 52	18°0' 53S	16°12' 12N	25°15' 15S	1°17' 6S	12°11' 11S	24°R33	19°R15	6°45' 45S	6°20' 20S	21°0' 0S	23°02' 55S	22°38' 38S	5°08' 8S	20°Y27	F 2
S 3	23 23 48	19°0' 41S	28°21' 21N	26°59' 29S	2°20' 20S	12°51' 51S	24°27' 27N	19°14' 14S	6°R45	6°22' 22S	21°1' 1S	23°53' 53S	22°35' 35S	5°14' 14S	20°24' 24S	S 3
S 4	23 27 45	20°0' 25S	10°07' 43N	28°42' 42S	3°34' 34S	13°31' 31S	24°20' 20N	19°13' 13S	6°45' 45S	6°24' 24S	21°2' 2S	23°51' 51S	22°32' 32S	5°21' 21S	20°22' 22S	S 4
M 5	23 31 41	21°0' 14S	23°22' 22N	0°02' 23S	4°49' 49S	14°11' 11S	24°14' 14N	19°12' 12S	6°45' 45S	6°26' 26S	21°3' 3S	23°D51	22°28' 28S	5°28' 28S	20°20' 20S	M 5
T 6	23 35 38	22°0' 25S	6°03' 22N	2°0' 4S	6°0' 3S	14°51' 51S	24°0' 8S	19°10' 10S	6°44' 44S	6°29' 29S	21°4' 4S	23°52' 52S	22°25' 25S	5°34' 34S	20°17' 17S	T 6
W 7	23 39 34	22°59' 11S	19°48' 48N	3°43' 43S	7°18' 18S	15°32' 32S	24°2' 2S	19°9' 9S	6°44' 44S	6°31' 31S	21°4' 4S	23°53' 53S	22°22' 22S	5°41' 41S	20°15' 15S	W 7
T 8	23 43 31	23°58' 00S	3°00' 22N	5°22' 22S	8°32' 32S	16°12' 12S	23°56' 56N	19°7' 7S	6°44' 44S	6°33' 33S	21°5' 5S	23°55' 55S	22°19' 19S	5°48' 48S	20°12' 12S	T 8
F 9	23 47 28	24°56' 50S	17°59' 59S	7°0' 0S	9°46' 46S	16°52' 52S	23°50' 50N	19°5' 5S	6°44' 44S	6°35' 35S	21°6' 6S	23°R56	22°16' 16S	5°54' 54S	20°10' 10S	F 9
S 10	23 51 24	25°55' 42S	2°43' 43N	8°37' 37S	11°0' 1S	17°32' 32S	23°45' 45N	19°3' 3S	6°43' 43S	6°37' 37S	21°7' 7S	23°55' 55S	22°13' 13S	6°0' 1S	20°7' 7S	S 10
S 11	23 55 21	26°54' 35S	17°47' 47N	10°13' 13S	12°15' 15S	18°13' 13S	23°39' 39N	19°1' 1S	6°43' 43S	6°39' 39S	21°8' 8S	23°54' 54S	22°9' 9S	6°0' 8S	20°5' 5S	S 11
M12	23 59 17	27°53' 31S	3°0' 1N	11°48' 48S	13°30' 30S	18°53' 53S	23°34' 34N	18°59' 59S	6°43' 43S	6°41' 41S	21°9' 9S	23°50' 50S	22°6' 6S	6°14' 14S	20°2' 2S	M12
T 13	0 3 14	28°52' 29S	18°17' 17N	13°22' 22S	14°45' 45S	19°34' 34S	23°29' 29N	18°57' 57S	6°42' 42S	6°44' 44S	21°9' 9S	23°46' 46S	22°3' 3S	6°21' 21S	19°59' 59S	T 13
W14	0 7 10	29°51' 29S	3°03' 23N	14°55' 55S	15°59' 59S	20°14' 14S	23°24' 24N	18°55' 55S	6°42' 42S	6°46' 46S	21°10' 10S	23°41' 41S	22°0' 0S	6°28' 28S	19°57' 57S	W14
T 15	0 11 7	0°05' 03S	18°10' 10N	16°28' 28S	17°14' 14S	20°55' 55S	23°19' 19N	18°52' 52S	6°41' 41S	6°48' 48S	21°11' 11S	23°35' 35S	21°57' 57S	6°34' 34S	19°54' 54S	T 15
F 16	0 15 3	1°49' 35S	2°11' 33S	18°0' 0S	18°29' 29S	21°35' 35S	23°15' 15S	18°50' 50S	6°40' 40S	6°50' 50S	21°12' 12S	23°31' 31S	21°54' 54S	6°41' 41S	19°51' 51S	F 16
S 17	0 19 0	2°48' 42S	16°27' 27N	19°30' 30S	19°43' 43S	22°16' 16S	23°10' 10N	18°48' 48S	6°40' 40S	6°52' 52S	21°12' 12S	23°28' 28S	21°50' 50S	6°48' 48S	19°48' 48S	S 17
S 18	0 22 57	3°47' 52S	29°54' 54N	21°0' 0S	20°58' 58S	22°57' 57S	23°6' 6N	18°45' 45S	6°39' 39S	6°54' 54S	21°13' 13S	23°D27	21°47' 47S	6°54' 54S	19°46' 46S	S 18
M19	0 26 53	4°47' 03S	12°05' 55N	22°30' 30S	22°13' 13S	23°38' 38S	23°2' 2N	18°42' 42S	6°38' 38S	6°56' 56S	21°14' 14S	23°27' 27S	21°44' 44S	7°0' 1S	19°43' 43S	M19
T 20	0 30 50	5°46' 17S	25°34' 34N	23°58' 58S	23°28' 28S	24°19' 19S	22°58' 58N	18°39' 39S	6°37' 37S	6°58' 58S	21°14' 14S	23°28' 28S	21°41' 41S	7°0' 8S	19°40' 40S	T 20
W21	0 34 46	6°45' 34S	7°02' 55S	25°25' 25S	24°43' 43S	25°0' 0S	22°54' 54N	18°36' 36S	6°36' 36S	7°0' 0S	21°15' 15S	23°30' 30S	21°38' 38S	7°14' 14S	19°37' 37S	W21
T 22	0 38 43	7°44' 52S	20°2' 2S	26°52' 52S	25°58' 58S	25°41' 41S	22°51' 51S	18°33' 33S	6°36' 36S	7°2' 2S	21°15' 15S	23°R31	21°34' 34S	7°21' 21S	19°35' 35S	T 22
F 23	0 42 39	8°44' 13S	2°17' 1S	28°18' 18S	27°12' 12S	26°22' 22S	22°47' 47N	18°30' 30S	6°35' 35S	7°4' 4S	21°16' 16S	23°30' 30S	21°31' 31S	7°28' 28S	19°32' 32S	F 23
S 24	0 46 36	9°43' 36S	13°53' 53N	29°43' 43S	28°27' 27S	27°3' 3S	22°44' 44N	18°27' 27S	6°34' 34S	7°6' 6S	21°16' 16S	23°28' 28S	21°28' 28S	7°35' 35S	19°29' 29S	S 24
S 25	0 50 32	10°43' 01S	25°43' 43N	1°17' 7S	29°42' 42S	27°44' 44S	22°41' 41N	18°24' 24S	6°32' 32S	7°8' 8S	21°17' 17S	23°24' 24S	21°25' 25S	7°41' 41S	19°26' 26S	S 25
M26	0 54 29	11°42' 28S	7°02' 32S	2°30' 30S	0°05' 57S	28°25' 25S	22°38' 38N	18°20' 20S	6°31' 31S	7°10' 10S	21°17' 17S	23°17' 17S	21°22' 22S	7°48' 48S	19°23' 23S	M26
T 27	0 58 25	12°41' 58S	19°22' 22N	3°52' 52S	2°12' 12S	29°6' 6S	22°36' 36N	18°17' 17S	6°30' 30S	7°12' 12S	21°18' 18S	23°8' 8S	21°19' 19S	7°55' 55S	19°20' 20S	T 27
W28	1 2 22	13°41' 29S	1°16' 16S	5°12' 12S	3°27' 27S	29°48' 48S	22°33' 33N	18°14' 14S	6°29' 29S	7°13' 13S	21°18' 18S	22°58' 58S	21°15' 15S	8°0' 1S	19°17' 17S	W28
T 29	1 6 19	14°41' 02S	13°14' 14N	6°32' 32S	4°42' 42S	0°17' 29S	22°31' 31N	18°10' 10S	6°28' 28S	7°15' 15S	21°19' 19S	22°48' 48S	21°12' 12S	8°0' 8S	19°15' 15S	T 29
F 30	1 10 15	15°40' 38S	25°17' 19N	7°17' 51S	5°02' 57S	1°17' 10S	22°29' 29N	18°0' 0S	6°26' 26S	7°17' 17S	21°19' 19S	22°02' 38S	21°0' 9S	8°02' 15S	19°12' 12S	F 30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
T 1	5n 6	8s19	4n56	3n37	1n 7	12n42	1n13	4s13	0n23	14s36	1s20	15n16	2s25	21n24	0s 6	10n 3
F 2	4 43	11 46	5 11	2 50	1 1	12 16	1 14	4 29	0 22	14 38	1 20	15 16	2 25	21 24	0 6	10 3
S 3	4 20	14 45	5 13	2 3	0 55	11 51	1 16	4 46	0 22	14 40	1 20	15 15	2 25	21 24	0 6	10 2
S 4	3 57	17 9	5 1	1 16	0 49	11 25	1 17	5 2	0 21	14 42	1 20	15 15	2 25	21 24	0 6	10 1
M 5	3 34	18 47	4 34	0 30	0 43	10 59	1 18	5 18	0 20	14 44	1 20	15 14	2 26	21 24	0 6	10 0
T 6	3 11	19 30	3 52	0s16	0 36	10 33	1 19	5 34	0 20	14 46	1 20	15 14	2 26	21 24	0 6	9 59
W 7	2 48	19 8	2 56	1 2	0 30	10 6	1 20	5 50	0 19	14 48	1 20	15 13	2 26	21 24	0 6	9 59
T 8	2 24	17 38	1 49	1 47	0 23	9 39	1 21	6 6	0 19	14 50	1 20	15 13	2 26	21 24	0 6	9 58
F 9	2 1	14 58	0 33	2 32	0 16	9 12	1 22	6 22	0 18	14 52	1 20	15 12	2 26	21 24	0 6	9 57
S 10	1 37	11 17	0s48	3 17	0 9	8 44	1 23	6 38	0 17	14 54	1 20	15 11	2 26	21 24	0 6	9 56
S 11	1 14	6 47	2 7	4 1	0 2	8 16	1 24	6 54	0 17	14 55	1 19	15 11	2 27	21 24	0 6	9 55
M12	0 50	1 49	3 17	4 45	0s 5	7 48	1 24	7 10	0 16	14 57	1 19	15 10	2 27	21 24	0 6	9 55
T 13	0 27	3n16	4 14	5 29	0 12	7 20	1 25	7 26	0 15	14 59	1 19	15 9	2 27	21 24	0 6	9 54
W14	0 3	8 6	4 52	6 12	0 19	6 51	1 26	7 42	0 15	15 0	1 19	15 8	2 27	21 24	0 6	9 53
T 15	0s20	12 20	5 10	6 54	0 26	6 23	1 26	7 58	0 14	15 2	1 19	15 7	2 27	21 24	0 6	9 52
F 16	0 44	15 42	5 7	7 36	0 34	5 54	1 26	8 14	0 14	15 3	1 19	15 7	2 28	21 23	0 6	9 52
S 17	1 7	18 4	4 47	8 17	0 41	5 25	1 27	8 30	0 13	15 5	1 19	15 6	2 28	21 23	0 6	9 51
S 18	1 31	19 20	4 11	8 58	0 48	4 55	1 27	8 45	0 12	15 6	1 19	15 5	2 28	21 23	0 6	9 50
M19	1 54	19 31	3 23	9 38	0 55	4 26	1 27	9 1	0 12	15 7	1 19	15 4	2 28	21 23	0 6	9 49
T 20	2 18	18 42	2 26	10 17	1 2	3 56	1 28	9 17	0 11	15 8	1 19	15 3	2 28	21 23	0 6	9 49
W21	2 41	17 0	1 24	10 56	1 9	3 27	1 28	9 32	0 11	15 9	1 18	15 2	2 28	21 23	0 6	9 48
T 22	3 5	14 33	0 19	11 34	1 16	2 57	1 28	9 48	0 10	15 10	1 18	15 1	2 28	21 23	0 6	9 47
F 23	3 28	11 30	0n46	12 12	1 23	2 27	1 28	10 3	0 9	15 11	1 18	15 0	2 29	21 22	0 6	9 47
S 24	3 52	8 1	1 48	12 49	1 30	1 57	1 28	10 19	0 9	15 12	1 18	14 59	2 29	21 22	0 6	9 46
S 25	4 15	4 14	2 45	13 24	1 37	1 27	1 27	10 34	0 8	15 13	1 18	14 58	2 29	21 22	0 6	9 45
M26	4 39	0 17	3 35	14 0	1 44	0 57	1 27	10 50	0 7	15 14	1 18	14 57	2 29	21 22	0 6	9 44
T 27	5 2	3s40	4 15	14 34	1 50	0 27	1 27	11 5	0 7	15 15	1 18	14 56	2 29	21 22	0 6	9 44
W28	5 25	7 30	4 44	15 7	1 56	0s 3	1 26	11 20	0 6	15 15	1 18	14 55	2 29	21 22	0 6	9 43
T 29	5 48	11 4	5 2	15 40	2 3	0 34	1 26	11 35	0 6	15 16	1 17	14 54	2 29	21 21	0 6	9 42
F 30	6s11	14s12	5n 5	16s12	2s 8	1s 4	1n26	11s50	0n 5	15s17	1s17	14n53	2s29	21n21	0s 6	9n42

Julian Day Number = 2247261.5, Delta T = 06m46s

Ecliptic obliquity =

ASTRODIENST EPHEMERIS for the year 1440

geocentric

OCTOBER 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	1 14 12	16 ⁴⁰ 15	7 ³²	9 ⁹	7 ¹³	1 ⁵²	22 ²⁷	18 ²	6 ²⁵	7 ¹⁹	21 ¹⁹	22 ³⁰	21 ⁶	8 ²¹	19 ⁹	S 1	
S 2	1 18 8	17 ³⁹ 54	19 ⁵⁶	10 ²⁵	8 ²⁸	2 ³³	22 ²⁶	17 ⁵⁹	6 ²⁴	7 ²¹	21 ²⁰	22 ²⁴	21 ³	8 ²⁸	19 ⁶	S 2	
M 3	1 22 5	18 ³⁹ 35	2 ³⁴	11 ⁴⁰	9 ⁴³	3 ¹⁵	22 ²⁴	17 ⁵⁵	6 ²²	7 ²³	21 ²⁰	22 ²¹	20 ⁵⁹	8 ³⁵	19 ³	M 3	
T 4	1 26 1	19 ³⁹ 18	15 ³⁰	12 ⁵³	10 ⁵⁸	3 ⁵⁷	22 ²³	17 ⁵¹	6 ²¹	7 ²⁴	21 ²⁰	22 ²⁰	20 ⁵⁶	8 ⁴¹	19 ⁰	T 4	
W 5	1 29 58	20 ³⁹ 02	28 ⁴⁶	14 ⁵	12 ¹³	4 ³⁸	22 ²²	17 ⁴⁷	6 ¹⁹	7 ²⁶	21 ²⁰	22 ²⁰	20 ⁵³	8 ⁴⁸	18 ⁵⁷	W 5	
T 6	1 33 54	21 ³⁸ 48	12 ²⁷	15 ¹⁴	13 ²⁸	5 ²⁰	22 ²¹	17 ⁴³	6 ¹⁸	7 ²⁸	21 ²¹	22 ²⁰	20 ⁵⁰	8 ⁵⁵	18 ⁵⁴	T 6	
F 7	1 37 51	22 ³⁸ 36	26 ³³	16 ²²	14 ⁴³	6 ²	22 ²¹	17 ³⁹	6 ¹⁶	7 ³⁰	21 ²¹	22 ²⁰	20 ⁴⁷	9 ¹	18 ⁵¹	F 7	
S 8	1 41 48	23 ³⁸ 25	11 ⁴	17 ²⁸	15 ⁵⁹	6 ⁴⁴	22 ²⁰	17 ³⁴	6 ¹⁴	7 ³¹	21 ²¹	22 ¹⁹	20 ⁴⁴	9 ⁸	18 ⁴⁸	S 8	
S 9	1 45 44	24 ³⁸ 16	25 ⁵⁸	18 ³¹	17 ¹⁴	7 ²⁶	22 ²⁰	17 ³⁰	6 ¹³	7 ³³	21 ²¹	22 ¹⁵	20 ⁴⁰	9 ¹⁵	18 ⁴⁶	S 9	
M10	1 49 41	25 ³⁸ 09	11 ⁹	19 ³²	18 ²⁹	8 ⁸	22 ²⁰	17 ²⁶	6 ¹¹	7 ³⁴	21 ²¹	22 ⁹	20 ³⁷	9 ²²	18 ⁴³	M10	
T 11	1 53 37	26 ³⁸ 04	26 ²⁵	20 ²⁹	19 ⁴⁴	8 ⁵⁰	22 ²⁰	17 ²¹	6 ⁹	7 ³⁶	21 ²¹	22 ⁰	20 ³⁴	9 ²⁸	18 ⁴⁰	T 11	
W12	1 57 34	27 ³⁸ 00	11 ³⁷	21 ²³	20 ⁵⁹	9 ³²	22 ²¹	17 ¹⁷	6 ⁷	7 ³⁸	21 ²¹	21 ⁵⁰	20 ³¹	9 ³⁵	18 ³⁷	W12	
T 13	2 1 30	28 ³⁷ 59	26 ³⁴	22 ¹⁴	22 ¹⁵	10 ¹⁴	22 ²¹	17 ¹²	6 ⁶	7 ³⁹	21 ²¹	21 ⁴⁰	20 ²⁸	9 ⁴²	18 ³⁴	T 13	
F 14	2 5 27	29 ³⁸ 00	11 ¹¹	23 ¹	23 ³⁰	10 ⁵⁶	22 ²²	17 ⁸	6 ⁴	7 ⁴¹	21 ²¹	21 ³¹	20 ²⁵	9 ⁴⁸	18 ³¹	F 14	
S 15	2 9 23	0 ³⁸ 03	25 ¹²	23 ⁴³	24 ⁴⁵	11 ³⁹	22 ²³	17 ³	6 ²	7 ⁴²	21 ²¹	21 ²⁴	20 ²¹	9 ⁵⁵	18 ²⁸	S 15	
S 16	2 13 20	1 ³⁸ 08	8 ⁴⁶	24 ²⁰	26 ¹	12 ²¹	22 ²⁵	16 ⁵⁹	6 ⁰	7 ⁴⁴	21 ²¹	21 ²⁰	20 ¹⁸	10 ²	18 ²⁶	S 16	
M17	2 17 17	2 ³⁸ 15	21 ⁵²	24 ⁵²	27 ¹⁶	13 ³	22 ²⁶	16 ⁵⁴	5 ⁵⁸	7 ⁴⁵	21 ²¹	21 ¹⁷	20 ¹⁵	10 ⁸	18 ²³	M17	
T 18	2 21 13	3 ³⁸ 25	4 ³²	25 ¹⁷	28 ³¹	13 ⁴⁶	22 ²⁸	16 ⁴⁹	5 ⁵⁶	7 ⁴⁷	21 ²¹	21 ¹⁷	20 ¹²	10 ¹⁵	18 ²⁰	T 18	
W19	2 25 10	4 ³⁸ 36	16 ⁵¹	25 ³⁵	29 ⁴⁷	14 ²⁸	22 ²⁹	16 ⁴⁵	5 ⁵⁴	7 ⁴⁸	21 ²¹	21 ¹⁷	20 ⁹	10 ²²	18 ¹⁷	W19	
T 20	2 29 6	5 ³⁸ 50	28 ⁵⁶	25 ⁴⁶	1 ¹¹	15 ¹¹	22 ³¹	16 ⁴⁰	5 ⁵²	7 ⁴⁹	21 ²¹	21 ¹⁷	20 ⁵	10 ²⁸	18 ¹⁴	T 20	
F 21	2 33 3	6 ³⁹ 05	10 ⁵⁰	25 ⁴⁹	2 ¹⁷	15 ⁵³	22 ³⁴	16 ³⁵	5 ⁵⁰	7 ⁵¹	21 ²¹	21 ¹⁵	20 ²	10 ³⁵	18 ¹²	F 21	
S 22	2 36 59	7 ³⁹ 23	22 ³⁹	25 ⁴³	3 ³³	16 ³⁶	22 ³⁶	16 ³⁰	5 ⁴⁸	7 ⁵²	21 ²⁰	21 ¹¹	19 ⁵⁹	10 ⁴²	18 ⁹	S 22	
S 23	2 40 56	8 ³⁹ 42	4 ²⁷	25 ²⁸	4 ⁴⁸	17 ¹⁹	22 ³⁹	16 ²⁵	5 ⁴⁵	7 ⁵³	21 ²⁰	21 ⁴	19 ⁵⁶	10 ⁴⁹	18 ⁶	S 23	
M24	2 44 52	9 ⁴⁰ 04	16 ¹⁸	25 ³	6 ³	18 ¹	22 ⁴²	16 ²¹	5 ⁴³	7 ⁵⁵	21 ²⁰	20 ⁵⁴	19 ⁵³	10 ⁵⁵	18 ⁴	M24	
T 25	2 48 49	10 ⁴⁰ 27	28 ¹²	24 ²⁸	7 ¹⁹	18 ⁴⁴	22 ⁴⁵	16 ¹⁶	5 ⁴¹	7 ⁵⁶	21 ²⁰	20 ⁴²	19 ⁵⁰	11 ²	18 ¹	T 25	
W26	2 52 46	11 ⁴⁰ 52	10 ¹³	23 ⁴³	8 ³⁴	19 ²⁷	22 ⁴⁸	16 ¹¹	5 ³⁹	7 ⁵⁷	21 ¹⁹	20 ²⁸	19 ⁴⁶	11 ⁹	17 ⁵⁸	W26	
T 27	2 56 42	12 ⁴¹ 18	22 ²¹	22 ⁴⁸	9 ⁵⁰	20 ¹⁰	22 ⁵¹	16 ⁶	5 ³⁶	7 ⁵⁸	21 ¹⁹	20 ¹³	19 ⁴³	11 ¹⁵	17 ⁵⁶	T 27	
F 28	3 0 39	13 ⁴¹ 47	4 ³⁸	21 ⁴⁴	11 ⁵	20 ⁵³	22 ⁵⁵	16 ¹	5 ³⁴	8 ⁰	21 ¹⁹	19 ⁵⁹	19 ⁴⁰	11 ²²	17 ⁵³	F 28	
S 29	3 4 35	14 ⁴² 16	17 ³	20 ³³	12 ²¹	21 ³⁶	22 ⁵⁹	15 ⁵⁶	5 ³²	8 ¹	21 ¹⁸	19 ⁴⁷	19 ³⁷	11 ²⁹	17 ⁵¹	S 29	
S 30	3 8 32	15 ⁴² 48	29 ³⁸	19 ¹⁷	13 ³⁶	22 ¹⁹	23 ³	15 ⁵¹	5 ³⁰	8 ²	21 ¹⁸	19 ³⁷	19 ³⁴	11 ³⁵	17 ⁴⁸	S 30	
M31	3 12 28	16 ⁴³ 20	12 ²⁴	17 ⁵⁶	14 ⁵¹	23 ¹¹	23 ⁷	15 ⁴⁶	5 ²⁷	8 ³	21 ¹⁷	19 ³¹	19 ³¹	11 ⁴²	17 ⁴⁶	M31	

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	6s34	16s46	4n55	16s42	2s14	1s34	1n25	12s 5	0n 4	15s17	1s17	14n52	2s30	21n21	0s 6	9n41	0n54	23n59	2n12	14n 3	14n30	0n 9	8n17	0n45			
S 2	6 57	18 37	4 32	17 12	2 20	2 4	1 24	12 20	0 4	15 17	1 17	14 51	2 30	21 21	0 6	9 40	0 54	23 59	2 12	14 5	14 31	0 7	8 15	0 45			
M 3	7 20	19 35	3 54	17 40	2 25	2 35	1 24	12 35	0 3	15 18	1 17	14 49	2 30	21 20	0 6	9 40	0 54	23 59	2 12	14 6	14 33	0 5	8 14	0 45			
T 4	7 43	19 34	3 4	18 8	2 30	3 5	1 23	12 50	0 3	15 18	1 17	14 48	2 30	21 20	0 6	9 39	0 54	23 59	2 12	14 7	14 34	0 3	8 13	0 45			
W 5	8 5	18 28	2 3	18 34	2 35	3 35	1 22	13 5	0 2	15 18	1 16	14 47	2 30	21 20	0 6	9 39	0 54	23 59	2 12	14 7	14 35	0 1	8 12	0 45			
T 6	8 28	16 17	0 53	18 59	2 39	4 5	1 21	13 19	0 1	15 18	1 16	14 46	2 30	21 20	0 6	9 38	0 54	23 59	2 12	14 6	14 36	0s 1	8 11	0 45			
F 7	8 50	13 3	0s22	19 23	2 43	4 35	1 20	13 34	0 1	15 18	1 16	14 45	2 30	21 19	0 6	9 37	0 54	23 59	2 12	14 6	14 37	0 3	8 10	0 45			
S 8	9 12	8 57	1 38	19 45	2 46	5 5	1 19	13 48	0 0	15 18	1 16	14 43	2 30	21 19	0 6	9 37	0 54	23 59	2 12	14 7	14 38	0 5	8 8	0 45			
S 9	9 34	4 12	2 49	20 6	2 49	5 35	1 18	14 2	0s 1	15 18	1 16	14 42	2 30	21 19	0 6	9 36	0 54	24 0	2 13	14 8	14 39	0 8	8 7	0 45			
M10	9 56	0n54	3 49	20 25	2 52	6 5	1 17	14 17	0 1	15 18	1 16	14 41	2 30	21 18	0 6	9 36	0 54	24 0	2 13	14 10	14 40	0 10	8 6	0 45			
T 11	10 18	5 58	4 34	20 43	2 54	6 34	1 16	14 31	0 2	15 18	1 15	14 39	2 30	21 18	0 6	9 35	0 54	24 0	2 13	14 13	14 41	0 12	8 5	0 45			
W12	10 40	10 38	4 58	20 59	2 56	7 4	1 15	14 45	0 2	15 17	1 15	14 38	2 30	21 18	0 6	9 34	0 54	24 0	2 13	14 16	14 42	0 14	8 4	0 45			
T 13	11 1	14 33	5 2	21 13	2 56	7 33	1 13	14 59	0 3	15 17	1 15	14 37	2 30	21 18	0 6	9 34	0 54	24 0	2 13	14 19	14 43	0 16	8 2	0 45			
F 14	11 23	17 28	4 46	21 25	2 56	8 2	1 12	15 13	0 4	15 17	1 15	14 36	2 31	21 17	0 6	9 33	0 54	24 0	2 13	14 22	14 44	0 18	8 1	0 45			
S 15	11 44	19 13	4 12	21 35	2 56	8 31	1 11	15 26	0 4	15 16	1 15	14 34	2 31	21 17	0 6	9 33	0 55	24 0	2 13	14 25	14 45	0 20	8 0	0 45			
S 16	12 5	19 48	3 26	21 43	2 54	9 0	1 9	15 40	0 5	15 16	1 15	14 33	2 31	21 17	0 6	9 32	0 55	24 0	2 13	14 26	14 46	0 22	7 59	0 45			
M17	12 25	19 16	2 30	21 49	2 51	9 29	1 8	15 53	0 5	15 15	1 14	14 32	2 31	21 16	0 6	9 32	0 55	24 1	2 14	14 27	14 47	0 24	7 58	0 45			
T 18	12 46	17 46	1 28	21 51	2 48	9 57	1 6	16 7	0 6	15 14	1 14	14 30	2 31	21 16	0 6	9 31	0 55	24 1	2 14	14 27	14 48	0 26	7 57	0 45			
W19	13 6	15 27	0 24	21 51	2 43	10 25	1 5	16 20	0 7	15 14	1 14	14 29	2 31	21 16	0 6	9 31	0 55	24 1	2 14	14 27	14 49	0 28	7 55	0 45			
T 20	13 27	12 31	0n41	21 48	2 37	10 53	1 3	16 33	0 7	15 13	1 14	14 28	2 31	21 15	0 6	9 30	0 55	24 1	2 14	14 27	14 50	0 31	7 54	0 45			
F 21	13 47	9 6	1 42	21 41	2 29	11 21	1 1	16 46	0 8	15 12	1 14	14 26	2 31	21 15	0 6	9 30	0 55	24 1	2 14	14 27	14 51	0 33	7 53	0 45			
S 22	14 6	5 20	2 38	21 31	2 20	11 48	1 0	16 59	0 8	15 11	1 14	14 25	2 31	21 14	0 6	9 29	0 55	24 1	2 14	14 29	14 52	0 35	7 52	0 47			
S 23	14 26	1 24	3 27	21 17	2 10	12 15	0 58	17 12	0 9	15 10	1 13	14 23	2 31	21 14	0 6	9 29	0 55	24 1	2 14	14 31	14 53	0 37	7 51	0 47			
M24	14 45	2s37	4 8	20 59	1 57	12 42	0 56	17 24	0 10	15 9	1 13	14 22	2 31	21 14	0 6	9 28	0 55	24 2	2 14	14 34	14 54	0 39	7 50	0 47			
T 25	15 4	6 33	4 37	20 37	1 43	13 8	0 54	17 37	0 10	15 8	1 13	14 21	2 31	21 13	0 6	9 28	0 55	24 2	2 15	14 38	14 55	0 41	7 49	0 47			
W26	15 23	10 15	4 55	20 11	1 28	13 35	0 52	17 49	0 11	15 6	1 13	14 19	2 31	21 13	0 6	9 28	0 55	24 2	2 15	14 43	14 56	0 43	7 48	0 47			
T 27	15 42	13 35	4 59	19 40	1 11	14 0	0 50	18 1	0 12	15 5	1 13	14 18	2 31	21 13	0 6	9 27	0 55	24 2	2 15	14 47	14 57	0 45	7 47	0 47			
F 28	16 0	16 22	4 50	19 6	0 52	14 26	0 48	18 13	0 12	15 4	1 13	14 17	2 31	21 12	0 6	9 27	0 55	24 2	2 15	14 52	14 58	0 47	7 45	0 47			
S 29	16 18	18 27	4 27	18 28	0 33	14 51	0 46	18 25	0 13	15 2	1 12	14 15	2 30	21 12	0 6	9 26	0 55	24 2	2 15	14 56	14 59	0 49	7 44	0 47			
S 30	16 36	19 40	3 51	17 48	0 33	15 16	0 44	18 37	0 13	15 1	1 12	14 14	2 30	21 11	0 6	9 26	0 55	24 3	2 15	14 59	15 0	0 52	7 43	0 47			
M31	16s53	19s54	3n 2	17s 6	0n 8	15s40	0n42	18s49	0s14	14s59	1s12	14n13	2s30	21n11	0s 6	9n26	0n55	24n 3	2n15	15n 1	15n 1	0s54	7n42	0n46			

ASTRODIENST EPHEMERIS for the year 1440
geocentric

NOVEMBER 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	3 16 25	17 ^m 43'54	25 ^h 32'4	16 ^h R35	16 ^m 7	23 ^m 46	23 ^h 31	15 ^h R41	5 ^h R25	8 ^m 4	21 ^h R17	19 ^h R28	19 ^h 27	11 ^h 49	17 ^h R43	T 1
W 2	3 20 21	18 ^h 44'30	8 ^h 39	15 ^m 16	17 ^h 22	24 ^h 29	23 ^h 16	15 ^h 37	5 ^h 22	8 ^h 5	21 ^h 16	19 ^h 27	19 ^h 24	11 ^h 55	17 ^h 41	W 2
T 3	3 24 18	19 ^h 45'06	22 ^h 12	14 ^h 1	18 ^h 38	25 ^h 12	23 ^h 20	15 ^h 32	5 ^h 20	8 ^h 6	21 ^h 16	19 ^h 26	19 ^h 21	12 ^h 2	17 ^h 39	T 3
F 4	3 28 15	20 ^h 45'44	6 ^h 5	12 ^h 53	19 ^h 53	25 ^h 55	23 ^h 25	15 ^h 27	5 ^h 18	8 ^h 7	21 ^h 15	19 ^h 26	19 ^h 18	12 ^h 9	17 ^h 36	F 4
S 5	3 32 11	21 ^h 46'22	20 ^h 19	11 ^h 53	21 ^h 9	26 ^h 39	23 ^h 30	15 ^h 22	5 ^h 15	8 ^h 8	21 ^h 15	19 ^h 24	19 ^h 15	12 ^h 16	17 ^h 34	S 5
S 6	3 36 8	22 ^h 47'02	4 ^h 53	11 ^h 4	22 ^h 24	27 ^h 22	23 ^h 36	15 ^h 17	5 ^h 13	8 ^h 9	21 ^h 14	19 ^h 20	19 ^h 11	12 ^h 22	17 ^h 32	S 6
M 7	3 40 4	23 ^h 47'43	19 ^h 43	10 ^h 26	23 ^h 40	28 ^h 6	23 ^h 41	15 ^h 12	5 ^h 10	8 ^h 9	21 ^h 14	19 ^h 12	19 ^h 8	12 ^h 29	17 ^h 30	M 7
T 8	3 44 1	24 ^h 48'25	4 ^h 34	10 ^h 0	24 ^h 55	28 ^h 49	23 ^h 47	15 ^h 7	5 ^h 8	8 ^h 10	21 ^h 13	19 ^h 2	19 ^h 5	12 ^h 36	17 ^h 27	T 8
W 9	3 47 57	25 ^h 49'09	19 ^h 42	9 ^h 45	26 ^h 10	29 ^h 33	23 ^h 53	15 ^h 3	5 ^h 5	8 ^h 11	21 ^h 12	18 ^h 51	19 ^h 2	12 ^h 42	17 ^h 25	W 9
T 10	3 51 54	26 ^h 49'54	4 ^h 32	9 ^h D42	27 ^h 26	0 ^h 17	23 ^h 59	14 ^h 58	5 ^h 3	8 ^h 12	21 ^h 12	18 ^h 39	18 ^h 59	12 ^h 49	17 ^h 23	T 10
F 11	3 55 50	27 ^h 50'40	19 ^h 4	9 ^h 49	28 ^h 41	1 ^h 0	24 ^h 5	14 ^h 53	5 ^h 0	8 ^h 12	21 ^h 11	18 ^h 28	18 ^h 56	12 ^h 56	17 ^h 21	F 11
S 12	3 59 47	28 ^h 51'27	3 ^h 31	10 ^h 6	29 ^h 57	1 ^h 44	24 ^h 11	14 ^h 48	4 ^h 58	8 ^h 13	21 ^h 10	18 ^h 19	18 ^h 52	13 ^h 2	17 ^h 19	S 12
S 13	4 3 44	29 ^h 52'16	16 ^h 50	10 ^h 32	1 ^h 12	2 ^h 28	24 ^h 18	14 ^h 44	4 ^h 55	8 ^h 14	21 ^h 10	18 ^h 13	18 ^h 49	13 ^h 9	17 ^h 17	S 13
M14	4 7 40	0 ^h 53'07	0 ^h 1	11 ^h 7	2 ^h 28	3 ^h 12	24 ^h 24	14 ^h 39	4 ^h 53	8 ^h 14	21 ^h 9	18 ^h 10	18 ^h 46	13 ^h 16	17 ^h 15	M14
T 15	4 11 37	1 ^h 53'58	12 ^h 46	11 ^h 48	3 ^h 43	3 ^h 56	24 ^h 31	14 ^h 35	4 ^h 50	8 ^h 15	21 ^h 8	18 ^h D 8	18 ^h 43	13 ^h 23	17 ^h 13	T 15
W16	4 15 33	2 ^h 54'51	25 ^h 10	12 ^h 36	4 ^h 59	4 ^h 40	24 ^h 38	14 ^h 30	4 ^h 48	8 ^h 16	21 ^h 7	18 ^h 8	18 ^h 40	13 ^h 29	17 ^h 11	W16
T 17	4 19 30	3 ^h 55'46	7 ^h 16	13 ^h 30	6 ^h 14	5 ^h 24	24 ^h 45	14 ^h 26	4 ^h 45	8 ^h 16	21 ^h 7	18 ^h R 9	18 ^h 37	13 ^h 36	17 ^h 10	T 17
F 18	4 23 26	4 ^h 56'41	19 ^h 12	14 ^h 29	7 ^h 30	6 ^h 8	24 ^h 52	14 ^h 21	4 ^h 42	8 ^h 17	21 ^h 6	18 ^h 8	18 ^h 33	13 ^h 43	17 ^h 8	F 18
S 19	4 27 23	5 ^h 57'38	1 ^h 2	15 ^h 32	8 ^h 45	6 ^h 52	25 ^h 0	14 ^h 17	4 ^h 40	8 ^h 17	21 ^h 5	18 ^h 5	18 ^h 30	13 ^h 49	17 ^h 6	S 19
S 20	4 31 19	6 ^h 58'37	12 ^h 51	16 ^h 39	10 ^h 1	7 ^h 36	25 ^h 7	14 ^h 12	4 ^h 37	8 ^h 17	21 ^h 4	17 ^h 59	18 ^h 27	13 ^h 56	17 ^h 5	S 20
M21	4 35 16	7 ^h 59'36	24 ^h 43	17 ^h 49	11 ^h 16	8 ^h 21	25 ^h 15	14 ^h 8	4 ^h 35	8 ^h 18	21 ^h 3	17 ^h 51	18 ^h 24	14 ^h 3	17 ^h 3	M21
T 22	4 39 13	9 ^h 0'37	6 ^h 43	19 ^h 2	12 ^h 31	9 ^h 5	25 ^h 23	14 ^h 4	4 ^h 32	8 ^h 18	21 ^h 2	17 ^h 40	18 ^h 21	14 ^h 9	17 ^h 2	T 22
W23	4 43 9	10 ^h 1'38	18 ^h 51	20 ^h 18	13 ^h 47	9 ^h 49	25 ^h 31	14 ^h 0	4 ^h 30	8 ^h 18	21 ^h 1	17 ^h 27	18 ^h 17	14 ^h 16	17 ^h 0	W23
T 24	4 47 6	11 ^h 2'41	1 ^h 11	21 ^h 36	15 ^h 2	10 ^h 34	25 ^h 39	13 ^h 56	4 ^h 27	8 ^h 19	21 ^h 0	17 ^h 14	18 ^h 14	14 ^h 23	16 ^h 59	T 24
F 25	4 51 2	12 ^h 3'44	13 ^h 42	22 ^h 55	16 ^h 18	11 ^h 18	25 ^h 48	13 ^h 52	4 ^h 25	8 ^h 19	20 ^h 59	17 ^h 2	18 ^h 11	14 ^h 29	16 ^h 57	F 25
S 26	4 54 59	13 ^h 4'49	26 ^h 25	24 ^h 16	17 ^h 33	12 ^h 3	25 ^h 56	13 ^h 48	4 ^h 22	8 ^h 19	20 ^h 58	16 ^h 51	18 ^h 8	14 ^h 36	16 ^h 56	S 26
S 27	4 58 55	14 ^h 5'54	9 ^h 31	25 ^h 39	18 ^h 49	12 ^h 47	26 ^h 5	13 ^h 44	4 ^h 20	8 ^h 19	20 ^h 57	16 ^h 43	18 ^h 5	14 ^h 43	16 ^h 55	S 27
M28	5 2 52	15 ^h 6'59	22 ^h 24	27 ^h 2	20 ^h 4	13 ^h 32	26 ^h 14	13 ^h 40	4 ^h 17	8 ^h 19	20 ^h 56	16 ^h 37	18 ^h 2	14 ^h 50	16 ^h 53	M28
T 29	5 6 48	16 ^h 8'05	5 ^h 39	28 ^h 27	21 ^h 20	14 ^h 16	26 ^h 23	13 ^h 36	4 ^h 15	8 ^h 20	20 ^h 55	16 ^h 34	17 ^h 58	14 ^h 56	16 ^h 52	T 29
W30	5 10 45	17 ^h 9'12	19 ^h 6	29 ^h 53	22 ^h 35	15 ^h 1	26 ^h 32	13 ^h 33	4 ^h 12	8 ^h 20	20 ^h 54	16 ^h D34	17 ^h 55	15 ^h 3	16 ^h 51	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	decl	lat	decl	lat
T 1	17s10	19s 6	2n 3	16s23	0n29	16s 4	0n40	19s 0	0s15	14s58	1s12	14n11	2s30	21n11	0s 6	9n25	0n55	24n 3	2n15	15n 2	15n 2	0s56	7n41	0n46					
W 2	17 27	17 14	0 57	15 41	0 49	16 28	0 38	19 11	0 15	14 56	1 12	14 10	2 30	21 10	0 6	9 25	0 55	24 3	2 16	15 2	15 3	0 58	7 40	0 46					
T 3	17 44	14 23	0s15	15 1	1 7	16 51	0 36	19 23	0 16	14 54	1 12	14 9	2 30	21 10	0 6	9 25	0 55	24 3	2 16	15 2	15 4	1 0	7 39	0 46					
F 4	18 0	10 39	1 27	14 24	1 25	17 13	0 34	19 34	0 16	14 52	1 11	14 7	2 30	21 9	0 6	9 24	0 55	24 4	2 16	15 2	15 5	1 2	7 38	0 46					
S 5	18 16	6 13	2 35	13 51	1 40	17 36	0 31	19 44	0 17	14 51	1 11	14 6	2 30	21 9	0 6	9 24	0 55	24 4	2 16	15 3	15 6	1 4	7 37	0 46					
S 6	18 31	1 21	3 35	13 23	1 54	17 57	0 29	19 55	0 18	14 49	1 11	14 5	2 30	21 8	0 6	9 24	0 55	24 4	2 16	15 4	15 7	1 6	7 36	0 46					
M 7	18 47	3n42	4 22	13 1	2 5	18 19	0 27	20 5	0 18	14 47	1 11	14 3	2 30	21 8	0 6	9 23	0 55	24 4	2 16	15 6	15 8	1 8	7 35	0 46					
T 8	19 2	8 33	4 51	12 44	2 15	18 39	0 25	20 16	0 19	14 45	1 11	14 2	2 30	21 8	0 6	9 23	0 55	24 4	2 16	15 10	15 9	1 11	7 34	0 46					
W 9	19 16	12 53	5 0	12 32	2 22	18 59	0 22	20 26	0 19	14 43	1 11	14 1	2 30	21 7	0 6	9 23	0 55	24 5	2 16	15 13	15 10	1 13	7 34	0 45					
T 10	19 30	16 22	4 49	12 26	2 28	19 19	0 20	20 36	0 20	14 40	1 10	13 59	2 30	21 7	0 6	9 23	0 56	24 5	2 17	15 17	15 11	1 15	7 33	0 45					
F 11	19 44	18 45	4 19	12 24	2 31	19 38	0 18	20 45	0 21	14 38	1 10	13 58	2 29	21 6	0 6	9 22	0 56	24 5	2 17	15 20	15 12	1 17	7 32	0 45					
S 12	19 58	19 54	3 34	12 28	2 34	19 57	0 15	20 55	0 21	14 36	1 10	13 57	2 29	21 6	0 6	9 22	0 56	24 5	2 17	15 23	15 13	1 19	7 31	0 45					
S 13	20 11	19 50	2 38	12 35	2 34	20 15	0 13	21 4	0 22	14 34	1 10	13 56	2 29	21 5	0 6	9 22	0 56	24 6	2 17	15 25	15 14	1 21	7 30	0 45					
M14	20 24	18 40	1 34	12 46	2 34	20 32	0 11	21 13	0 22	14 31	1 10	13 54	2 29	21 5	0 6	9 22	0 56	24 6	2 17	15 26	15 15	1 23	7 29	0 45					
T 15	20 36	16 34	0 28	13 1	2 32	20 49	0 8	21 22	0 23	14 29	1 10	13 53	2 29	21 4	0 6	9 22	0 56	24 6	2 17	15 26	15 16	1 25	7 28	0 45					
W16	20 48	13 45	0n37	13 18	2 29	21 6	0 6	21 31	0 24	14 26	1 9	13 52	2 29	21 4	0 6	9 22	0 56	24 6	2 17	15 26	15 17	1 28	7 28	0 45					
T 17	21 0	10 24	1 40	13 37	2 26	21 21	0 3	21 40	0 24	14 24	1 9	13 51	2 29	21 4	0 6	9 21	0 56	24 6	2 17	15 26	15 18	1 30	7 27	0 45					
F 18	21 11	6 41	2 37	13 59	2 22	21 36	0 1	21 48	0 25	14 21	1 9	13 50	2 28	21 3	0 6	9 21	0 56	24 7	2 17	15 27	15 19	1 32	7 26	0 44					
S 19	21 22	2 45	3 27	14 22	2 17	21 51	0s 1	21 56	0 25	14 19	1 9	13 49	2 28	21 3	0 6	9 21	0 56	24 7	2 18	15 29	15 20	1 34	7 25	0 44					
S 20	21 32	1s17	4 8	14 46	2 11	22 5	0 4	22 4	0 26	14 16	1 9	13 48	2 28	21 2	0 5	9 21	0 56	24 7	2 18	15 29	15 21	1 36	7 24	0 44					
M21	21 42	5 17	4 38	15 11	2 5	22 18	0 6	22 12	0 26	14 13	1 9	13 46	2 28	21 2	0 5	9 21	0 56	24 7	2 18	15 32	15 22	1 38	7 24	0 44					
T 22	21 52	9 7	4 56	15 37	1 59	22 30	0 9	22 19	0 27	14 10	1 9	13 45	2 28	21 1	0 5	9 21	0 56	24 8	2 18	15 35	15 23	1 40	7 23	0 44					
W23	22 1	12 38	5 2	16 4	1 53	22 42	0 11	22 27	0 28	14 7	1 8	13 44	2 28	21 1	0 5	9 21	0 56	24 8	2 18	15 39	15 23	1 42	7 22	0 44					
T 24	22 10	15 40	4 53	16 31	1 46	22 53	0 13	22 34	0 28	14 5	1 8	13 43	2 27	21 0	0 5	9 21	0 56	24 8	2 18	15 43	15 24	1 45	7 22	0 44					
F 25	22 18	18 2	4 30	16 58	1 39	23 4	0 16	22 41	0 29	14 2	1 8	13 42	2 27	21 0	0 5	9 21	0 56	24 8	2 18	15 47	15 25	1 47	7 21	0 44					
S 26	22 26	19 34	3 54	17 25	1 32	23 13	0 18	22 47	0 29	13 59	1 8	13 41	2 27	20 59	0 5	9 21	0 56	24 9	2 18	15 50	15 26	1 49	7 20	0 44					
S 27	22 34	20 7	3 5	17 52	1 24	23 23	0 20	22 54	0 30	13 55	1 8	13 40	2 27	20 59	0 5	9 21	0 56	24 9	2 18	15 52	15 27	1 51	7 20	0 43					
M28	22 41	19 35	2 5	18 19	1 17	23 31	0 23	23 0	0 31	13 52	1 8	13 39	2 27	20 59	0 5	9 21	0 56	24 9	2 19	15 54	15 28	1 53	7 19	0 43					
T 29	22 47	17 59	0 58	18 45	1 9	23 39	0 25	23 6	0 31	13 49	1 8	13 38	2 26	20 58	0 5	9 21	0 56	24 10	2 19	15 55	15 29	1 55	7 19	0 43					
W30	22s53	15s21	0s14	19s11	1n 2	23s45	0s27	23s11	0s32	13s46	1s 7	13n38	2s26	20m58	0s 5	9n21	0n56	24n10	2n19	15n55	15n30	1s57	7n18	0n43					

ASTRODIENST EPHEMERIS for the year 1440

geocentric

DECEMBER 1440 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	5 14 42	18°10'19	2°45	1°19	23°51	15°46	26°41	13°R29	4°R10	8°R20	20°R53	16°Ω35	17°Ω52	15°Δ10	16°R50	T 1
F 2	5 18 38	19°11'26	16°36	2°46	25° 6	16°31	26°50	13°R25	4°II 7	8°R20	20°R52	16°R35	17°49	15°16	16°Y49	F 2
S 3	5 22 35	20°12'33	0°Y39	4°14	26°22	17°16	27° 0	13°22	4° 5	8°20	20°51	16°35	17°46	15°23	16°48	S 3
S 4	5 26 31	21°13'40	14°55	5°42	27°37	18° 0	27° 9	13°19	4° 3	8°20	20°50	16°32	17°43	15°30	16°47	S 4
M 5	5 30 28	22°14'48	29°22	7°11	28°53	18°45	27°19	13°15	4° 0	8°19	20°49	16°27	17°39	15°37	16°47	M 5
T 6	5 34 24	23°15'56	13°R54	8°40	0°R 8	19°30	27°29	13°12	3°58	8°19	20°48	16°21	17°36	15°43	16°46	T 6
W 7	5 38 21	24°17'04	28°26	10°10	1°23	20°15	27°39	13° 9	3°55	8°19	20°46	16°12	17°33	15°50	16°45	W 7
T 8	5 42 17	25°18'12	12°II53	11°40	2°39	21° 0	27°49	13° 6	3°53	8°19	20°45	16° 3	17°30	15°57	16°44	T 8
F 9	5 46 14	26°19'21	27° 6	13°10	3°54	21°45	27°59	13° 3	3°51	8°19	20°44	15°55	17°27	16° 3	16°44	F 9
S 10	5 50 11	27°20'29	11°R 2	14°41	5°10	22°31	28° 9	13° 1	3°49	8°18	20°43	15°49	17°23	16°10	16°43	S 10
S 11	5 54 7	28°21'39	24°35	16°12	6°25	23°16	28°20	12°58	3°46	8°18	20°42	15°44	17°20	16°17	16°43	S 11
M12	5 58 4	29°22'48	7°Ω44	17°44	7°40	24° 1	28°30	12°55	3°44	8°18	20°40	15°42	17°17	16°23	16°42	M12
T 13	6 2 0	0°R23'58	20°31	19°16	8°56	24°46	28°41	12°53	3°42	8°17	20°39	15°D42	17°14	16°30	16°42	T 13
W14	6 5 57	1°25'08	2°R57	20°48	10°11	25°32	28°52	12°50	3°40	8°17	20°38	15°43	17°11	16°37	16°42	W14
T 15	6 9 53	2°26'18	15° 8	22°20	11°27	26°17	29° 3	12°48	3°38	8°16	20°37	15°45	17° 8	16°44	16°42	T 15
F 16	6 13 50	3°27'29	27° 6	23°53	12°42	27° 2	29°14	12°46	3°35	8°16	20°36	15°46	17° 4	16°50	16°41	F 16
S 17	6 17 46	4°28'39	8°Δ58	25°26	13°57	27°48	29°25	12°44	3°33	8°15	20°34	15°R46	17° 1	16°57	16°41	S 17
S 18	6 21 43	5°29'51	20°49	27° 0	15°13	28°33	29°36	12°42	3°31	8°15	20°33	15°45	16°58	17° 4	16°D41	S 18
M19	6 25 40	6°31'02	2°R43	28°34	16°28	29°19	29°47	12°40	3°29	8°14	20°32	15°41	16°55	17°10	16°41	M19
T 20	6 29 36	7°32'13	14°45	0°R 8	17°43	0°R 5	29°59	12°38	3°27	8°14	20°30	15°36	16°52	17°17	16°41	T 20
W21	6 33 33	8°33'25	26°59	1°42	18°59	0°50	0°H10	12°36	3°25	8°13	20°29	15°30	16°48	17°24	16°41	W21
T 22	6 37 29	9°34'36	9°R27	3°17	20°14	1°36	0°22	12°35	3°23	8°12	20°28	15°23	16°45	17°30	16°42	T 22
F 23	6 41 26	10°35'48	22°11	4°53	21°30	2°22	0°34	12°33	3°21	8°12	20°27	15°17	16°42	17°37	16°42	F 23
S 24	6 45 22	11°36'59	5°R11	6°29	22°45	3° 7	0°45	12°32	3°20	8°11	20°25	15°11	16°39	17°44	16°42	S 24
S 25	6 49 19	12°38'10	18°27	8° 5	24° 0	3°53	0°57	12°31	3°18	8°10	20°24	15° 7	16°36	17°51	16°42	S 25
M26	6 53 16	13°39'21	1°R56	9°42	25°16	4°39	1° 9	12°30	3°16	8° 9	20°23	15° 5	16°33	17°57	16°43	M26
T 27	6 57 12	14°40'31	15°38	11°19	26°31	5°25	1°21	12°29	3°14	8° 9	20°21	15°D 4	16°29	18° 4	16°43	T 27
W28	7 1 9	15°41'41	29°28	12°57	27°46	6°11	1°33	12°28	3°13	8° 8	20°20	15° 5	16°26	18°11	16°44	W28
T 29	7 5 5	16°42'49	13°R27	14°35	29° 1	6°57	1°46	12°27	3°11	8° 7	20°19	15° 6	16°23	18°17	16°45	T 29
F 30	7 9 2	17°43'57	27°31	16°13	0°R17	7°43	1°58	12°26	3° 9	8° 6	20°17	15° 8	16°20	18°24	16°45	F 30
S 31	7 12 58	18°45'05	11°Y38	17°R53	1°R32	8°R29	2°H10	12°R26	3°II 8	8°R 5	20°R16	15°Ω 9	16°Ω17	18°Δ31	16°Y46	S 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	decl	lat
T 1	22s59	11s51	1s25	19s36	0n54	23s52	0s30	23s17	0s32	13s43	1s 7	13n37	2s26	20n57	0s 5	9n21	0n56	24n10	2n19	15n55	15n31	1s59	7n18	0n43	
F 2	23 4	7 40	2 34	20 1	0 47	23 57	0 32	23 22	0 33	13 39	1 7	13 36	2 26	20 57	0 5	9 21	0 56	24 10	2 19	15 55	15 32	2 2	7 17	0 43	
S 3	23 9	3 0	3 33	20 25	0 39	24 2	0 34	23 27	0 33	13 36	1 7	13 35	2 25	20 56	0 5	9 21	0 56	24 11	2 19	15 55	15 33	2 4	7 17	0 43	
S 4	23 13	1n53	4 21	20 48	0 31	24 6	0 36	23 32	0 34	13 32	1 7	13 34	2 25	20 56	0 5	9 21	0 57	24 11	2 19	15 56	15 34	2 6	7 16	0 43	
M 5	23 17	6 43	4 53	21 11	0 24	24 9	0 39	23 36	0 34	13 29	1 7	13 34	2 25	20 55	0 5	9 21	0 57	24 11	2 19	15 57	15 35	2 8	7 16	0 42	
T 6	23 20	11 11	5 6	21 32	0 17	24 11	0 41	23 41	0 35	13 25	1 7	13 33	2 25	20 55	0 5	9 21	0 57	24 11	2 19	15 59	15 36	2 10	7 15	0 42	
W 7	23 23	15 0	4 59	21 53	0 9	24 13	0 43	23 45	0 36	13 22	1 6	13 32	2 25	20 55	0 5	9 21	0 57	24 12	2 19	16 2	15 37	2 12	7 15	0 42	
T 8	23 26	17 53	4 33	22 13	0 2	24 14	0 45	23 48	0 36	13 18	1 6	13 31	2 24	20 54	0 5	9 21	0 57	24 12	2 20	16 4	15 38	2 14	7 15	0 42	
F 9	23 28	19 38	3 51	22 32	0s 5	24 14	0 47	23 52	0 37	13 15	1 6	13 31	2 24	20 54	0 5	9 21	0 57	24 12	2 20	16 7	15 39	2 17	7 14	0 42	
S 10	23 29	20 8	2 56	22 50	0 12	24 14	0 49	23 55	0 37	13 11	1 6	13 30	2 24	20 53	0 5	9 21	0 57	24 13	2 20	16 9	15 40	2 19	7 14	0 42	
S 11	23 30	19 26	1 52	23 7	0 19	24 12	0 51	23 58	0 38	13 7	1 6	13 30	2 24	20 53	0 5	9 22	0 57	24 13	2 20	16 10	15 41	2 21	7 14	0 42	
M12	23 31	17 42	0 43	23 22	0 26	24 10	0 53	24 1	0 38	13 3	1 6	13 29	2 23	20 52	0 5	9 22	0 57	24 13	2 20	16 11	15 42	2 23	7 13	0 42	
T 13	23 31	15 6	0n26	23 37	0 33	24 7	0 55	24 3	0 39	13 0	1 6	13 29	2 23	20 52	0 5	9 22	0 57	24 13	2 20	16 11	15 43	2 25	7 13	0 41	
W14	23 30	11 53	1 32	23 50	0 39	24 4	0 57	24 5	0 39	12 56	1 6	13 28	2 23	20 52	0 5	9 22	0 57	24 14	2 20	16 10	15 44	2 27	7 13	0 41	
T 15	23 29	8 13	2 33	24 3	0 45	24 0	0 59	24 7	0 40	12 52	1 6	13 28	2 22	20 51	0 5	9 22	0 57	24 14	2 20	16 10	15 45	2 29	7 13	0 41	
F 16	23 28	4 18	3 25	24 14	0 52	23 55	1 1	24 9	0 40	12 48	1 5	13 27	2 22	20 51	0 5	9 22	0 57	24 14	2 20	16 9	15 46	2 32	7 13	0 41	
S 17	23 26	0 15	4 9	24 23	0 57	23 49	1 3	24 11	0 41	12 44	1 5	13 27	2 22	20 50	0 5	9 23	0 57	24 14	2 20	16 9	15 47	2 34	7 12	0 41	
S 18	23 24	3s48	4 42	24 32	1 3	23 42	1 4	24 12	0 42	12 40	1 5	13 27	2 22	20 50	0 5	9 23	0 57	24 15	2 20	16 10	15 48	2 36	7 12	0 41	
M19	23 21	7 43	5 3	24 39	1 9	23 35	1 6	24 13	0 42	12 36	1 5	13 26	2 21	20 50	0 5	9 23	0 57	24 15	2 20	16 11	15 49	2 38	7 12	0 41	
T 20	23 18	11 22	5 10	24 45	1 14	23 27	1 8	24 13	0 43	12 32	1 5	13 26	2 21	20 49	0 5	9 23	0 57	24 15	2 21	16 12	15 50	2 40	7 12	0 41	
W21	23 14	14 36	5 4	24 49	1 19	23 18	1 9	24 14	0 43	12 27	1 5	13 26	2 21	20 49	0 5	9 24	0 57	24 16	2 21	16 14	15 51	2 42	7 12	0 41	
T 22	23 10	17 15	4 44	24 53	1 24	23 9	1 11	24 14	0 44	12 23	1 5	13 26	2 21	20 49	0 5	9 24	0 57	24 16	2 21	16 16	15 52	2 44	7 12	0 40	
F 23	23 5	19 8	4 9	24 54	1 29	22 59	1 12	24 13	0 44	12 19	1 5	13 25	2 20	20 48	0 5	9 24	0 57	24 16	2 21	16 18	15 53	2 47	7 12	0 40	
S 24	23 0	20 4	3 20	24 55	1 34	22 48	1 14	24 13	0 45	12 15	1 5	13 25	2 20	20 48	0 5	9 25	0 57	24 16	2 21	16 20	15 54	2 49	7 12	0 40	
S 25	22 54	19 55	2 20	24 54	1 38	22 36	1 15	24 12	0 45	12 10	1 5	13 25	2 20	20 48	0 5	9 25	0 57	24 17	2 21	16 21	15 55	2 51	7 12	0 40	
M26	22 48	18 38	1 11	24 51	1 42	22 24	1 17	24 11	0 46	12 6	1 4	13 25	2 19	20 47	0 5	9 25	0 57	24 17	2 21	16 22	15 55	2 53	7 12	0 40	
T 27	22 42	16 15	0s 3	24 47	1 46	22 11	1 18	24 10	0 46	12 2	1 4	13 25	2 19	20 47	0 5	9 26	0 57	24 17	2 21	16 22	15 56	2 55	7 12	0 40	
W28	22 35	12 55	1 18	24 41	1 49	21 58	1 19	24 9	0 47	11 57	1 4	13 25	2 19	20 47	0 5	9 26	0 57	24 18	2 21	16 22	15 57	2 57	7 12	0 40	
T 29	22 28	8 49	2 29	24 34	1 52	21 44	1 20	24 7	0 47	11 53	1 4	13 25	2 18	20 46	0 5	9 26	0 58	24 18	2 21	16 21	15 58	2 59	7 12	0 40	
F 30	22 20	4 14	3 32	24 25	1 55	21 29	1 22	24 5	0 48	11 48	1 4	13 25	2 18	20 46	0 5	9 27	0 58	24 18	2 21	16 21	15 59	3 2	7 13	0 39	
S 31	22s12	0n36	4s22	24s15	1s57	21s13	1s23	24s 2	0s48	11s44	1s 4	13n25	2s18	20n46	0s 5	9n27	0n58	24n18	2n21	16n20	16n 0	3s 4	7n13	0n39	