



Astrodienst Ephemeris Tables for the year 1617

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 1617

geocentric

JANUARY 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	6 42 53	10°35'13	20°18' 8	19°17' 9	4°44'49	8°11'38	10°32'23	3°R21	12°R23	5°15'15	7°R45	1°R19	2°H39	9°11'13	14°22'23	S 1
M 2	6 46 50	11°53'24	2°11'27	20°26' 6	6° 4	8°43	10°37	3°B21	12°B20	5°15'15	7°B44	1°H17	2°36	9°20	14°27	M 2
T 3	6 50 47	12°54'35	15° 8	21°44	7°19	8°48	10°51	3°20	12°17	5°15'15	7°44	1°13	2°32	9°26	14°31	T 3
W 4	6 54 43	13°55'46	28°12	23° 3	8°33	8°52	11° 5	3°D20	12°15	5°15'15	7°43	1° 6	2°29	9°33	14°35	W 4
T 5	6 58 40	14°56'57	11°17'41	24°23	9°48	8°55	11°19	3°20	12°12	5°15'15	7°43	0°59	2°26	9°40	14°39	T 5
F 6	7 2 36	15°58'08	25°36	25°45	11° 3	8°58	11°33	3°20	12°10	5°R15	7°43	0°51	2°23	9°46	14°43	F 6
S 7	7 6 33	16°59'18	9°35'52	27° 8	12°18	9° 0	11°47	3°21	12° 7	5°15'15	7°42	0°43	2°20	9°53	14°47	S 7
S 8	7 10 29	18° 0'29	24°25	28°31	13°32	9° 1	12° 1	3°21	12° 4	5°15'15	7°42	0°37	2°17	10° 0	14°51	S 8
M 9	7 14 26	19° 1'38	9°35'7	29°56	14°47	9°R 1	12°15	3°21	12° 2	5°15'15	7°42	0°33	2°13	10° 6	14°55	M 9
T 10	7 18 23	20° 2'47	23°52	1°32'21	16° 1	9° 1	12°29	3°22	11°59	5°15'15	7°42	0°D32	2°10	10°13	14°59	T 10
W11	7 22 19	21° 3'55	8°H32	2°47	17°16	8°59	12°43	3°23	11°57	5°15'15	7°41	0°32	2° 7	10°20	15° 3	W11
T 12	7 26 16	22° 5'03	23° 2	4°14	18°30	8°57	12°57	3°24	11°54	5°14	7°41	0°33	2° 4	10°26	15° 7	T 12
F 13	7 30 12	23° 6'09	7°Y19	5°41	19°45	8°55	13°11	3°24	11°52	5°14	7°41	0°34	2° 1	10°33	15°12	F 13
S 14	7 34 9	24° 7'15	21°20	7° 9	20°59	8°51	13°25	3°26	11°49	5°14	7°41	0°R35	1°58	10°40	15°16	S 14
S 15	7 38 5	25° 8'20	5°B 6	8°38	22°14	8°47	13°39	3°27	11°47	5°14	7°41	0°35	1°54	10°46	15°20	S 15
M16	7 42 2	26° 9'23	18°36	10° 8	23°28	8°42	13°52	3°28	11°44	5°13	7°40	0°33	1°51	10°53	15°24	M16
T 17	7 45 58	27°10'26	1°H52	11°38	24°43	8°36	14° 6	3°29	11°42	5°13	7°40	0°29	1°48	10°59	15°29	T 17
W18	7 49 55	28°11'28	14°54	13° 9	25°57	8°29	14°20	3°31	11°39	5°13	7°40	0°24	1°45	11° 6	15°33	W18
T 19	7 53 52	29°12'29	27°43	14°41	27°11	8°21	14°34	3°32	11°37	5°12	7°40	0°19	1°42	11°13	15°37	T 19
F 20	7 57 48	0°13'29	10°B19	16°13	28°25	8°13	14°48	3°34	11°34	5°12	7°40	0°13	1°38	11°19	15°41	F 20
S 21	8 1 45	1°14'28	22°43	17°46	29°40	8° 4	15° 1	3°36	11°32	5°11	7°D40	0° 8	1°35	11°26	15°46	S 21
S 22	8 5 41	2°15'25	4°B57	19°19	0°H54	7°54	15°15	3°38	11°29	5°11	7°40	0° 5	1°32	11°33	15°50	S 22
M23	8 9 38	3°16'22	17° 1	20°53	2° 8	7°44	15°29	3°40	11°27	5°10	7°40	0° 2	1°29	11°39	15°55	M23
T 24	8 13 34	4°17'18	28°56	22°28	3°22	7°32	15°42	3°42	11°25	5° 9	7°40	0°D 2	1°26	11°46	15°59	T 24
W25	8 17 31	5°18'13	10°B46	24° 3	4°36	7°20	15°56	3°44	11°22	5° 9	7°40	0° 2	1°23	11°53	16° 3	W25
T 26	8 21 27	6°19'07	22°34	25°39	5°50	7° 7	16°10	3°47	11°20	5° 8	7°40	0° 3	1°19	11°59	16° 8	T 26
F 27	8 25 24	7°20'00	4°B22	27°16	7° 4	6°53	16°23	3°49	11°18	5° 8	7°41	0° 5	1°16	12° 6	16°12	F 27
S 28	8 29 21	8°20'53	16°15	28°54	8°18	6°39	16°37	3°52	11°16	5° 7	7°41	0° 7	1°13	12°13	16°16	S 28
S 29	8 33 17	9°21'44	28°17	0°B32	9°32	6°23	16°50	3°54	11°13	5° 6	7°41	0° 8	1°10	12°19	16°21	S 29
M30	8 37 14	10°22'35	10°B34	2°11	10°46	6° 8	17° 4	3°57	11°11	5° 5	7°41	0°R 9	1° 7	12°26	16°25	M30
T 31	8 41 10	11°23'25	23°B 9	3°B51	11°H59	5°11'51	17°B17	4°B 0	11°B 9	5°11'51	7°B41	0°H 8	1°H 4	12°B33	16°B30	T 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
S 1	23s 3	11s28	3s53	22s 0	1n 3	20s41	1s38	11n27	3n21	23s 9	0s 4	10n19	2s29	23n19	0n25	S 1
M 2	22 57	16 35	4 30	22 14	0 55	20 23	1 38	11 27	3 23	23 8	0 4	10 19	2 29	23 20	0 25	M 2
T 3	22 52	21 7	4 56	22 28	0 46	20 4	1 39	11 27	3 25	23 7	0 5	10 19	2 29	23 20	0 25	T 3
W 4	22 46	24 48	5 8	22 41	0 38	19 45	1 39	11 28	3 27	23 6	0 5	10 20	2 28	23 20	0 25	W 4
T 5	22 39	27 14	5 3	22 53	0 29	19 26	1 39	11 28	3 29	23 5	0 5	10 20	2 28	23 20	0 25	T 5
F 6	22 32	28 5	4 40	23 4	0 21	19 5	1 39	11 29	3 31	23 4	0 5	10 20	2 28	23 21	0 25	F 6
S 7	22 25	27 7	4 0	23 15	0 13	18 44	1 40	11 30	3 33	23 3	0 5	10 21	2 27	23 21	0 25	S 7
S 8	22 17	24 17	3 3	23 24	0 5	18 23	1 40	11 32	3 35	23 2	0 5	10 21	2 27	23 21	0 25	S 8
M 9	22 8	19 50	1 54	23 32	0s 3	18 1	1 39	11 34	3 37	23 1	0 5	10 22	2 27	23 21	0 25	M 9
T 10	21 59	14 10	0 36	23 39	0 10	17 39	1 39	11 36	3 39	22 59	0 5	10 22	2 27	23 22	0 25	T 10
W11	21 50	7 43	0n43	23 45	0 18	17 16	1 39	11 38	3 41	22 58	0 5	10 23	2 26	23 22	0 25	W11
T 12	21 41	0 57	2 0	23 50	0 25	16 53	1 39	11 41	3 44	22 57	0 5	10 23	2 26	23 22	0 25	T 12
F 13	21 31	5n46	3 7	23 54	0 32	16 29	1 39	11 44	3 46	22 56	0 6	10 24	2 26	23 22	0 25	F 13
S 14	21 20	12 4	4 2	23 57	0 39	16 5	1 38	11 47	3 48	22 54	0 6	10 24	2 25	23 22	0 25	S 14
S 15	21 9	17 40	4 42	23 58	0 46	15 40	1 38	11 50	3 50	22 53	0 6	10 25	2 25	23 23	0 25	S 15
M16	20 58	22 17	5 5	23 58	0 52	15 15	1 37	11 54	3 52	22 52	0 6	10 26	2 25	23 23	0 25	M16
T 17	20 46	25 40	5 12	23 57	0 59	14 50	1 36	11 58	3 54	22 50	0 6	10 26	2 24	23 23	0 25	T 17
W18	20 34	27 38	5 2	23 55	1 5	14 24	1 36	12 3	3 55	22 49	0 6	10 27	2 24	23 23	0 25	W18
T 19	20 22	28 6	4 37	23 51	1 10	13 57	1 35	12 7	3 57	22 48	0 6	10 28	2 24	23 24	0 25	T 19
F 20	20 9	27 4	3 59	23 46	1 16	13 31	1 34	12 12	3 59	22 46	0 6	10 29	2 24	23 24	0 25	F 20
S 21	19 56	24 42	3 11	23 39	1 21	13 4	1 33	12 17	4 1	22 45	0 6	10 30	2 23	23 24	0 25	S 21
S 22	19 42	21 14	2 13	23 31	1 26	12 37	1 32	12 23	4 3	22 43	0 6	10 31	2 23	23 24	0 25	S 22
M23	19 28	16 54	1 11	23 22	1 31	12 9	1 31	12 28	4 5	22 42	0 7	10 32	2 23	23 24	0 25	M23
T 24	19 14	11 58	0 6	23 11	1 36	11 41	1 30	12 34	4 6	22 41	0 7	10 33	2 22	23 25	0 25	T 24
W25	18 59	6 38	0s59	22 59	1 40	11 13	1 28	12 40	4 8	22 39	0 7	10 34	2 22	23 25	0 25	W25
T 26	18 44	1 6	2 1	22 45	1 44	10 44	1 27	12 47	4 10	22 38	0 7	10 35	2 22	23 25	0 25	T 26
F 27	18 29	4s28	2 58	22 30	1 47	10 15	1 26	12 53	4 11	22 36	0 7	10 36	2 21	23 25	0 25	F 27
S 28	18 13	9 55	3 48	22 14	1 51	9 46	1 24	13 0	4 13	22 34	0 7	10 37	2 21	23 25	0 25	S 28
S 29	17 57	15 4	4 29	21 56	1 54	9 17	1 22	13 7	4 14	22 33	0 7	10 38	2 21	23 26	0 25	S 29
M30	17 41	19 44	4 58	21 36	1 56	8 48	1 21	13 15	4 16	22 31	0 7	10 39	2 21	23 26	0 25	M30
T 31	17s24	23s40	5s14	21s15	1s59	8s18	1s19	13n22	4n17	22s30	0s 7	10n41	2s20	23n26	0n25	T 31

Julian Day Number = 2311657.5, Delta T = 69.40 sec
 Ecliptic obliquity = 23°29'28", Nutation = 0°00'08", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°23'41", Lahiri = 18°30'42"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1617

geocentric

FEBRUARY 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	8 45 7	12 ²⁴ 13	6 ⁵ 8	5 ³¹ 13	13 ¹¹ 13	5 ⁰ R34	17 ³⁰ 30	4 ⁸ 3	11 ⁰ R 7	5 ⁰ R 4	7 ⁸ 42	0 ⁰ R 7	1 ¹ 0	12 ¹¹ 39	16 ³³ 34	W 1
T 2	8 49 3	13 ²⁵ 01	19 ³³	7 ¹³	14 ²⁷	5 ¹¹ 16	17 ⁴⁴	4 ⁰ 6	11 ⁰ 5	5 ¹¹ 3	7 ⁴²	0 ⁰ 5	0 ⁰ 57	12 ⁴⁶	16 ³⁹	T 2
F 3	8 53 0	14 ²⁵ 48	3 ³ 26	8 ⁵⁵	15 ⁴¹	4 ⁵⁷	17 ⁵⁷	4 ⁰ 9	11 ⁰ 3	5 ⁰ 2	7 ⁴²	0 ⁰ 3	0 ⁰ 54	12 ⁵²	16 ⁴³	F 3
S 4	8 56 56	15 ²⁶ 34	17 ⁴⁵	10 ³⁸	16 ⁵⁴	4 ³⁸	18 ¹⁰	4 ⁰ 12	11 ⁰ 1	5 ⁰ 1	7 ⁴²	0 ⁰ 1	0 ⁰ 51	12 ⁵⁹	16 ⁴⁷	S 4
S 5	9 0 53	16 ²⁷ 18	2 ²⁶	12 ²¹	18 ⁰ 8	4 ¹⁸	18 ²³	4 ⁰ 16	10 ⁵⁹	5 ⁰ 0	7 ⁴³	29 ⁵⁹	0 ⁰ 48	13 ⁰ 6	16 ⁵²	S 5
M 6	9 4 50	17 ²⁸ 01	17 ²³	14 ⁰ 6	19 ²¹	3 ⁵⁸	18 ³⁷	4 ⁰ 19	10 ⁵⁷	4 ⁵⁹	7 ⁴³	29 ⁵⁸	0 ⁰ 44	13 ¹²	16 ⁵⁶	M 6
T 7	9 8 46	18 ²⁸ 43	2 ¹¹ 29	15 ⁵¹	20 ³⁵	3 ³⁷	18 ⁵⁰	4 ⁰ 23	10 ⁵⁵	4 ⁵⁸	7 ⁴³	29 ⁰ D58	0 ⁰ 41	13 ¹⁹	17 ⁰ 1	T 7
W 8	9 12 43	19 ²⁹ 23	17 ³³	17 ³⁸	21 ⁴⁸	3 ¹⁵	19 ⁰ 3	4 ⁰ 26	10 ⁵³	4 ⁵⁷	7 ⁴⁴	29 ⁵⁸	0 ⁰ 38	13 ²⁶	17 ⁰ 5	W 8
T 9	9 16 39	20 ³⁰ 01	2 ¹¹ 27	19 ²⁵	23 ⁰ 1	2 ⁵⁴	19 ¹⁶	4 ⁰ 30	10 ⁵¹	4 ⁵⁶	7 ⁴⁴	29 ⁵⁹	0 ⁰ 35	13 ³²	17 ¹⁰	T 9
F 10	9 20 36	21 ³⁰ 38	17 ⁰ 5	21 ¹²	24 ¹⁵	2 ³¹	19 ²⁹	4 ⁰ 34	10 ⁴⁹	4 ⁵⁵	7 ⁴⁵	29 ⁵⁹	0 ⁰ 32	13 ³⁹	17 ¹⁴	F 10
S 11	9 24 32	22 ³¹ 13	1 ⁸ 22	23 ⁰ 1	25 ²⁸	2 ⁰ 9	19 ⁴²	4 ⁰ 38	10 ⁴⁷	4 ⁵⁴	7 ⁴⁵	0 ⁰ 3	0 ⁰ 29	13 ⁴⁶	17 ¹⁸	S 11
S 12	9 28 29	23 ³¹ 46	15 ¹⁵	24 ⁵¹	26 ⁴¹	1 ⁴⁶	19 ⁵⁴	4 ⁰ 42	10 ⁴⁶	4 ⁵³	7 ⁴⁵	0 ⁰ 1	0 ⁰ 25	13 ⁵²	17 ²³	S 12
M13	9 32 25	24 ³² 18	28 ⁴⁶	26 ⁴¹	27 ⁵⁴	1 ²³	20 ⁰ 7	4 ⁰ 46	10 ⁴⁴	4 ⁵²	7 ⁴⁶	0 ⁰ R 1	0 ⁰ 22	13 ⁵⁹	17 ²⁷	M13
T 14	9 36 22	25 ³² 47	11 ¹¹ 55	28 ³²	29 ⁰ 7	0 ⁵⁹	20 ²⁰	4 ⁰ 50	10 ⁴²	4 ⁵⁰	7 ⁴⁶	0 ⁰ 1	0 ⁰ 19	14 ⁰ 6	17 ³²	T 14
W15	9 40 19	26 ³³ 15	24 ⁴⁵	0 ¹¹ 24	0 ¹¹ 20	0 ³⁶	20 ³³	4 ⁰ 55	10 ⁴¹	4 ⁴⁹	7 ⁴⁷	0 ⁰ 0	0 ⁰ 16	14 ¹²	17 ³⁶	W15
T 16	9 44 15	27 ³³ 40	7 ⁰ 19	2 ¹⁶	1 ³³	0 ¹²	20 ⁴⁵	4 ⁰ 59	10 ³⁹	4 ⁴⁸	7 ⁴⁸	29 ⁵⁹	0 ⁰ 13	14 ¹⁹	17 ⁴⁰	T 16
F 17	9 48 12	28 ³⁴ 04	19 ³⁹	4 ⁰ 9	2 ⁴⁶	29 ⁰ 49	20 ⁵⁸	5 ⁰ 3	10 ³⁸	4 ⁴⁷	7 ⁴⁸	29 ⁵⁹	0 ⁰ 10	14 ²⁶	17 ⁴⁵	F 17
S 18	9 52 8	29 ³⁴ 26	1 ⁰ 48	6 ⁰ 2	3 ⁵⁹	29 ⁰ 25	21 ¹⁰	5 ⁰ 8	10 ³⁶	4 ⁴⁶	7 ⁴⁹	29 ⁰ D59	0 ⁰ 6	14 ³²	17 ⁴⁹	S 18
S 19	9 56 5	0 ¹¹ 34 ⁴⁶	13 ⁴⁸	7 ⁵⁵	5 ¹¹	29 ⁰ 1	21 ²³	5 ⁰ 13	10 ³⁵	4 ⁴⁴	7 ⁴⁹	29 ⁵⁹	0 ⁰ 3	14 ³⁹	17 ⁵⁴	S 19
M20	10 0 1	1 ³⁵ 05	25 ⁴²	9 ⁴⁹	6 ²⁴	28 ³⁷	21 ³⁵	5 ⁰ 17	10 ³⁴	4 ⁴³	7 ⁵⁰	29 ⁰ R59	29 ⁵⁹	14 ⁴⁶	17 ⁵⁸	M20
T 21	10 3 58	2 ³⁵ 21	7 ¹¹ 33	11 ⁴²	7 ³⁶	28 ¹³	21 ⁴⁷	5 ⁰ 22	10 ³²	4 ⁴²	7 ⁵¹	29 ⁵⁹	29 ⁵⁹	14 ⁵²	18 ⁰ 2	T 21
W22	10 7 54	3 ³⁵ 36	19 ²¹	13 ³⁵	8 ⁴⁹	27 ⁵⁰	21 ⁵⁹	5 ⁰ 27	10 ³¹	4 ⁴⁰	7 ⁵¹	29 ⁵⁹	29 ⁵⁴	14 ⁵⁹	18 ⁰ 6	W22
T 23	10 11 51	4 ³⁵ 49	1 ¹¹ 9	15 ²⁸	10 ⁰ 1	27 ²⁶	22 ¹²	5 ⁰ 32	10 ³⁰	4 ³⁹	7 ⁵²	29 ⁵⁹	29 ⁵⁰	15 ⁰ 5	18 ¹¹	T 23
F 24	10 15 48	5 ³⁶ 00	13 ⁰ 0	17 ²⁰	11 ¹³	27 ⁰ 3	22 ²⁴	5 ⁰ 37	10 ²⁸	4 ³⁸	7 ⁵³	29 ⁵⁸	29 ⁴⁷	15 ¹²	18 ¹⁵	F 24
S 25	10 19 44	6 ³⁶ 09	24 ⁵⁷	19 ¹⁰	12 ²⁶	26 ⁴⁰	22 ³⁶	5 ⁰ 42	10 ²⁷	4 ³⁶	7 ⁵³	29 ⁵⁷	29 ⁴⁴	15 ¹⁹	18 ¹⁹	S 25
S 26	10 23 41	7 ³⁶ 17	7 ¹¹ 2	20 ⁵⁹	13 ³⁸	26 ¹⁸	22 ⁴⁷	5 ⁰ 48	10 ²⁶	4 ³⁵	7 ⁵⁴	29 ⁵⁶	29 ⁴¹	15 ²⁵	18 ²⁴	S 26
M27	10 27 37	8 ³⁶ 24	19 ²⁰	22 ⁴⁶	14 ⁵⁰	25 ⁵⁵	22 ⁵⁹	5 ⁰ 53	10 ²⁵	4 ³³	7 ⁵⁵	29 ⁵⁶	29 ³⁸	15 ³²	18 ²⁸	M27
T 28	10 31 34	9 ¹¹ 36 ²⁹	1 ¹¹ 53	24 ¹¹ 30	16 ¹¹ 2	25 ⁰ 33	23 ¹¹ 1	5 ⁰ 58	10 ²⁴	4 ³²	7 ⁵⁶	29 ⁵⁵	29 ³⁵	15 ³⁹	18 ³²	T 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
W 1	17s 7	26s32	5s15	20s53	2s 1	7s48	1s17	13n30	4n19	22s28	0s 8	10n42	2s20	23n26	0n25	0s37	1n32	0s50	15s46	11s27	11s 8	5n52	10s 3	6n 8			
T 2	16 50	28 2	4 58	20 29	2 2	7 18	1 15	13 38	4 20	22 26	0 8	10 43	2 20	23 26	0 25	0 36	1 32	0 50	15 46	11 28	11 10	5 48	10 1	6 8			
F 3	16 32	27 51	4 24	20 3	2 4	6 47	1 13	13 45	4 21	22 25	0 8	10 44	2 19	23 26	0 25	0 36	1 32	0 49	15 45	11 29	11 11	5 45	10 0	6 8			
S 4	16 14	25 50	3 33	19 36	2 4	6 17	1 11	13 54	4 22	22 23	0 8	10 46	2 19	23 27	0 25	0 36	1 32	0 49	15 45	11 30	11 12	5 42	9 59	6 8			
S 5	15 56	22 3	2 27	19 8	2 5	5 46	1 9	14 2	4 23	22 21	0 8	10 47	2 19	23 27	0 25	0 35	1 32	0 49	15 44	11 30	11 13	5 38	9 58	6 8			
M 6	15 38	16 45	1 9	18 37	2 5	5 15	1 7	14 10	4 24	22 20	0 8	10 49	2 19	23 27	0 25	0 35	1 32	0 48	15 44	11 30	11 14	5 35	9 56	6 8			
T 7	15 19	10 24	0n14	18 6	2 4	4 44	1 5	14 19	4 25	22 18	0 8	10 50	2 18	23 27	0 25	0 34	1 32	0 48	15 44	11 31	11 15	5 32	9 55	6 8			
W 8	15 0	3 27	1 36	17 33	2 3	4 13	1 3	14 27	4 25	22 16	0 8	10 52	2 18	23 27	0 25	0 34	1 32	0 47	15 43	11 30	11 16	5 28	9 54	6 8			
T 9	14 41	3n35	2 51	16 58	2 2	3 42	1 0	14 36	4 26	22 15	0 8	10 53	2 18	23 27	0 25	0 33	1 32	0 47	15 43	11 30	11 17	5 25	9 53	6 8			
F 10	14 22	10 18	3 53	16 21	2 0	3 11	0 58	14 44	4 26	22 13	0 9	10 55	2 18	23 28	0 25	0 33	1 32	0 46	15 43	11 30	11 19	5 22	9 51	6 8			
S 11	14 2	16 20	4 39	15 44	1 58	2 39	0 56	14 53	4 27	22 11	0 9	10 56	2 17	23 28	0 25	0 33	1 32	0 46	15 42	11 30	11 20	5 18	9 50	6 8			
S 12	13 42	21 20	5 7	15 4	1 55	2 8	0 53	15 1	4 27	22 9	0 9	10 58	2 17	23 28	0 25	0 32	1 32	0 46	15 42	11 30	11 21	5 15	9 49	6 8			
M13	13 22	25 5	5 18	14 24	1 52	1 36	0 50	15 10	4 27	22 8	0 9	10 59	2 17	23 28	0 25	0 32	1 32	0 45	15 42	11 30	11 22	5 12	9 47	6 8			
T 14	13 2	27 24	5 11	13 41	1 48	1 5	0 48	15 18	4 27	22 6	0 9	11 1	2 16	23 28	0 25	0 31	1 32	0 45	15 41	11 30	11 23	5 8	9 46	6 8			
W15	12 41	28 12	4 49	12 58	1 43	0 33	0 45	15 27	4 27	22 4	0 9	11 3	2 16	23 28	0 25	0 31	1 32	0 44	15 41	11 30	11 24	5 5	9 45	6 8			
T 16	12 21	27 30	4 13	12 13	1 38	0 2	0 42	15 35	4 27	22 2	0 9	11 4	2 16	23 28	0 25	0 30	1 32	0 44	15 41	11 30	11 25	5 2	9 43	6 8			
F 17	12 0	25 27	3 26	11 26	1 32	0n30	0 39	15 44	4 27	22 0	0 9	11 6	2 16	23 28	0 25	0 29	1 32	0 43	15 40	11 30	11 26	4 58	9 42	6 8			
S 18	11 39	22 15	2 30	10 39	1 26	1 1	0 37	15 52	4 27	21 59	0 9	11 8	2 15	23 29	0 25	0 29	1 32	0 43	15 40	11 30	11 28	4 55	9 41	6 8			
S 19	11 17	18 8	1 29	9 50	1 19	1 33	0 34	16 0	4 26	21 57	0 10	11 10	2 15	23 29	0 25	0 28	1 32	0 42	15 40	11 30	11 29	4 52	9 39	6 8			
M20	10 56	13 21	0 24	9 0	1 11	2 5	0 31	16 8	4 26	21 55	0 10	11 12	2 15	23 29	0 25	0 28	1 32	0 42	15 40	11 30	11 30	4 48	9 38	6 8			
T 21	10 34	8 7	0s42	8 10	1 3	2 36	0 28	16 15	4 25	21 53	0 10	11 13	2 15	23 29	0 25	0 27	1 32	0 41	15 39	11 30	11 31	4 45	9 37	6 8			
W22	10 13	2 36	1 46	7 18	0 54	3 8	0 25	16 23	4 24	21 51	0 10	11 15	2 14	23 29	0 25	0 27	1 33	0 41	15 39	11 30	11 32	4 41	9 35	6 8			
T 23	9 51	2s59	2 45	6 26	0 45	3 39	0 21	16 30	4 23	21 49	0 10	11 17	2 14	23 29	0 25	0 26	1 33	0 40	15 39	11 30	11 33	4 38	9 34	6 8			
F 24	9 29	8 29	3 37	5 33	0 35	4 10	0 18	16 38	4 23	21 48	0 10	11 19	2 14	23 29	0 25	0 26	1 33	0 40	15 38	11 30	11 34	4 35	9 33	6 8			
S 25	9 6	13 43	4 20	4 40	0 24	4 41	0 15	16 45	4 21	21 46	0 10	11 21	2 14	23 29	0 25	0 25	1 33	0 39	15 38	11 31	11 35	4 31	9 31	6 8			
S 26	8 44	18 29	4 52	3 47	0 13	5 13	0 12	16 51	4 20	21 44	0 10	11 23	2 14	23 29	0 25	0 24	1 33	0 39	15 38	11 31	11 36	4 28	9 30	6 8			
M27	8 22	22 36	5 12	2 54	0 1	5 44	0 8	16 58	4 19	21 42	0 11	11 25	2 13	23 29	0 25	0 24	1 33	0 38	15 37	11 31	11 38	4 25	9 29	6 8			
T 28	7s59	25s45	5s17	2s 1	0n11	6n15	0s 5	17n 4	4n18	21s40	0s11	11n27	2s13	23n29	0n25	0s23	1n33	0s38	15s37	11s32	11s39	4n21	9s27	6n 8			

ASTRODIENST EPHEMERIS for the year 1617
geocentric

MARCH 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	10 35 30	10 ^h 36'32"	14 ^h 46'	26 ^h 11'	17 ^h 14'	25°R12	23 ^h 23'	6 ^h 4'	10°R23	4°R30	7 ^h 56'	29°D55	29 ^h 31'	15 ^h 45'	18 ^h 36'	W 1
T 2	10 39 27	11°36'34"	28° 2'	27°49'	18°25'	24 ^h 51'	23°34'	6° 9'	10 ^h 22'	4 ^h 29'	7°57'	29 ^h 55'	29°28'	15°52'	18°40'	T 2
F 3	10 43 23	12°36'34"	11 ^h 34'	29°23'	19°37'	24°30'	23°46'	6°15'	10°22'	4°27'	7°58'	29°56'	29°25'	15°59'	18°44'	F 3
S 4	10 47 20	13°36'32"	25°52'	0 ^h 52'	20°49'	24°10'	23°57'	6°20'	10°21'	4°26'	7°59'	29°57'	29°22'	16° 5'	18°49'	S 4
S 5	10 51 17	14°36'29"	10 ^h 26'	2°16'	22° 0'	23°50'	24° 9'	6°26'	10°20'	4°24'	8° 0'	29°58'	29°19'	16°12'	18°53'	S 5
M 6	10 55 13	15°36'24"	25°20'	3°34'	23°11'	23°31'	24°20'	6°32'	10°19'	4°23'	8° 1'	29°R59	29°16'	16°19'	18°57'	M 6
T 7	10 59 10	16°36'17"	10 ^h 29'	4°46'	24°23'	23°13'	24°31'	6°38'	10°19'	4°21'	8° 2'	29°59'	29°12'	16°25'	19° 1'	T 7
W 8	11 3 6	17°36'08"	25°43'	5°52'	25°34'	22°55'	24°42'	6°44'	10°18'	4°20'	8° 2'	29°58'	29° 9'	16°32'	19° 5'	W 8
T 9	11 7 3	18°35'57"	10 ^h 53'	6°51'	26°45'	22°38'	24°53'	6°50'	10°18'	4°18'	8° 3'	29°56'	29° 6'	16°39'	19° 9'	T 9
F 10	11 10 59	19°35'43"	25°48'	7°42'	27°56'	22°22'	25° 4'	6°56'	10°17'	4°17'	8° 4'	29°53'	29° 3'	16°45'	19°13'	F 10
S 11	11 14 56	20°35'28"	10 ^h 22'	8°26'	29° 7'	22° 6'	25°15'	7° 2'	10°17'	4°15'	8° 5'	29°50'	29° 0'	16°52'	19°17'	S 11
S 12	11 18 52	21°35'10"	24°30'	9° 1'	0 ^h 18'	21°51'	25°25'	7° 8'	10°16'	4°13'	8° 6'	29°48'	28°56'	16°59'	19°21'	S 12
M13	11 22 49	22°34'51"	8 ^h 11'	9°29'	1°29'	21°37'	25°36'	7°14'	10°16'	4°12'	8° 7'	29°46'	28°53'	17° 5'	19°25'	M13
T 14	11 26 46	23°34'29"	21°22'	9°48'	2°39'	21°23'	25°46'	7°21'	10°16'	4°10'	8° 8'	29°D46	28°50'	17°12'	19°28'	T 14
W15	11 30 42	24°34'04"	4 ^h 11'	9°59'	3°50'	21°11'	25°57'	7°27'	10°16'	4° 9'	8° 9'	29°46'	28°47'	17°18'	19°32'	W15
T 16	11 34 39	25°33'37"	16°39'	10°R 2	5° 0'	20°59'	26° 7'	7°33'	10°15'	4° 7'	8°10'	29°47'	28°44'	17°25'	19°36'	T 16
F 17	11 38 35	26°33'08"	28°51'	9°58'	6°10'	20°47'	26°17'	7°40'	10°15'	4° 5'	8°11'	29°49'	28°41'	17°32'	19°40'	F 17
S 18	11 42 32	27°32'37"	10 ^h 21'	9°45'	7°20'	20°37'	26°27'	7°46'	10°D15	4° 4'	8°12'	29°51'	28°37'	17°38'	19°43'	S 18
S 19	11 46 28	28°32'03"	22°44'	9°25'	8°30'	20°27'	26°37'	7°53'	10°15'	4° 2'	8°14'	29°52'	28°34'	17°45'	19°47'	S 19
M20	11 50 25	29°31'27"	4 ^h 32'	8°59'	9°40'	20°19'	26°47'	7°59'	10°15'	4° 0'	8°15'	29°R52	28°31'	17°52'	19°51'	M20
T 21	11 54 21	0 ^h 30'49"	16°19'	8°26'	10°50'	20°11'	26°57'	8° 6'	10°15'	3°59'	8°16'	29°51'	28°28'	17°58'	19°54'	T 21
W22	11 58 18	1°30'09"	28° 8'	7°49'	11°59'	20° 3'	27° 6'	8°13'	10°16'	3°57'	8°17'	29°48'	28°25'	18° 5'	19°58'	W22
T 23	12 2 15	2°29'27"	10 ^h 1	7° 7'	13° 9'	19°57'	27°16'	8°20'	10°16'	3°55'	8°18'	29°43'	28°21'	18°12'	20° 1'	T 23
F 24	12 6 11	3°28'42"	21°59'	6°21'	14°18'	19°51'	27°25'	8°26'	10°16'	3°54'	8°19'	29°38'	28°18'	18°18'	20° 5'	F 24
S 25	12 10 8	4°27'56"	4 ^h 11'	5°33'	15°27'	19°46'	27°34'	8°33'	10°16'	3°52'	8°20'	29°31'	28°15'	18°25'	20° 8'	S 25
S 26	12 14 4	5°27'08"	16°18'	4°43'	16°36'	19°42'	27°43'	8°40'	10°17'	3°50'	8°21'	29°25'	28°12'	18°32'	20°12'	S 26
M27	12 18 1	6°26'17"	28°43'	3°53'	17°45'	19°39'	27°52'	8°47'	10°17'	3°49'	8°23'	29°19'	28° 9'	18°38'	20°15'	M27
T 28	12 21 57	7°25'26"	11 ^h 21'	3° 4'	18°54'	19°36'	28° 1'	8°54'	10°18'	3°47'	8°24'	29°15'	28° 6'	18°45'	20°19'	T 28
W29	12 25 54	8°24'32"	24°15'	2°16'	20° 2'	19°34'	28°10'	9° 1'	10°18'	3°45'	8°25'	29°12'	28° 2'	18°52'	20°22'	W29
T 30	12 29 50	9°23'37"	7 ^h 27'	1°30'	21°11'	19°33'	28°19'	9° 8'	10°19'	3°44'	8°26'	29°D11	27°59'	18°58'	20°25'	T 30
F 31	12 33 47	10 ^h 22'39"	20 ^h 35'	0 ^h 48'	22 ^h 19'	19°D33	28 ^h 27'	9 ^h 15'	10 ^h 20'	3 ^h 42'	8 ^h 27'	29 ^h 11'	27 ^h 56'	19 ^h 5	20 ^h 28'	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	decl lat	decl lat
W 1	7s36	27s42	5s 7	1s 9	0n24	6n45	0s 2	17n10	4n16	21s38	0s11	11n29	2s13	23n29	0n25	0s23
T 2	7 13	28 9	4 40	0 18	0 37	7 16	0n 2	17 16	4 15	21 36	0 11	11 31	2 13	23 30	0 24	0 22
F 3	6 51	26 54	3 57	0n31	0 50	7 46	0 5	17 21	4 13	21 35	0 11	11 33	2 12	23 30	0 24	0 21
S 4	6 28	23 56	2 58	1 19	1 4	8 17	0 9	17 27	4 12	21 33	0 11	11 35	2 12	23 30	0 24	0 21
S 5	6 4	19 22	1 46	2 5	1 18	8 47	0 12	17 32	4 10	21 31	0 11	11 37	2 12	23 30	0 24	0 20
M 6	5 41	13 30	0 26	2 49	1 31	9 17	0 16	17 36	4 8	21 29	0 11	11 39	2 12	23 30	0 24	0 19
T 7	5 18	6 46	0n58	3 30	1 45	9 46	0 19	17 41	4 6	21 27	0 12	11 41	2 12	23 30	0 24	0 19
W 8	4 55	0n24	2 18	4 8	1 58	10 16	0 23	17 45	4 4	21 25	0 12	11 43	2 11	23 30	0 24	0 18
T 9	4 31	7 29	3 27	4 43	2 11	10 45	0 27	17 49	4 2	21 24	0 12	11 45	2 11	23 30	0 24	0 18
F 10	4 4	14 3	4 22	5 15	2 23	11 14	0 30	17 52	4 0	21 22	0 12	11 48	2 11	23 30	0 24	0 17
S 11	3 44	19 40	4 58	5 43	2 35	11 43	0 34	17 55	3 58	21 20	0 12	11 50	2 11	23 30	0 24	0 16
S 12	3 21	24 0	5 14	6 7	2 45	12 11	0 38	17 58	3 56	21 18	0 12	11 52	2 11	23 30	0 24	0 16
M13	2 57	26 51	5 12	6 27	2 55	12 40	0 41	18 1	3 54	21 16	0 12	11 54	2 10	23 30	0 24	0 15
T 14	2 33	28 5	4 53	6 43	3 4	13 8	0 45	18 3	3 51	21 14	0 12	11 56	2 10	23 30	0 24	0 14
W15	2 10	27 46	4 20	6 54	3 12	13 35	0 49	18 5	3 49	21 13	0 13	11 59	2 10	23 30	0 24	0 14
T 16	1 46	26 1	3 36	7 2	3 19	14 3	0 53	18 7	3 47	21 11	0 13	12 1	2 10	23 30	0 24	0 13
F 17	1 22	23 5	2 42	7 4	3 24	14 30	0 56	18 8	3 44	21 9	0 13	12 3	2 10	23 30	0 24	0 13
S 18	0 59	19 12	1 43	7 3	3 27	14 56	1 0	18 9	3 42	21 7	0 13	12 5	2 9	23 30	0 24	0 12
S 19	0 35	14 35	0 39	6 57	3 29	15 22	1 4	18 10	3 40	21 6	0 13	12 8	2 9	23 30	0 24	0 11
M20	0 11	9 28	0s26	6 46	3 29	15 48	1 8	18 11	3 37	21 4	0 13	12 10	2 9	23 30	0 24	0 10
T 21	0n12	4 2	1 29	6 32	3 28	16 14	1 11	18 11	3 35	21 2	0 13	12 12	2 9	23 30	0 24	0 10
W22	0 36	1s32	2 29	6 14	3 24	16 39	1 15	18 11	3 32	21 0	0 14	12 15	2 9	23 30	0 24	0 9
T 23	1 0	7 4	3 22	5 52	3 19	17 4	1 19	18 11	3 30	20 59	0 14	12 17	2 9	23 30	0 24	0 8
F 24	1 23	12 23	4 7	5 28	3 12	17 29	1 22	18 10	3 27	20 57	0 14	12 19	2 8	23 30	0 24	0 8
S 25	1 47	17 18	4 41	5 1	3 4	17 53	1 26	18 9	3 25	20 55	0 14	12 22	2 8	23 30	0 24	0 7
S 26	2 10	21 35	5 3	4 32	2 54	18 16	1 30	18 8	3 22	20 54	0 14	12 24	2 8	23 30	0 24	0 6
M27	2 34	24 58	5 11	4 2	2 42	18 39	1 33	18 7	3 20	20 52	0 14	12 26	2 8	23 30	0 24	0 6
T 28	2 57	27 12	5 4	3 30	2 29	19 2	1 37	18 6	3 17	20 50	0 14	12 29	2 8	23 30	0 24	0 5
W29	3 21	28 4	4 42	2 59	2 16	19 24	1 41	18 4	3 15	20 49	0 15	12 31	2 8	23 29	0 24	0 4
T 30	3 44	27 21	4 4	2 27	2 1	19 46	1 44	18 2	3 12	20 47	0 15	12 33	2 8	23 29	0 24	0 4
F 31	4n 7	25s 1	3s13	1n56	1n46	20n 7	1n48	18n 0	3n10	20s46	0s15	12n36	2s 7	23n29	0n24	0s 3

Julian Day Number = 2311716.5, Delta T = 69.25 sec
Ecliptic obliquity = 23°29'29", Nutation = 0°00'09", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°23'50", Lahiri = 18°30'50"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1617

geocentric

APRIL 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	12 37 44	11°21'40	4°54	0°R 9	23°27	19°23	28°35	9°22	10°20	3°R41	8°29	29°13	27°53	19°12	20°32	S 1
S 2	12 41 40	12°20'40	19°12	29°34	24°35	19°34	28°44	9°30	10°21	3°39	8°30	29°14	27°50	19°18	20°35	S 2
M 3	12 45 37	13°19'37	3°50	29°4	25°43	19°36	28°52	9°37	10°22	3°37	8°31	29°R14	27°47	19°25	20°38	M 3
T 4	12 49 33	14°18'32	18°46	28°39	26°50	19°38	29°0	9°44	10°23	3°36	8°32	29°13	27°43	19°32	20°41	T 4
W 5	12 53 30	15°17'26	3°52	28°19	27°58	19°42	29°8	9°51	10°24	3°34	8°34	29°9	27°40	19°38	20°44	W 5
T 6	12 57 26	16°16'18	18°59	28°4	29°5	19°46	29°15	9°59	10°25	3°32	8°35	29°3	27°37	19°45	20°47	T 6
F 7	13 1 23	17°15'07	3°58	27°55	0°12	19°50	29°23	10°6	10°26	3°31	8°36	28°56	27°34	19°52	20°50	F 7
S 8	13 5 19	18°13'55	18°39	27°D51	1°19	19°56	29°30	10°13	10°27	3°29	8°37	28°49	27°31	19°58	20°52	S 8
S 9	13 9 16	19°12'40	2°15	27°52	2°25	20°1	29°37	10°21	10°28	3°28	8°39	28°41	27°27	20°5	20°55	S 9
M10	13 13 12	20°11'24	16°43	27°59	3°32	20°8	29°45	10°28	10°29	3°26	8°40	28°35	27°24	20°11	20°58	M10
T 11	13 17 9	21°10'05	0°3	28°10	4°38	20°15	29°52	10°36	10°30	3°24	8°41	28°31	27°21	20°18	21°1	T 11
W12	13 21 6	22°8'44	12°55	28°26	5°44	20°23	29°58	10°43	10°32	3°23	8°43	28°29	27°18	20°25	21°3	W12
T 13	13 25 2	23°7'20	25°25	28°47	6°50	20°32	0°5	10°51	10°33	3°21	8°44	28°D28	27°15	20°31	21°6	T 13
F 14	13 28 59	24°5'55	7°26	29°13	7°56	20°41	0°11	10°58	10°34	3°20	8°45	28°29	27°12	20°38	21°9	F 14
S 15	13 32 55	25°4'27	19°34	29°43	9°1	20°50	0°18	11°6	10°36	3°18	8°47	28°30	27°8	20°45	21°11	S 15
S 16	13 36 52	26°2'57	1°24	0°17	10°6	21°1	0°24	11°13	10°37	3°17	8°48	28°R30	27°5	20°51	21°13	S 16
M17	13 40 48	27°1'25	13°11	0°55	11°11	21°12	0°30	11°21	10°39	3°15	8°49	28°29	27°2	20°58	21°16	M17
T 18	13 44 45	27°59'50	24°58	1°36	12°16	21°23	0°36	11°29	10°40	3°14	8°51	28°25	26°59	21°5	21°18	T 18
W19	13 48 41	28°58'14	6°51	2°22	13°20	21°35	0°42	11°36	10°42	3°12	8°52	28°19	26°56	21°11	21°20	W19
T 20	13 52 38	29°56'35	18°50	3°11	14°24	21°47	0°47	11°44	10°43	3°11	8°53	28°11	26°52	21°18	21°23	T 20
F 21	13 56 35	0°54'55	0°58	4°3	15°28	22°0	0°53	11°52	10°45	3°10	8°55	28°1	26°49	21°25	21°25	F 21
S 22	14 0 31	1°53'13	13°15	4°58	16°31	22°14	0°58	11°59	10°47	3°8	8°56	27°49	26°46	21°31	21°27	S 22
S 23	14 4 28	2°51'29	25°44	5°56	17°35	22°28	1°3	12°7	10°49	3°7	8°57	27°38	26°43	21°38	21°29	S 23
M24	14 8 24	3°49'44	8°24	6°58	18°38	22°42	1°8	12°15	10°51	3°5	8°59	27°27	26°40	21°45	21°31	M24
T 25	14 12 21	4°47'57	21°15	8°2	19°40	22°57	1°13	12°22	10°53	3°4	9°0	27°18	26°37	21°51	21°33	T 25
W26	14 16 17	5°46'09	4°19	9°9	20°43	23°13	1°17	12°30	10°54	3°3	9°1	27°12	26°33	21°58	21°35	W26
T 27	14 20 14	6°44'19	17°36	10°18	21°45	23°29	1°22	12°38	10°56	3°1	9°3	27°8	26°30	22°5	21°37	T 27
F 28	14 24 10	7°42'27	1°8	11°30	22°47	23°45	1°26	12°45	10°58	3°0	9°4	27°7	26°27	22°11	21°39	F 28
S 29	14 28 7	8°40'34	14°56	12°44	23°48	24°2	1°30	12°53	11°1	2°59	9°5	27°D 7	26°24	22°18	21°40	S 29
S 30	14 32 4	9°38'40	29°1	14°1	24°49	24°19	1°34	13°1	11°3	2°57	9°7	27°R 7	26°21	22°25	21°42	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
S 1	4n30	21s 9	2 s 8	1n26	1n30	20n28	1n51	17n57	3n 8	20s44	0s15	12n38	2s 7	23n29	0n24	0s 2	1n33	0s21	15s30	11s46	12s14	2n34	8s45	6n15	
S 2	4 53	15 58	0 54	0 57	1 14	20 49	1 55	17 54	3 5	20 42	0 15	12 41	2 7	23 29	0 24	0 2	1 33	0 20	15 29	11 46	12 15	2 30	8 44	6 15	
M 3	5 16	9 44	0n25	0 30	0 57	21 9	1 58	17 52	3 3	20 41	0 15	12 43	2 7	23 29	0 24	0 1	1 33	0 19	15 29	11 46	12 16	2 27	8 43	6 15	
T 4	5 39	2 52	1 44	0 5	0 41	21 28	2 2	17 48	3 0	20 39	0 15	12 45	2 7	23 29	0 24	0 0	1 33	0 19	15 29	11 46	12 17	2 24	8 41	6 15	
W 5	6 2	4n14	2 56	0s17	0 25	21 47	2 5	17 45	2 58	20 38	0 16	12 48	2 7	23 29	0 24	0n 0	1 33	0 18	15 29	11 48	12 19	2 20	8 40	6 16	
T 6	6 25	11 5	3 56	0 37	0 10	22 5	2 8	17 42	2 55	20 37	0 16	12 50	2 7	23 29	0 24	0 1	1 33	0 18	15 29	11 50	12 20	2 17	8 39	6 16	
F 7	6 47	17 14	4 39	0 55	0s 6	22 23	2 12	17 38	2 53	20 35	0 16	12 53	2 7	23 29	0 24	0 2	1 33	0 17	15 29	11 52	12 21	2 14	8 38	6 16	
S 8	7 10	22 15	5 3	1 10	0 21	22 40	2 15	17 34	2 51	20 34	0 16	12 55	2 6	23 29	0 24	0 2	1 33	0 17	15 29	11 55	12 22	2 10	8 37	6 17	
S 9	7 32	25 48	5 7	1 23	0 35	22 57	2 18	17 30	2 48	20 32	0 16	12 57	2 6	23 29	0 24	0 3	1 33	0 16	15 28	11 57	12 23	2 7	8 36	6 17	
M10	7 54	27 41	4 52	1 33	0 49	23 13	2 21	17 25	2 46	20 31	0 16	13 0	2 6	23 28	0 24	0 3	1 33	0 16	15 28	12 0	12 24	2 3	8 34	6 17	
T 11	8 17	27 52	4 23	1 40	1 2	23 29	2 24	17 21	2 43	20 30	0 17	13 2	2 6	23 28	0 24	0 4	1 33	0 15	15 28	12 1	12 25	2 0	8 33	6 18	
W12	8 39	26 31	3 40	1 45	1 14	23 44	2 27	17 16	2 41	20 28	0 17	13 5	2 6	23 28	0 24	0 5	1 33	0 15	15 28	12 2	12 26	1 57	8 32	6 18	
T 13	9 0	23 52	2 48	1 48	1 26	23 58	2 30	17 11	2 39	20 27	0 17	13 7	2 6	23 28	0 24	0 5	1 33	0 14	15 28	12 2	12 27	1 53	8 31	6 18	
F 14	9 22	20 11	1 50	1 48	1 37	24 12	2 33	17 6	2 37	20 26	0 17	13 9	2 6	23 28	0 24	0 6	1 33	0 14	15 28	12 2	12 28	1 50	8 30	6 18	
S 15	9 44	15 44	0 48	1 45	1 47	24 25	2 36	17 1	2 34	20 25	0 17	13 12	2 6	23 28	0 24	0 6	1 33	0 13	15 28	12 1	12 29	1 47	8 29	6 19	
S 16	10 5	10 46	0s16	1 40	1 57	24 38	2 39	16 55	2 32	20 24	0 17	13 14	2 6	23 28	0 24	0 7	1 33	0 13	15 28	12 1	12 31	1 43	8 28	6 19	
M17	10 26	5 26	1 18	1 33	2 6	24 50	2 41	16 50	2 30	20 22	0 18	13 17	2 5	23 28	0 24	0 8	1 33	0 12	15 28	12 2	12 32	1 40	8 27	6 19	
T 18	10 47	0s 5	2 17	1 24	2 14	25 1	2 44	16 44	2 28	20 21	0 18	13 19	2 5	23 28	0 24	0 8	1 33	0 12	15 27	12 3	12 33	1 37	8 26	6 20	
W19	11 8	5 38	3 10	1 13	2 21	25 12	2 46	16 38	2 25	20 20	0 18	13 22	2 5	23 27	0 24	0 9	1 33	0 11	15 27	12 5	12 34	1 33	8 25	6 20	
T 20	11 29	11 1	3 55	1 0	2 28	25 22	2 49	16 32	2 23	20 19	0 18	13 24	2 5	23 27	0 24	0 9	1 33	0 11	15 27	12 8	12 35	1 30	8 24	6 20	
F 21	11 49	16 3	4 30	0 44	2 34	25 32	2 51	16 26	2 21	20 18	0 18	13 26	2 5	23 27	0 24	0 10	1 33	0 11	15 27	12 11	12 36	1 26	8 23	6 21	
S 22	12 9	20 30	4 53	0 27	2 39	25 41	2 53	16 19	2 19	20 17	0 18	13 29	2 5	23 27	0 24	0 10	1 33	0 10	15 27	12 15	12 37	1 23	8 22	6 21	
S 23	12 29	24 8	5 3	0 8	2 44	25 49	2 56	16 13	2 17	20 16	0 19	13 31	2 5	23 27	0 24	0 11	1 33	0 10	15 27	12 19	12 38	1 20	8 21	6 21	
M24	12 49	26 39	4 57	0n12	2 47	25 57	2 58	16 6	2 15	20 15	0 19	13 34	2 5	23 27	0 24	0 11	1 33	0 9	15 27	12 23	12 39	1 16	8 20	6 22	
T 25	13 9	27 49	4 37	0 35	2 51	26 4	3 0	15 59	2 13	20 14	0 19	13 36	2 5	23 26	0 24	0 12	1 33	0 9	15 27	12 26	12 40	1 13	8 19	6 22	
W26	13 28	27 27	4 2	0 59	2 53	26 11	3 1	15 52	2 11	20 14	0 19	13 38	2 5	23 26	0 24	0 12	1 33	0 8	15 27	12 28	12 41	1 10	8 18	6 22	
T 27	13 48	25 32	3 14	1 24	2 55	26 17	3 3	15 45	2 9	20 13	0 19	13 41	2 5	23 26	0 24	0 13	1 33	0 8	15 27	12 30	12 42	1 6	8 17	6 23	
F 28	14 7	22 7	2 13	1 51	2 56	26 22	3 5	15 38	2 7	20 12	0 20	13 43	2 5	23 26	0 24	0 13	1 33	0 7	15 27	12 30	12 44	1 3	8 16	6 23	
S 29	14 25	17 25	1 4	2 19	2 57	26 27	3 6	15 30	2 5	20 11	0 20	13 46	2 5	23 26	0 24	0 14	1 33	0 7	15 27	12 30	12 45	1 0	8 15	6 24	
S 30	14n44	11s41	0n10	2n49	2s57	26n31	3n 8	15n23	2n 3	20s11	0s20	13n48	2s 5	23n26	0n24	0n14	1n33	0s 7	15s27	12s30	12s46	0n56	8s14	6n24	

ASTRODIENST EPHEMERIS for the year 1617

geocentric

MAY 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	14 36 0	1083644	13822	15920	251150	24837	1838	1389	1185	2R56	988	27R6	26818	22831	21844	M 1
T 2	14 39 57	1133446	2758	1641	2650	2455	141	1316	117	2855	910	2783	2614	2238	2145	T 2
W 3	14 43 53	123248	12944	185	2751	2513	144	1324	119	254	911	2657	2611	2245	2147	W 3
T 4	14 47 50	133048	2733	1931	2850	2532	148	1332	1112	253	912	2649	268	2251	2148	T 4
F 5	14 51 46	142846	12817	2059	2949	2551	151	1340	1114	251	914	2639	265	2258	2149	F 5
S 6	14 55 43	152643	2649	2229	0848	2611	153	1348	1116	250	915	2628	262	235	2151	S 6
S 7	14 59 39	162439	11112	241	147	2631	156	1355	1119	249	916	2617	2558	2311	2152	S 7
M 8	15 3 36	172232	2449	2536	245	2652	158	143	1121	248	918	267	2555	2318	2153	M 8
T 9	15 7 33	182024	8810	2712	342	2713	21	1411	1124	247	919	260	2552	2325	2154	T 9
W10	15 11 29	191815	215	2851	439	2734	23	1419	1126	246	920	2555	2549	2331	2155	W10
T 11	15 15 26	201603	3837	0831	536	2755	25	1426	1129	245	922	2552	2546	2338	2156	T 11
F 12	15 19 22	211350	1550	214	632	2817	26	1434	1131	244	923	2552	2543	2345	2157	F 12
S 13	15 23 19	221135	2749	359	728	2839	28	1442	1134	243	924	2551	2539	2351	2158	S 13
S 14	15 27 15	23919	9840	546	823	292	29	1449	1137	242	926	2551	2536	2358	2159	S 14
M15	15 31 12	24700	2129	735	917	2925	210	1457	1139	241	927	2549	2533	245	220	M15
T 16	15 35 8	25441	3819	926	1011	2948	211	155	1142	240	928	2545	2530	2411	220	T 16
W17	15 39 5	26219	1515	1119	115	0811	212	1513	1145	240	930	2538	2527	2418	220	W17
T 18	15 43 2	265957	2721	1315	1157	035	213	1520	1148	239	931	2529	2524	2425	220	T 18
F 19	15 46 58	275733	9840	1512	1250	059	213	1528	1150	238	932	2518	2520	2431	220	F 19
S 20	15 50 55	285507	2212	1711	1341	123	2R13	1535	1153	237	934	255	2517	2438	220	S 20
S 21	15 54 51	295241	4858	1912	1432	148	213	1543	1156	237	935	2452	2514	2445	220	S 21
M22	15 58 48	085013	1757	2115	1522	213	213	1551	1159	236	936	2440	2511	2451	220	M22
T 23	16 2 44	14744	189	2320	1611	238	213	1558	122	235	937	2430	258	2458	220	T 23
W24	16 6 41	24515	1432	2527	170	34	212	166	125	234	939	2423	254	255	220	W24
T 25	16 10 38	34244	285	2734	1747	329	211	1613	128	234	940	2418	251	2511	220	T 25
F 26	16 14 34	44013	11847	2943	1834	355	210	1621	1211	233	941	2416	2458	2518	220	F 26
S 27	16 18 31	53740	2540	1154	1920	421	29	1628	1214	233	942	24D16	2455	2525	220	S 27
S 28	16 22 27	63507	9841	45	206	448	28	1636	1217	232	944	24R16	2452	2531	220	S 28
M29	16 26 24	73234	2352	616	2050	515	26	1643	1220	232	945	2415	2449	2538	220	M29
T 30	16 30 20	82959	8910	828	2134	542	25	1651	1224	231	946	2412	2445	2545	220	T 30
W31	16 34 17	912724	22933	101140	22816	689	288	1658	1227	231	947	2488	2442	2581	228	W31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
M 1	15n 2	5s14	1n25	3n20	2s57	26n34	3n 9	15n15	2n 1	20s10	0s20	13n50	2s 5	23n25	0n24	0n15
T 2	15 20	1n34	2 36	3 52	2 55	26 37	3 10	15 7	1 59	20 9	0 20	13 53	2 5	23 25	0 24	0 15
W 3	15 38	8 22	3 37	4 26	2 54	26 40	3 11	14 59	1 57	20 9	0 20	13 55	2 4	23 25	0 24	0 16
T 4	15 56	14 43	4 23	5 1	2 51	26 41	3 12	14 51	1 55	20 8	0 21	13 57	2 4	23 25	0 24	0 16
F 5	16 13	20 11	4 52	5 36	2 48	26 42	3 13	14 42	1 53	20 8	0 21	14 0	2 4	23 25	0 24	0 17
S 6	16 30	24 22	5 1	6 13	2 45	26 43	3 14	14 34	1 52	20 7	0 21	14 2	2 4	23 24	0 24	0 17
S 7	16 47	26 57	4 51	6 51	2 41	26 43	3 14	14 25	1 50	20 7	0 21	14 4	2 4	23 24	0 24	0 18
M 8	17 3	27 48	4 25	7 29	2 36	26 42	3 14	14 17	1 48	20 7	0 21	14 7	2 4	23 24	0 24	0 18
T 9	17 20	26 58	3 44	8 9	2 31	26 41	3 15	14 8	1 46	20 6	0 22	14 9	2 4	23 24	0 24	0 18
W10	17 35	24 41	2 53	8 49	2 25	26 39	3 15	13 59	1 45	20 6	0 22	14 11	2 4	23 23	0 24	0 19
T 11	17 51	21 15	1 55	9 30	2 19	26 37	3 15	13 50	1 43	20 6	0 22	14 14	2 4	23 23	0 24	0 19
F 12	18 6	16 58	0 53	10 12	2 13	26 34	3 14	13 40	1 41	20 6	0 22	14 16	2 4	23 23	0 24	0 19
S 13	18 21	12 6	0s10	10 54	2 5	26 30	3 14	13 31	1 39	20 5	0 22	14 18	2 4	23 23	0 24	0 20
S 14	18 36	6 50	1 13	11 37	1 58	26 26	3 13	13 22	1 38	20 5	0 23	14 20	2 4	23 23	0 24	0 20
M15	18 51	1 23	2 11	12 20	1 50	26 22	3 13	13 12	1 36	20 5	0 23	14 23	2 4	23 22	0 24	0 20
T 16	19 5	4s 8	3 4	13 4	1 41	26 17	3 12	13 2	1 34	20 5	0 23	14 25	2 4	23 22	0 24	0 21
W17	19 18	9 33	3 50	13 48	1 32	26 12	3 11	12 52	1 33	20 5	0 23	14 27	2 4	23 22	0 24	0 21
T 18	19 32	14 41	4 25	14 32	1 23	26 6	3 9	12 43	1 31	20 5	0 23	14 29	2 4	23 22	0 24	0 21
F 19	19 45	19 18	4 49	15 15	1 14	25 59	3 8	12 32	1 29	20 5	0 24	14 32	2 4	23 21	0 24	0 22
S 20	19 58	23 11	5 0	15 59	1 4	25 52	3 6	12 22	1 28	20 6	0 24	14 34	2 4	23 21	0 24	0 22
S 21	20 10	26 1	4 56	16 42	0 53	25 45	3 4	12 12	1 26	20 6	0 24	14 36	2 4	23 21	0 24	0 22
M22	20 22	27 32	4 36	17 25	0 43	25 37	3 2	12 2	1 25	20 6	0 24	14 38	2 4	23 20	0 24	0 22
T 23	20 34	27 31	4 2	18 7	0 33	25 29	3 0	11 51	1 23	20 6	0 24	14 40	2 4	23 20	0 24	0 23
W24	20 45	25 54	3 14	18 49	0 22	25 21	2 58	11 40	1 22	20 7	0 25	14 42	2 4	23 20	0 24	0 23
T 25	20 56	22 46	2 14	19 29	0 11	25 12	2 55	11 30	1 20	20 7	0 25	14 45	2 4	23 20	0 24	0 23
F 26	21 7	18 20	1 6	20 8	0 0	25 2	2 52	11 19	1 19	20 7	0 25	14 47	2 4	23 19	0 24	0 23
S 27	21 17	12 53	0n 7	20 45	0n10	24 53	2 49	11 8	1 17	20 8	0 25	14 49	2 4	23 19	0 24	0 23
S 28	21 27	6 42	1 21	21 21	0 21	24 43	2 46	10 57	1 16	20 8	0 25	14 51	2 4	23 19	0 24	0 24
M29	21 37	0 9	2 30	21 55	0 31	24 32	2 42	10 46	1 14	20 9	0 26	14 53	2 4	23 18	0 24	0 24
T 30	21 46	6n28	3 30	22 26	0 41	24 22	2 38	10 34	1 13	20 9	0 26	14 55	2 4	23 18	0 24	0 24
W31	21n55	12n46	4n18	22n56	0n50	24n11	2n34	10n23	1n11	20s10	0s26	14n57	2s 4	23n18	0n24	0n24

Julian Day Number = 2311777.5, Delta T = 69.08 sec
 Ecliptic obliquity = 23°29'28", Nutation = 0°00'08", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°23'58", Lahiri = 18°30'58"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1617

geocentric

JUNE 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 38 13	10 ^{II} 24'49	6 ⁸ 58	12 ^{II} 52	22 ⁵⁵ 57	6 ^{III} 36	2°R 1	17 ⁸ 6	12 ⁵³ 30	2°R30	9 ⁸ 49	23°R59	24 ³³ 39	25 ^{III} 58	22°R 3	T 1
F 2	16 42 10	11°22'13	21°18	15° 4	23°38	7° 4	1 ⁵⁸ 58	17°13	12°33	2 ⁵³ 30	9°50	23 ³³ 50	24°36	26° 5	22 ³³ 2	F 2
S 3	16 46 7	12°19'36	5 ^{II} 28	17°14	24°17	7°32	1°56	17°20	12°36	2°30	9°51	23°39	24°33	26°11	22° 2	S 3
S 4	16 50 3	13°16'58	19°23	19°24	24°55	8° 0	1°53	17°27	12°40	2°29	9°52	23°28	24°30	26°18	22° 1	S 4
M 5	16 54 0	14°14'20	2 ⁵⁸ 58	21°32	25°32	8°28	1°50	17°35	12°43	2°29	9°53	23°19	24°26	26°25	22° 1	M 5
T 6	16 57 56	15°11'40	16°12	23°40	26° 8	8°57	1°47	17°42	12°46	2°29	9°54	23°11	24°23	26°31	22° 0	T 6
W 7	17 1 53	16° 9'00	29° 3	25°45	26°43	9°25	1°44	17°49	12°50	2°29	9°56	23° 6	24°20	26°38	22° 0	W 7
T 8	17 5 49	17° 6'19	11 ^{II} 33	27°49	27°16	9°54	1°41	17°56	12°53	2°28	9°57	23° 4	24°17	26°45	21°59	T 8
F 9	17 9 46	18° 3'37	23°46	29°51	27°48	10°24	1°37	18° 3	12°56	2°28	9°58	23°D 3	24°14	26°51	21°58	F 9
S 10	17 13 42	19° 0'54	5 ^{III} 47	1 ⁵⁸ 50	28°18	10°53	1°34	18°10	13° 0	2°28	9°59	23° 4	24°10	26°58	21°57	S 10
S 11	17 17 39	19°58'10	17°39	3°48	28°47	11°22	1°30	18°17	13° 3	2°28	10° 0	23°R 4	24° 7	27° 5	21°56	S 11
M12	17 21 36	20°55'26	29°28	5°44	29°15	11°52	1°26	18°24	13° 7	2°28	10° 1	23° 4	24° 4	27°11	21°55	M12
T 13	17 25 32	21°52'40	11 ^{II} 21	7°37	29°40	12°22	1°21	18°31	13°10	2°D28	10° 2	23° 2	24° 1	27°18	21°54	T 13
W14	17 29 29	22°49'54	23°21	9°28	0 ^{II} 4	12°52	1°17	18°38	13°13	2°28	10° 3	22°58	23°58	27°25	21°53	W14
T 15	17 33 25	23°47'07	5 ^{III} 32	11°17	0°27	13°22	1°13	18°45	13°17	2°28	10° 4	22°51	23°55	27°31	21°52	T 15
F 16	17 37 22	24°44'20	17°59	13° 4	0°47	13°53	1° 8	18°52	13°20	2°28	10° 5	22°43	23°51	27°38	21°51	F 16
S 17	17 41 18	25°41'32	0 ^{II} 42	14°48	1° 6	14°24	1° 3	18°59	13°24	2°28	10° 6	22°34	23°48	27°45	21°49	S 17
S 18	17 45 15	26°38'44	13°44	16°30	1°23	14°54	0°58	19° 5	13°27	2°28	10° 7	22°24	23°45	27°51	21°48	S 18
M19	17 49 11	27°35'55	27° 2	18°10	1°38	15°25	0°53	19°12	13°31	2°28	10° 8	22°15	23°42	27°58	21°47	M19
T 20	17 53 8	28°33'06	10 ^{II} 37	19°48	1°51	15°57	0°48	19°19	13°35	2°29	10° 9	22° 8	23°39	28° 5	21°45	T 20
W21	17 57 5	29°30'17	24°23	21°23	2° 2	16°28	0°42	19°25	13°38	2°29	10°10	22° 3	23°36	28°11	21°44	W21
T 22	18 1 1	0 ^{II} 27'28	8 ³³ 20	22°55	2°11	16°59	0°36	19°32	13°42	2°29	10°11	22° 0	23°32	28°18	21°42	T 22
F 23	18 4 58	1°24'38	22°23	24°26	2°17	17°31	0°31	19°38	13°45	2°29	10°12	21°D59	23°29	28°25	21°41	F 23
S 24	18 8 54	2°21'49	6 ^{II} 31	25°54	2°22	18° 3	0°25	19°45	13°49	2°30	10°13	22° 0	23°26	28°31	21°39	S 24
S 25	18 12 51	3°18'59	20°41	27°19	2°R24	18°35	0°19	19°51	13°52	2°30	10°14	22° 1	23°23	28°38	21°37	S 25
M26	18 16 47	4°16'10	4 ^{II} 51	28°42	2°24	19° 7	0°13	19°57	13°56	2°31	10°15	22°R 1	23°20	28°45	21°35	M26
T 27	18 20 44	5°13'21	19° 1	0 ^{II} 3	2°21	19°39	0° 6	20° 4	14° 0	2°31	10°16	22° 0	23°16	28°51	21°34	T 27
W28	18 24 40	6°10'33	3 ^{II} 8	1°21	2°16	20°12	0° 0	20°10	14° 3	2°31	10°16	21°58	23°13	28°58	21°32	W28
T 29	18 28 37	7° 7'45	17°10	2°37	2° 9	20°44	2 ⁵³ 54	20°16	14° 7	2°32	10°17	21°53	23°10	29° 5	21°30	T 29
F 30	18 32 34	8 ³³ 45'7	1 ^{II} 4	3 ^{II} 50	1 ^{II} 59	21 ^{III} 17	2 ⁵³ 47	20 ^{II} 22	14 ⁵³ 11	2 ⁵³ 32	10 ^{II} 18	21 ³³ 47	23 ³³ 7	29 ^{III} 11	21 ³³ 28	F 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	22n 3	18n24	4n49	23n22	1n 0	24n 0	2n30	10n12	1n10	20s11	0s26	14n59	2s 4	23n18	0n24	0n24	1n32
F 2	22 12	22 58	5 1	23 47	1 8	23 48	2 25	10 0	1 9	20 11	0 26	15 1	2 5	23 17	0 24	0 24	1 32
S 3	22 19	26 6	4 55	24 9	1 16	23 36	2 20	9 48	1 7	20 12	0 27	15 3	2 5	23 17	0 24	0 24	1 32
S 4	22 27	27 35	4 32	24 27	1 24	23 24	2 15	9 36	1 6	20 13	0 27	15 5	2 5	23 17	0 24	0 25	1 32
M 5	22 33	27 21	3 53	24 44	1 31	23 12	2 10	9 25	1 5	20 14	0 27	15 7	2 5	23 16	0 24	0 25	1 32
T 6	22 40	25 32	3 3	24 57	1 37	23 0	2 4	9 13	1 3	20 15	0 27	15 9	2 5	23 16	0 24	0 25	1 32
W 7	22 46	22 25	2 4	25 8	1 42	22 47	1 58	9 0	1 2	20 16	0 27	15 11	2 5	23 16	0 24	0 25	1 31
T 8	22 52	18 20	1 1	25 15	1 47	22 35	1 52	8 48	1 1	20 17	0 28	15 13	2 5	23 15	0 24	0 25	1 31
F 9	22 57	13 34	0s 4	25 21	1 51	22 22	1 45	8 36	0 59	20 18	0 28	15 15	2 5	23 15	0 24	0 25	1 31
S 10	23 2	8 22	1 7	25 23	1 54	22 9	1 38	8 24	0 58	20 19	0 28	15 17	2 5	23 15	0 24	0 25	1 31
S 11	23 7	2 56	2 7	25 23	1 57	21 56	1 31	8 11	0 57	20 20	0 28	15 19	2 5	23 14	0 24	0 25	1 31
M12	23 11	2s34	3 2	25 21	1 59	21 43	1 23	7 59	0 55	20 21	0 28	15 20	2 5	23 14	0 24	0 25	1 31
T 13	23 14	8 0	3 48	25 16	2 0	21 30	1 15	7 46	0 54	20 22	0 28	15 22	2 5	23 14	0 24	0 25	1 31
W14	23 18	13 12	4 26	25 9	2 0	21 16	1 7	7 33	0 53	20 23	0 29	15 24	2 5	23 13	0 24	0 25	1 31
T 15	23 21	17 58	4 51	25 0	2 0	21 3	0 59	7 21	0 52	20 24	0 29	15 26	2 5	23 13	0 24	0 25	1 31
F 16	23 23	22 5	5 4	24 49	1 59	20 50	0 50	7 8	0 50	20 25	0 29	15 28	2 5	23 13	0 24	0 25	1 31
S 17	23 25	25 16	5 2	24 36	1 57	20 37	0 41	6 55	0 49	20 27	0 29	15 29	2 6	23 12	0 24	0 24	1 31
S 18	23 27	27 12	4 44	24 22	1 54	20 24	0 31	6 42	0 48	20 28	0 30	15 31	2 6	23 12	0 24	0 24	1 31
M19	23 28	27 39	4 11	24 5	1 51	20 11	0 21	6 29	0 47	20 29	0 30	15 33	2 6	23 12	0 24	0 24	1 31
T 20	23 29	26 27	3 23	23 48	1 47	19 58	0 11	6 15	0 46	20 31	0 30	15 34	2 6	23 11	0 24	0 24	1 31
W21	23 29	23 38	2 23	23 29	1 43	19 45	0 0	6 2	0 44	20 32	0 30	15 36	2 6	23 11	0 24	0 24	1 31
T 22	23 29	19 24	1 13	23 9	1 38	19 33	0s11	5 49	0 43	20 33	0 30	15 38	2 6	23 11	0 24	0 24	1 31
F 23	23 29	14 3	0n 2	22 48	1 32	19 20	0 22	5 35	0 42	20 35	0 31	15 39	2 6	23 10	0 24	0 24	1 31
S 24	23 28	7 56	1 18	22 25	1 26	19 8	0 34	5 22	0 41	20 36	0 31	15 41	2 6	23 10	0 24	0 24	1 31
S 25	23 27	1 26	2 28	22 2	1 19	18 56	0 46	5 8	0 40	20 38	0 31	15 43	2 6	23 9	0 24	0 23	1 31
M26	23 25	5n 9	3 30	21 38	1 12	18 44	0 58	4 54	0 39	20 39	0 31	15 44	2 6	23 9	0 24	0 23	1 31
T 27	23 23	11 27	4 19	21 14	1 4	18 32	1 11	4 41	0 37	20 41	0 31	15 46	2 6	23 9	0 24	0 23	1 31
W28	23 21	17 9	4 52	20 48	0 56	18 20	1 23	4 27	0 36	20 42	0 31	15 47	2 7	23 8	0 24	0 23	1 31
T 29	23 18	21 54	5 7	20 23	0 47	18 9	1 37	4 13	0 35	20 44	0 32	15 49	2 7	23 8	0 24	0 22	1 31
F 30	23n15	25n23	5n 5	19n57	0n37	17n58	1s50	3n59	0n34	20s46	0s32	15n50	2s 7	23n 8	0n24	0n22	1n30

Julian Day Number = 2311808.5, Delta T = 69.00 sec
 Ecliptic obliquity = 23°29'28", Nutation = 0°00'09", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°24'02", Lahiri = 18°31'03"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1617
geocentric

JULY 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	18 36 30	9 ⁵⁵ 2'09	14 ¹¹ 48	5 ⁰ 0	1 ⁰ R47	21 ¹⁰ 50	29 ⁰ R40	20 ⁸ 28	14 ⁵ 14	2 ² 33	10 ⁸ 19	21 ⁰ R40	23 ² 4	29 ¹⁰ 18	21 ⁰ R26	S 1
S 2	18 40 27	9 ⁵⁹ 22	28 ⁰ 18	6 ⁰ 8	1 ⁰ L33	22 ⁰ 23	29 ⁰ L33	20 ⁰ 34	14 ⁰ 18	2 ⁰ 34	10 ⁰ 20	21 ⁰ L33	23 ⁰ 1	29 ⁰ 25	21 ⁰ L24	S 2
M 3	18 44 23	10 ⁵⁶ 34	11 ⁵ 32	7 ⁰ 12	1 ⁰ 16	22 ⁰ 56	29 ⁰ 27	20 ⁰ 40	14 ⁰ 21	2 ⁰ 34	10 ⁰ 20	21 ⁰ 28	22 ⁰ 57	29 ⁰ 31	21 ⁰ 22	M 3
T 4	18 48 20	11 ⁵³ 47	24 ⁰ 30	8 ⁰ 14	0 ⁰ 57	23 ⁰ 29	29 ⁰ 20	20 ⁰ 46	14 ⁰ 25	2 ⁰ 35	10 ⁰ 21	21 ⁰ 23	22 ⁰ 54	29 ⁰ 38	21 ⁰ 19	T 4
W 5	18 52 16	12 ⁵¹ 00	7 ⁰ L 9	9 ⁰ 13	0 ⁰ 36	24 ⁰ 3	29 ⁰ 12	20 ⁰ 52	14 ⁰ 29	2 ⁰ 36	10 ⁰ 22	21 ⁰ 20	22 ⁰ 51	29 ⁰ 45	21 ⁰ 17	W 5
T 6	18 56 13	13 ⁴⁸ 13	19 ⁰ 33	10 ⁰ 9	0 ⁰ 13	24 ⁰ 36	29 ⁰ 5	20 ⁰ 58	14 ⁰ 32	2 ⁰ 36	10 ⁰ 23	21 ⁰ D19	22 ⁰ 48	29 ⁰ 51	21 ⁰ 15	T 6
F 7	19 0 10	14 ⁴⁵ 26	1 ¹⁰ 43	11 ⁰ 1	29 ⁰ L47	25 ⁰ 10	28 ⁰ 58	21 ⁰ 3	14 ⁰ 36	2 ⁰ 37	10 ⁰ 23	21 ⁰ 20	22 ⁰ 45	29 ⁰ 58	21 ⁰ 13	F 7
S 8	19 4 6	15 ⁴² 40	13 ⁰ 41	11 ⁰ 50	29 ⁰ 20	25 ⁰ 44	28 ⁰ 51	21 ⁰ 9	14 ⁰ 40	2 ⁰ 38	10 ⁰ 24	21 ⁰ 21	22 ⁰ 42	0 ⁰ L 5	21 ⁰ 10	S 8
S 9	19 8 3	16 ³⁹ 53	25 ⁰ 34	12 ⁰ 36	28 ⁰ 51	26 ⁰ 18	28 ⁰ 43	21 ⁰ 14	14 ⁰ 43	2 ⁰ 39	10 ⁰ 25	21 ⁰ 23	22 ⁰ 38	0 ⁰ 11	21 ⁰ 8	S 9
M10	19 11 59	17 ³⁷ 06	7 ⁰ L24	13 ⁰ 18	28 ⁰ 20	26 ⁰ 52	28 ⁰ 36	21 ⁰ 20	14 ⁰ 47	2 ⁰ 39	10 ⁰ 25	21 ⁰ 24	22 ⁰ 35	0 ⁰ 18	21 ⁰ 6	M10
T 11	19 15 56	18 ³⁴ 19	19 ⁰ 16	13 ⁰ 56	27 ⁰ 47	27 ⁰ 26	28 ⁰ 28	21 ⁰ 25	14 ⁰ 51	2 ⁰ 40	10 ⁰ 26	21 ⁰ R25	22 ⁰ 32	0 ⁰ 25	21 ⁰ 3	T 11
W12	19 19 52	19 ³¹ 33	1 ¹⁰ L17	14 ⁰ 30	27 ⁰ 13	28 ⁰ 1	28 ⁰ 21	21 ⁰ 30	14 ⁰ 54	2 ⁰ 41	10 ⁰ 27	21 ⁰ 24	22 ⁰ 29	0 ⁰ 31	21 ⁰ 1	W12
T 13	19 23 49	20 ²⁸ 47	13 ⁰ 30	15 ⁰ 1	26 ⁰ 38	28 ⁰ 35	28 ⁰ 13	21 ⁰ 36	14 ⁰ 58	2 ⁰ 42	10 ⁰ 27	21 ⁰ 22	22 ⁰ 26	0 ⁰ 38	20 ⁰ 58	T 13
F 14	19 27 45	21 ²⁶ 01	26 ⁰ 0	15 ⁰ 27	26 ⁰ 2	29 ⁰ 10	28 ⁰ 6	21 ⁰ 41	15 ⁰ 2	2 ⁰ 43	10 ⁰ 28	21 ⁰ 19	22 ⁰ 22	0 ⁰ 45	20 ⁰ 56	F 14
S 15	19 31 42	22 ²³ 16	8 ⁰ L49	15 ⁰ 48	25 ⁰ 25	29 ⁰ 45	27 ⁰ 58	21 ⁰ 46	15 ⁰ 5	2 ⁰ 44	10 ⁰ 28	21 ⁰ 15	22 ⁰ 19	0 ⁰ 51	20 ⁰ 53	S 15
S 16	19 35 39	23 ²⁰ 30	22 ⁰ 0	16 ⁰ 5	24 ⁰ 48	0 ⁰ L20	27 ⁰ 50	21 ⁰ 51	15 ⁰ 9	2 ⁰ 45	10 ⁰ 29	21 ⁰ 10	22 ⁰ 16	0 ⁰ 58	20 ⁰ 50	S 16
M17	19 39 35	24 ¹⁷ 46	5 ⁰ L32	16 ⁰ 18	24 ⁰ 11	0 ⁰ 55	27 ⁰ 42	21 ⁰ 56	15 ⁰ 12	2 ⁰ 46	10 ⁰ 29	21 ⁰ 6	22 ⁰ 13	1 ⁰ 5	20 ⁰ 48	M17
T 18	19 43 32	25 ¹⁵ 01	19 ⁰ 25	16 ⁰ 26	23 ⁰ 33	1 ⁰ 30	27 ⁰ 35	22 ⁰ 1	15 ⁰ 16	2 ⁰ 47	10 ⁰ 30	21 ⁰ 3	22 ⁰ 10	1 ⁰ 11	20 ⁰ 45	T 18
W19	19 47 28	26 ¹² 18	3 ⁰ L34	16 ⁰ R28	22 ⁰ 56	2 ⁰ 5	27 ⁰ 27	22 ⁰ 6	15 ⁰ 20	2 ⁰ 48	10 ⁰ 30	21 ⁰ 1	22 ⁰ 7	1 ⁰ 18	20 ⁰ 42	W19
T 20	19 51 25	27 ⁰ 9'35	17 ⁰ 56	16 ⁰ 26	22 ⁰ 19	2 ⁰ 41	27 ⁰ 19	22 ⁰ 10	15 ⁰ 23	2 ⁰ 49	10 ⁰ 31	21 ⁰ D 0	22 ⁰ 3	1 ⁰ 25	20 ⁰ 39	T 20
F 21	19 55 21	28 ⁰ 6'52	2 ⁰ L26	16 ⁰ 19	21 ⁰ 43	3 ⁰ 16	27 ⁰ 11	22 ⁰ 15	15 ⁰ 27	2 ⁰ 50	10 ⁰ 31	21 ⁰ 0	22 ⁰ 0	1 ⁰ 31	20 ⁰ 37	F 21
S 22	19 59 18	29 ⁰ 4'11	16 ⁰ 57	16 ⁰ 6	21 ⁰ 8	3 ⁰ 52	27 ⁰ 4	22 ⁰ 20	15 ⁰ 30	2 ⁰ 52	10 ⁰ 31	21 ⁰ 1	21 ⁰ 57	1 ⁰ 38	20 ⁰ 34	S 22
S 23	20 3 14	0 ⁰ L 1'31	1 ⁰ L25	15 ⁰ 49	20 ⁰ 34	4 ⁰ 27	26 ⁰ 56	22 ⁰ 24	15 ⁰ 34	2 ⁰ 53	10 ⁰ 32	21 ⁰ 3	21 ⁰ 54	1 ⁰ 45	20 ⁰ 31	S 23
M24	20 7 11	0 ⁵⁸ 51	15 ⁰ 47	15 ⁰ 27	20 ⁰ 1	5 ⁰ 3	26 ⁰ 48	22 ⁰ 28	15 ⁰ 38	2 ⁰ 54	10 ⁰ 32	21 ⁰ 4	21 ⁰ 51	1 ⁰ 52	20 ⁰ 28	M24
T 25	20 11 8	1 ⁵⁶ 13	29 ⁰ 59	15 ⁰ 0	19 ⁰ 30	5 ⁰ 39	26 ⁰ 40	22 ⁰ 33	15 ⁰ 41	2 ⁰ 55	10 ⁰ 33	21 ⁰ R 4	21 ⁰ 48	1 ⁰ 58	20 ⁰ 25	T 25
W26	20 15 4	2 ⁵³ 36	13 ⁰ L59	14 ⁰ 28	19 ⁰ 1	6 ⁰ 15	26 ⁰ 33	22 ⁰ 37	15 ⁰ 45	2 ⁰ 57	10 ⁰ 33	21 ⁰ 4	21 ⁰ 44	2 ⁰ 5	20 ⁰ 22	W26
T 27	20 19 1	3 ⁵¹ 00	27 ⁰ 46	13 ⁰ 53	18 ⁰ 33	6 ⁰ 51	26 ⁰ 25	22 ⁰ 41	15 ⁰ 48	2 ⁰ 58	10 ⁰ 33	21 ⁰ 3	21 ⁰ 41	2 ⁰ 12	20 ⁰ 19	T 27
F 28	20 22 57	4 ⁴⁸ 26	11 ⁰ L20	13 ⁰ 14	18 ⁰ 8	7 ⁰ 28	26 ⁰ 17	22 ⁰ 45	15 ⁰ 52	2 ⁰ 59	10 ⁰ 33	21 ⁰ 1	21 ⁰ 38	2 ⁰ 18	20 ⁰ 16	F 28
S 29	20 26 54	5 ⁴⁵ 52	24 ⁰ 40	12 ⁰ 32	17 ⁰ 44	8 ⁰ 4	26 ⁰ 10	22 ⁰ 49	15 ⁰ 55	3 ⁰ 1	10 ⁰ 34	20 ⁰ 59	21 ⁰ 35	2 ⁰ 25	20 ⁰ 13	S 29
S 30	20 30 50	6 ⁴³ 20	7 ⁰ L45	11 ⁰ 47	17 ⁰ 23	8 ⁰ 41	26 ⁰ 2	22 ⁰ 53	15 ⁰ 59	3 ⁰ 2	10 ⁰ 34	20 ⁰ 57	21 ⁰ 32	2 ⁰ 32	20 ⁰ 10	S 30
M31	20 34 47	7 ⁰ L40'49	20 ⁰ L37	11 ⁰ L 1	17 ⁰ L 4	9 ⁰ L17	25 ⁰ L55	22 ⁰ L57	16 ⁰ L 2	3 ⁰ L 4	10 ⁰ L34	20 ⁰ L56	21 ⁰ L28	2 ⁰ L38	20 ⁰ L 7	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	
S 1	23n11	27n19	4n44	19n30	0n28	17n48	2s 4	3n45	0n33	20s47	0s32	15n52	2s 7	23n 7	0n24	0n22	1n30	0n 7	15s35	14s19	13s52	2s31	7s59	6n46
S 2	23 7	27 37	4 8	19 4	0 17	17 37	2 18	3 31	0 32	20 49	0 32	15 53	2 7	23 7	0 24	0 22	1 30	0 7	15 35	14 21	13 53	2 34	7 59	6 46
M 3	23 2	26 18	3 19	18 37	0 7	17 27	2 31	3 17	0 31	20 50	0 32	15 55	2 7	23 6	0 24	0 21	1 30	0 7	15 35	14 23	13 54	2 38	8 0	6 46
T 4	22 57	23 34	2 21	18 10	0s 5	17 18	2 46	3 3	0 30	20 52	0 33	15 56	2 7	23 6	0 24	0 21	1 30	0 7	15 35	14 24	13 55	2 41	8 0	6 46
W 5	22 52	19 45	1 16	17 44	0 16	17 8	3 0	2 49	0 29	20 54	0 33	15 58	2 7	23 6	0 24	0 21	1 30	0 7	15 36	14 25	13 56	2 44	8 0	6 47
T 6	22 46	15 8	0 10	17 17	0 28	16 59	3 14	2 34	0 28	20 55	0 33	15 59	2 8	23 5	0 24	0 20	1 30	0 7	15 36	14 25	13 57	2 47	8 1	6 47
F 7	22 40	10 1	0s56	16 51	0 40	16 51	3 28	2 20	0 27	20 57	0 33	16 0	2 8	23 5	0 24	0 20	1 30	0 7	15 36	14 25	13 58	2 51	8 1	6 47
S 8	22 34	4 36	1 59	16 26	0 53	16 43	3 42	2 5	0 26	20 59	0 33	16 2	2 8	23 4	0 24	0 20	1 30	0 7	15 36	14 25	13 59	2 54	8 2	6 47
S 9	22 27	0s55	2 56	16 0	1 6	16 35	3 56	1 51	0 25	21 0	0 33	16 3	2 8	23 4	0 24	0 19	1 30	0 7	15 37	14 24	14 0	2 57	8 2	6 48
M10	22 20	6 23	3 45	15 36	1 19	16 27	4 10	1 36	0 24	21 2	0 34	16 4	2 8	23 4	0 24	0 19	1 30	0 7	15 37	14 24	14 1	3 1	8 3	6 48
T 11	22 12	11 39	4 25	15 12	1 33	16 20	4 24	1 22	0 23	21 4	0 34	16 5	2 8	23 3	0 24	0 19	1 30	0 7	15 37	14 24	14 2	3 4	8 4	6 48
W12	22 4	16 32	4 54	14 49	1 46	16 14	4 37	1 7	0 21	21 5	0 34	16 7	2 8	23 3	0 24	0 18	1 30	0 7	15 38	14 24	14 3	3 7	8 4	6 48
T 13	21 56	20 51	5 10	14 27	2 0	16 8	4 50	0 53	0 20	21 7	0 34	16 8	2 9	23 2	0 24	0 18	1 30	0 7	15 38	14 25	14 4	3 11	8 5	6 48
F 14	21 47	24 20	5 12	14 7	2 14	16 2	5 2	0 38	0 19	21 9	0 34	16 9	2 9	23 2	0 24	0 17	1 30	0 7	15 38	14 26	14 5	3 14	8 5	6 49
S 15	21 38	26 44	4 58	13 47	2 27	15 57	5 14	0 23	0 19	21 10	0 34	16 10	2 9	23 2	0 24	0 17	1 30	0 7	15 38	14 27	14 6	3 17	8 6	6 49
S 16	21 28	27 43	4 29	13 29	2 41	15 52	5 26	0 8	0 18	21 12	0 35	16 11	2 9	23 1	0 24	0 17	1 30	0 6	15 39	14 28	14 7	3 20	8 7	6 49
M17	21 18	27 6	3 44	13 12	2 55	15 48	5 37	0s 7	0 17	21 14	0 35	16 13	2 9	23 1	0 24	0 16	1 30	0 6	15 39	14 30	14 8	3 24	8 7	6 49
T 18	21 8	24 48	2 45	12 57	3 8	15 44	5 47	0 22	0 16	21 16	0 35	16 14	2 9	23 0	0 24	0 16	1 30	0 6	15 39	14 31	14 9	3 27	8 8	6 49
W19	20 57	20 56	1 34	12 44	3 22	15 40	5 57	0 36	0 15	21 17	0 35	16 15	2 9	23 0	0 24	0 15	1 30	0 6	15 40	14 31	14 10	3 30	8 9	6 49
T 20	20 46	15 45	0 17	12 32	3 35	15 37	6 6	0 51	0 14	21 19	0 35	16 16	2 10	23 0	0 24	0 15	1 30	0 6	15 40	14 32	14 11	3 34	8 9	6 50
F 21	20 35	9 40	1n 3	12 22	3 47	15 34	6 14	1 6	0 13	21 21	0 35	16 17	2 10	22 59	0 24	0 14	1 30	0 6	15 40	14 32	14 12	3 37	8 10	6 50
S 22	20 23	3 3	2 18	12 15	3 59	15 32	6 22	1 21	0 12	21 22	0 35	16 18	2 10	22 59	0 24	0 14	1 30	0 6	15 40	14 31	14 13	3 40	8 11	6 50
S 23	20 11	3n42	3 25	12 9	4 9	15 31	6 29	1 37	0 11	21 24	0 36	16 19	2 10	22 58	0 24	0 13	1 30	0 5	15 41	14 31	14 14	3 43	8 12	6 50
M24	19 59	10 11	4 18	12 6	4 20	15 29	6 35	1 52	0 10	21 25	0 36	16 20	2 10	22 58	0 24	0 13	1 29	0 5	15 41	14 30	14 15	3 47	8 12	6 50
T 25	19 46	16 5	4 54	12 5	4 29	15 28	6 40	2 7	0 9	21 27	0 36	16 21	2 10	22 58	0 24	0 12	1 29	0 5	15 41	14 30	14 16	3 50	8 13	6 50
W26	19 33	21 3	5 13	12 7	4 36	15 28	6 44	2 22	0 8	21 29	0 36	16 22	2 11	22 57	0 24	0 12	1 29	0 5	15 42	14 30	14 17	3 53	8 14	6 50
T 27	19 20	24 47	5 13	12 11	4 43	15 28	6 48	2 37	0 7	21 30	0 36	16 22	2 11	22 57	0 24	0 11	1 29	0 5	15 42	14 31	14 18	3 57	8 15	6 50
F 28	19 6	27 4	4 56	12 17	4 48	15 28	6 51	2 52	0 6	21 32	0 36	16 23	2 11	22 56	0 24	0 11	1 29	0 4	15 42	14 31	14 19	4 0	8 16	6 50
S 29	18 52	27 46	4 23	12 25	4 51	15 28	6 54	3 7	0 5	21 33	0 36	16 24	2 11	22 56	0 24	0 10	1 29	0 4	15 42	14 32	14 20	4 3	8 17	6 51
S 30	18 38	26 52	3 37	12 35	4 53	15 29	6 56	3 23	0 4	21 35	0 36	16 25	2 11	22 56	0 24	0 9	1 29	0 4	15 43	14 33	14 22	4 6	8 17	6 51
M31	18n23	24n32	2n40	12n48	4s53	15n31	6s57	3s38	0n 4	21s36	0s36	16n26	2s12	22n55	0n24	0n 9	1n29	0n 4	15s43	14s33	14s23	4s10	8s18	6n51

ASTRODIENST EPHEMERIS for the year 1617
geocentric

AUGUST 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	20 38 43	8♂38'19	3♂14	10°R14	16°R47	9♂54	25°R47	23♂ 1	16♂ 6	3♂ 5	10♂34	20°R54	21♂25	2♂45	20°R 4	T 1
W 2	20 42 40	9°35'50	15°39	9♂27	16♂33	10°31	25♂40	23° 4	16° 9	3° 6	10°35	20°D54	21°22	2°52	20♂ 1	W 2
T 3	20 46 37	10°33'22	27°52	8°41	16°21	11° 8	25°33	23° 8	16°12	3° 8	10°35	20♂54	21°19	2°58	19°58	T 3
F 4	20 50 33	11°30'55	9♂55	7°56	16°11	11°45	25°26	23°11	16°16	3° 9	10°35	20°54	21°16	3° 5	19°55	F 4
S 5	20 54 30	12°28'29	21°50	7°14	16° 4	12°22	25°18	23°14	16°19	3°11	10°35	20°55	21°13	3°12	19°52	S 5
S 6	20 58 26	13°26'04	3♂41	6°36	15°59	12°59	25°11	23°18	16°23	3°13	10°35	20°56	21° 9	3°18	19°49	S 6
M 7	21 2 23	14°23'40	15°30	6° 1	15°57	13°37	25° 4	23°21	16°26	3°14	10°35	20°57	21° 6	3°25	19°46	M 7
T 8	21 6 19	15°21'17	27°23	5°32	15°D57	14°14	24°57	23°24	16°29	3°16	10°35	20°57	21° 3	3°32	19°43	T 8
W 9	21 10 16	16°18'55	9♂22	5° 8	15°59	14°52	24°51	23°27	16°32	3°17	10°35	20°57	21° 0	3°38	19°40	W 9
T 10	21 14 12	17°16'34	21°34	4°51	16° 3	15°30	24°44	23°30	16°36	3°19	10°R35	20°R57	20°57	3°45	19°37	T 10
F 11	21 18 9	18°14'15	4♂ 1	4°40	16°10	16° 7	24°38	23°32	16°39	3°21	10°35	20°57	20°54	3°52	19°34	F 11
S 12	21 22 6	19°11'56	16°49	4°D36	16°18	16°45	24°31	23°35	16°42	3°22	10°35	20°57	20°50	3°58	19°30	S 12
S 13	21 26 2	20° 9'38	0♂ 0	4°39	16°29	17°23	24°25	23°38	16°45	3°24	10°35	20°57	20°47	4° 5	19°27	S 13
M14	21 29 59	21° 7'22	13°37	4°50	16°42	18° 1	24°19	23°40	16°49	3°26	10°35	20°D57	20°44	4°12	19°24	M14
T 15	21 33 55	22° 5'07	27°38	5° 9	16°57	18°39	24°13	23°43	16°52	3°28	10°35	20°57	20°41	4°18	19°21	T 15
W16	21 37 52	23° 2'53	12♂ 2	5°35	17°14	19°18	24° 7	23°45	16°55	3°29	10°35	20°57	20°38	4°25	19°18	W16
T 17	21 41 48	24° 0'40	26°44	6° 9	17°33	19°56	24° 1	23°47	16°58	3°31	10°35	20°R57	20°34	4°32	19°15	T 17
F 18	21 45 45	24°58'29	11♂37	6°50	17°54	20°35	23°55	23°49	17° 1	3°33	10°35	20°57	20°31	4°39	19°12	F 18
S 19	21 49 41	25°56'19	26°33	7°39	18°16	21°13	23°50	23°51	17° 4	3°35	10°34	20°57	20°28	4°45	19° 9	S 19
S 20	21 53 38	26°54'11	11♂25	8°34	18°40	21°52	23°44	23°53	17° 7	3°37	10°34	20°56	20°25	4°52	19° 6	S 20
M21	21 57 35	27°52'05	26° 6	9°37	19° 6	22°31	23°39	23°55	17°10	3°39	10°34	20°55	20°22	4°59	19° 3	M21
T 22	22 1 31	28°50'00	10♂30	10°46	19°33	23° 9	23°34	23°56	17°13	3°41	10°34	20°55	20°19	5° 5	19° 0	T 22
W23	22 5 28	29°47'58	24°34	12° 1	20° 2	23°48	23°29	23°58	17°16	3°42	10°34	20°D54	20°15	5°12	18°57	W23
T 24	22 9 24	0♂45'57	8♂16	13°22	20°33	24°27	23°24	23°59	17°19	3°44	10°33	20°54	20°12	5°19	18°53	T 24
F 25	22 13 21	1°43'59	21°39	14°49	21° 5	25° 6	23°20	24° 1	17°22	3°46	10°33	20°55	20° 9	5°25	18°50	F 25
S 26	22 17 17	2°42'02	4♂43	16°20	21°38	25°46	23°15	24° 2	17°25	3°48	10°33	20°56	20° 6	5°32	18°47	S 26
S 27	22 21 14	3°40'08	17°29	17°56	22°13	26°25	23°11	24° 3	17°27	3°50	10°32	20°57	20° 3	5°39	18°45	S 27
M28	22 25 10	4°38'15	0♂ 2	19°36	22°49	27° 4	23° 7	24° 4	17°30	3°52	10°32	20°58	20° 0	5°45	18°42	M28
T 29	22 29 7	5°36'24	12°22	21°19	23°26	27°44	23° 3	24° 5	17°33	3°54	10°32	20°59	19°56	5°52	18°39	T 29
W30	22 33 4	6°34'34	24°32	23° 5	24° 4	28°24	22°59	24° 6	17°36	3°56	10°31	20°R59	19°53	5°59	18°36	W30
T 31	22 37 0	7♂32'47	6♂34	24♂53	24♂44	29♂ 3	22♂56	24♂ 6	17♂38	3♂58	10♂31	20♂58	19♂50	6♂ 5	18♂33	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	18n 8	21n 2	1n36	13n 2	4s52	15n32	6s57	3s53	0n 3	21s38	0s37	16n26	2s12	22n55	0n24	0n 8
W 2	17 53	16 38	0 29	13 18	4 48	15 34	6 57	4 9	0 2	21 39	0 37	16 27	2 12	22 54	0 24	0 8
T 3	17 38	11 38	0s39	13 35	4 43	15 36	6 56	4 24	0 1	21 41	0 37	16 28	2 12	22 54	0 24	0 7
F 4	17 22	6 16	1 44	13 53	4 35	15 38	6 55	4 39	0 0	21 42	0 37	16 29	2 12	22 54	0 24	0 6
S 5	17 6	0 45	2 43	14 12	4 26	15 41	6 53	4 55	0s 1	21 44	0 37	16 29	2 12	22 53	0 24	0 6
S 6	16 50	4s46	3 36	14 32	4 16	15 44	6 51	5 10	0 2	21 45	0 37	16 30	2 13	22 53	0 24	0 5
M 7	16 33	10 6	4 19	14 52	4 4	15 47	6 48	5 25	0 2	21 46	0 37	16 30	2 13	22 53	0 24	0 4
T 8	16 16	15 5	4 51	15 12	3 50	15 50	6 45	5 41	0 3	21 48	0 37	16 31	2 13	22 52	0 24	0 4
W 9	15 59	19 33	5 11	15 32	3 36	15 53	6 42	5 56	0 4	21 49	0 37	16 31	2 13	22 52	0 24	0 3
T 10	15 41	23 18	5 17	15 51	3 21	15 56	6 38	6 11	0 5	21 50	0 37	16 32	2 13	22 51	0 24	0 2
F 11	15 24	26 3	5 9	16 9	3 4	16 0	6 34	6 27	0 6	21 52	0 37	16 33	2 14	22 51	0 24	0 2
S 12	15 6	27 34	4 46	16 27	2 47	16 3	6 29	6 42	0 7	21 53	0 38	16 33	2 14	22 51	0 24	0 1
S 13	14 48	27 36	4 7	16 43	2 30	16 7	6 24	6 57	0 7	21 54	0 38	16 33	2 14	22 50	0 24	0 0
M14	14 29	25 59	3 13	16 57	2 13	16 10	6 19	7 13	0 8	21 55	0 38	16 34	2 14	22 50	0 24	0s 1
T 15	14 11	22 44	2 6	17 10	1 55	16 13	6 14	7 28	0 9	21 56	0 38	16 34	2 14	22 49	0 24	0 1
W16	13 52	18 1	0 49	17 20	1 37	16 17	6 9	7 43	0 10	21 57	0 38	16 35	2 15	22 49	0 24	0 2
T 17	13 33	12 8	0n32	17 29	1 20	16 20	6 3	7 59	0 11	21 59	0 38	16 35	2 15	22 49	0 24	0 3
F 18	13 14	5 30	1 52	17 35	1 3	16 23	5 57	8 14	0 11	22 0	0 38	16 35	2 15	22 48	0 24	0 3
S 19	12 54	1n27	3 5	17 39	0 46	16 26	5 51	8 29	0 12	22 1	0 38	16 36	2 15	22 48	0 24	0 4
S 20	12 34	8 17	4 5	17 40	0 30	16 29	5 45	8 44	0 13	22 2	0 38	16 36	2 15	22 48	0 24	0 5
M21	12 14	14 34	4 48	17 39	0 15	16 32	5 39	8 59	0 14	22 3	0 38	16 36	2 16	22 47	0 24	0 6
T 22	11 54	19 56	5 12	17 34	0 0	16 35	5 32	9 15	0 15	22 3	0 38	16 36	2 16	22 47	0 24	0 7
W23	11 34	24 3	5 16	17 27	0n14	16 37	5 26	9 30	0 15	22 4	0 38	16 36	2 16	22 47	0 24	0 7
T 24	11 14	26 43	5 3	17 16	0 27	16 39	5 19	9 45	0 16	22 5	0 38	16 37	2 16	22 46	0 24	0 8
F 25	10 53	27 46	4 33	17 3	0 39	16 41	5 12	10 0	0 17	22 6	0 38	16 37	2 16	22 46	0 24	0 9
S 26	10 32	27 13	3 49	16 46	0 50	16 43	5 6	10 15	0 18	22 7	0 38	16 37	2 17	22 46	0 24	0 10
S 27	10 11	25 14	2 55	16 27	1 0	16 44	4 59	10 30	0 18	22 8	0 38	16 37	2 17	22 45	0 24	0 11
M28	9 50	22 2	1 53	16 4	1 9	16 46	4 52	10 45	0 19	22 8	0 38	16 37	2 17	22 45	0 24	0 11
T 29	9 29	17 53	0 48	15 39	1 18	16 46	4 45	11 0	0 20	22 9	0 39	16 37	2 17	22 45	0 24	0 12
W30	9 7	13 4	0s20	15 11	1 25	16 47	4 38	11 15	0 21	22 10	0 39	16 37	2 17	22 44	0 25	0 13
T 31	8n45	7n48	1s25	14n41	1n31	16n47	4s31	11s30	0s21	22s10	0s39	16n37	2s18	22n44	0n25	0s14

Julian Day Number = 2311869.5, Delta T = 68.84 sec
Ecliptic obliquity = 23°29'27", Nutation = 0°00'12", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°24'11", Lahiri = 18°31'11"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1617

geocentric

SEPTEMBER 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	22 40 57	8 ^h 31'01"	18 ^h 29'	26 ^h 43'	25 ^h 25'	29 ^h 43'	22 ^h R52	24 ^h 8'	17 ^h 41'	4 ^h 0'	10 ^h R30	20 ^h R57	19 ^h 47'	6 ^h 12'	18 ^h R30	F 1
S 2	22 44 53	9 ^h 29'17"	0 ^h 21'	28 ^h 35'	26 ^h 6'	0 ^h 23'	22 ^h 349	24 ^h 7'	17 ^h 43'	4 ^h 2'	10 ^h 30	20 ^h 54	19 ^h 44'	6 ^h 19'	18 ^h 27'	S 2
S 3	22 48 50	10 ^h 27'35"	12 ^h 10'	0 ^h 28'	26 ^h 49'	1 ^h 3'	22 ^h 46'	24 ^h 8'	17 ^h 46'	4 ^h 4'	10 ^h 29'	20 ^h 51'	19 ^h 40'	6 ^h 25'	18 ^h 24'	S 3
M 4	22 52 46	11 ^h 25'54"	24 ^h 0'	2 ^h 22'	27 ^h 33'	1 ^h 43'	22 ^h 43'	24 ^h 8'	17 ^h 48'	4 ^h 7'	10 ^h 29'	20 ^h 48'	19 ^h 37'	6 ^h 32'	18 ^h 22'	M 4
T 5	22 56 43	12 ^h 24'15"	5 ^h 15'3	4 ^h 16'	28 ^h 17'	2 ^h 23'	22 ^h 40'	24 ^h 8'	17 ^h 51'	4 ^h 9'	10 ^h 28'	20 ^h 45'	19 ^h 34'	6 ^h 39'	18 ^h 19'	T 5
W 6	23 0 39	13 ^h 22'38"	17 ^h 53'	6 ^h 11'	29 ^h 3'	3 ^h 3'	22 ^h 38'	24 ^h R 8	17 ^h 53'	4 ^h 11'	10 ^h 28'	20 ^h 42'	19 ^h 31'	6 ^h 46'	18 ^h 16'	W 6
T 7	23 4 36	14 ^h 21'03"	0 ^h 27'	8 ^h 5'	29 ^h 49'	3 ^h 44'	22 ^h 36'	24 ^h 8'	17 ^h 56'	4 ^h 13'	10 ^h 27'	20 ^h 40'	19 ^h 28'	6 ^h 52'	18 ^h 13'	T 7
F 8	23 8 33	15 ^h 19'29"	12 ^h 26'	10 ^h 0'	0 ^h 237	4 ^h 24'	22 ^h 33'	24 ^h 8'	17 ^h 58'	4 ^h 15'	10 ^h 27'	20 ^h D39	19 ^h 25'	6 ^h 59'	18 ^h 11'	F 8
S 9	23 12 29	16 ^h 17'56"	25 ^h 9'	11 ^h 54'	1 ^h 25'	5 ^h 5'	22 ^h 32'	24 ^h 8'	18 ^h 0'	4 ^h 17'	10 ^h 26'	20 ^h 39'	19 ^h 21'	7 ^h 6'	18 ^h 8'	S 9
S 10	23 16 26	17 ^h 16'26"	8 ^h 31'4	13 ^h 47'	2 ^h 14'	5 ^h 45'	22 ^h 30'	24 ^h 7'	18 ^h 3'	4 ^h 19'	10 ^h 26'	20 ^h 41'	19 ^h 18'	7 ^h 12'	18 ^h 6'	S 10
M 11	23 20 22	18 ^h 14'57"	21 ^h 45'	15 ^h 40'	3 ^h 3'	6 ^h 26'	22 ^h 28'	24 ^h 7'	18 ^h 5'	4 ^h 21'	10 ^h 25'	20 ^h 42'	19 ^h 15'	7 ^h 19'	18 ^h 3'	M 11
T 12	23 24 19	19 ^h 13'29"	5 ^h 43'	17 ^h 32'	3 ^h 54'	7 ^h 7'	22 ^h 27'	24 ^h 6'	18 ^h 7'	4 ^h 24'	10 ^h 24'	20 ^h 43'	19 ^h 12'	7 ^h 26'	18 ^h 0'	T 12
W 13	23 28 15	20 ^h 12'04"	20 ^h 7'	19 ^h 23'	4 ^h 45'	7 ^h 47'	22 ^h 26'	24 ^h 5'	18 ^h 9'	4 ^h 26'	10 ^h 24'	20 ^h R44	19 ^h 9'	7 ^h 32'	17 ^h 58'	W 13
T 14	23 32 12	21 ^h 10'40"	4 ^h 55'	21 ^h 14'	5 ^h 37'	8 ^h 28'	22 ^h 25'	24 ^h 5'	18 ^h 11'	4 ^h 28'	10 ^h 23'	20 ^h 43'	19 ^h 6'	7 ^h 39'	17 ^h 56'	T 14
F 15	23 36 8	22 ^h 9'17"	20 ^h 1'	23 ^h 3'	6 ^h 29'	9 ^h 9'	22 ^h 24'	24 ^h 4'	18 ^h 13'	4 ^h 30'	10 ^h 22'	20 ^h 41'	19 ^h 2'	7 ^h 46'	17 ^h 53'	F 15
S 16	23 40 5	23 ^h 7'57"	5 ^h 15'	24 ^h 52'	7 ^h 22'	9 ^h 50'	22 ^h 24'	24 ^h 3'	18 ^h 15'	4 ^h 32'	10 ^h 22'	20 ^h 38'	18 ^h 59'	7 ^h 52'	17 ^h 51'	S 16
S 17	23 44 2	24 ^h 6'39"	20 ^h 27'	26 ^h 39'	8 ^h 16'	10 ^h 31'	22 ^h 23'	24 ^h 1'	18 ^h 17'	4 ^h 35'	10 ^h 21'	20 ^h 33'	18 ^h 56'	7 ^h 59'	17 ^h 48'	S 17
M 18	23 47 58	25 ^h 5'23"	5 ^h 28'	28 ^h 26'	9 ^h 11'	11 ^h 13'	22 ^h D23	24 ^h 0'	18 ^h 19'	4 ^h 37'	10 ^h 20'	20 ^h 28'	18 ^h 53'	8 ^h 6'	17 ^h 46'	M 18
T 19	23 51 55	26 ^h 4'09"	20 ^h 8'	0 ^h 12'	10 ^h 6'	11 ^h 54'	22 ^h 23'	23 ^h 59'	18 ^h 21'	4 ^h 39'	10 ^h 20'	20 ^h 24'	18 ^h 50'	8 ^h 13'	17 ^h 44'	T 19
W 20	23 55 51	27 ^h 2'58"	4 ^h 12'	1 ^h 56'	11 ^h 1'	12 ^h 35'	22 ^h 23'	23 ^h 57'	18 ^h 23'	4 ^h 41'	10 ^h 19'	20 ^h 20'	18 ^h 46'	8 ^h 19'	17 ^h 42'	W 20
T 21	23 59 48	28 ^h 1'49"	18 ^h 12'	3 ^h 40'	11 ^h 57'	13 ^h 17'	22 ^h 24'	23 ^h 56'	18 ^h 25'	4 ^h 43'	10 ^h 18'	20 ^h 18'	18 ^h 43'	8 ^h 26'	17 ^h 40'	T 21
F 22	0 3 44	29 ^h 0'42"	1 ^h 33'	5 ^h 23'	12 ^h 54'	13 ^h 59'	22 ^h 24'	23 ^h 54'	18 ^h 27'	4 ^h 46'	10 ^h 17'	20 ^h D18	18 ^h 40'	8 ^h 33'	17 ^h 38'	F 22
S 23	0 7 41	29 ^h 59'38"	14 ^h 30'	7 ^h 5'	13 ^h 51'	14 ^h 40'	22 ^h 25'	23 ^h 52'	18 ^h 28'	4 ^h 48'	10 ^h 16'	20 ^h 19'	18 ^h 37'	8 ^h 39'	17 ^h 36'	S 23
S 24	0 11 37	0 ^h 58'36"	27 ^h 7'	8 ^h 46'	14 ^h 49'	15 ^h 22'	22 ^h 26'	23 ^h 50'	18 ^h 30'	4 ^h 50'	10 ^h 16'	20 ^h 20'	18 ^h 34'	8 ^h 46'	17 ^h 34'	S 24
M 25	0 15 34	1 ^h 57'36"	9 ^h 12'	10 ^h 27'	15 ^h 47'	16 ^h 4'	22 ^h 27'	23 ^h 48'	18 ^h 31'	4 ^h 52'	10 ^h 15'	20 ^h 22'	18 ^h 31'	8 ^h 53'	17 ^h 32'	M 25
T 26	0 19 31	2 ^h 56'38"	21 ^h 35'	12 ^h 6'	16 ^h 46'	16 ^h 46'	22 ^h 29'	23 ^h 46'	18 ^h 33'	4 ^h 55'	10 ^h 14'	20 ^h R22	18 ^h 27'	8 ^h 59'	17 ^h 30'	T 26
W 27	0 23 27	3 ^h 55'43"	3 ^h 35'	13 ^h 44'	17 ^h 45'	17 ^h 28'	22 ^h 30'	23 ^h 44'	18 ^h 35'	4 ^h 57'	10 ^h 13'	20 ^h 21'	18 ^h 24'	9 ^h 6'	17 ^h 28'	W 27
T 28	0 27 24	4 ^h 54'49"	15 ^h 28'	15 ^h 22'	18 ^h 45'	18 ^h 10'	22 ^h 32'	23 ^h 42'	18 ^h 36'	4 ^h 59'	10 ^h 12'	20 ^h 18'	18 ^h 21'	9 ^h 13'	17 ^h 26'	T 28
F 29	0 31 20	5 ^h 53'58"	27 ^h 19'	16 ^h 59'	19 ^h 45'	18 ^h 52'	22 ^h 34'	23 ^h 39'	18 ^h 37'	5 ^h 1'	10 ^h 11'	20 ^h 13'	18 ^h 18'	9 ^h 19'	17 ^h 24'	F 29
S 30	0 35 17	6 ^h 53'09"	9 ^h 9'	18 ^h 35'	20 ^h 45'	19 ^h 34'	22 ^h 36'	23 ^h 37'	18 ^h 39'	5 ^h 4'	10 ^h 10'	20 ^h 15'	18 ^h 15'	9 ^h 26'	17 ^h 23'	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
F 1	8n24	2n19	2s26	14n 8	1n36	16n47	4s24	11s44	0s22	22s11	0s39	16n37	2s18	22n44	0n25	0s15	1n28	0s 6	15s52	14s33	14s55	5s54	8s50	6n48			
S 2	8 2	3s12	3 20	13 33	1 40	16 46	4 17	11 59	0 23	22 11	0 39	16 37	2 18	22 43	0 25	0 15	1 28	0 7	15 53	14 34	14 56	5 57	8 51	6 48			
S 3	7 40	8 36	4 6	12 57	1 43	16 45	4 10	12 14	0 23	22 12	0 39	16 37	2 18	22 43	0 25	0 16	1 28	0 7	15 53	14 34	14 57	6 0	8 52	6 48			
M 4	7 18	13 41	4 41	12 18	1 46	16 44	4 3	12 28	0 24	22 13	0 39	16 37	2 18	22 43	0 25	0 17	1 28	0 7	15 53	14 36	14 58	6 3	8 53	6 47			
T 5	6 55	18 17	5 4	11 38	1 47	16 42	3 55	12 43	0 25	22 13	0 39	16 36	2 19	22 42	0 25	0 18	1 28	0 8	15 53	14 37	14 59	6 6	8 54	6 47			
W 6	6 33	22 13	5 14	10 56	1 48	16 40	3 48	12 57	0 25	22 13	0 39	16 36	2 19	22 42	0 25	0 19	1 28	0 8	15 54	14 37	15 0	6 10	8 56	6 47			
T 7	6 10	25 15	5 10	10 14	1 48	16 38	3 41	13 12	0 26	22 14	0 39	16 36	2 19	22 42	0 25	0 20	1 28	0 9	15 54	14 38	15 1	6 13	8 57	6 47			
F 8	5 48	27 10	4 52	9 30	1 48	16 35	3 34	13 26	0 27	22 14	0 39	16 36	2 19	22 41	0 25	0 21	1 28	0 9	15 54	14 38	15 2	6 16	8 58	6 47			
S 9	5 25	27 43	4 19	8 45	1 46	16 31	3 27	13 40	0 28	22 15	0 39	16 35	2 19	22 41	0 25	0 21	1 28	0 9	15 55	14 38	15 3	6 19	8 59	6 46			
S 10	5 2	26 46	3 32	8 0	1 45	16 27	3 20	13 55	0 28	22 15	0 39	16 35	2 20	22 41	0 25	0 22	1 28	0 10	15 55	14 38	15 4	6 22	9 0	6 46			
M11	4 39	24 14	2 32	7 14	1 42	16 23	3 13	14 9	0 29	22 15	0 39	16 35	2 20	22 41	0 25	0 23	1 28	0 10	15 55	14 37	15 5	6 26	9 1	6 46			
T 12	4 16	20 12	1 22	6 28	1 39	16 18	3 6	14 23	0 30	22 15	0 39	16 35	2 20	22 40	0 25	0 24	1 28	0 11	15 55	14 37	15 6	6 29	9 2	6 45			
W13	3 53	14 52	0 3	5 41	1 36	16 13	2 59	14 37	0 30	22 15	0 39	16 34	2 20	22 40	0 25	0 25	1 28	0 11	15 55	14 37	15 7	6 32	9 3	6 45			
T 14	3 30	8 32	1n17	4 54	1 32	16 8	2 52	14 51	0 31	22 16	0 39	16 34	2 20	22 40	0 25	0 26	1 28	0 11	15 56	14 37	15 8	6 35	9 4	6 45			
F 15	3 7	1 37	2 33	4 7	1 28	16 2	2 45	15 4	0 31	22 16	0 39	16 33	2 21	22 40	0 25	0 27	1 28	0 12	15 56	14 38	15 9	6 38	9 5	6 45			
S 16	2 44	5n27	3 39	3 19	1 23	15 55	2 38	15 18	0 32	22 16	0 39	16 33	2 21	22 39	0 25	0 27	1 28	0 12	15 56	14 39	15 10	6 42	9 6	6 44			
S 17	2 21	12 10	4 30	2 32	1 19	15 48	2 31	15 32	0 33	22 16	0 39	16 33	2 21	22 39	0 25	0 28	1 28	0 13	15 56	14 40	15 11	6 45	9 7	6 44			
M18	1 57	18 5	5 1	1 45	1 13	15 40	2 25	15 45	0 33	22 16	0 39	16 32	2 21	22 39	0 25	0 29	1 28	0 13	15 57	14 42	15 12	6 48	9 8	6 44			
T 19	1 34	22 49	5 11	0 58	1 8	15 32	2 18	15 59	0 34	22 16	0 39	16 32	2 21	22 39	0 25	0 30	1 28	0 14	15 57	14 43	15 13	6 51	9 9	6 43			
W20	1 11	26 1	5 2	0 11	1 2	15 24	2 11	16 12	0 35	22 16	0 39	16 31	2 21	22 38	0 25	0 31	1 28	0 14	15 57	14 44	15 14	6 54	9 10	6 43			
T 21	0 47	27 32	4 35	0s36	0 56	15 15	2 5	16 25	0 35	22 16	0 39	16 30	2 22	22 38	0 25	0 32	1 28	0 14	15 57	14 45	15 15	6 58	9 11	6 43			
F 22	0 24	27 23	3 54	1 22	0 50	15 5	1 58	16 38	0 36	22 16	0 39	16 30	2 22	22 38	0 25	0 33	1 28	0 15	15 57	14 45	15 16	7 1	9 11	6 42			
S 23	0 0	25 43	3 3	2 9	0 44	14 55	1 51	16 51	0 36	22 16	0 39	16 29	2 22	22 38	0 25	0 34	1 28	0 15	15 58	14 45	15 17	7 4	9 12	6 42			
S 24	0s23	22 47	2 3	2 55	0 38	14 45	1 45	17 4	0 37	22 15	0 39	16 29	2 22	22 38	0 25	0 34	1 28	0 16	15 58	14 44	15 18	7 7	9 13	6 42			
M25	0 47	18 52	0 59	3 40	0 31	14 34	1 39	17 17	0 38	22 15	0 39	16 28	2 22	22 37	0 25	0 35	1 28	0 16	15 58	14 44	15 19	7 10	9 14	6 41			
T 26	1 10	14 14	0s 7	4 25	0 24	14 23	1 32	17 30	0 38	22 15	0 39	16 27	2 23	22 37	0 25	0 36	1 28	0 17	15 58	14 44	15 20	7 13	9 15	6 41			
W27	1 34	9 7	1 11	5 10	0 18	14 11	1 26	17 42	0 39	22 15	0 39	16 27	2 23	22 37	0 25	0 37	1 28	0 17	15 58	14 44	15 21	7 17	9 16	6 40			
T 28	1 57	3 43	2 12	5 54	0 11	13 59	1 20	17 54	0 39	22 14	0 39	16 26	2 23	22 37	0 25	0 38	1 28	0 17	15 59	14 45	15 22	7 20	9 17	6 40			
F 29	2 21	1s47	3 6	6 38	0 4	13 46	1 14	18 7	0 40	22 14	0 39	16 25	2 23	22 37	0 25	0 39	1 28	0 18	15 59	14 47	15 23	7 23	9 18	6 40			
S 30	2s44	7s11	3s52	7s21	0s 3	13n32	1s 8	18s19	0s41	22s14	0s39	16n24	2s23	22n37	0n25	0s40	1n28	0s18	15s59	14s49	15s24	7s26	9s19	6n39			

ASTRODIENST EPHEMERIS for the year 1617

geocentric

OCTOBER 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	0 39 13	7 ^h 52'22"	20 ^h 59'	20 ^h 10'	21 ^h 046'	20 ^h 16'	22 ^h 39'	23 ^h R34	18 ^h 340'	5 ^h 6	10 ^h R 9	19 ^h R57	18 ^h 11'	9 ^h 33'	17 ^h R21	S 1
M 2	0 43 10	8 ^h 51'37"	21 ^h 52'	21 ^h 45'	22 ^h 47'	20 ^h 59'	22 ^h 41'	23 ^h 32'	18 ^h 41'	5 ^h 8	10 ^h 8	19 ^h 47'	18 ^h 8	9 ^h 39'	17 ^h 20'	M 2
T 3	0 47 6	9 ^h 50'54"	14 ^h 50'	23 ^h 18'	23 ^h 49'	21 ^h 41'	22 ^h 44'	23 ^h 29'	18 ^h 42'	5 ^h 10	10 ^h 7	19 ^h 37'	18 ^h 5	9 ^h 46'	17 ^h 18'	T 3
W 4	0 51 3	10 ^h 50'13"	26 ^h 53'	24 ^h 51'	24 ^h 50'	22 ^h 24'	22 ^h 47'	23 ^h 26'	18 ^h 44'	5 ^h 12	10 ^h 7	19 ^h 29'	18 ^h 2	9 ^h 53'	17 ^h 17'	W 4
T 5	0 54 59	11 ^h 49'34"	9 ^h 5	26 ^h 24'	25 ^h 53'	23 ^h 6	22 ^h 50'	23 ^h 23'	18 ^h 45'	5 ^h 15	10 ^h 6	19 ^h 22'	17 ^h 59'	10 ^h 0	17 ^h 15'	T 5
F 6	0 58 56	12 ^h 48'57"	21 ^h 29'	27 ^h 55'	26 ^h 55'	23 ^h 49'	22 ^h 53'	23 ^h 20'	18 ^h 46'	5 ^h 17	10 ^h 5	19 ^h 17'	17 ^h 56'	10 ^h 6	17 ^h 14'	F 6
S 7	1 2 53	13 ^h 48'21"	4 ^h 3 9	29 ^h 26'	27 ^h 58'	24 ^h 32'	22 ^h 57'	23 ^h 17'	18 ^h 47'	5 ^h 19	10 ^h 4	19 ^h 15'	17 ^h 52'	10 ^h 13'	17 ^h 13'	S 7
S 8	1 6 49	14 ^h 47'48"	17 ^h 7	0 ^h 56	29 ^h 2	25 ^h 15'	23 ^h 1	23 ^h 14'	18 ^h 48'	5 ^h 21	10 ^h 3	19 ^h D14	17 ^h 49'	10 ^h 20'	17 ^h 11'	S 8
M 9	1 10 46	15 ^h 47'16"	0 ^h 28	2 ^h 25	0 ^h 5	25 ^h 58'	23 ^h 4	23 ^h 10'	18 ^h 49'	5 ^h 24	10 ^h 2	19 ^h 15'	17 ^h 46'	10 ^h 26'	17 ^h 10'	M 9
T 10	1 14 42	16 ^h 46'46"	14 ^h 15	3 ^h 54	1 ^h 9	26 ^h 41'	23 ^h 8	23 ^h 7	18 ^h 49'	5 ^h 26	10 ^h 1	19 ^h R16	17 ^h 43'	10 ^h 33'	17 ^h 9	T 10
W11	1 18 39	17 ^h 46'17"	28 ^h 28'	5 ^h 22	2 ^h 13	27 ^h 24'	23 ^h 13'	23 ^h 4	18 ^h 50'	5 ^h 28	10 ^h 0	19 ^h 16'	17 ^h 40'	10 ^h 40'	17 ^h 8	W11
T 12	1 22 35	18 ^h 45'51"	13 ^h 8	6 ^h 49	3 ^h 18	28 ^h 7	23 ^h 17'	23 ^h 0	18 ^h 51'	5 ^h 30	9 ^h 59	19 ^h 13'	17 ^h 37'	10 ^h 46'	17 ^h 7	T 12
F 13	1 26 32	19 ^h 45'26"	28 ^h 9	8 ^h 15	4 ^h 23	28 ^h 50'	23 ^h 22'	22 ^h 56'	18 ^h 52'	5 ^h 32	9 ^h 58	19 ^h 9	17 ^h 33'	10 ^h 53'	17 ^h 6	F 13
S 14	1 30 28	20 ^h 45'03"	13 ^h 9'24	9 ^h 40	5 ^h 28	29 ^h 33'	23 ^h 26'	22 ^h 53'	18 ^h 52'	5 ^h 35	9 ^h 56	19 ^h 2	17 ^h 30'	11 ^h 0	17 ^h 5	S 14
S 15	1 34 25	21 ^h 44'42"	28 ^h 43'	11 ^h 5	6 ^h 33	0 ^h 17	23 ^h 31'	22 ^h 49'	18 ^h 53'	5 ^h 37	9 ^h 55	18 ^h 53'	17 ^h 27'	11 ^h 7	17 ^h 5	S 15
M16	1 38 22	22 ^h 44'23"	13 ^h 54	12 ^h 29'	7 ^h 39	1 ^h 0	23 ^h 37'	22 ^h 45'	18 ^h 53'	5 ^h 39	9 ^h 54	18 ^h 43'	17 ^h 24'	11 ^h 13'	17 ^h 4	M16
T 17	1 42 18	23 ^h 44'06"	28 ^h 47'	13 ^h 52'	8 ^h 45	1 ^h 43	23 ^h 42'	22 ^h 41'	18 ^h 54'	5 ^h 41	9 ^h 53	18 ^h 33'	17 ^h 21'	11 ^h 20'	17 ^h 3	T 17
W18	1 46 15	24 ^h 43'52"	13 ^h 14	15 ^h 14'	9 ^h 51	2 ^h 27	23 ^h 47'	22 ^h 37'	18 ^h 54'	5 ^h 43	9 ^h 52	18 ^h 26'	17 ^h 17'	11 ^h 27'	17 ^h 3	W18
T 19	1 50 11	25 ^h 43'40"	27 ^h 12'	16 ^h 35	10 ^h 57	3 ^h 11	23 ^h 53'	22 ^h 33'	18 ^h 55'	5 ^h 45	9 ^h 51	18 ^h 20'	17 ^h 14'	11 ^h 33'	17 ^h 2	T 19
F 20	1 54 8	26 ^h 43'30"	10 ^h 40	17 ^h 56	12 ^h 4	3 ^h 54	23 ^h 59'	22 ^h 29'	18 ^h 55'	5 ^h 47	9 ^h 50	18 ^h 17'	17 ^h 11'	11 ^h 40'	17 ^h 1	F 20
S 21	1 58 4	27 ^h 43'22"	23 ^h 40	19 ^h 15'	13 ^h 11	4 ^h 38	24 ^h 5	22 ^h 25'	18 ^h 55'	5 ^h 50	9 ^h 49	18 ^h D15	17 ^h 8	11 ^h 47'	17 ^h 1	S 21
S 22	2 2 1	28 ^h 43'16"	6 ^h 015	20 ^h 32'	14 ^h 18	5 ^h 22	24 ^h 11'	22 ^h 21'	18 ^h 55'	5 ^h 52	9 ^h 48	18 ^h 16'	17 ^h 5	11 ^h 53'	17 ^h 1	S 22
M23	2 5 57	29 ^h 43'13"	18 ^h 32'	21 ^h 49'	15 ^h 26	6 ^h 6	24 ^h 17'	22 ^h 16'	18 ^h 55'	5 ^h 54	9 ^h 47	18 ^h R16	17 ^h 2	12 ^h 0	17 ^h 0	M23
T 24	2 9 54	0 ^h 43'12"	0 ^h 35	23 ^h 4	16 ^h 33	6 ^h 50	24 ^h 24'	22 ^h 12'	18 ^h 55'	5 ^h 56	9 ^h 46	18 ^h 15'	16 ^h 58'	12 ^h 7	17 ^h 0	T 24
W25	2 13 51	1 ^h 43'13"	12 ^h 30	24 ^h 18'	17 ^h 41	7 ^h 34	24 ^h 30'	22 ^h 8	18 ^h R55	5 ^h 58	9 ^h 45	18 ^h 12'	16 ^h 55'	12 ^h 13'	17 ^h 0	W25
T 26	2 17 47	2 ^h 43'16"	24 ^h 19'	25 ^h 30'	18 ^h 49	8 ^h 18	24 ^h 37'	22 ^h 3	18 ^h 55'	6 ^h 0	9 ^h 43	18 ^h 7	16 ^h 52'	12 ^h 20'	17 ^h 0	T 26
F 27	2 21 44	3 ^h 43'21"	6 ^h 8	26 ^h 40	19 ^h 57	9 ^h 2	24 ^h 44'	21 ^h 59'	18 ^h 55'	6 ^h 2	9 ^h 42	17 ^h 59'	16 ^h 49'	12 ^h 27'	17 ^h D 0	F 27
S 28	2 25 40	4 ^h 43'28"	17 ^h 58	27 ^h 48	21 ^h 5	9 ^h 47	24 ^h 51'	21 ^h 54'	18 ^h 55'	6 ^h 4	9 ^h 41	17 ^h 48	16 ^h 46	12 ^h 34	17 ^h 0	S 28
S 29	2 29 37	5 ^h 43'37"	29 ^h 53	28 ^h 53	22 ^h 14	10 ^h 31	24 ^h 58'	21 ^h 50'	18 ^h 55'	6 ^h 6	9 ^h 40	17 ^h 35	16 ^h 42	12 ^h 40	17 ^h 0	S 29
M30	2 33 33	6 ^h 43'48"	11 ^h 53	29 ^h 56	23 ^h 23	11 ^h 15	25 ^h 6	21 ^h 45'	18 ^h 55'	6 ^h 8	9 ^h 39	17 ^h 20	16 ^h 39	12 ^h 47	17 ^h 0	M30
T 31	2 37 30	7 ^h 44'01"	23 ^h 59	0 ^h 56	24 ^h 32	12 ^h 1 0	25 ^h 13	21 ^h 40	18 ^h 554	6 ^h 10	9 ^h 38	17 ^h 17	16 ^h 36	12 ^h 54	17 ^h 00	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	decl	lat
S 1	3s 8	12s21	4s29	8s 3	0s10	13n19	1s 2	18s31	0s41	22s13	0s39	16n24	2s23	22n36	0n25	0s41	1n28	0s19	15s59	14s52	15s25	7s29	9s20	6n39									
M 2	3 31	17 5	4 53	8 45	0 17	13 4	0 56	18 43	0 42	22 13	0 39	16 23	2 23	22 36	0 25	0 42	1 28	0 19	15 59	14 55	15 26	7 32	9 20	6 39									
T 3	3 55	21 10	5 5	9 27	0 24	12 50	0 50	18 54	0 42	22 12	0 39	16 22	2 24	22 36	0 25	0 42	1 28	0 20	15 59	14 58	15 27	7 35	9 21	6 38									
W 4	4 18	24 25	5 4	10 8	0 31	12 35	0 44	19 6	0 43	22 12	0 39	16 21	2 24	22 36	0 26	0 43	1 28	0 20	15 59	15 1	15 28	7 39	9 22	6 38									
T 5	4 41	26 37	4 48	10 48	0 38	12 19	0 38	19 17	0 43	22 11	0 39	16 20	2 24	22 36	0 26	0 44	1 28	0 20	16 0	15 3	15 29	7 42	9 23	6 37									
F 6	5 4	27 32	4 20	11 28	0 45	12 3	0 33	19 29	0 44	22 11	0 39	16 19	2 24	22 36	0 26	0 45	1 28	0 21	16 0	15 4	15 30	7 45	9 24	6 37									
S 7	5 28	27 3	3 38	12 7	0 52	11 47	0 27	19 40	0 44	22 10	0 39	16 18	2 24	22 36	0 26	0 46	1 28	0 21	16 0	15 5	15 30	7 48	9 24	6 37									
S 8	5 51	25 6	2 43	12 45	0 59	11 30	0 22	19 51	0 45	22 10	0 39	16 18	2 24	22 36	0 26	0 47	1 28	0 22	16 0	15 5	15 31	7 51	9 25	6 36									
M 9	6 14	21 42	1 39	13 22	1 6	11 13	0 16	20 1	0 46	22 9	0 39	16 17	2 24	22 35	0 26	0 48	1 28	0 22	16 0	15 5	15 32	7 54	9 26	6 36									
T 10	6 36	17 1	0 27	13 59	1 13	10 55	0 11	20 12	0 46	22 8	0 39	16 16	2 25	22 35	0 26	0 48	1 28	0 22	16 0	15 5	15 33	7 57	9 27	6 35									
W11	6 59	11 16	0n49	14 35	1 19	10 37	0 6	20 23	0 47	22 7	0 39	16 15	2 25	22 35	0 26	0 49	1 28	0 23	16 0	15 5	15 34	8 1	9 27	6 35									
T 12	7 22	4 44	2 4	15 10	1 26	10 18	0 1	20 33	0 47	22 7	0 39	16 14	2 25	22 35	0 26	0 50	1 29	0 23	16 0	15 5	15 35	8 4	9 28	6 34									
F 13	7 45	2n12	3 12	15 45	1 33	9 59	0n 4	20 43	0 48	22 6	0 39	16 13	2 25	22 35	0 26	0 51	1 29	0 24	16 1	15 7	15 36	8 7	9 29	6 34									
S 14	8 7	9 5	4 7	16 18	1 39	9 40	0 9	20 53	0 48	22 5	0 39	16 12	2 25	22 35	0 26	0 52	1 29	0 24	16 1	15 9	15 37	8 10	9 29	6 34									
S 15	8 30	15 28	4 45	16 51	1 45	9 20	0 14	21 3	0 49	22 4	0 39	16 11	2 25	22 35	0 26	0 53	1 29	0 24	16 1	15 12	15 38	8 13	9 30	6 33									
M16	8 52	20 51	5 2	17 23	1 51	9 0	0 19	21 12	0 49	22 3	0 39	16 10	2 25	22 35	0 26	0 54	1 29	0 25	16 1	15 15	15 39	8 16	9 31	6 33									
T 17	9 14	24 47	4 58	17 54	1 57	8 40	0 23	21 22	0 49	22 2	0 39	16 9	2 25	22 35	0 26	0 54	1 29	0 25	16 1	15 18	15 40	8 19	9 31	6 32									
W18	9 36	27 0	4 36	18 24	2 3	8 19	0 28	21 31	0 50	22 1	0 39	16 7	2 25	22 35	0 26	0 55	1 29	0 26	16 1	15 20	15 41	8 22	9 32	6 32									
T 19	9 58	27 24	3 57	18 53	2 8	7 58	0 32	21 40	0 50	22 0	0 39	16 6	2 25	22 35	0 26	0 56	1 29	0 26	16 1	15 22	15 42	8 26	9 32	6 31									
F 20	10 20	26 9	3 6	19 21	2 13	7 37	0 37	21 49	0 51	21 59	0 39	16 5	2 25	22 35	0 26	0 57	1 29	0 26	16 1	15 23	15 43	8 29	9 33	6 31									
S 21	10 41	23 30	2 7	19 47	2 18	7 15	0 41	21 57	0 51	21 58	0 39	16 4	2 26	22 35	0 26	0 58	1 29	0 27	16 1	15 23	15 44	8 32	9 34	6 30									
S 22	11 3	19 46	1 3	20 13	2 23	6 53	0 45	22 6	0 52	21 57	0 39	16 3	2 26	22 35	0 26	0 59	1 29	0 27	16 1	15 23	15 45	8 35	9 34	6 30									
M23	11 24	15 17	0s 1	20 38	2 27	6 30	0 49	22 14	0 52	21 56	0 38	16 2	2 26	22 35	0 26	0 59	1 29	0 27	16 1	15 23	15 46	8 38	9 35	6 30									
T 24	11 45	10 16	1 5	21 1	2 31	6 8	0 53	22 22	0 53	21 55	0 38	16 1	2 26	22 35	0 26	1 0	1 29	0 28	16 1	15 23	15 47	8 41	9 35	6 29									
W25	12 6	4 58	2 5	21 24	2 35	5 45	0 57	22 30	0 53	21 54	0 38	15 59	2 26	22 35	0 26	1 1	1 29	0 28	16 1	15 24	15 48	8 44	9 36	6 29									
T 26	12 27	0s28	2 59	21 44	2 39	5 22	1 0	22 37	0 54	21 53	0 38	15 58	2 26	22 35	0 26	1 2	1 29	0 28	16 1	15 26	15 49	8 47	9 36	6 28									
F 27	12 47	5 53	3 45	22 4	2 41	4 58	1 4	22 45	0 54	21 51	0 38	15 57	2 26	22 35	0 26	1 2	1 29	0 29	16 1	15 28	15 50	8 50	9 36	6 28									
S 28	13 7	11 5	4 21	22 22	2 44	4 34	1 7	22 52	0 54	21 50	0 38	15 56	2 26	22 35	0 26	1 3	1 29	0 29	16 1	15 32	15 51	8 53	9 37	6 27									
S 29	13 28	15 54	4 46	22 39	2 46	4 10	1 11	22 59	0 55	21 49	0 38	15 55	2 26	22 35	0 26	1 4	1 29	0 29	16 1	15 36	15 52	8 57	9 37	6 27									
M30	13 47	20 9	4 58	22 54	2 47	3 46	1 14	23 5	0 55	21 47	0 38	15 54	2 26	22 35	0 26	1 5	1 29	0 30	16 1	15 40	15 53	9 0	9 38	6 26									
T 31	14s 7	23s36	4s58	23s 8	2s48	3n22	1n17	23s12	0s56	21s46	0s38	15n52	2s26	22n35	0n26	1s 6	1n29	0s30	16s 1	15s45	15s54	9s 3	9s38	6n26									

ASTRODIENST EPHEMERIS for the year 1617
geocentric

NOVEMBER 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	2 41 26	8♌44°15	6♊12	1♈53	25♎41	12♌44	25♎21	21°R36	18°R54	6♌12	9°R37	16°R53	16♌33	13♌0	17♌1	W 1
T 2	2 45 23	9°44'32	18°34	2°47	26°50	13°29	25°29	21°R31	18°R54	6°14	9°R36	16°R42	16°30	13°7	17°1	T 2
F 3	2 49 20	10°44'50	1♌6	3°36	28°0	14°13	25°37	21°26	18°53	6°16	9°34	16°34	16°27	13°14	17°1	F 3
S 4	2 53 16	11°45'09	13°50	4°21	29°9	14°58	25°45	21°21	18°53	6°18	9°33	16°29	16°23	13°20	17°2	S 4
S 5	2 57 13	12°45'30	26°49	5°0	0♌19	15°43	25°53	21°17	18°52	6°20	9°32	16°26	16°20	13°27	17°3	S 5
M 6	3 1 9	13°45'52	10♌6	5°34	1°29	16°28	26°1	21°12	18°52	6°21	9°31	16°26	16°17	13°34	17°3	M 6
T 7	3 5 6	14°46'16	23°42	6°2	2°39	17°13	26°10	21°7	18°51	6°23	9°30	16°26	16°14	13°41	17°4	T 7
W 8	3 9 2	15°46'41	7♌42	6°22	3°49	17°58	26°19	21°2	18°50	6°25	9°29	16°25	16°11	13°47	17°5	W 8
T 9	3 12 59	16°47'07	22°4	6°35	4°59	18°43	26°28	20°57	18°49	6°27	9°28	16°22	16°8	13°54	17°5	T 9
F 10	3 16 55	17°47'35	6♌47	6°R39	6°10	19°28	26°36	20°52	18°48	6°29	9°27	16°16	16°4	14°1	17°6	F 10
S 11	3 20 52	18°48'04	21°46	6°34	7°21	20°13	26°46	20°47	18°48	6°31	9°25	16°8	16°1	14°7	17°7	S 11
S 12	3 24 49	19°48'34	6♌52	6°19	8°31	20°58	26°55	20°42	18°47	6°32	9°24	15°57	15°58	14°14	17°8	S 12
M13	3 28 45	20°49'07	21°56	5°54	9°42	21°43	27°4	20°37	18°46	6°34	9°23	15°46	15°55	14°21	17°9	M13
T 14	3 32 42	21°49'40	6♌48	5°19	10°53	22°29	27°14	20°33	18°45	6°36	9°22	15°34	15°52	14°28	17°10	T 14
W15	3 36 38	22°50'15	21°18	4°33	12°4	23°14	27°23	20°28	18°44	6°37	9°21	15°24	15°48	14°34	17°12	W15
T 16	3 40 35	23°50'52	5♌21	3°37	13°16	23°59	27°33	20°23	18°42	6°39	9°20	15°16	15°45	14°41	17°13	T 16
F 17	3 44 31	24°51'31	18°55	2°32	14°27	24°45	27°43	20°18	18°41	6°41	9°19	15°11	15°42	14°48	17°14	F 17
S 18	3 48 28	25°52'11	2♌1	1°19	15°38	25°30	27°53	20°13	18°40	6°42	9°18	15°9	15°39	14°54	17°16	S 18
S 19	3 52 24	26°52'53	14°42	0°0	16°50	26°16	28°3	20°8	18°39	6°44	9°17	15°D 9	15°36	15°1	17°17	S 19
M20	3 56 21	27°53'36	27°1	28♌39	18°2	27°1	28°13	20°3	18°37	6°46	9°16	15°R 9	15°33	15°8	17°18	M20
T 21	4 0 18	28°54'21	9♌5	27°17	19°14	27°47	28°23	19°58	18°36	6°47	9°15	15°8	15°29	15°14	17°20	T 21
W22	4 4 14	29°55'08	21°0	25°57	20°26	28°33	28°34	19°54	18°35	6°49	9°14	15°6	15°26	15°21	17°22	W22
T 23	4 8 11	0♌55'56	2♌49	24°42	21°38	29°19	28°44	19°49	18°33	6°50	9°13	15°2	15°23	15°28	17°23	T 23
F 24	4 12 7	1°56'45	14°39	23°34	22°50	0♌5	28°55	19°44	18°32	6°52	9°11	14°55	15°20	15°35	17°25	F 24
S 25	4 16 4	2°57'36	26°31	22°35	24°2	0°50	29°6	19°39	18°30	6°53	9°10	14°45	15°17	15°41	17°27	S 25
S 26	4 20 0	3°58'29	8♌31	21°47	25°14	1°36	29°16	19°35	18°28	6°54	9°9	14°33	15°14	15°48	17°29	S 26
M27	4 23 57	4°59'22	20°39	21°10	26°27	2°22	29°27	19°30	18°27	6°56	9°8	14°19	15°10	15°55	17°31	M27
T 28	4 27 53	6°0'17	2♌57	20°44	27°39	3°8	29°38	19°25	18°25	6°57	9°7	14°6	15°7	16°1	17°33	T 28
W29	4 31 50	7°1'13	15°25	20°30	28°52	3°54	29°50	19°21	18°23	6°58	9°6	13°54	15°4	16°8	17°35	W29
T 30	4 35 47	8♌2'10	28♌4	20°D27	0♌4	4♌41	0♌1	19°R16	18°R22	7♌0	9°R5	13♌43	15♌1	16♌15	17♌37	T 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	14s27	26s 2	4s43	23s20	2s48	2n57	1n20	23s18	0s56	21s45	0s38	15n51	2s26	22n35	0n26	1s 6	1n29	0s30	16s 1	15s49	15s55	9s 6	9s38	6n25	
T 2	14 46	27 14	4 15	23 30	2 48	2 32	1 23	23 24	0 56	21 43	0 38	15 50	2 26	22 36	0 26	1 7	1 29	0 31	16 1	15 52	15 56	9 9	9 39	6 25	
F 3	15 5	27 4	3 35	23 38	2 46	2 7	1 26	23 30	0 57	21 42	0 38	15 49	2 26	22 36	0 26	1 8	1 29	0 31	16 1	15 54	15 57	9 12	9 39	6 25	
S 4	15 24	25 28	2 43	23 45	2 44	1 42	1 29	23 35	0 57	21 40	0 38	15 47	2 26	22 36	0 26	1 8	1 29	0 31	16 1	15 56	15 57	9 15	9 39	6 24	
S 5	15 42	22 30	1 42	23 49	2 41	1 17	1 32	23 41	0 58	21 39	0 38	15 46	2 26	22 36	0 27	1 9	1 29	0 32	16 1	15 57	15 58	9 18	9 40	6 24	
M 6	16 0	18 17	0 33	23 51	2 37	0 51	1 34	23 46	0 58	21 37	0 38	15 45	2 26	22 36	0 27	1 10	1 29	0 32	16 1	15 57	15 59	9 21	9 40	6 23	
T 7	16 18	13 3	0n38	23 51	2 31	0 25	1 37	23 50	0 58	21 35	0 38	15 44	2 26	22 36	0 27	1 11	1 29	0 32	16 1	15 57	16 0	9 24	9 40	6 23	
W 8	16 36	7 0	1 50	23 48	2 25	0s 0	1 39	23 55	0 59	21 34	0 38	15 42	2 26	22 36	0 27	1 11	1 29	0 33	16 1	15 57	16 1	9 27	9 40	6 22	
T 9	16 53	0 27	2 56	23 42	2 17	0 26	1 41	23 59	0 59	21 32	0 38	15 41	2 26	22 36	0 27	1 12	1 29	0 33	16 1	15 58	16 2	9 30	9 41	6 22	
F 10	17 10	6n15	3 52	23 34	2 7	0 52	1 43	24 3	0 59	21 30	0 38	15 40	2 26	22 36	0 27	1 13	1 29	0 33	16 1	16 0	16 3	9 33	9 41	6 21	
S 11	17 27	12 43	4 34	23 22	1 57	1 18	1 45	24 7	1 0	21 29	0 38	15 39	2 26	22 37	0 27	1 13	1 29	0 33	16 1	16 2	16 4	9 36	9 41	6 21	
S 12	17 44	18 30	4 56	23 7	1 44	1 45	1 47	24 11	1 0	21 27	0 38	15 37	2 26	22 37	0 27	1 14	1 29	0 34	16 1	16 5	16 5	9 39	9 41	6 20	
M13	18 0	23 5	4 58	22 49	1 30	2 11	1 49	24 14	1 0	21 25	0 38	15 36	2 26	22 37	0 27	1 15	1 29	0 34	16 1	16 9	16 6	9 43	9 41	6 20	
T 14	18 16	26 5	4 40	22 27	1 15	2 37	1 51	24 17	1 1	21 23	0 38	15 35	2 26	22 37	0 27	1 15	1 29	0 34	16 1	16 12	16 7	9 46	9 41	6 20	
W15	18 31	27 16	4 4	22 2	0 58	3 3	1 52	24 20	1 1	21 21	0 38	15 34	2 26	22 37	0 27	1 16	1 30	0 34	16 0	16 15	16 8	9 49	9 41	6 19	
T 16	18 46	26 36	3 14	21 34	0 39	3 30	1 54	24 22	1 1	21 19	0 38	15 33	2 25	22 37	0 27	1 17	1 30	0 35	16 0	16 17	16 9	9 52	9 41	6 19	
F 17	19 1	24 22	2 14	21 2	0 20	3 56	1 55	24 25	1 1	21 17	0 38	15 31	2 25	22 38	0 27	1 17	1 30	0 35	16 0	16 19	16 10	9 55	9 41	6 18	
S 18	19 16	20 52	1 9	20 28	0n 0	4 23	1 56	24 27	1 2	21 15	0 38	15 30	2 25	22 38	0 27	1 18	1 30	0 35	16 0	16 20	16 11	9 58	9 41	6 18	
S 19	19 30	16 30	0 2	19 51	0 21	4 49	1 58	24 28	1 2	21 13	0 38	15 29	2 25	22 38	0 27	1 18	1 30	0 35	16 0	16 20	16 12	10 1	9 41	6 17	
M20	19 44	11 33	1s 3	19 14	0 41	5 15	1 59	24 30	1 2	21 11	0 38	15 28	2 25	22 38	0 27	1 19	1 30	0 35	16 0	16 20	16 13	10 4	9 41	6 17	
T 21	19 57	6 16	2 3	18 36	1 1	5 42	2 0	24 31	1 3	21 9	0 38	15 27	2 25	22 39	0 27	1 19	1 30	0 36	16 0	16 20	16 14	10 7	9 41	6 17	
W22	20 11	0 51	2 58	17 59	1 20	6 8	2 0	24 32	1 3	21 7	0 38	15 25	2 25	22 39	0 27	1 20	1 30	0 36	16 0	16 20	16 15	10 10	9 41	6 16	
T 23	20 23	4s33	3 44	17 25	1 37	6 34	2 1	24 32	1 3	21 5	0 38	15 24	2 25	22 39	0 27	1 21	1 30	0 36	15 59	16 22	16 15	10 13	9 41	6 16	
F 24	20 36	9 47	4 21	16 53	1 53	7 1	2 2	24 33	1 3	21 3	0 38	15 23	2 25	22 39	0 27	1 21	1 30	0 36	15 59	16 24	16 16	10 16	9 41	6 15	
S 25	20 48	14 42	4 46	16 26	2 6	7 27	2 2	24 33	1 4	21 0	0 38	15 22	2 25	22 39	0 27	1 22	1 30	0 36	15 59	16 27	16 17	10 19	9 41	6 15	
S 26	20 59	19 6	5 0	16 3	2 17	7 53	2 3	24 33	1 4	20 58	0 38	15 21	2 24	22 40	0 27	1 22	1 30	0 36	15 59	16 30	16 18	10 22	9 41	6 14	
M27	21 11	22 45	4 59	15 45	2 26	8 19	2 3	24 32	1 4	20 56	0 38	15 20	2 24	22 40	0 27	1 23	1 30	0 37	15 59	16 34	16 19	10 25	9 41	6 14	
T 28	21 21	25 27	4 45	15 31	2 33	8 44	2 3	24 31	1 4	20 54	0 38	15 19	2 24	22 40	0 27	1 23	1 30	0 37	15 59	16 38	16 20	10 28	9 40	6 14	
W29	21 32	26 57	4 18	15 23	2 37	9 10	2 4	24 30	1 4	20 51	0 38	15 18	2 24	22 40	0 27	1 24	1 30	0 37	15 59	16 42	16 21	10 31	9 40	6 13	
T 30	21s42	27s 5	3s37	15s19	2n40	9s36	2n 4	24s29	1s 5	20s49	0s38	15n16	2s24	22n41	0n27	1s24	1n30	0s37	15s58	16s44	16s22	10s34	9s40	6n13	

ASTRODIENST EPHEMERIS for the year 1617
geocentric

DECEMBER 1617 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	4 39 43	9♂ 3'08	10♂53	20♂34	1♂17	5♂27	0♂12	19°R12	18°R20	7♂ 1	9°R 5	13°R36	14♂58	16♂21	17♂39	F 1
S 2	4 43 40	10° 4'07	23°53	20°50	2°30	6°13	0°24	19♂ 7	18♂18	7° 2	9♂ 4	13♂32	14°54	16°28	17°41	S 2
S 3	4 47 36	11° 5'07	7♂ 4	21°16	3°43	6°59	0°35	19° 3	18°16	7° 3	9° 3	13°30	14°51	16°35	17°43	S 3
M 4	4 51 33	12° 6'07	20°28	21°49	4°56	7°46	0°47	18°59	18°14	7° 5	9° 2	13°D30	14°48	16°42	17°46	M 4
T 5	4 55 29	13° 7'08	4♂ 5	22°29	6° 9	8°32	0°59	18°54	18°12	7° 6	9° 1	13°31	14°45	16°48	17°48	T 5
W 6	4 59 26	14° 8'09	17°58	23°15	7°22	9°18	1°10	18°50	18°10	7° 7	9° 0	13°R31	14°42	16°55	17°50	W 6
T 7	5 3 22	15° 9'10	2♂ 6	24° 7	8°35	10° 5	1°22	18°46	18° 8	7° 8	8°59	13°29	14°39	17° 2	17°53	T 7
F 8	5 7 19	16°10'13	16°29	25° 4	9°48	10°51	1°34	18°42	18° 6	7° 9	8°58	13°26	14°35	17° 8	17°55	F 8
S 9	5 11 16	17°11'15	1♂ 3	26° 5	11° 1	11°38	1°46	18°38	18° 4	7°10	8°57	13°20	14°32	17°15	17°58	S 9
S 10	5 15 12	18°12'19	15°43	27°10	12°14	12°24	1°59	18°34	18° 2	7°11	8°56	13°12	14°29	17°22	18° 1	S 10
M 11	5 19 9	19°13'23	0♂23	28°18	13°28	13°11	2°11	18°30	18° 0	7°12	8°56	13° 3	14°26	17°29	18° 3	M 11
T 12	5 23 5	20°14'27	14°55	29°28	14°41	13°58	2°23	18°26	17°57	7°13	8°55	12°54	14°23	17°35	18° 6	T 12
W 13	5 27 2	21°15'32	29°12	0♂42	15°55	14°44	2°35	18°23	17°55	7°14	8°54	12°46	14°20	17°42	18° 9	W 13
T 14	5 30 58	22°16'38	13♂ 8	1°57	17° 8	15°31	2°48	18°19	17°53	7°15	8°53	12°40	14°16	17°49	18°12	T 14
F 15	5 34 55	23°17'44	26°41	3°14	18°22	16°18	3° 0	18°15	17°51	7°16	8°52	12°37	14°13	17°55	18°15	F 15
S 16	5 38 52	24°18'51	9♂48	4°33	19°35	17° 4	3°13	18°12	17°48	7°17	8°52	12°D36	14°10	18° 2	18°17	S 16
S 17	5 42 48	25°19'58	22°32	5°53	20°49	17°51	3°26	18° 9	17°46	7°17	8°51	12°36	14° 7	18° 9	18°20	S 17
M 18	5 46 45	26°21'06	4♂56	7°15	22° 3	18°38	3°38	18° 5	17°44	7°18	8°50	12°37	14° 4	18°16	18°23	M 18
T 19	5 50 41	27°22'15	17° 4	8°38	23°16	19°25	3°51	18° 2	17°41	7°19	8°50	12°39	14° 0	18°22	18°26	T 19
W 20	5 54 38	28°23'24	29° 1	10° 2	24°30	20°12	4° 4	17°59	17°39	7°19	8°49	12°R39	13°57	18°29	18°30	W 20
T 21	5 58 34	29°24'34	10♂52	11°26	25°44	20°59	4°17	17°56	17°36	7°20	8°48	12°38	13°54	18°36	18°33	T 21
F 22	6 2 31	0♂25'44	22°43	12°52	26°58	21°46	4°30	17°53	17°34	7°21	8°48	12°36	13°51	18°42	18°36	F 22
S 23	6 6 27	1°26'55	4♂38	14°18	28°12	22°33	4°43	17°50	17°32	7°21	8°47	12°31	13°48	18°49	18°39	S 23
S 24	6 10 24	2°28'07	16°41	15°45	29°26	23°20	4°56	17°47	17°29	7°22	8°46	12°25	13°45	18°56	18°42	S 24
M 25	6 14 21	3°29'18	28°56	17°13	0♂40	24° 7	5°10	17°45	17°27	7°22	8°46	12°18	13°41	19° 3	18°46	M 25
T 26	6 18 17	4°30'30	11♂24	18°41	1°54	24°54	5°23	17°42	17°24	7°23	8°45	12°10	13°38	19° 9	18°49	T 26
W 27	6 22 14	5°31'43	24° 6	20° 9	3° 8	25°41	5°36	17°40	17°22	7°23	8°45	12° 4	13°35	19°16	18°52	W 27
T 28	6 26 10	6°32'55	7♂ 3	21°39	4°22	26°28	5°49	17°37	17°19	7°24	8°44	11°58	13°32	19°23	18°56	T 28
F 29	6 30 7	7°34'07	20°15	23° 8	5°36	27°15	6° 3	17°35	17°16	7°24	8°43	11°54	13°29	19°29	18°59	F 29
S 30	6 34 3	8°35'19	3♂38	24°38	6°50	28° 2	6°16	17°33	17°14	7°24	8°43	11°52	13°26	19°36	19° 3	S 30
S 31	6 38 0	9♂36'31	17♂14	26♂ 9	8♂ 4	28♂50	6♂30	17♂31	17♂11	7♂25	8♂42	11°D52	13♂22	19♂43	19♂ 6	S 31

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	21s51	25s46	2s44	15s20	2n42	10s 1	2n 4	24s27	1s 5	20s46	0s38	15n15	2s24	22n41	0n27	1s25	1n30	0s37	15s58	16s47	16s23	10s37	9s40	6n12	
S 2	22 0	23 4	1 43	15 24	2 42	10 26	2 3	24 26	1 5	20 44	0 38	15 14	2 24	22 41	0 27	1 25	1 30	0 37	15 58	16 48	16 24	10 40	9 39	6 12	
S 3	22 9	19 6	0 34	15 32	2 40	10 51	2 3	24 23	1 5	20 41	0 38	15 13	2 23	22 42	0 27	1 25	1 30	0 37	15 58	16 48	16 25	10 43	9 39	6 12	
M 4	22 17	14 7	0n37	15 43	2 38	11 16	2 3	24 21	1 5	20 39	0 38	15 12	2 23	22 42	0 27	1 26	1 30	0 37	15 58	16 48	16 26	10 46	9 39	6 11	
T 5	22 25	8 22	1 48	15 57	2 34	11 40	2 2	24 18	1 6	20 36	0 38	15 11	2 23	22 42	0 27	1 26	1 30	0 37	15 57	16 48	16 27	10 49	9 38	6 11	
W 6	22 33	2 6	2 53	16 13	2 30	12 5	2 2	24 15	1 6	20 34	0 38	15 10	2 23	22 42	0 27	1 27	1 31	0 37	15 57	16 48	16 28	10 52	9 38	6 10	
T 7	22 40	4n21	3 50	16 30	2 25	12 29	2 1	24 12	1 6	20 31	0 38	15 9	2 23	22 43	0 27	1 27	1 31	0 37	15 57	16 49	16 29	10 55	9 38	6 10	
F 8	22 46	10 41	4 32	16 50	2 19	12 52	2 1	24 9	1 6	20 29	0 38	15 8	2 22	22 43	0 27	1 27	1 31	0 38	15 57	16 50	16 29	10 58	9 37	6 10	
S 9	22 52	16 31	4 58	17 10	2 13	13 16	2 0	24 5	1 6	20 26	0 38	15 8	2 22	22 43	0 27	1 28	1 31	0 38	15 56	16 51	16 30	11 1	9 37	6 9	
S 10	22 58	21 26	5 5	17 31	2 6	13 39	1 59	24 1	1 6	20 23	0 38	15 7	2 22	22 44	0 27	1 28	1 31	0 38	15 56	16 54	16 31	11 4	9 37	6 9	
M11	23 3	25 1	4 51	17 53	1 59	14 2	1 58	23 56	1 6	20 20	0 38	15 6	2 22	22 44	0 27	1 28	1 31	0 38	15 56	16 56	16 32	11 7	9 36	6 8	
T 12	23 8	26 56	4 19	18 15	1 52	14 25	1 57	23 52	1 7	20 18	0 38	15 5	2 22	22 44	0 28	1 29	1 31	0 38	15 56	16 59	16 33	11 10	9 36	6 8	
W13	23 12	27 1	3 31	18 38	1 45	14 47	1 56	23 47	1 7	20 15	0 38	15 4	2 21	22 45	0 28	1 29	1 31	0 38	15 56	17 1	16 34	11 13	9 35	6 8	
T 14	23 16	25 21	2 32	19 1	1 37	15 9	1 55	23 41	1 7	20 12	0 38	15 3	2 21	22 45	0 28	1 29	1 31	0 38	15 55	17 2	16 35	11 15	9 35	6 7	
F 15	23 19	22 15	1 25	19 23	1 29	15 31	1 54	23 36	1 7	20 9	0 38	15 3	2 21	22 45	0 28	1 30	1 31	0 38	15 55	17 3	16 36	11 18	9 34	6 7	
S 16	23 22	18 5	0 15	19 45	1 22	15 52	1 52	23 30	1 7	20 6	0 39	15 2	2 21	22 46	0 28	1 30	1 31	0 38	15 55	17 4	16 37	11 21	9 34	6 7	
S 17	23 24	13 11	0s53	20 7	1 14	16 13	1 51	23 24	1 7	20 3	0 39	15 1	2 21	22 46	0 28	1 30	1 31	0 38	15 54	17 4	16 38	11 24	9 33	6 6	
M18	23 26	7 54	1 58	20 29	1 6	16 33	1 49	23 18	1 7	20 0	0 39	15 0	2 20	22 46	0 28	1 30	1 31	0 38	15 54	17 3	16 39	11 27	9 32	6 6	
T 19	23 28	2 26	2 55	20 50	0 58	16 53	1 48	23 11	1 7	19 57	0 39	15 0	2 20	22 47	0 28	1 31	1 31	0 37	15 54	17 3	16 40	11 30	9 32	6 6	
W20	23 29	3s 2	3 44	21 11	0 50	17 13	1 46	23 5	1 7	19 54	0 39	14 59	2 20	22 47	0 28	1 31	1 31	0 37	15 54	17 3	16 41	11 33	9 31	6 5	
T 21	23 29	8 21	4 23	21 30	0 42	17 32	1 45	22 58	1 7	19 51	0 39	14 59	2 20	22 47	0 28	1 31	1 31	0 37	15 53	17 3	16 41	11 36	9 31	6 5	
F 22	23 29	13 21	4 51	21 49	0 34	17 51	1 43	22 50	1 7	19 48	0 39	14 58	2 19	22 48	0 28	1 31	1 31	0 37	15 53	17 4	16 42	11 39	9 30	6 5	
S 23	23 29	17 54	5 6	22 7	0 27	18 10	1 41	22 43	1 7	19 45	0 39	14 57	2 19	22 48	0 28	1 31	1 31	0 37	15 53	17 5	16 43	11 42	9 29	6 4	
S 24	23 28	21 47	5 9	22 25	0 19	18 28	1 39	22 35	1 7	19 42	0 39	14 57	2 19	22 48	0 28	1 32	1 32	0 37	15 53	17 7	16 44	11 45	9 29	6 4	
M25	23 27	24 47	4 57	22 41	0 11	18 45	1 37	22 27	1 7	19 39	0 39	14 56	2 19	22 49	0 28	1 32	1 32	0 37	15 52	17 9	16 45	11 48	9 28	6 4	
T 26	23 25	26 40	4 31	22 57	0 4	19 2	1 35	22 18	1 8	19 35	0 39	14 56	2 18	22 49	0 28	1 32	1 32	0 37	15 52	17 11	16 46	11 51	9 27	6 3	
W27	23 22	27 12	3 51	23 11	0s 3	19 18	1 33	22 9	1 8	19 32	0 39	14 55	2 18	22 49	0 28	1 32	1 32	0 37	15 52	17 13	16 47	11 54	9 26	6 3	
T 28	23 20	26 16	2 58	23 24	0 11	19 34	1 31	22 1	1 8	19 29	0 39	14 55	2 18	22 50	0 28	1 32	1 32	0 37	15 51	17 14	16 48	11 56	9 26	6 3	
F 29	23 16	23 52	1 55	23 37	0 18	19 50	1 29	21 51	1 8	19 26	0 39	14 55	2 18	22 50	0 28	1 32	1 32	0 37	15 51	17 15	16 49	11 59	9 25	6 3	
S 30	23 13	20 6	0 45	23 48	0 25	20 4	1 27	21 42	1 8	19 22	0 39	14 54	2 17	22 50	0 28	1 32	1 32	0 36	15 51	17 16	16 50	12 2	9 24	6 2	
S 31	23s 9	15s14	0n29	23s58	0s32	20s19	1n25	21s32	1s 8	19s19	0s39	14n54	2s17	22n51	0n28	1s32	1n32	0s36	15s50	17s16	16s51	12s 5	9s23	6n 2	