



Astrodienst Ephemeris Tables for the year 2099

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 2099

geocentric

JANUARY 2099

00:00 UT

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

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	22s59	10n30	1n13	24s39	1s22	16s12	2n55	19s49	0n20	3n50	1n14	3s16	2n23	4n50	0s39	6n43
F 2	22 54	15 53	2 15	24 39	1 27	16 28	2 54	19 58	0 19	3 50	1 14	3 16	2 23	4 50	0 39	6 43
S 3	22 48	20 43	3 12	24 37	1 32	16 44	2 53	20 7	0 18	3 50	1 14	3 17	2 23	4 50	0 39	6 43
S 4	22 42	24 42	4 1	24 34	1 36	17 0	2 52	20 16	0 18	3 50	1 15	3 17	2 24	4 50	0 39	6 44
M 5	22 36	27 23	4 37	24 30	1 40	17 15	2 51	20 25	0 17	3 50	1 15	3 18	2 24	4 51	0 39	6 44
T 6	22 28	28 22	4 57	24 24	1 44	17 30	2 50	20 33	0 17	3 50	1 15	3 18	2 24	4 51	0 39	6 44
W 7	22 21	27 25	4 58	24 16	1 48	17 45	2 49	20 41	0 16	3 50	1 15	3 19	2 24	4 51	0 39	6 45
T 8	22 13	24 31	4 40	24 8	1 51	18 0	2 48	20 49	0 15	3 50	1 16	3 19	2 25	4 52	0 39	6 45
F 9	22 5	19 57	4 2	23 57	1 54	18 14	2 46	20 57	0 15	3 51	1 16	3 19	2 25	4 52	0 39	6 45
S 10	21 56	14 10	3 7	23 45	1 57	18 27	2 45	21 5	0 14	3 51	1 16	3 20	2 25	4 53	0 39	6 46
S 11	21 47	7 39	2 1	23 32	1 59	18 41	2 43	21 13	0 13	3 52	1 17	3 20	2 26	4 53	0 39	6 46
M 12	21 37	0 51	0 48	23 17	2 2	18 54	2 42	21 20	0 13	3 52	1 17	3 20	2 26	4 53	0 39	6 46
T 13	21 27	5s50	0s26	23 1	2 3	19 7	2 40	21 27	0 12	3 53	1 17	3 20	2 26	4 54	0 39	6 47
W 14	21 17	12 6	1 37	22 43	2 5	19 19	2 38	21 34	0 11	3 53	1 17	3 20	2 26	4 54	0 39	6 47
T 15	21 6	17 40	2 41	22 24	2 6	19 31	2 36	21 41	0 11	3 54	1 18	3 21	2 27	4 55	0 39	6 47
F 16	20 55	22 17	3 35	22 3	2 6	19 42	2 34	21 48	0 10	3 55	1 18	3 21	2 27	4 55	0 39	6 48
S 17	20 43	25 43	4 17	21 41	2 6	19 53	2 31	21 54	0 9	3 56	1 18	3 21	2 27	4 56	0 39	6 48
S 18	20 31	27 47	4 46	21 17	2 6	20 3	2 29	22 1	0 9	3 57	1 19	3 21	2 28	4 56	0 39	6 49
M 19	20 19	28 24	5 0	20 51	2 5	20 13	2 27	22 7	0 8	3 58	1 19	3 20	2 28	4 57	0 39	6 49
T 20	20 6	27 34	5 0	20 24	2 4	20 23	2 24	22 13	0 7	3 59	1 19	3 20	2 28	4 58	0 39	6 49
W 21	19 53	25 25	4 45	19 55	2 2	20 32	2 22	22 19	0 7	4 1	1 19	3 20	2 28	4 58	0 39	6 50
T 22	19 39	22 8	4 18	19 25	2 0	20 40	2 19	22 24	0 6	4 2	1 20	3 20	2 29	4 59	0 39	6 50
F 23	19 25	17 57	3 40	18 54	1 57	20 48	2 17	22 30	0 5	4 3	1 20	3 20	2 29	4 59	0 39	6 51
S 24	19 11	13 7	2 53	18 21	1 54	20 56	2 14	22 35	0 4	4 5	1 20	3 19	2 29	5 0	0 39	6 51
S 25	18 56	7 50	1 58	17 47	1 50	21 2	2 11	22 40	0 4	4 6	1 20	3 19	2 30	5 1	0 39	6 52
M 26	18 41	2 17	0 58	17 11	1 45	21 9	2 8	22 45	0 3	4 8	1 21	3 19	2 30	5 1	0 38	6 52
T 27	18 26	3n22	0n 5	16 34	1 40	21 15	2 6	22 49	0 2	4 10	1 21	3 18	2 30	5 2	0 38	6 53
W 28	18 10	8 58	1 9	15 56	1 34	21 20	2 3	22 54	0 1	4 11	1 21	3 18	2 30	5 3	0 38	6 53
T 29	17 54	14 21	2 11	15 17	1 27	21 25	2 0	22 58	0 1	4 13	1 21	3 17	2 31	5 4	0 38	6 54
F 30	17 38	19 17	3 8	14 37	1 20	21 29	1 57	23 2	0s 0	4 15	1 22	3 17	2 31	5 4	0 38	6 54
S 31	17s21	23n29	3n57	13s55	1s12	21s32	1n53	23s 6	0s 1	4n17	1n22	3s16	2n31	5n 5	0s38	6n55

Julian Day Number = 2487704.5, Delta T = 92.72 sec
 Ecliptic obliquity = 23°25'44", Nutation = - 0°00'03", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 26°07'25", Lahiri = 25°14'25"

ASTRODIENST EPHEMERIS for the year 2099
geocentric

FEBRUARY 2099

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	8 46 7	12 ²² 47	11 ¹¹ 1	27 ²² 45	0 ⁰ 55	21 ²¹ 4	22 ²² R17	14 ¹⁴ R11	14 ¹⁴ Y26	14 ¹⁴ R35	1 ¹ 827	7 ⁷ R13	8 ⁸ Y37	5 ⁵ X12	20 ²⁰ M44	S 1
M 2	8 50 4	13 ²⁵ 41	24 ²⁴ 49	29 ²⁹ 21	2 ² 6	21 ²¹ 45	22 ²² M13	14 ¹⁴ 9	14 ¹⁴ 28	14 ¹⁴ M33	1 ¹ 27	7 ⁷ Y 7	8 ⁸ 34	5 ⁵ 19	20 ²⁰ 47	M 2
T 3	8 54 1	14 ²⁶ 34	9 ⁹ 6	0 ⁰ X53	3 ³ 17	22 ²² 26	22 ²² 8	14 ¹⁴ 8	14 ¹⁴ 30	14 ¹⁴ 32	1 ¹ 28	7 ⁷ 0	8 ⁸ 31	5 ⁵ 25	20 ²⁰ 51	T 3
W 4	8 57 57	15 ²⁷ 26	23 ²³ 49	2 ² 23	4 ⁴ 28	23 ²³ 8	22 ²² 3	14 ¹⁴ 7	14 ¹⁴ 32	14 ¹⁴ 30	1 ¹ 28	6 ⁶ 52	8 ⁸ 28	5 ⁵ 32	20 ²⁰ 54	W 4
T 5	9 1 54	16 ²⁸ 16	8 ⁸ 53	3 ³ 49	5 ⁵ 40	23 ²³ 49	21 ²¹ 58	14 ¹⁴ 6	14 ¹⁴ 34	14 ¹⁴ 29	1 ¹ 29	6 ⁶ 43	8 ⁸ 25	5 ⁵ 39	20 ²⁰ 57	T 5
F 6	9 5 50	17 ²⁹ 05	24 ²⁴ 6	5 ⁵ 11	6 ⁶ 51	24 ²⁴ 30	21 ²¹ 53	14 ¹⁴ 4	14 ¹⁴ 36	14 ¹⁴ 28	1 ¹ 29	6 ⁶ 36	8 ⁸ 21	5 ⁵ 45	21 ²¹ 0	F 6
S 7	9 9 47	18 ²⁹ 53	9 ⁹ M19	6 ⁶ 28	8 ⁸ 3	25 ²⁵ 11	21 ²¹ 47	14 ¹⁴ 3	14 ¹⁴ 39	14 ¹⁴ 26	1 ¹ 30	6 ⁶ 32	8 ⁸ 18	5 ⁵ 52	21 ²¹ 3	S 7
S 8	9 13 43	19 ³⁰ 40	24 ²⁴ 22	7 ⁷ 39	9 ⁹ 14	25 ²⁵ 52	21 ²¹ 42	14 ¹⁴ 1	14 ¹⁴ 41	14 ¹⁴ 25	1 ¹ 30	6 ⁶ 29	8 ⁸ 15	5 ⁵ 59	21 ²¹ 6	S 8
M 9	9 17 40	20 ³¹ 25	9 ⁹ 6	8 ⁸ 44	10 ¹⁰ 26	26 ²⁶ 33	21 ²¹ 36	13 ¹³ 59	14 ¹⁴ 43	14 ¹⁴ 23	1 ¹ 31	6 ⁶ D28	8 ⁸ 12	6 ⁶ 5	21 ²¹ 9	M 9
T 10	9 21 36	21 ³² 10	23 ²³ 27	9 ⁹ 42	11 ¹¹ 38	27 ²⁷ 15	21 ²¹ 30	13 ¹³ 57	14 ¹⁴ 45	14 ¹⁴ 22	1 ¹ 31	6 ⁶ 29	8 ⁸ 9	6 ⁶ 12	21 ²¹ 11	T 10
W11	9 25 33	22 ³² 54	7 ⁷ M23	10 ¹⁰ 31	12 ¹² 50	27 ²⁷ 56	21 ²¹ 24	13 ¹³ 55	14 ¹⁴ 48	14 ¹⁴ 20	1 ¹ 32	6 ⁶ 30	8 ⁸ 6	6 ⁶ 19	21 ²¹ 14	W11
T 12	9 29 30	23 ³³ 37	20 ²⁰ 55	11 ¹¹ 13	14 ¹⁴ 2	28 ²⁸ 37	21 ²¹ 18	13 ¹³ 53	14 ¹⁴ 50	14 ¹⁴ 19	1 ¹ 32	6 ⁶ R31	8 ⁸ 2	6 ⁶ 25	21 ²¹ 16	T 12
F 13	9 33 26	24 ³⁴ 19	4 ⁴ X4	11 ¹¹ 44	15 ¹⁵ 14	29 ²⁹ 19	21 ²¹ 12	13 ¹³ 51	14 ¹⁴ 53	14 ¹⁴ 17	1 ¹ 33	6 ⁶ 31	7 ⁷ 59	6 ⁶ 32	21 ²¹ 18	F 13
S 14	9 37 23	25 ³⁵ 00	16 ¹⁶ 54	12 ¹² 7	16 ¹⁶ 26	29 ²⁹ 59	21 ²¹ 5	13 ¹³ 49	14 ¹⁴ 55	14 ¹⁴ 16	1 ¹ 34	6 ⁶ 29	7 ⁷ 56	6 ⁶ 39	21 ²¹ 21	S 14
S 15	9 41 19	26 ³⁵ 40	29 ²⁹ 28	12 ¹² 18	17 ¹⁷ 38	0 ⁰ 341	20 ²⁰ 59	13 ¹³ 47	14 ¹⁴ 58	14 ¹⁴ 14	1 ¹ 34	6 ⁶ 24	7 ⁷ 53	6 ⁶ 45	21 ²¹ 23	S 15
M16	9 45 16	27 ³⁶ 18	11 ¹¹ 348	12 ¹² R20	18 ¹⁸ 50	1 ¹ 23	20 ²⁰ 52	13 ¹³ 44	15 ¹⁵ 0	14 ¹⁴ 12	1 ¹ 35	6 ⁶ 19	7 ⁷ 50	6 ⁶ 52	21 ²¹ 25	M16
T 17	9 49 12	28 ³⁶ 56	23 ²³ 58	12 ¹² 10	20 ²⁰ 2	2 ² 4	20 ²⁰ 46	13 ¹³ 42	15 ¹⁵ 3	14 ¹⁴ 11	1 ¹ 36	6 ⁶ 12	7 ⁷ 47	6 ⁶ 59	21 ²¹ 26	T 17
W18	9 53 9	29 ³⁷ 32	6 ⁶ X6	0 ⁰ 1151	21 ²¹ 14	2 ² 45	20 ²⁰ 39	13 ¹³ 39	15 ¹⁵ 5	14 ¹⁴ 9	1 ¹ 36	6 ⁶ 5	7 ⁷ 43	7 ⁷ 5	21 ²¹ 28	W18
T 19	9 57 5	0 ⁰ X38'06	17 ¹⁷ 56	11 ¹¹ 21	22 ²² 26	3 ³ 27	20 ²⁰ 32	13 ¹³ 36	15 ¹⁵ 8	14 ¹⁴ 8	1 ¹ 37	5 ⁵ 58	7 ⁷ 40	7 ⁷ 12	21 ²¹ 30	T 19
F 20	10 1 2	1 ¹ 38'39	29 ²⁹ 47	10 ¹⁰ 43	23 ²³ 39	4 ⁴ 8	20 ²⁰ 25	13 ¹³ 34	15 ¹⁵ 11	14 ¹⁴ 6	1 ¹ 38	5 ⁵ 52	7 ⁷ 37	7 ⁷ 19	21 ²¹ 31	F 20
S 21	10 4 59	2 ² 39'11	11 ¹¹ X36	9 ⁹ 56	24 ²⁴ 51	4 ⁴ 50	20 ²⁰ 18	13 ¹³ 31	15 ¹⁵ 13	14 ¹⁴ 4	1 ¹ 39	5 ⁵ 48	7 ⁷ 34	7 ⁷ 25	21 ²¹ 32	S 21
S 22	10 8 55	3 ³ 39'41	23 ²³ 24	9 ⁹ 2	26 ²⁶ 3	5 ⁵ 31	20 ²⁰ 11	13 ¹³ 28	15 ¹⁵ 16	14 ¹⁴ 3	1 ¹ 39	5 ⁵ 45	7 ⁷ 31	7 ⁷ 32	21 ²¹ 34	S 22
M23	10 12 52	4 ⁴ 40'09	5 ⁵ Y13	8 ⁸ 3	27 ²⁷ 16	6 ⁶ 13	20 ²⁰ 3	13 ¹³ 25	15 ¹⁵ 19	14 ¹⁴ 1	1 ¹ 40	5 ⁵ D44	7 ⁷ 27	7 ⁷ 39	21 ²¹ 35	M23
T 24	10 16 48	5 ⁵ 40'35	17 ¹⁷ 6	7 ⁷ 0	28 ²⁸ 28	6 ⁶ 54	19 ¹⁹ 56	13 ¹³ 21	15 ¹⁵ 22	13 ¹³ 59	1 ¹ 41	5 ⁵ 45	7 ⁷ 24	7 ⁷ 45	21 ²¹ 36	T 24
W25	10 20 45	6 ⁶ 41'00	29 ²⁹ 7	5 ⁵ 55	29 ²⁹ 41	7 ⁷ 36	19 ¹⁹ 48	13 ¹³ 18	15 ¹⁵ 24	13 ¹³ 58	1 ¹ 42	5 ⁵ 46	7 ⁷ 21	7 ⁷ 52	21 ²¹ 37	W25
T 26	10 24 41	7 ⁷ 41'23	11 ¹¹ X20	4 ⁴ 49	0 ⁰ X53	8 ⁸ 17	19 ¹⁹ 41	13 ¹³ 15	15 ¹⁵ 27	13 ¹³ 56	1 ¹ 43	5 ⁵ 48	7 ⁷ 18	7 ⁷ 59	21 ²¹ 38	T 26
F 27	10 28 38	8 ⁸ 41'44	23 ²³ 47	3 ³ 44	2 ² 6	8 ⁸ 59	19 ¹⁹ 33	13 ¹³ 12	15 ¹⁵ 30	13 ¹³ 54	1 ¹ 44	5 ⁵ 50	7 ⁷ 15	8 ⁸ 5	21 ²¹ 38	F 27
S 28	10 32 34	9 ⁹ X42'03	6 ⁶ II34	2 ² X42	3 ³ X18	9 ⁹ 340	19 ¹⁹ M26	13 ¹³ 9	15 ¹⁵ Y33	13 ¹³ M53	1 ¹ 45	5 ⁵ R50	7 ⁷ Y12	8 ⁸ X12	21 ²¹ M39	S 28

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂	♂	♂	♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	♂	♂	
S 1	17s 4	26n38	4n35	13s14	1s 3	21s35	1n50	23s 9	0s 2	4n19	1n22	3s16	2n31	5n 6	0s38	6n55	0n55	3s48	16s47	2n52	3n25	12s15	16s18	1n41
M 2	16 47	28 19	5 0	12 31	0 53	21 38	1 47	23 13	0 2	4 21	1 22	3 15	2 32	5 7	0 38	6 56	0 56	3 48	16 47	2 50	3 24	12 11	16 19	1 42
T 3	16 29	28 13	5 6	11 49	0 42	21 39	1 44	23 16	0 3	4 23	1 23	3 14	2 32	5 8	0 38	6 57	0 56	3 47	16 46	2 47	3 23	12 8	16 19	1 41
W 4	16 12	26 9	4 53	11 6	0 31	21 41	1 41	23 19	0 4	4 25	1 23	3 13	2 32	5 8	0 38	6 57	0 56	3 47	16 46	2 43	3 21	12 5	16 19	1 43
T 5	15 54	22 13	4 20	10 24	0 19	21 41	1 37	23 22	0 5	4 27	1 23	3 13	2 33	5 9	0 38	6 58	0 56	3 46	16 46	2 40	3 20	12 2	16 20	1 43
F 6	15 35	16 45	3 28	9 42	0 6	21 41	1 34	23 24	0 6	4 30	1 23	3 12	2 33	5 10	0 38	6 58	0 56	3 46	16 45	2 37	3 19	11 59	16 20	1 44
S 7	15 17	10 15	2 21	9 1	0n 8	21 41	1 31	23 27	0 6	4 32	1 23	3 11	2 33	5 11	0 38	6 59	0 56	3 45	16 45	2 35	3 18	11 56	16 20	1 44
S 8	14 58	3 14	1 5	8 21	0 22	21 39	1 27	23 29	0 7	4 34	1 24	3 10	2 33	5 12	0 38	6 59	0 56	3 45	16 44	2 34	3 16	11 52	16 21	1 45
M 9	14 39	3s49	0s14	7 43	0 37	21 38	1 24	23 31	0 8	4 37	1 24	3 9	2 34	5 13	0 38	7 0	0 56	3 44	16 44	2 34	3 15	11 49	16 21	1 45
T 10	14 19	10 31	1 31	7 7	0 52	21 35	1 20	23 33	0 9	4 39	1 24	3 8	2 34	5 14	0 38	7 1	0 56	3 44	16 44	2 34	3 14	11 46	16 21	1 46
W11	14 0	16 29	2 39	6 34	1 8	21 32	1 17	23 34	0 10	4 42	1 24	3 7	2 34	5 15	0 38	7 1	0 56	3 43	16 43	2 35	3 13	11 43	16 21	1 46
T 12	13 40	21 28	3 37	6 3	1 24	21 28	1 13	23 36	0 10	4 45	1 25	3 6	2 34	5 16	0 38	7 2	0 56	3 43	16 43	2 35	3 11	11 40	16 21	1 47
F 13	13 20	25 14	4 22	5 36	1 41	21 24	1 10	23 37	0 11	4 47	1 25	3 5	2 35	5 17	0 38	7 2	0 56	3 42	16 43	2 35	3 10	11 37	16 21	1 47
S 14	12 59	27 38	4 52	5 13	1 57	21 19	1 6	23 38	0 12	4 50	1 25	3 4	2 35	5 18	0 38	7 3	0 56	3 42	16 42	2 34	3 9	11 33	16 21	1 48
S 15	12 39	28 33	5 8	4 54	2 13	21 14	1 3	23 39	0 13	4 53	1 25	3 3	2 35	5 19	0 38	7 4	0 56	3 41	16 42	2 33	3 8	11 30	16 21	1 48
M16	12 18	28 2	5 9	4 39	2 28	21 8	0 59	23 39	0 14	4 55	1 25	3 2	2 35	5 20	0 38	7 4	0 56	3 41	16 42	2 30	3 6	11 27	16 21	1 49
T 17	11 57	26 9	4 55	4 29	2 43	21 1	0 56	23 40	0 15	4 58	1 25	3 1	2 36	5 21	0 38	7 5	0 56	3 40	16 41	2 28	3 5	11 24	16 21	1 49
W18	11 36	23 6	4 29	4 24	2 57	20 53	0 52	23 40	0 16	5 1	1 26	2 59	2 36	5 22	0 38	7 6	0 56	3 40	16 41	2 25	3 4	11 21	16 21	1 50
T 19	11 15	19 7	3 51	4 23	3 9	20 45	0 49	23 40	0 17	5 4	1 26	2 58	2 36	5 23	0 38	7 6	0 56	3 39	16 41	2 22	3 3	11 17	16 21	1 50
F 20	10 53	14 24	3 4	4 28	3 20	20 37	0 45	23 39	0 17	5 7	1 26	2 57	2 36	5 24	0 38	7 7	0 56	3 39	16 41	2 20	3 1	11 14	16 21	1 51
S 21	10 31	9 11	2 8	4 37	3 29	20 28	0 42	23 39	0 18	5 10	1 26	2 56	2 37	5 25	0 38	7 7	0 56	3 38	16 40	2 18	3 0	11 11	16 21	1 51
S 22	10 10	3 39	1 7	4 51	3 35	20 18	0 38	23 38	0 19	5 13	1 26	2 54	2 37	5 26	0 38	7 8	0 56	3 37	16 40	2 17	2 59	11 8	16 21	1 52
M23	9 48	2n 2	0 3	5 8	3 40	20 8	0 35	23 37	0 20	5 16	1 26	2 53	2 37	5 27	0 38	7 9	0 56	3 37	16 40	2 17	2 57	11 5	16 21	1 52
T 24	9 26	7 40	1n 2	5 29	3 43	19 57	0 31	23 36	0 21	5 19	1 27	2 51	2 37	5 28	0 38	7 9	0 56	3 36	16 39	2 17	2 56	11 1	16 20	1 53
W25	9 3	13 6	2 5	5 53	3 43	19 45	0 28	23 35	0 22	5 22	1 27	2 50	2 37	5 29	0 38	7 10	0 56	3 36	16 39	2 18	2 55	10 58	16 20	1 53
T 26	8 41	18 7	3 3	6 19	3 41	19 33	0 24	23 33	0 23	5 25	1 27	2 48	2 38	5 30	0 38	7 11	0 56	3 35	16 39	2 18	2 54	10 55	16 20	1 54
F 27	8 18	22 29	3 54	6 46	3 37	19 21	0 21	23 31	0 24	5 28	1 27	2 47	2 38	5 31	0 38	7 11	0 56	3 35	16 38	2 19	2 52	10 52	16 20	1 54
S 28	7s56	25n55	4n35	7s14	3n31	19s 7	0n18	23s29	0s25	5n31	1n27	2s45	2n38	5n33	0s38	7n12	0n56	3s34	16s38	2n19	2n51	10s49	16s19	1n55

ASTRODIENST EPHEMERIS for the year 2099

geocentric

MARCH 2099

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	10 36 31	10°42'20	19°44'5	1°R44	4°31	10°22	19°R18	13°R 5	15°Y36	13°R51	1°46	5°R50	7°Y 8	8°X19	21°M39	S 1
M 2	10 40 28	11°42'35	3°23	0°X50	5°44	11° 4	19°M10	13°A 1	15°39	13°M49	1°47	5°Y49	7° 5	8°25	21°40	M 2
T 3	10 44 24	12°42'48	17°28	0° 2	6°56	11°45	19° 3	12°57	15°42	13°48	1°47	5°46	7° 2	8°32	21°40	T 3
W 4	10 48 21	13°42'59	1°59	29°21	8° 9	12°27	18°55	12°54	15°45	13°46	1°48	5°43	6°59	8°39	21°40	W 4
T 5	10 52 17	14°43'08	16°54	28°46	9°22	13° 8	18°47	12°50	15°48	13°44	1°49	5°40	6°56	8°45	21°R40	T 5
F 6	10 56 14	15°43'14	2°M 3	28°18	10°35	13°50	18°39	12°46	15°51	13°43	1°50	5°38	6°53	8°52	21°40	F 6
S 7	11 00 10	16°43'19	17°18	27°57	11°47	14°32	18°32	12°42	15°54	13°41	1°51	5°36	6°49	8°59	21°40	S 7
S 8	11 04 7	17°43'22	2°A29	27°42	13° 0	15°13	18°24	12°38	15°57	13°39	1°52	5°D36	6°46	9° 5	21°39	S 8
M 9	11 08 3	18°43'23	17°27	27°35	14°13	15°55	18°16	12°34	16° 0	13°38	1°54	5°36	6°43	9°12	21°39	M 9
T 10	11 12 0	19°43'23	2°M 3	27°D34	15°26	16°37	18° 8	12°30	16° 4	13°36	1°55	5°37	6°40	9°19	21°38	T 10
W11	11 15 57	20°43'21	16°14	27°39	16°39	17°19	18° 0	12°26	16° 7	13°34	1°56	5°38	6°37	9°25	21°38	W11
T 12	11 19 53	21°43'17	29°58	27°50	17°52	18° 0	17°52	12°22	16°10	13°33	1°57	5°39	6°33	9°32	21°37	T 12
F 13	11 23 50	22°43'12	13°A15	28° 7	19° 5	18°42	17°45	12°18	16°13	13°31	1°58	5°40	6°30	9°38	21°36	F 13
S 14	11 27 46	23°43'05	26° 9	28°29	20°18	19°24	17°37	12°13	16°16	13°29	1°59	5°R40	6°27	9°45	21°35	S 14
S 15	11 31 43	24°42'57	8°B42	28°56	21°31	20° 6	17°29	12° 9	16°20	13°28	2° 0	5°40	6°24	9°52	21°34	S 15
M16	11 35 39	25°42'46	20°58	29°28	22°44	20°47	17°21	12° 5	16°23	13°26	2° 1	5°39	6°21	9°58	21°33	M16
T 17	11 39 36	26°42'34	3°A 2	0°X 4	23°57	21°29	17°14	12° 0	16°26	13°25	2° 2	5°38	6°18	10° 5	21°31	T 17
W18	11 43 32	27°42'21	14°57	0°44	25°10	22°11	17° 6	11°56	16°29	13°23	2° 4	5°36	6°14	10°12	21°30	W18
T 19	11 47 29	28°42'05	26°47	1°28	26°23	22°53	16°59	11°51	16°33	13°21	2° 5	5°35	6°11	10°18	21°28	T 19
F 20	11 51 26	29°41'48	8°X35	2°15	27°36	23°35	16°51	11°47	16°36	13°20	2° 6	5°34	6° 8	10°25	21°27	F 20
S 21	11 55 22	0°Y41'28	20°23	3° 6	28°49	24°17	16°44	11°42	16°39	13°18	2° 7	5°34	6° 5	10°32	21°25	S 21
S 22	11 59 19	1°41'07	2°Y14	4° 0	0°X 2	24°58	16°36	11°38	16°43	13°17	2° 8	5°D34	6° 2	10°38	21°23	S 22
M23	12 3 15	2°40'43	14° 9	4°57	1°15	25°40	16°29	11°33	16°46	13°15	2°10	5°34	5°59	10°45	21°21	M23
T 24	12 7 12	3°40'18	26°12	5°57	2°28	26°22	16°22	11°29	16°49	13°14	2°11	5°34	5°55	10°52	21°19	T 24
W25	12 11 8	4°39'50	8°B24	6°59	3°41	27° 4	16°15	11°24	16°53	13°12	2°12	5°34	5°52	10°58	21°17	W25
T 26	12 15 5	5°39'21	20°46	8° 4	4°55	27°46	16° 7	11°19	16°56	13°10	2°13	5°R34	5°49	11° 5	21°15	T 26
F 27	12 19 1	6°38'49	3°I23	9°12	6° 8	28°28	16° 0	11°15	16°59	13° 9	2°15	5°34	5°46	11°12	21°13	F 27
S 28	12 22 58	7°38'15	16°15	10°21	7°21	29°10	15°54	11°10	17° 3	13° 7	2°16	5°34	5°43	11°18	21°10	S 28
S 29	12 26 55	8°37'39	29°26	11°33	8°34	29°52	15°47	11° 5	17° 6	13° 6	2°17	5°34	5°39	11°25	21° 8	S 29
M30	12 30 51	9°37'00	12°57	12°47	9°47	0°A33	15°40	11° 1	17°10	13° 5	2°18	5°D34	5°36	11°32	21° 5	M30
T 31	12 34 48	10°Y36'19	26°B51	14°X 2	11°X 0	1°A15	15°M34	10°A56	17°Y13	13°M 3	2°B20	5°Y34	5°Y33	11°X38	21°M 2	T 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂	♂	♂	♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
S 1	7s33	28n 4	5n 3	7s42	3n23	18s54	0n14	23s27	0s26	5n34	1n27	2s44	2n38	5n34	0s37	7n13	0n56	3s34	16s38	2n19	2n50	10s45	16s19	1n55
M 2	7 10	28 38	5 15	8 9	3 13	18 39	0 11	23 25	0 27	5 37	1 27	2 42	2 38	5 35	0 37	7 13	0 56	3 33	16 38	2 18	2 49	10 42	16 18	1 56
T 3	6 47	27 23	5 8	8 36	3 3	18 25	0 7	23 22	0 28	5 40	1 27	2 41	2 39	5 36	0 37	7 14	0 56	3 32	16 37	2 18	2 47	10 39	16 18	1 56
W 4	6 24	24 18	4 43	9 2	2 51	18 9	0 4	23 19	0 29	5 43	1 27	2 39	2 39	5 37	0 37	7 15	0 56	3 32	16 37	2 16	2 46	10 36	16 17	1 57
T 5	6 1	19 32	3 57	9 26	2 38	17 53	0 1	23 16	0 30	5 47	1 27	2 38	2 39	5 38	0 37	7 15	0 56	3 31	16 37	2 15	2 45	10 32	16 17	1 57
F 6	5 38	13 28	2 55	9 48	2 25	17 37	0s 2	23 13	0 31	5 50	1 28	2 36	2 39	5 40	0 37	7 16	0 56	3 31	16 37	2 14	2 44	10 29	16 16	1 58
S 7	5 14	6 32	1 39	10 8	2 11	17 20	0 6	23 10	0 32	5 53	1 28	2 34	2 39	5 41	0 37	7 17	0 56	3 30	16 36	2 14	2 42	10 26	16 16	1 59
S 8	4 51	0s44	0 17	10 26	1 57	17 3	0 9	23 6	0 33	5 56	1 28	2 33	2 39	5 42	0 37	7 17	0 56	3 30	16 36	2 13	2 41	10 23	16 15	1 59
M 9	4 28	7 51	1s 5	10 42	1 43	16 45	0 12	23 2	0 34	5 59	1 28	2 31	2 40	5 43	0 37	7 18	0 56	3 29	16 36	2 13	2 40	10 20	16 15	2 0
T 10	4 4	14 23	2 21	10 56	1 28	16 27	0 15	22 58	0 35	6 2	1 28	2 29	2 40	5 44	0 37	7 19	0 56	3 28	16 36	2 14	2 39	10 16	16 14	2 0
W11	3 41	19 59	3 27	11 7	1 14	16 8	0 18	22 54	0 36	6 5	1 28	2 27	2 40	5 46	0 37	7 19	0 56	3 28	16 35	2 14	2 37	10 13	16 13	2 1
T 12	3 17	24 20	4 18	11 16	1 1	15 49	0 21	22 50	0 37	6 8	1 28	2 26	2 40	5 47	0 37	7 20	0 56	3 27	16 35	2 15	2 36	10 10	16 13	2 1
F 13	2 53	27 14	4 53	11 23	0 47	15 29	0 24	22 45	0 38	6 11	1 28	2 24	2 40	5 48	0 37	7 20	0 56	3 27	16 35	2 15	2 35	10 7	16 12	2 2
S 14	2 30	28 35	5 13	11 28	0 34	15 9	0 27	22 40	0 39	6 14	1 28	2 22	2 40	5 49	0 37	7 21	0 56	3 26	16 35	2 15	2 34	10 3	16 11	2 2
S 15	2 6	28 24	5 16	11 31	0 21	14 48	0 30	22 35	0 40	6 18	1 28	2 20	2 40	5 51	0 37	7 22	0 56	3 26	16 34	2 15	2 32	10 0	16 10	2 3
M16	1 42	26 50	5 6	11 32	0 8	14 27	0 33	22 30	0 41	6 21	1 28	2 18	2 40	5 52	0 37	7 22	0 56	3 25	16 34	2 14	2 31	9 57	16 9	2 3
T 17	1 18	24 2	4 42	11 30	0s 4	14 6	0 36	22 24	0 42	6 24	1 28	2 17	2 41	5 53	0 37	7 23	0 56	3 24	16 34	2 14	2 30	9 54	16 9	2 4
W18	0 55	20 15	4 5	11 27	0 16	13 44	0 38	22 19	0 43	6 26	1 28	2 15	2 41	5 54	0 37	7 24	0 56	3 24	16 34	2 14	2 29	9 50	16 8	2 4
T 19	0 31	15 42	3 19	11 22	0 27	13 22	0 41	22 13	0 44	6 29	1 28	2 13	2 41	5 56	0 37	7 24	0 56	3 23	16 34	2 13	2 27	9 47	16 7	2 5
F 20	0 7	10 35	2 24	11 15	0 37	12 59	0 44	22 7	0 45	6 32	1 28	2 11	2 41	5 57	0 37	7 25	0 56	3 23	16 33	2 13	2 26	9 44	16 6	2 5
S 21	0n16	5 5	1 23	11 6	0 48	12 36	0 46	22 1	0 46	6 35	1 28	2 9	2 41	5 58	0 37	7 25	0 56	3 22	16 33	2 13	2 25	9 40	16 5	2 6
S 22	0 40	0n36	0 19	10 56	0 58	12 13	0 49	21 54	0 47	6 38	1 28	2 7	2 41	6 0	0 37	7 26	0 56	3 22	16 33	2 13	2 24	9 37	16 4	2 6
M23	1 4	6 19	0n48	10 44	1 7	11 50	0 51	21 48	0 48	6 41	1 28	2 6	2 41	6 1	0 37	7 27	0 56	3 21	16 33	2 13	2 22	9 34	16 3	2 7
T 24	1 28	11 51	1 52	10 30	1 16	11 26	0 54	21 41	0 50	6 44	1 28	2 4	2 41	6 2	0 37	7 27	0 56	3 20	16 33	2 13	2 21	9 31	16 2	2 7
W25	1 51	17 1	2 53	10 14	1 24	11 1	0 56	21 34	0 51	6 46	1 28	2 2	2 41	6 3	0 37	7 28	0 56	3 20	16 32	2 13	2 20	9 27	16 1	2 8
T 26	2 15	21 34	3 46	9 57	1 32	10 37	0 58	21 27	0 52	6 49	1 28	2 0	2 41	6 5	0 37	7 28	0 56	3 19	16 32	2 13	2 19	9 24	16 0	2 8
F 27	2 38	25 13	4 29	9 39	1 39	10 12	1 1	21 19	0 53	6 52	1 28	1 58	2 41	6 6	0 37	7 29	0 56	3 19	16 32	2 13	2 17	9 21	15 59	2 9
S 28	3 2	27 41	5 0	9 19	1 46	9 47	1 3	21 12	0 54	6 54	1 28	1 56	2 41	6 7	0 37	7 30	0 56	3 18	16 32	2 13	2 16	9 18	15 58	2 9
S 29	3 25	28 42	5 16	8 58	1 52	9 22	1 5	21 4	0 55	6 57	1 28	1 54	2 42	6 9	0 37	7 30	0 56	3 18	16 32	2 13	2 15	9 14	15 57	2 10
M30	3 49	28 1	5 15	8 35	1 58	8 56	1 7	20 56	0 56	6 59	1 27	1 53	2 42	6 10	0 37	7 31	0 56	3 17	16 32	2 13	2 14	9 11	15 55	2 10
T 31	4n12	25n37	4n56	8s11	2s 4	8s30	1s 9	20s48	0s58	7n 2	1n27	1s51	2n42	6n11	0s37	7n31	0n56	3s17	16s31	2n13	2n12	9s 8	15s54	2n11

ASTRODIENST EPHEMERIS for the year 2099

geocentric

APRIL 2099

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	12 38 44	11°35'36	11°05	15°30	12°14	1°57	15°27	10°R51	17°17	13°R 2	2°21	5°34	5°30	11°45	21°R 0	W 1
T 2	12 42 41	12°34'50	25°40	16°40	13°27	2°39	15°21	10°47	17°20	13°00	2°22	5°35	5°27	11°52	20°M57	T 2
F 3	12 46 37	13°34'02	10°30	18° 1	14°40	3°21	15°15	10°42	17°23	12°59	2°24	5°36	5°24	11°58	20°54	F 3
S 4	12 50 34	14°33'11	25°29	19°24	15°53	4° 3	15° 9	10°37	17°27	12°57	2°25	5°36	5°20	12° 5	20°51	S 4
S 5	12 54 30	15°32'19	10°30	20°49	17° 6	4°45	15° 3	10°33	17°30	12°56	2°26	5°R36	5°17	12°12	20°48	S 5
M 6	12 58 27	16°31'24	25°24	22°15	18°20	5°27	14°57	10°28	17°34	12°55	2°28	5°36	5°14	12°18	20°44	M 6
T 7	13 2 24	17°30'27	10°30	23°43	19°33	6° 9	14°51	10°23	17°37	12°53	2°29	5°35	5°11	12°25	20°41	T 7
W 8	13 6 20	18°29'29	24°21	25°13	20°46	6°51	14°46	10°19	17°41	12°52	2°30	5°33	5° 8	12°32	20°38	W 8
T 9	13 10 17	19°28'29	8°13	26°44	21°59	7°33	14°40	10°14	17°44	12°51	2°32	5°31	5° 4	12°38	20°34	T 9
F 10	13 14 13	20°27'27	21°39	28°17	23°13	8°15	14°35	10°10	17°47	12°50	2°33	5°30	5° 1	12°45	20°31	F 10
S 11	13 18 10	21°26'23	4°30	29°51	24°26	8°56	14°30	10° 5	17°51	12°48	2°34	5°28	4°58	12°52	20°27	S 11
S 12	13 22 6	22°25'18	17°17	1°27	25°39	9°38	14°25	10° 0	17°54	12°47	2°36	5°D27	4°55	12°58	20°24	S 12
M13	13 26 3	23°24'11	29°35	3° 5	26°53	10°20	14°20	9°56	17°58	12°46	2°37	5°28	4°52	13° 5	20°20	M13
T 14	13 29 59	24°23'02	11°38	4°44	28° 6	11° 2	14°16	9°52	18° 1	12°45	2°38	5°28	4°49	13°12	20°16	T 14
W15	13 33 56	25°21'51	23°32	6°25	29°19	11°44	14°11	9°47	18° 4	12°44	2°40	5°30	4°45	13°18	20°12	W15
T 16	13 37 53	26°20'38	5°20	8° 7	0°32	12°26	14° 7	9°43	18° 8	12°43	2°41	5°31	4°42	13°25	20° 9	T 16
F 17	13 41 49	27°19'24	17° 7	9°51	1°46	13° 8	14° 3	9°38	18°11	12°41	2°43	5°33	4°39	13°31	20° 5	F 17
S 18	13 45 46	28°18'08	28°58	11°36	2°59	13°50	13°59	9°34	18°15	12°40	2°44	5°34	4°36	13°38	20° 1	S 18
S 19	13 49 42	29°16'50	10°54	13°23	4°12	14°32	13°55	9°30	18°18	12°39	2°45	5°R34	4°33	13°45	19°57	S 19
M20	13 53 39	0°15'30	22°59	15°12	5°26	15°14	13°51	9°26	18°21	12°38	2°47	5°33	4°30	13°51	19°53	M20
T 21	13 57 35	1°14'08	5°15	17° 2	6°39	15°56	13°48	9°21	18°25	12°37	2°48	5°30	4°26	13°58	19°48	T 21
W22	14 1 32	2°12'45	17°42	18°54	7°52	16°38	13°45	9°17	18°28	12°36	2°49	5°27	4°23	14° 5	19°44	W22
T 23	14 5 28	3°11'19	0°23	20°47	9° 6	17°19	13°41	9°13	18°32	12°35	2°51	5°22	4°20	14°11	19°40	T 23
F 24	14 9 25	4° 9'52	13°16	22°42	10°19	18° 1	13°38	9° 9	18°35	12°34	2°52	5°18	4°17	14°18	19°36	F 24
S 25	14 13 21	5° 8'22	26°24	24°39	11°32	18°43	13°36	9° 5	18°38	12°34	2°54	5°13	4°14	14°25	19°31	S 25
S 26	14 17 18	6° 6'50	9°46	26°37	12°46	19°25	13°33	9° 1	18°42	12°33	2°55	5°10	4°10	14°31	19°27	S 26
M27	14 21 15	7° 5'17	23°21	28°36	13°59	20° 7	13°31	8°57	18°45	12°32	2°56	5° 8	4° 7	14°38	19°23	M27
T 28	14 25 11	8° 3'41	7°11	0°38	15°12	20°48	13°29	8°54	18°48	12°31	2°58	5°D 7	4° 4	14°45	19°18	T 28
W29	14 29 8	9° 2'02	21°15	2°40	16°26	21°30	13°27	8°50	18°51	12°30	2°59	5° 7	4° 1	14°51	19°14	W29
T 30	14 33 4	10° 0'22	5°31	4°45	17°39	22°12	13°25	8°46	18°55	12°30	3° 1	5°Y 9	3°Y58	14°58	19°M 9	T 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	4n35	21n35	4n19	7s45	2s 8	8s 4	1s11	20s40	0s59	7n 4	1n27	1s49	2n42	6n13	0s37	7n32	0n56	3s16	16s31	2n13	2n11	9s 4	15s53	2n11			
T 2	4 58	16 10	3 24	7 18	2 13	7 37	1 13	20 32	1 0	7 7	1 27	1 47	2 42	6 14	0 37	7 32	0 56	3 15	16 31	2 13	2 10	9 1	15 52	2 12			
F 3	5 21	9 42	2 15	6 50	2 17	7 11	1 15	20 23	1 1	7 9	1 27	1 45	2 42	6 15	0 37	7 33	0 56	3 15	16 31	2 13	2 8	8 58	15 51	2 12			
S 4	5 44	2 39	0 56	6 21	2 20	6 44	1 16	20 15	1 2	7 11	1 27	1 43	2 42	6 17	0 37	7 33	0 56	3 14	16 31	2 13	2 7	8 54	15 49	2 13			
S 5	6 7	4s34	0s27	5 50	2 23	6 17	1 18	20 6	1 3	7 14	1 27	1 42	2 42	6 18	0 37	7 34	0 56	3 14	16 31	2 13	2 6	8 51	15 48	2 13			
M 6	6 30	11 29	1 48	5 18	2 26	5 50	1 19	19 57	1 5	7 16	1 27	1 40	2 42	6 19	0 37	7 34	0 56	3 13	16 31	2 13	2 5	8 48	15 47	2 14			
T 7	6 52	17 40	3 0	4 45	2 27	5 23	1 21	19 47	1 6	7 18	1 27	1 38	2 42	6 21	0 37	7 35	0 56	3 13	16 31	2 13	2 3	8 45	15 45	2 14			
W 8	7 15	22 42	3 59	4 11	2 29	4 55	1 22	19 38	1 7	7 20	1 27	1 36	2 42	6 22	0 37	7 35	0 56	3 12	16 31	2 12	2 2	8 41	15 44	2 15			
T 9	7 37	26 18	4 41	3 35	2 30	4 28	1 24	19 29	1 8	7 22	1 26	1 34	2 42	6 23	0 37	7 36	0 56	3 12	16 30	2 12	2 1	8 38	15 43	2 15			
F 10	7 59	28 17	5 7	2 59	2 30	4 0	1 25	19 19	1 9	7 24	1 26	1 33	2 42	6 24	0 37	7 36	0 56	3 11	16 30	2 11	2 0	8 35	15 41	2 16			
S 11	8 21	28 37	5 16	2 21	2 30	3 32	1 26	19 9	1 11	7 25	1 26	1 31	2 42	6 26	0 37	7 37	0 56	3 11	16 30	2 10	1 58	8 31	15 40	2 16			
S 12	8 43	27 26	5 10	1 43	2 30	3 4	1 27	18 59	1 12	7 27	1 26	1 29	2 42	6 27	0 37	7 37	0 56	3 10	16 30	2 10	1 57	8 28	15 39	2 17			
M13	9 5	24 56	4 49	1 3	2 29	2 36	1 29	18 49	1 13	7 29	1 26	1 27	2 41	6 28	0 37	7 38	0 56	3 10	16 30	2 10	1 56	8 25	15 37	2 17			
T 14	9 27	21 23	4 16	0 22	2 27	2 8	1 30	18 39	1 14	7 31	1 26	1 26	2 41	6 30	0 37	7 38	0 56	3 9	16 30	2 10	1 55	8 21	15 36	2 18			
W15	9 48	17 0	3 32	0n19	2 25	1 39	1 30	18 28	1 16	7 32	1 26	1 24	2 41	6 31	0 37	7 39	0 56	3 9	16 30	2 11	1 53	8 18	15 34	2 18			
T 16	10 10	12 1	2 39	1 2	2 22	1 11	1 31	18 18	1 17	7 34	1 25	1 22	2 41	6 32	0 37	7 39	0 56	3 8	16 30	2 12	1 52	8 15	15 33	2 18			
F 17	10 31	6 37	1 40	1 46	2 19	0 42	1 32	18 7	1 18	7 35	1 25	1 21	2 41	6 34	0 37	7 39	0 56	3 8	16 30	2 12	1 51	8 11	15 31	2 19			
S 18	10 52	0 58	0 36	2 30	2 16	0 14	1 33	17 56	1 19	7 37	1 25	1 19	2 41	6 35	0 37	7 40	0 56	3 7	16 30	2 13	1 50	8 8	15 30	2 19			
S 19	11 13	4n46	0n29	3 16	2 12	0n15	1 33	17 45	1 21	7 38	1 25	1 17	2 41	6 36	0 37	7 40	0 56	3 7	16 30	2 13	1 48	8 5	15 28	2 20			
M20	11 33	10 24	1 34	4 2	2 7	0 43	1 34	17 34	1 22	7 39	1 25	1 16	2 41	6 37	0 37	7 41	0 56	3 6	16 30	2 12	1 47	8 1	15 27	2 20			
T 21	11 54	15 43	2 36	4 49	2 2	1 12	1 34	17 23	1 23	7 40	1 25	1 14	2 41	6 39	0 37	7 41	0 56	3 6	16 30	2 11	1 46	7 58	15 25	2 21			
W22	12 14	20 29	3 31	5 36	1 56	1 40	1 35	17 11	1 25	7 41	1 25	1 13	2 41	6 40	0 37	7 41	0 56	3 5	16 30	2 10	1 45	7 55	15 24	2 21			
T 23	12 34	24 24	4 17	6 24	1 50	2 9	1 35	17 0	1 26	7 43	1 24	1 11	2 41	6 41	0 37	7 42	0 56	3 5	16 30	2 8	1 43	7 51	15 22	2 21			
F 24	12 54	27 11	4 50	7 13	1 44	2 37	1 35	16 48	1 27	7 44	1 24	1 10	2 41	6 43	0 37	7 42	0 56	3 4	16 30	2 6	1 42	7 48	15 21	2 22			
S 25	13 14	28 32	5 9	8 3	1 37	3 6	1 36	16 37	1 28	7 44	1 24	1 8	2 41	6 44	0 37	7 42	0 56	3 4	16 30	2 4	1 41	7 45	15 19	2 22			
S 26	13 33	28 15	5 12	8 53	1 29	3 34	1 36	16 25	1 30	7 45	1 24	1 7	2 40	6 45	0 37	7 43	0 56	3 3	16 30	2 3	1 40	7 41	15 18	2 23			
M27	13 52	26 17	4 57	9 43	1 21	4 2	1 36	16 13	1 31	7 46	1 24	1 6	2 40	6 46	0 37	7 43	0 56	3 3	16 30	2 2	1 38	7 38	15 16	2 23			
T 28	14 11	22 44	4 25	10 33	1 13	4 31	1 36	16 1	1 32	7 47	1 23	1 4	2 40	6 48	0 37	7 43	0 56	3 3	16 30	2 2	1 37	7 35	15 15	2 23			
W29	14 30	17 50	3 37	11 24	1 4	4 59	1 36	15 49	1 34	7 47	1 23	1 3	2 40	6 49	0 37	7 43	0 56	3 2	16 30	2 2	1 36	7 31	15 13	2 24			
T 30	14n49	11n53	2n35	12n14	0s55	5n27	1s36	15s36	1s35	7n48	1n23	1s 1	2n40	6n50	0s37	7n44	0n56	3s 2	16s30	2n 3	1n34	7s28	15s12	2n24			

ASTRODIENST EPHEMERIS for the year 2099

geocentric

MAY 2099

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	14 37 1	10♂58'39	19♂59	6♂50	18♂52	22♂54	13♂R23	8♂R43	18♂Y58	12♂R29	3♂ 2	5♂Y10	3♂Y55	15♂ 5	19♂R 5	F 1
S 2	14 40 57	11°56'55	4♂34	8°57	20° 6	23°35	13♂22	8♂39	19° 1	12♂28	3° 3	5♂R11	3°51	15°11	19♂1	S 2
S 3	14 44 54	12°55'08	19°12	11° 4	21°19	24°17	13°20	8°36	19° 4	12°28	3° 5	5°10	3°48	15°18	18°56	S 3
M 4	14 48 50	13°53'20	3♂46	13°13	22°32	24°59	13°19	8°32	19° 8	12°27	3° 6	5° 8	3°45	15°25	18°51	M 4
T 5	14 52 47	14°51'30	18°12	15°22	23°46	25°40	13°18	8°29	19°11	12°26	3° 7	5° 3	3°42	15°31	18°47	T 5
W 6	14 56 44	15°49'38	2♂22	17°32	24°59	26°22	13°17	8°26	19°14	12°26	3° 9	4°57	3°39	15°38	18°42	W 6
T 7	15 0 40	16°47'45	16°12	19°42	26°12	27° 3	13°17	8°23	19°17	12°25	3°10	4°51	3°36	15°45	18°38	T 7
F 8	15 4 37	17°45'50	29°39	21°52	27°26	27°45	13°16	8°19	19°20	12°25	3°11	4°44	3°32	15°51	18°33	F 8
S 9	15 8 33	18°43'54	12♂42	24° 2	28°39	28°26	13°16	8°16	19°23	12°24	3°13	4°38	3°29	15°58	18°29	S 9
S 10	15 12 30	19°41'56	25°22	26°11	29°52	29° 8	13°D16	8°14	19°26	12°24	3°14	4°33	3°26	16° 5	18°24	S 10
M 11	15 16 26	20°39'57	7♂42	28°19	1♂ 6	29°49	13°16	8°11	19°29	12°23	3°16	4°31	3°23	16°11	18°20	M 11
T 12	15 20 23	21°37'56	19°47	0♂26	2°19	0♂31	13°17	8° 8	19°32	12°23	3°17	4°D29	3°20	16°18	18°15	T 12
W 13	15 24 20	22°35'54	1♂42	2°32	3°32	1°12	13°17	8° 5	19°35	12°23	3°18	4°30	3°16	16°24	18°11	W 13
T 14	15 28 16	23°33'51	13°30	4°36	4°46	1°54	13°18	8° 3	19°38	12°22	3°19	4°31	3°13	16°31	18° 6	T 14
F 15	15 32 13	24°31'46	25°19	6°38	5°59	2°35	13°19	8° 0	19°41	12°22	3°21	4°32	3°10	16°38	18° 2	F 15
S 16	15 36 9	25°29'41	7♂12	8°38	7°12	3°16	13°20	7°58	19°44	12°22	3°22	4°R33	3° 7	16°44	17°57	S 16
S 17	15 40 6	26°27'33	19°14	10°35	8°26	3°58	13°21	7°55	19°47	12°22	3°23	4°31	3° 4	16°51	17°53	S 17
M 18	15 44 2	27°25'25	1♂28	12°30	9°39	4°39	13°23	7°53	19°50	12°21	3°25	4°28	3° 1	16°58	17°48	M 18
T 19	15 47 59	28°23'15	13°57	14°22	10°53	5°20	13°24	7°51	19°53	12°21	3°26	4°22	2°57	17° 4	17°44	T 19
W 20	15 51 55	29°21'04	26°43	16°12	12° 6	6° 1	13°26	7°49	19°56	12°21	3°27	4°15	2°54	17°11	17°39	W 20
T 21	15 55 52	0♂18'52	9♂44	17°58	13°19	6°42	13°28	7°47	19°59	12°21	3°28	4° 6	2°51	17°18	17°35	T 21
F 22	15 59 49	1°16'38	23° 1	19°42	14°33	7°23	13°30	7°45	20° 1	12°21	3°30	3°56	2°48	17°24	17°31	F 22
S 23	16 3 45	2°14'23	6♂32	21°22	15°46	8° 4	13°32	7°43	20° 4	12°D21	3°31	3°46	2°45	17°31	17°26	S 23
S 24	16 7 42	3°12'07	20°13	22°59	16°59	8°45	13°35	7°42	20° 7	12°21	3°32	3°39	2°42	17°38	17°22	S 24
M 25	16 11 38	4° 9'48	4♂ 4	24°33	18°13	9°26	13°38	7°40	20°10	12°21	3°33	3°33	2°38	17°44	17°18	M 25
T 26	16 15 35	5° 7'29	18° 2	26° 4	19°26	10° 6	13°40	7°39	20°12	12°21	3°35	3°29	2°35	17°51	17°14	T 26
W 27	16 19 31	6° 5'07	2♂ 5	27°32	20°40	10°47	13°43	7°37	20°15	12°21	3°36	3°D28	2°32	17°58	17°10	W 27
T 28	16 23 28	7° 2'44	16°13	28°56	21°53	11°28	13°47	7°36	20°18	12°21	3°37	3°28	2°29	18° 4	17° 6	T 28
F 29	16 27 24	8° 0'20	0♂24	0♂17	23° 6	12° 8	13°50	7°35	20°20	12°22	3°38	3°R29	2°26	18°11	17° 2	F 29
S 30	16 31 21	8°57'54	14°37	1°34	24°20	12°49	13°54	7°34	20°23	12°22	3°39	3°28	2°22	18°18	16°58	S 30
S 31	16 35 18	9♂55'26	28♂50	2♂48	25♂33	13♂29	13♂57	7♂33	20♂25	12♂22	3♂41	3♂26	2♂19	18♂24	16♂54	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	15n 7	5n14	1n22	13n 5	0s45	5n55	1s35	15s24	1s36	7n48	1n23	1s 0	2n40	6n51	0s37	7n44	0n56	3s 1	16s30	2n 3	1n33	7s25	15s10	2n25			
S 2	15 25	1s46	0 3	13 55	0 35	6 23	1 35	15 11	1 38	7 49	1 23	0 59	2 40	6 52	0 37	7 44	0 56	3 1	16 30	2 3	1 32	7 21	15 8	2 25			
S 3	15 43	8 41	1s16	14 45	0 25	6 51	1 35	14 59	1 39	7 49	1 23	0 58	2 40	6 54	0 37	7 44	0 56	3 1	16 30	2 3	1 31	7 18	15 7	2 25			
M 4	16 0	15 7	2 29	15 34	0 15	7 18	1 34	14 46	1 40	7 49	1 22	0 57	2 39	6 55	0 37	7 45	0 56	3 0	16 30	2 2	1 29	7 15	15 5	2 26			
T 5	16 17	20 38	3 32	16 22	0 4	7 46	1 34	14 33	1 42	7 49	1 22	0 55	2 39	6 56	0 37	7 45	0 56	3 0	16 30	2 0	1 28	7 11	15 4	2 26			
W 6	16 34	24 53	4 21	17 9	0n 6	8 13	1 33	14 20	1 43	7 50	1 22	0 54	2 39	6 57	0 37	7 45	0 56	2 59	16 30	1 58	1 27	7 8	15 2	2 26			
T 7	16 51	27 35	4 53	17 55	0 17	8 40	1 33	14 7	1 45	7 50	1 22	0 53	2 39	6 58	0 37	7 45	0 56	2 59	16 30	1 55	1 26	7 5	15 1	2 27			
F 8	17 7	28 34	5 8	18 40	0 27	9 7	1 32	13 54	1 46	7 50	1 22	0 52	2 39	7 0	0 37	7 45	0 56	2 59	16 30	1 53	1 24	7 1	14 59	2 27			
S 9	17 23	27 54	5 6	19 23	0 38	9 34	1 31	13 41	1 47	7 49	1 21	0 51	2 39	7 1	0 37	7 46	0 56	2 58	16 30	1 50	1 23	6 58	14 58	2 27			
S 10	17 39	25 48	4 49	20 4	0 48	10 1	1 30	13 28	1 49	7 49	1 21	0 50	2 38	7 2	0 37	7 46	0 56	2 58	16 30	1 49	1 22	6 55	14 56	2 28			
M 11	17 55	22 31	4 19	20 43	0 58	10 27	1 29	13 15	1 50	7 49	1 21	0 49	2 38	7 3	0 37	7 46	0 56	2 58	16 30	1 47	1 21	6 51	14 54	2 28			
T 12	18 10	18 19	3 38	21 20	1 8	10 53	1 28	13 1	1 51	7 49	1 21	0 48	2 38	7 4	0 37	7 46	0 56	2 57	16 30	1 47	1 19	6 48	14 53	2 28			
W 13	18 25	13 29	2 48	21 55	1 17	11 19	1 27	12 48	1 53	7 48	1 21	0 47	2 38	7 5	0 37	7 46	0 56	2 57	16 31	1 47	1 18	6 44	14 51	2 29			
T 14	18 39	8 12	1 51	22 27	1 26	11 45	1 26	12 34	1 54	7 48	1 20	0 46	2 38	7 6	0 37	7 46	0 56	2 57	16 31	1 48	1 17	6 41	14 50	2 29			
F 15	18 54	2 37	0 50	22 57	1 34	12 10	1 25	12 21	1 56	7 47	1 20	0 46	2 37	7 8	0 37	7 46	0 56	2 56	16 31	1 48	1 16	6 38	14 48	2 29			
S 16	19 8	3n 4	0n14	23 24	1 41	12 35	1 24	12 7	1 57	7 47	1 20	0 45	2 37	7 9	0 37	7 46	0 56	2 56	16 31	1 48	1 14	6 34	14 47	2 29			
S 17	19 21	8 44	1 18	23 49	1 48	13 0	1 23	11 53	1 58	7 46	1 20	0 44	2 37	7 10	0 37	7 46	0 55	2 56	16 31	1 48	1 13	6 31	14 45	2 30			
M 18	19 35	14 10	2 20	24 11	1 54	13 25	1 21	11 40	2 0	7 45	1 20	0 43	2 37	7 11	0 37	7 47	0 55	2 55	16 31	1 46	1 12	6 28	14 44	2 30			
T 19	19 48	19 8	3 15	24 30	2 0	13 49	1 20	11 26	2 1	7 45	1 19	0 43	2 37	7 12	0 37	7 47	0 55	2 55	16 31	1 44	1 11	6 24	14 42	2 30			
W 20	20 0	23 20	4 3	24 47	2 5	14 13	1 19	11 12	2 3	7 44	1 19	0 42	2 37	7 13	0 37	7 47	0 55	2 55	16 31	1 41	1 9	6 21	14 41	2 31			
T 21	20 12	26 29	4 38	25 1	2 9	14 36	1 17	10 58	2 4	7 43	1 19	0 42	2 36	7 14	0 37	7 47	0 55	2 54	16 31	1 38	1 8	6 17	14 39	2 31			
F 22	20 24	28 14	4 59	25 13	2 12	14 59	1 16	10 44	2 5	7 42	1 19	0 41	2 36	7 15	0 37	7 47	0 55	2 54	16 32	1 34	1 7	6 14	14 38	2 31			
S 23	20 36	28 20	5 4	25 23	2 14	15 22	1 14	10 30	2 7	7 41	1 19	0 41	2 36	7 16	0 37	7 47	0 55	2 54	16 32	1 30	1 5	6 11	14 37	2 31			
S 24	20 47	26 43	4 52	25 30	2 16	15 45	1 12	10 16	2 8	7 39	1 18	0 40	2 36	7 17	0 37	7 47	0 55	2 54	16 32	1 27	1 4	6 7	14 35	2 32			
M 25	20 58	23 29	4 23	25 36	2 17	16 7	1 11	10 2	2 10	7 38	1 18	0 40	2 35	7 18	0 37	7 47	0 55	2 53	16 32	1 25	1 3	6 4	14 34	2 32			
T 26	21 9	18 52	3 38	25 39	2 17	16 28	1 9	9 48	2 11	7 37	1 18	0 39	2 35	7 19	0 37	7 47	0 55	2 53	16 32	1 23	1 2	6 1	14 32	2 32			
W 27	21 19	13 12	2 39	25 40	2 16	16 50	1 7	9 34	2 12	7 36	1 18	0 39	2 35	7 20	0 37	7 46	0 55	2 53	16 32	1 23	1 0	5 57	14 31	2 32			
T 28	21 29	6 50	1 31	25 39	2 14	17 10	1 6	9 20	2 14	7 34	1 18	0 39	2 35	7 21	0 37	7 46	0 55	2 53	16 33	1 23	0 59	5 54	14 30	2 32			
F 29	21 38	0 5	0 16	25 37	2 11	17 31	1 4	9 5	2 15	7 33	1 17	0 38	2 35	7 22	0 37	7 46	0 55	2 53	16 33	1 23	0 58	5 50	14 28	2 32			
S 30	21 47	6s40	0s59	25 33	2 8	17 51	1 2	8 51	2 17	7 31	1 17	0 38	2 34	7 23	0 37	7 46	0 55	2 52	16 33	1 23	0 57	5 47	14 27	2 33			
S 31	21n56	13s 5	2s11	25n27	2n 3	18n10	1s 0	8s37	2s18	7n30	1n17	0s38	2n34	7n24	0s37	7n46	0n55	2s52	16s33	1n22	0n55	5s44	14s26	2n33			

ASTRODIENST EPHEMERIS for the year 2099

geocentric

JUNE 2099

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	16 39 14	10 ^{II} 52'58	12 ^{III} 59	3 ^{IV} 58	26 ^V 46	14 ^{VI} 10	14 ^{VI} 1	7°R32	20°Y28	12 ^{III} 22	3 ^{IV} 42	3°R21	2°Y16	18°X31	16°R50	M 1
T 2	16 43 11	11°50'28	27° 1	5° 5	28° 0	14°50	14° 5	7 ^{II} 31	20°30	12°23	3°43	3°Y14	2°13	18°37	16°M46	T 2
W 3	16 47 7	12°47'57	10 ^{IV} 52	6° 9	29°13	15°30	14° 9	7°31	20°32	12°23	3°44	3° 4	2°10	18°44	16°42	W 3
T 4	16 51 4	13°45'25	24°27	7° 8	0 ^{II} 27	16°10	14°14	7°30	20°35	12°23	3°45	2°53	2° 7	18°51	16°38	T 4
F 5	16 55 0	14°42'53	7 ^{III} 44	8° 4	1°40	16°50	14°18	7°29	20°37	12°24	3°46	2°42	2° 3	18°57	16°35	F 5
S 6	16 58 57	15°40'19	20°41	8°56	2°53	17°30	14°23	7°29	20°39	12°24	3°47	2°31	2° 0	19° 4	16°31	S 6
S 7	17 2 53	16°37'44	3 ^{III} 18	9°44	4° 7	18°10	14°27	7°29	20°42	12°25	3°48	2°23	1°57	19°11	16°28	S 7
M 8	17 6 50	17°35'09	15°37	10°28	5°20	18°50	14°32	7°29	20°44	12°25	3°49	2°16	1°54	19°17	16°24	M 8
T 9	17 10 47	18°32'33	27°42	11° 8	6°34	19°30	14°37	7°D28	20°46	12°26	3°50	2°12	1°51	19°24	16°21	T 9
W10	17 14 43	19°29'56	9 ^{III} 36	11°44	7°47	20° 9	14°43	7°29	20°48	12°26	3°52	2°11	1°48	19°31	16°18	W10
T 11	17 18 40	20°27'19	21°26	12°15	9° 1	20°49	14°48	7°29	20°50	12°27	3°53	2°D10	1°44	19°37	16°14	T 11
F 12	17 22 36	21°24'41	3°Y15	12°43	10°14	21°28	14°54	7°29	20°53	12°27	3°54	2°R10	1°41	19°44	16°11	F 12
S 13	17 26 33	22°22'03	15°10	13° 5	11°27	22° 8	14°59	7°29	20°55	12°28	3°55	2°10	1°38	19°51	16° 8	S 13
S 14	17 30 29	23°19'24	27°15	13°24	12°41	22°47	15° 5	7°30	20°57	12°29	3°55	2° 8	1°35	19°57	16° 5	S 14
M15	17 34 26	24°16'45	9 ^{III} 36	13°37	13°54	23°26	15°11	7°30	20°59	12°29	3°56	2° 3	1°32	20° 4	16° 2	M15
T 16	17 38 22	25°14'06	22°15	13°47	15° 8	24° 5	15°17	7°31	21° 0	12°30	3°57	1°56	1°28	20°11	16° 0	T 16
W17	17 42 19	26°11'26	5 ^{III} 15	13°51	16°21	24°44	15°24	7°31	21° 2	12°31	3°58	1°47	1°25	20°17	15°57	W17
T 18	17 46 16	27° 8'45	18°36	13°R51	17°35	25°23	15°30	7°32	21° 4	12°32	3°59	1°35	1°22	20°24	15°54	T 18
F 19	17 50 12	28° 6'04	2 ^{III} 16	13°47	18°48	26° 1	15°37	7°33	21° 6	12°33	4° 0	1°23	1°19	20°31	15°52	F 19
S 20	17 54 9	29° 3'22	16°12	13°38	20° 2	26°40	15°43	7°34	21° 8	12°33	4° 1	1°11	1°16	20°37	15°49	S 20
S 21	17 58 5	0 ^{III} 0'40	0 ^{III} 19	13°25	21°16	27°18	15°50	7°35	21° 9	12°34	4° 2	1° 1	1°13	20°44	15°47	S 21
M22	18 2 2	0°57'57	14°32	13° 8	22°29	27°56	15°57	7°37	21°11	12°35	4° 3	0°54	1° 9	20°50	15°44	M22
T 23	18 5 58	1°55'14	28°48	12°47	23°43	28°34	16° 4	7°38	21°13	12°36	4° 4	0°49	1° 6	20°57	15°42	T 23
W24	18 9 55	2°52'29	13 ^{III} 3	12°23	24°56	29°12	16°11	7°39	21°14	12°37	4° 4	0°47	1° 3	21° 4	15°40	W24
T 25	18 13 52	3°49'44	27°14	11°56	26°10	29°50	16°19	7°41	21°16	12°38	4° 5	0°46	1° 0	21°10	15°38	T 25
F 26	18 17 48	4°46'58	11 ^{III} 19	11°26	27°23	0°Y28	16°26	7°43	21°17	12°39	4° 6	0°46	0°57	21°17	15°36	F 26
S 27	18 21 45	5°44'12	25°19	10°53	28°37	1° 5	16°34	7°44	21°19	12°40	4° 7	0°45	0°54	21°24	15°34	S 27
S 28	18 25 41	6°41'25	9 ^{III} 13	10°19	29°50	1°42	16°41	7°46	21°20	12°41	4° 7	0°43	0°50	21°30	15°33	S 28
M29	18 29 38	7°38'37	22°59	9°44	1 ^{III} 4	2°19	16°49	7°48	21°21	12°43	4° 8	0°37	0°47	21°37	15°31	M29
T 30	18 33 34	8 ^{III} 35'49	6 ^{III} 36	9 ^{III} 8	2 ^{III} 18	2°Y56	16°M57	7 ^{III} 50	21°Y23	12°M44	4 ^{III} 9	0°Y29	0°Y44	21°X44	15°M29	T 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
M 1	22n 4	18s48	3s14	25n20	1n58	18n29	0s58	8s23	2s20	7n28	1n17	0s38	2n34	7n25	0s37	M 1
T 2	22 12	23 27	4 5	25 12	1 52	18 48	0 56	8 8	2 21	7 26	1 17	0 38	2 34	7 26	0 37	T 2
W 3	22 19	26 41	4 40	25 3	1 45	19 6	0 54	7 54	2 22	7 24	1 16	0 38	2 33	7 27	0 37	W 3
T 4	22 26	28 17	4 59	24 52	1 38	19 23	0 52	7 40	2 24	7 23	1 16	0 38	2 33	7 27	0 37	T 4
F 5	22 33	28 13	5 1	24 40	1 29	19 40	0 50	7 25	2 25	7 21	1 16	0 38	2 33	7 28	0 37	F 5
S 6	22 40	26 34	4 47	24 28	1 20	19 57	0 48	7 11	2 27	7 19	1 16	0 38	2 33	7 29	0 37	S 6
S 7	22 45	23 37	4 20	24 14	1 10	20 13	0 45	6 57	2 28	7 17	1 16	0 38	2 33	7 30	0 37	S 7
M 8	22 51	19 39	3 41	24 0	0 59	20 28	0 43	6 43	2 30	7 15	1 15	0 38	2 32	7 31	0 38	M 8
T 9	22 56	14 58	2 52	23 45	0 48	20 43	0 41	6 28	2 31	7 12	1 15	0 38	2 32	7 32	0 38	T 9
W10	23 1	9 46	1 57	23 30	0 36	20 58	0 39	6 14	2 32	7 10	1 15	0 38	2 32	7 33	0 38	W10
T 11	23 5	4 16	0 57	23 14	0 23	21 11	0 37	6 0	2 34	7 8	1 15	0 39	2 32	7 33	0 38	T 11
F 12	23 9	1n23	0n 6	22 58	0 9	21 25	0 34	5 45	2 35	7 6	1 15	0 39	2 31	7 34	0 38	F 12
S 13	23 13	7 1	1 8	22 42	0s 5	21 37	0 32	5 31	2 37	7 3	1 14	0 39	2 31	7 35	0 38	S 13
S 14	23 16	12 30	2 9	22 25	0 20	21 49	0 30	5 17	2 38	7 1	1 14	0 40	2 31	7 35	0 38	S 14
M15	23 18	17 36	3 4	22 9	0 35	22 0	0 27	5 3	2 39	6 58	1 14	0 40	2 31	7 36	0 38	M15
T 16	23 21	22 4	3 52	21 52	0 51	22 11	0 25	4 49	2 41	6 56	1 14	0 41	2 30	7 37	0 38	T 16
W17	23 22	25 35	4 29	21 36	1 7	22 21	0 23	4 35	2 42	6 53	1 14	0 41	2 30	7 37	0 38	W17
T 18	23 23	27 48	4 53	21 19	1 24	22 31	0 20	4 20	2 44	6 51	1 14	0 42	2 30	7 38	0 38	T 18
F 19	23 25	28 25	5 0	21 3	1 40	22 40	0 18	4 6	2 45	6 48	1 13	0 42	2 30	7 39	0 38	F 19
S 20	23 26	27 15	4 50	20 48	1 57	22 48	0 15	3 52	2 47	6 45	1 13	0 43	2 29	7 39	0 38	S 20
S 21	23 26	24 21	4 23	20 32	2 14	22 55	0 13	3 39	2 48	6 42	1 13	0 44	2 29	7 40	0 38	S 21
M22	23 26	19 57	3 38	20 17	2 30	23 2	0 11	3 25	2 49	6 40	1 13	0 44	2 29	7 41	0 38	M22
T 23	23 25	14 23	2 40	20 3	2 46	23 9	0 8	3 11	2 51	6 37	1 13	0 45	2 29	7 41	0 38	T 23
W24	23 24	8 5	1 32	19 50	3 2	23 14	0 6	2 57	2 52	6 34	1 13	0 46	2 28	7 42	0 38	W24
T 25	23 22	1 23	0 19	19 37	3 17	23 19	0 3	2 43	2 54	6 31	1 12	0 47	2 28	7 42	0 38	T 25
F 26	23 21	5s20	0s56	19 25	3 32	23 23	0 1	2 30	2 55	6 28	1 12	0 47	2 28	7 43	0 38	F 26
S 27	23 18	11 45	2 6	19 15	3 45	23 27	0n 1	2 16	2 56	6 25	1 12	0 48	2 28	7 43	0 38	S 27
S 28	23 16	17 32	3 8	19 5	3 58	23 30	0 4	2 2	2 58	6 21	1 12	0 49	2 28	7 44	0 38	S 28
M29	23 12	22 22	3 59	18 56	4 9	23 32	0 6	1 49	2 59	6 18	1 12	0 50	2 27	7 44	0 38	M29
T 30	23n 9	25s55	4s35	18n49	4s19	23n33	0n 9	1s35	3s 0	6n15	1n12	0s51	2n27	7n45	0s38	T 30

Julian Day Number = 2487855.5, Delta T = 92.91 sec
 Ecliptic obliquity = 23°25'44, Nutation = - 0°00'02, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 26°07'45, Lahiri = 25°14'46

ASTRODIENST EPHEMERIS for the year 2099
geocentric

JULY 2099

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	18 37 31	9°33'01	20°2' 2	8°R33	3°31	3°V33	17°M 5	7°Δ52	21°V24	12°M45	4°R10	0°R19	0°V41	21°K50	15°R28	W 1
T 2	18 41 27	10°30'13	3°316	7°358	4°45	4°10	17°13	7°54	21°25	12°46	4°10	0°V 7	0°38	21°57	15°M27	T 2
F 3	18 45 24	11°27'24	16°15	7°24	5°58	4°46	17°22	7°57	21°26	12°47	4°11	29°K55	0°34	22° 4	15°25	F 3
S 4	18 49 21	12°24'35	28°58	6°52	7°12	5°23	17°30	7°59	21°28	12°49	4°11	29°43	0°31	22°10	15°24	S 4
S 5	18 53 17	13°21'47	11°26	6°23	8°26	5°59	17°39	8° 1	21°29	12°50	4°12	29°33	0°28	22°17	15°23	S 5
M 6	18 57 14	14°18'58	23°40	5°56	9°39	6°35	17°47	8° 4	21°30	12°51	4°13	29°26	0°25	22°24	15°22	M 6
T 7	19 1 10	15°16'09	5°K41	5°33	10°53	7°10	17°56	8° 7	21°31	12°53	4°13	29°21	0°22	22°30	15°21	T 7
W 8	19 5 7	16°13'21	17°33	5°14	12° 7	7°46	18° 5	8° 9	21°32	12°54	4°14	29°19	0°19	22°37	15°21	W 8
T 9	19 9 3	17°10'33	29°22	4°59	13°21	8°21	18°14	8°12	21°33	12°55	4°14	29°D18	0°15	22°43	15°20	T 9
F 10	19 13 0	18° 7'45	11°V11	4°49	14°34	8°56	18°23	8°15	21°33	12°57	4°15	29°19	0°12	22°50	15°20	F 10
S 11	19 16 56	19° 4'57	23° 6	4°43	15°48	9°31	18°32	8°18	21°34	12°58	4°15	29°R19	0° 9	22°57	15°19	S 11
S 12	19 20 53	20° 2'11	5°R12	4°D42	17° 2	10° 6	18°41	8°21	21°35	13° 0	4°16	29°18	0° 6	23° 3	15°19	S 12
M13	19 24 50	20°59'24	17°35	4°47	18°15	10°40	18°50	8°25	21°36	13° 1	4°16	29°15	0° 3	23°10	15°19	M13
T 14	19 28 46	21°56'38	0°II19	4°56	19°29	11°14	19° 0	8°28	21°36	13° 3	4°17	29° 9	29°K59	23°17	15°18	T 14
W15	19 32 43	22°53'53	13°26	5°11	20°43	11°48	19° 9	8°31	21°37	13° 4	4°17	29° 2	29°56	23°23	15°D18	W15
T 16	19 36 39	23°51'08	26°58	5°32	21°57	12°22	19°19	8°35	21°37	13° 6	4°18	28°53	29°53	23°30	15°19	T 16
F 17	19 40 36	24°48'23	10°354	5°57	23°11	12°55	19°29	8°38	21°38	13° 8	4°18	28°43	29°50	23°37	15°19	F 17
S 18	19 44 32	25°45'39	25°11	6°29	24°25	13°28	19°39	8°42	21°38	13° 9	4°18	28°33	29°47	23°43	15°19	S 18
S 19	19 48 29	26°42'55	9°R41	7° 5	25°38	14° 1	19°49	8°46	21°39	13°11	4°19	28°24	29°44	23°50	15°19	S 19
M20	19 52 25	27°40'12	24°20	7°47	26°52	14°34	19°59	8°49	21°39	13°12	4°19	28°18	29°40	23°57	15°20	M20
T 21	19 56 22	28°37'29	8°M59	8°34	28° 6	15° 6	20° 9	8°53	21°40	13°14	4°19	28°15	29°37	24° 3	15°21	T 21
W22	20 0 19	29°34'46	23°33	9°27	29°20	15°38	20°19	8°57	21°40	13°16	4°19	28°D13	29°34	24°10	15°21	W22
T 23	20 4 15	0°L32'03	7°Δ57	10°25	0°K34	16°10	20°29	9° 1	21°40	13°18	4°20	28°13	29°31	24°17	15°22	T 23
F 24	20 8 12	1°29'20	22° 9	11°27	1°48	16°41	20°40	9° 5	21°40	13°19	4°20	28°14	29°28	24°23	15°23	F 24
S 25	20 12 8	2°26'38	6°R 7	12°35	3° 2	17°12	20°50	9°10	21°40	13°21	4°20	28°R14	29°25	24°30	15°24	S 25
S 26	20 16 5	3°23'56	19°51	13°48	4°16	17°42	21° 0	9°14	21°40	13°23	4°20	28°13	29°21	24°36	15°25	S 26
M27	20 20 1	4°21'15	3°R22	15° 6	5°29	18°13	21°11	9°18	21°R40	13°25	4°21	28°10	29°18	24°43	15°27	M27
T 28	20 23 58	5°18'33	16°39	16°28	6°43	18°43	21°22	9°23	21°40	13°26	4°21	28° 4	29°15	24°50	15°28	T 28
W29	20 27 54	6°15'53	29°44	17°55	7°57	19°12	21°32	9°27	21°40	13°28	4°21	27°57	29°12	24°56	15°29	W29
T 30	20 31 51	7°13'13	12°K36	19°27	9°11	19°42	21°43	9°32	21°40	13°30	4°21	27°48	29° 9	25° 3	15°31	T 30
F 31	20 35 48	8°L10'33	25°R15	21°25	10°L25	20°V11	21°M54	9°Δ36	21°V40	13°M32	4°R21	27°K39	29°K 6	25°K10	15°M33	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	23n 5	27s58	4s56	18n42	4s28	23n34	0n11	1s22	3s 2	6n12	1n11	0s52	2n27	7n45	0s38	7n37
T 2	23 1	28 23	5 0	18 37	4 35	23 34	0 13	1 9	3 3	6 8	1 11	0 53	2 27	7 46	0 38	7 36
F 3	22 56	27 13	4 49	18 33	4 40	23 33	0 16	0 56	3 5	6 5	1 11	0 54	2 26	7 46	0 38	7 36
S 4	22 51	24 39	4 23	18 31	4 44	23 32	0 18	0 43	3 6	6 2	1 11	0 56	2 26	7 46	0 38	7 35
S 5	22 45	20 57	3 45	18 30	4 47	23 30	0 20	0 30	3 7	5 58	1 11	0 57	2 26	7 47	0 38	7 35
M 6	22 40	16 25	2 57	18 30	4 48	23 27	0 23	0 17	3 9	5 55	1 11	0 58	2 26	7 47	0 38	7 34
T 7	22 33	11 19	2 2	18 32	4 47	23 24	0 25	0 4	3 10	5 51	1 11	0 59	2 25	7 48	0 38	7 34
W 8	22 27	5 52	1 2	18 34	4 45	23 20	0 27	0n 9	3 11	5 47	1 10	1 1	2 25	7 48	0 38	7 33
T 9	22 20	0 15	0n 0	18 39	4 42	23 15	0 29	0 22	3 13	5 44	1 10	1 2	2 25	7 48	0 38	7 33
F 10	22 12	5n23	1 3	18 44	4 37	23 9	0 32	0 34	3 14	5 40	1 10	1 3	2 25	7 48	0 38	7 32
S 11	22 4	10 53	2 3	18 50	4 31	23 3	0 34	0 47	3 15	5 36	1 10	1 5	2 25	7 49	0 38	7 31
S 12	21 56	16 4	2 59	18 57	4 23	22 56	0 36	0 59	3 16	5 33	1 10	1 6	2 24	7 49	0 38	7 31
M13	21 47	20 42	3 48	19 6	4 15	22 49	0 38	1 11	3 18	5 29	1 10	1 8	2 24	7 49	0 38	7 30
T 14	21 39	24 33	4 26	19 15	4 6	22 41	0 40	1 24	3 19	5 25	1 10	1 9	2 24	7 49	0 38	7 30
W15	21 29	27 14	4 53	19 24	3 55	22 32	0 42	1 36	3 20	5 21	1 9	1 11	2 24	7 50	0 38	7 29
T 16	21 19	28 27	5 3	19 35	3 44	22 22	0 44	1 47	3 22	5 17	1 9	1 12	2 23	7 50	0 38	7 28
F 17	21 9	27 55	4 57	19 45	3 33	22 12	0 46	1 59	3 23	5 13	1 9	1 14	2 23	7 50	0 38	7 28
S 18	20 59	25 33	4 32	19 56	3 20	22 1	0 48	2 11	3 24	5 9	1 9	1 15	2 23	7 50	0 39	7 27
S 19	20 48	21 30	3 49	20 8	3 7	21 50	0 50	2 22	3 25	5 5	1 9	1 17	2 23	7 50	0 39	7 27
M20	20 37	16 5	2 51	20 19	2 54	21 38	0 52	2 34	3 26	5 1	1 9	1 19	2 23	7 50	0 39	7 26
T 21	20 26	9 46	1 41	20 30	2 40	21 25	0 54	2 45	3 28	4 57	1 9	1 20	2 22	7 51	0 39	7 25
W22	20 14	2 57	0 25	20 40	2 26	21 12	0 56	2 56	3 29	4 53	1 9	1 22	2 22	7 51	0 39	7 25
T 23	20 2	3s57	0s52	20 50	2 11	20 58	0 58	3 7	3 30	4 49	1 8	1 24	2 22	7 51	0 39	7 24
F 24	19 49	10 33	2 5	21 0	1 57	20 43	0 59	3 18	3 31	4 45	1 8	1 26	2 22	7 51	0 39	7 23
S 25	19 36	16 31	3 9	21 8	1 42	20 28	1 1	3 29	3 32	4 41	1 8	1 28	2 22	7 51	0 39	7 23
S 26	19 23	21 33	4 1	21 15	1 28	20 12	1 3	3 39	3 34	4 36	1 8	1 29	2 21	7 51	0 39	7 22
M27	19 10	25 22	4 39	21 21	1 13	19 56	1 4	3 50	3 35	4 32	1 8	1 31	2 21	7 51	0 39	7 21
T 28	18 56	27 45	5 0	21 26	0 59	19 39	1 6	4 0	3 36	4 28	1 8	1 33	2 21	7 51	0 39	7 20
W29	18 42	28 32	5 6	21 29	0 45	19 21	1 7	4 10	3 37	4 24	1 8	1 35	2 21	7 51	0 39	7 20
T 30	18 28	27 45	4 56	21 30	0 31	19 3	1 9	4 20	3 38	4 19	1 8	1 37	2 21	7 51	0 39	7 19
F 31	18n13	25s32	4s32	21n29	0s18	18n45	1n10	4n30	3s39	4n15	1n 8	1s39	2n20	7n50	0s39	7n18

Julian Day Number = 2487885.5, Delta T = 92.95 sec
Ecliptic obliquity = 23°25'43, Nutation = 0°00'00, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 26°07'50, Lahiri = 25°14'50

ASTRODIENST EPHEMERIS for the year 2099

geocentric

AUGUST 2099

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 39 44	9♌ 7°55	7♊42	22♈42	11♌39	20♏39	22♏5	9♏41	21°R40	13♏34	4♏21	27°R31	29♏2	25♏16	15♏35	S 1
S 2	20 43 41	10° 5'17	19°57	24°25	12°53	21° 7	22°16	9°46	21°Y40	13°36	4°21	27°X42	28°59	25°23	15°36	S 2
M 3	20 47 37	11° 2'39	2♏1	26°12	14° 7	21°35	22°27	9°51	21°39	13°38	4°R21	27°19	28°56	25°30	15°38	M 3
T 4	20 51 34	12° 0'03	13°57	28° 2	15°21	22° 3	22°38	9°56	21°39	13°40	4°21	27°16	28°53	25°36	15°40	T 4
W 5	20 55 30	12°57'28	25°47	29°55	16°35	22°30	22°50	10° 1	21°38	13°42	4°21	27°D15	28°50	25°43	15°43	W 5
T 6	20 59 27	13°54'54	7♏34	1♌51	17°49	22°56	23° 1	10° 6	21°38	13°44	4°21	27°16	28°46	25°50	15°45	T 6
F 7	21 3 23	14°52'21	19°22	3°49	19° 3	23°22	23°12	10°11	21°37	13°46	4°21	27°17	28°43	25°56	15°47	F 7
S 8	21 7 20	15°49'49	1♏17	5°48	20°17	23°48	23°24	10°16	21°37	13°48	4°21	27°19	28°40	26° 3	15°50	S 8
S 9	21 11 17	16°47'19	13°22	7°49	21°32	24°13	23°35	10°22	21°36	13°50	4°21	27°R19	28°37	26° 9	15°52	S 9
M10	21 15 13	17°44'50	25°44	9°52	22°46	24°38	23°47	10°27	21°36	13°52	4°21	27°19	28°34	26°16	15°55	M10
T 11	21 19 10	18°42'22	8♏26	11°55	24° 0	25° 2	23°58	10°32	21°35	13°54	4°21	27°17	28°31	26°23	15°58	T 11
W12	21 23 6	19°39'56	21°34	13°58	25°14	25°26	24°10	10°38	21°34	13°56	4°20	27°14	28°27	26°29	16° 1	W12
T 13	21 27 3	20°37'31	5♏7	16° 2	26°28	25°49	24°22	10°43	21°33	13°58	4°20	27° 9	28°24	26°36	16° 4	T 13
F 14	21 30 59	21°35'08	19° 8	18° 5	27°42	26°12	24°34	10°49	21°33	14° 0	4°20	27° 4	28°21	26°43	16° 7	F 14
S 15	21 34 56	22°32'45	3♌34	20° 8	28°56	26°34	24°45	10°55	21°32	14° 2	4°20	26°59	28°18	26°49	16°10	S 15
S 16	21 38 53	23°30'24	18°19	22°11	0♏10	26°56	24°57	11° 0	21°31	14° 4	4°19	26°54	28°15	26°56	16°13	S 16
M17	21 42 49	24°28'05	3♏16	24°12	1°25	27°17	25° 9	11° 6	21°30	14° 6	4°19	26°51	28°12	27° 3	16°17	M17
T 18	21 46 46	25°25'46	18°16	26°13	2°39	27°37	25°21	11°12	21°29	14° 8	4°19	26°50	28° 8	27° 9	16°20	T 18
W19	21 50 42	26°23'29	3♏11	28°13	3°53	27°57	25°33	11°18	21°28	14°11	4°19	26°D50	28° 5	27°16	16°24	W19
T 20	21 54 39	27°21'12	17°55	0♏12	5° 7	28°16	25°45	11°24	21°27	14°13	4°18	26°51	28° 2	27°23	16°27	T 20
F 21	21 58 35	28°18'57	2♏21	2° 9	6°21	28°35	25°58	11°30	21°26	14°15	4°18	26°52	27°59	27°29	16°31	F 21
S 22	22 2 32	29°16'43	16°28	4° 6	7°35	28°53	26°10	11°36	21°24	14°17	4°18	26°53	27°56	27°36	16°35	S 22
S 23	22 6 28	0♏14'30	0♏13	6° 1	8°50	29°11	26°22	11°42	21°23	14°19	4°17	26°R54	27°52	27°42	16°39	S 23
M24	22 10 25	1°12'18	13°38	7°55	10° 4	29°27	26°34	11°48	21°22	14°21	4°17	26°53	27°49	27°49	16°43	M24
T 25	22 14 21	2°10'08	26°45	9°47	11°18	29°43	26°47	11°54	21°21	14°23	4°16	26°51	27°46	27°56	16°47	T 25
W26	22 18 18	3° 7'58	9♏35	11°38	12°32	29°59	26°59	12° 0	21°19	14°26	4°16	26°49	27°43	28° 2	16°51	W26
T 27	22 22 15	4° 5'50	22°10	13°28	13°46	0♏14	27°11	12° 7	21°18	14°28	4°15	26°45	27°40	28° 9	16°55	T 27
F 28	22 26 11	5° 3'43	4♏33	15°17	15° 1	0°28	27°24	12°13	21°16	14°30	4°15	26°42	27°37	28°16	17° 0	F 28
S 29	22 30 8	6° 1'38	16°44	17° 4	16°15	0°41	27°36	12°19	21°15	14°32	4°14	26°39	27°33	28°22	17° 4	S 29
S 30	22 34 4	6°59'34	28°47	18°49	17°29	0°54	27°49	12°26	21°13	14°34	4°14	26°36	27°30	28°29	17° 9	S 30
M31	22 38 1	7♏57'31	10♏43	20♏34	18♏43	1♏6	28♏1	12♏32	21°Y12	14♏37	4♏13	26°X34	27°X27	28°X36	17♏13	M31

Day	☉	☾		♂		♀		♂		♀		♂		♀		♂		♀		♂	♀	♂	♀	♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	decl	lat
S 1	17n58	22s 7	3s55	21n26	0s 5	18n26	1n11	4n40	3s40	4n10	1n 8	1s41	2n20	7n50	0s39	7n18	0n54	2s56	16s51	0s59	0s23	2s11	13s59	2n37	
S 2	17 43	17 47	3 8	21 21	0n 8	18 6	1 13	4 49	3 41	4 6	1 7	1 43	2 20	7 50	0 39	7 17	0 54	2 56	16 51	1 2	0 24	2 8	14 0	2 37	
M 3	17 27	12 48	2 12	21 13	0 20	17 46	1 14	4 58	3 42	4 1	1 7	1 45	2 20	7 50	0 39	7 16	0 54	2 57	16 51	1 4	0 25	2 4	14 0	2 37	
T 4	17 11	7 25	1 11	21 3	0 31	17 25	1 15	5 8	3 43	3 57	1 7	1 47	2 20	7 50	0 39	7 15	0 54	2 57	16 52	1 5	0 27	2 1	14 1	2 37	
W 5	16 55	1 48	0 8	20 50	0 41	17 4	1 16	5 17	3 44	3 52	1 7	1 50	2 19	7 50	0 39	7 15	0 54	2 57	16 52	1 5	0 28	1 58	14 2	2 37	
T 6	16 39	3n51	0n56	20 34	0 51	16 43	1 17	5 25	3 45	3 48	1 7	1 52	2 19	7 50	0 39	7 14	0 54	2 58	16 52	1 5	0 29	1 54	14 2	2 37	
F 7	16 22	9 23	1 57	20 16	1 0	16 21	1 18	5 34	3 46	3 43	1 7	1 54	2 19	7 49	0 39	7 13	0 54	2 58	16 53	1 5	0 31	1 51	14 3	2 37	
S 8	16 5	14 38	2 54	19 55	1 9	15 58	1 19	5 43	3 47	3 39	1 7	1 56	2 19	7 49	0 39	7 12	0 54	2 58	16 53	1 4	0 32	1 47	14 4	2 37	
S 9	15 48	19 25	3 45	19 32	1 16	15 35	1 20	5 51	3 48	3 34	1 7	1 58	2 19	7 49	0 39	7 11	0 54	2 59	16 53	1 4	0 33	1 44	14 4	2 37	
M10	15 30	23 29	4 26	19 6	1 23	15 12	1 21	5 59	3 49	3 29	1 7	2 1	2 19	7 49	0 39	7 11	0 54	2 59	16 54	1 4	0 34	1 40	14 5	2 37	
T 11	15 13	26 33	4 55	18 37	1 28	14 48	1 22	6 7	3 50	3 25	1 7	2 3	2 18	7 48	0 39	7 10	0 54	2 59	16 54	1 5	0 36	1 37	14 6	2 37	
W12	14 55	28 19	5 10	18 7	1 33	14 24	1 22	6 15	3 51	3 20	1 7	2 5	2 18	7 48	0 39	7 9	0 54	3 0	16 54	1 6	0 37	1 33	14 7	2 37	
T 13	14 37	28 28	5 8	17 34	1 37	13 59	1 23	6 22	3 52	3 15	1 7	2 7	2 18	7 48	0 39	7 8	0 54	3 0	16 55	1 8	0 38	1 30	14 8	2 37	
F 14	14 18	26 50	4 49	17 0	1 40	13 34	1 24	6 30	3 52	3 11	1 6	2 10	2 18	7 47	0 39	7 7	0 54	3 0	16 55	1 10	0 39	1 27	14 8	2 37	
S 15	14 0	23 24	4 11	16 24	1 43	13 9	1 24	6 37	3 53	3 6	1 6	2 12	2 18	7 47	0 39	7 7	0 54	3 1	16 55	1 12	0 41	1 23	14 9	2 37	
S 16	13 41	18 25	3 15	15 46	1 45	12 44	1 25	6 44	3 54	3 1	1 6	2 14	2 18	7 47	0 39	7 6	0 54	3 1	16 56	1 14	0 42	1 20	14 10	2 37	
M17	13 22	12 15	2 5	15 6	1 45	12 18	1 25	6 51	3 55	2 56	1 6	2 17	2 18	7 46	0 39	7 5	0 54	3 2	16 56	1 15	0 43	1 16	14 11	2 37	
T 18	13 2	5 21	0 47	14 26	1 46	11 51	1 25	6 57	3 55	2 51	1 6	2 19	2 17	7 46	0 39	7 4	0 54	3 2	16 56	1 16	0 44	1 13	14 12	2 37	
W19	12 43	1s48	0s35	13 44	1 45	11 25	1 26	7 4	3 56	2 47	1 6	2 22	2 17	7 45	0 39	7 3	0 54	3 2	16 57	1 16	0 46	1 9	14 13	2 37	
T 20	12 23	8 46	1 53	13 1	1 44	10 58	1 26	7 10	3 57	2 42	1 6	2 24	2 17	7 45	0 39	7 3	0 54	3 3	16 57	1 15	0 47	1 6	14 14	2 37	
F 21	12 3	15 9	3 3	12 18	1 42	10 30	1 26	7 16	3 57	2 37	1 6	2 26	2 17	7 45	0 39	7 2	0 54	3 3	16 57	1 15	0 48	1 2	14 15	2 37	
S 22	11 43	20 34	4 0	11 33	1 40	10 3	1 26	7 22	3 58	2 32	1 6	2 29	2 17	7 44	0 39	7 1	0 54	3 4	16 58	1 14	0 49	0 59	14 16	2 37	
S 23	11 23	24 46	4 41	10 49	1 37	9 35	1 26	7 27	3 58	2 27	1 6	2 31	2 17	7 44	0 39	7 0	0 54	3 4	16 58	1 14	0 51	0 55	14 18	2 37	
M24	11 2	27 29	5 6	10 3	1 34	9 7	1 26	7 33	3 59	2 22	1 6	2 34	2 17	7 43	0 39	6 59	0 54	3 4	16 58	1 14	0 52	0 52	14 19	2 37	
T 25	10 42	28 38	5 14	9 17	1 30	8 39	1 26	7 38	3 59	2 17	1 6	2 36	2 17	7 43	0 39	6 58	0 54	3 5	16 58	1 15	0 53	0 49	14 20	2 37	
W26	10 21	28 11	5 7	8 31	1 26	8 10	1 25	7 43	4 0	2 12	1 6	2 39	2 16	7 42	0 39	6 58	0 54	3 5	16 59	1 16	0 54	0 45	14 21	2 37	
T 27	10 0	26 17	4 44	7 45	1 22	7 41	1 25	7 48	4 0	2 7	1 6	2 42	2 16	7 42	0 40	6 57	0 54	3 6	16 59	1 17	0 56	0 42	14 22	2 37	
F 28	9 39	23 28	4 9	6 59	1 17	7 12	1 25	7 52	4 1	2 2	1 6	2 44	2 16	7 41	0 40	6 56	0 54	3 6	16 59	1 19	0 57	0 38	14 23	2 37	
S 29	9 18	19 2	3 22	6 12	1 11	6 43	1 24	7 57	4 1	1 57	1 6	2 47	2 16	7 40	0 40	6 55	0 54	3 7	17 0	1 20	0 58	0 35	14 25	2 37	
S 30	8 56	14 12	2 27	5 26	1 6	6 14	1 24	8 1	4 1	1 52	1 6	2 49	2 16	7 40	0 40	6 54	0 54	3 7	17 0	1 21	1 0	0 31	14 26	2 37	
M31	8n35	8s53	1s27	4n39	1n 0	5n44	1n23	8n 5	4s 1	1n47	1n 6	2s52	2n16	7n39	0s40	6n53	0n54	3s 7	17s 0	1s22	1s 1	0s28	14s27	2n37	

ASTRODIENST EPHEMERIS for the year 2099

geocentric

SEPTEMBER 2099

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	22 41 57	8♍55'30	22♋33	22♏17	19♏58	1♉17	28♏14	12♏39	21♏10	14♏39	4♏13	26♏34	27♋24	28♋42	17♏18	T 1
W 2	22 45 54	9°53'30	4♏21	23°59	21°12	1°28	28°26	12°45	21♏9	14°41	4♏12	26♋34	27°21	28°49	17°23	W 2
T 3	22 49 50	10°51'33	16°8	25°40	22°26	1°37	28°39	12°52	21°7	14°43	4°12	26°35	27°17	28°56	17°28	T 3
F 4	22 53 47	11°49'37	27°58	27°19	23°40	1°46	28°52	12°58	21°5	14°46	4°11	26°36	27°14	29°2	17°33	F 4
S 5	22 57 44	12°47'43	9♌54	28°57	24°55	1°54	29°4	13°5	21°4	14°48	4°10	26°37	27°11	29°9	17°38	S 5
S 6	23 1 40	13°45'51	22°1	0♏34	26°9	2°2	29°17	13°12	21°2	14°50	4°10	26°38	27°8	29°16	17°43	S 6
M 7	23 5 37	14°44'01	4♏22	2°10	27°23	2°8	29°30	13°18	21°0	14°52	4°9	26°39	27°5	29°22	17°48	M 7
T 8	23 9 33	15°42'13	17°2	3°45	28°37	2°14	29°42	13°25	20°58	14°54	4°8	26°R39	27°2	29°29	17°53	T 8
W 9	23 13 30	16°40'27	0♏4	5°18	29°52	2°18	29°55	13°32	20°56	14°57	4°8	26°39	26°58	29°35	17°58	W 9
T 10	23 17 26	17°38'43	13°31	6°50	1♏6	2°22	0♏8	13°39	20°54	14°59	4°7	26°38	26°55	29°42	18°4	T 10
F 11	23 21 23	18°37'01	27°26	8°21	2°20	2°25	0°21	13°46	20°52	15°1	4°6	26°37	26°52	29°49	18°9	F 11
S 12	23 25 19	19°35'21	11♏47	9°51	3°34	2°28	0°34	13°53	20°50	15°3	4°5	26°36	26°49	29°55	18°15	S 12
S 13	23 29 16	20°33'43	26°32	11°20	4°49	2°29	0°46	14°0	20°49	15°6	4°5	26°36	26°46	0♏2	18°20	S 13
M14	23 33 13	21°32'07	11♏33	12°47	6°3	2°R29	0°59	14°7	20°46	15°8	4°4	26°35	26°43	0°9	18°26	M14
T 15	23 37 9	22°30'33	26°44	14°14	7°17	2°29	1°12	14°14	20°44	15°10	4°3	26°D35	26°39	0°15	18°32	T 15
W16	23 41 6	23°29'01	11♏54	15°39	8°32	2°28	1°25	14°21	20°42	15°12	4°2	26°35	26°36	0°22	18°38	W16
T 17	23 45 2	24°27'30	26°55	17°3	9°46	2°25	1°38	14°28	20°40	15°14	4°1	26°35	26°33	0°29	18°44	T 17
F 18	23 48 59	25°26'01	11♏38	18°25	11°0	2°22	1°51	14°35	20°38	15°17	4°1	26°36	26°30	0°35	18°50	F 18
S 19	23 52 55	26°24'34	25°58	19°46	12°14	2°18	2°4	14°42	20°36	15°19	4°0	26°R36	26°27	0°42	18°56	S 19
S 20	23 56 52	27°23'09	9♏53	21°6	13°29	2°13	2°17	14°49	20°34	15°21	3°59	26°36	26°23	0°49	19°2	S 20
M21	0 0 48	28°21'45	23°22	22°25	14°43	2°7	2°30	14°56	20°32	15°23	3°58	26°D36	26°20	0°55	19°8	M21
T 22	0 4 45	29°20'23	6♌27	23°42	15°57	2°1	2°43	15°3	20°29	15°25	3°57	26°36	26°17	1°2	19°14	T 22
W23	0 8 42	0♏19'03	19°10	24°57	17°12	1°53	2°56	15°10	20°27	15°28	3°56	26°36	26°14	1°8	19°20	W23
T 24	0 12 38	1°17'44	1♏36	26°11	18°26	1°45	3°9	15°18	20°25	15°30	3°55	26°36	26°11	1°15	19°27	T 24
F 25	0 16 35	2°16'27	13°48	27°24	19°40	1°36	3°22	15°25	20°23	15°32	3°54	26°37	26°8	1°22	19°33	F 25
S 26	0 20 31	3°15'11	25°49	28°34	20°54	1°26	3°35	15°32	20°20	15°34	3°53	26°37	26°4	1°28	19°40	S 26
S 27	0 24 28	4°13'58	7♋43	29°43	22°9	1°15	3°48	15°39	20°18	15°36	3°52	26°38	26°1	1°35	19°46	S 27
M28	0 28 24	5°12'46	19°32	0♏50	23°23	1°4	4°1	15°47	20°16	15°38	3°52	26°38	25°58	1°42	19°53	M28
T 29	0 32 21	6°11'36	1♏20	1°55	24°37	0°52	4°14	15°54	20°13	15°40	3°51	26°R38	25°55	1°48	19°59	T 29
W30	0 36 17	7♏10'28	13♏8	2♏57	25♏51	0♏39	4♏27	16♏1	20♏11	15♏43	3♏50	26♋38	25♋52	1♏55	20♏6	W30

Day	☉	☾	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
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ASTRODIENST EPHEMERIS for the year 2099
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OCTOBER 2099

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	0 40 14	8° 22'	24° 59'	31° 57'	27° 51'	0° 25'	4° 40'	16° 08'	20° 09'	15° 45'	3° 49'	26° 37'	25° 49'	2° 02'	20° 13'	T 1
F 2	0 44 11	9° 8'18"	6° 55'	4° 54'	28° 20'	0° 11'	4° 53'	16° 16'	20° 06'	15° 47'	3° 48'	26° 35'	25° 45'	2° 08'	20° 19'	F 2
S 3	0 48 7	10° 7'17"	18° 59'	5° 49'	29° 34'	29° 56'	5° 6'	16° 23'	20° 04'	15° 49'	3° 47'	26° 33'	25° 42'	2° 15'	20° 26'	S 3
S 4	0 52 4	11° 6'18"	1° 11'	6° 40'	0° 48'	29° 41'	5° 19'	16° 30'	20° 02'	15° 51'	3° 46'	26° 31'	25° 39'	2° 22'	20° 33'	S 4
M 5	0 56 0	12° 5'21"	13° 37'	7° 28'	2° 02'	29° 25'	5° 31'	16° 38'	19° 59'	15° 53'	3° 44'	26° 29'	25° 36'	2° 28'	20° 40'	M 5
T 6	0 59 57	13° 4'26"	26° 17'	8° 13'	3° 17'	29° 08'	5° 44'	16° 45'	19° 57'	15° 55'	3° 43'	26° 28'	25° 33'	2° 35'	20° 47'	T 6
W 7	1 3 53	14° 3'33"	9° 16'	8° 53'	4° 31'	28° 51'	5° 57'	16° 52'	19° 54'	15° 57'	3° 42'	26° 27'	25° 29'	2° 41'	20° 54'	W 7
T 8	1 7 50	15° 2'43"	22° 37'	9° 29'	5° 45'	28° 33'	6° 10'	17° 00'	19° 52'	15° 59'	3° 41'	26° 27'	25° 26'	2° 48'	21° 01'	T 8
F 9	1 11 46	16° 1'56"	6° 02'	10° 01'	6° 59'	28° 15'	6° 23'	17° 07'	19° 50'	16° 01'	3° 40'	26° 28'	25° 23'	2° 55'	21° 08'	F 9
S 10	1 15 43	17° 1'10"	20° 28'	10° 27'	8° 13'	27° 57'	6° 36'	17° 14'	19° 47'	16° 03'	3° 39'	26° 29'	25° 20'	3° 01'	21° 15'	S 10
S 11	1 19 40	18° 0'27"	4° 59'	10° 47'	9° 28'	27° 38'	6° 49'	17° 22'	19° 45'	16° 05'	3° 38'	26° 31'	25° 17'	3° 08'	21° 23'	S 11
M 12	1 23 36	18° 59'46"	19° 49'	11° 02'	10° 42'	27° 19'	7° 02'	17° 29'	19° 42'	16° 07'	3° 37'	26° 32'	25° 14'	3° 15'	21° 30'	M 12
T 13	1 27 33	19° 59'07"	4° 53'	11° 10'	11° 56'	27° 00'	7° 15'	17° 37'	19° 40'	16° 09'	3° 36'	26° 31'	25° 10'	3° 21'	21° 37'	T 13
W 14	1 31 29	20° 58'30"	20° 03'	11° 19'11"	13° 10'	26° 41'	7° 27'	17° 44'	19° 37'	16° 11'	3° 35'	26° 30'	25° 07'	3° 28'	21° 45'	W 14
T 15	1 35 26	21° 57'56"	5° 11'	11° 04'	14° 25'	26° 22'	7° 40'	17° 51'	19° 35'	16° 13'	3° 34'	26° 28'	25° 04'	3° 35'	21° 52'	T 15
F 16	1 39 22	22° 57'23"	20° 01'	10° 49'	15° 39'	26° 02'	7° 53'	17° 59'	19° 32'	16° 14'	3° 33'	26° 24'	25° 01'	3° 41'	21° 59'	F 16
S 17	1 43 19	23° 56'52"	4° 33'	10° 26'	16° 53'	25° 43'	8° 06'	18° 06'	19° 30'	16° 16'	3° 31'	26° 20'	24° 58'	3° 48'	22° 07'	S 17
S 18	1 47 15	24° 56'24"	18° 38'	9° 54'	18° 07'	25° 23'	8° 19'	18° 13'	19° 28'	16° 18'	3° 30'	26° 16'	24° 55'	3° 55'	22° 14'	S 18
M 19	1 51 12	25° 55'57"	2° 16'	9° 14'	19° 21'	25° 04'	8° 31'	18° 21'	19° 25'	16° 20'	3° 29'	26° 13'	24° 51'	4° 01'	22° 22'	M 19
T 20	1 55 9	26° 55'31"	15° 25'	8° 26'	20° 35'	24° 45'	8° 44'	18° 28'	19° 23'	16° 22'	3° 28'	26° 11'	24° 48'	4° 08'	22° 29'	T 20
W 21	1 59 5	27° 55'08"	28° 10'	7° 30'	21° 50'	24° 26'	8° 57'	18° 35'	19° 20'	16° 24'	3° 27'	26° 11'	24° 45'	4° 15'	22° 37'	W 21
T 22	2 3 2	28° 54'46"	10° 34'	6° 26'	23° 04'	24° 07'	9° 09'	18° 42'	19° 18'	16° 25'	3° 26'	26° 11'	24° 42'	4° 21'	22° 44'	T 22
F 23	2 6 58	29° 54'26"	22° 41'	5° 17'	24° 18'	23° 49'	9° 22'	18° 50'	19° 16'	16° 27'	3° 25'	26° 13'	24° 39'	4° 28'	22° 52'	F 23
S 24	2 10 55	0° 54'07"	4° 38'	4° 04'	25° 32'	23° 31'	9° 34'	18° 57'	19° 13'	16° 29'	3° 24'	26° 14'	24° 35'	4° 34'	23° 00'	S 24
S 25	2 14 51	1° 53'50"	16° 27'	2° 49'	26° 46'	23° 13'	9° 47'	19° 04'	19° 11'	16° 30'	3° 22'	26° 16'	24° 32'	4° 41'	23° 07'	S 25
M 26	2 18 48	2° 53'35"	28° 14'	1° 34'	28° 00'	22° 56'	9° 59'	19° 11'	19° 09'	16° 32'	3° 21'	26° 16'	24° 29'	4° 48'	23° 15'	M 26
T 27	2 22 44	3° 53'22"	10° 02'	0° 21'	29° 14'	22° 39'	10° 12'	19° 19'	19° 06'	16° 34'	3° 20'	26° 15'	24° 26'	4° 54'	23° 23'	T 27
W 28	2 26 41	4° 53'11"	21° 54'	29° 12'	0° 28'	22° 23'	10° 24'	19° 26'	19° 04'	16° 35'	3° 19'	26° 12'	24° 23'	5° 01'	23° 31'	W 28
T 29	2 30 37	5° 53'01"	3° 52'	28° 10'	1° 42'	22° 07'	10° 36'	19° 33'	19° 02'	16° 37'	3° 18'	26° 07'	24° 20'	5° 08'	23° 38'	T 29
F 30	2 34 34	6° 52'54"	15° 59'	27° 16'	2° 57'	21° 52'	10° 49'	19° 40'	18° 59'	16° 39'	3° 17'	26° 01'	24° 16'	5° 14'	23° 46'	F 30
S 31	2 38 31	7° 52'48"	28° 15'	26° 32'	4° 11'	21° 37'	11° 01'	19° 47'	18° 57'	16° 40'	3° 16'	25° 53'	24° 13'	5° 21'	23° 54'	S 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
T 1	3s14	12n 0	2n31	15s29	2s49	9s51	0n37	8n17	3s33	0s51	1n 5	4s17	2n14	7n15	0s40	6n27
F 2	3 37	17 3	3 25	15 54	2 55	10 20	0 35	8 15	3 30	0 56	1 5	4 20	2 14	7 14	0 40	6 27
S 3	4 0	21 28	4 11	16 17	3 1	10 48	0 33	8 12	3 28	1 1	1 5	4 23	2 14	7 13	0 40	6 26
S 4	4 24	25 3	4 46	16 39	3 6	11 16	0 30	8 9	3 25	1 6	1 5	4 26	2 14	7 13	0 40	6 25
M 5	4 47	27 31	5 8	17 0	3 10	11 44	0 28	8 6	3 23	1 12	1 5	4 28	2 14	7 12	0 40	6 24
T 6	5 10	28 39	5 16	17 18	3 15	12 12	0 26	8 3	3 20	1 17	1 5	4 31	2 14	7 11	0 40	6 24
W 7	5 33	28 14	5 8	17 35	3 18	12 39	0 23	8 0	3 17	1 22	1 5	4 34	2 14	7 10	0 40	6 23
T 8	5 55	26 12	4 44	17 49	3 21	13 6	0 21	7 56	3 14	1 27	1 6	4 37	2 14	7 9	0 40	6 22
F 9	6 18	22 36	4 3	18 2	3 23	13 33	0 18	7 53	3 11	1 32	1 6	4 40	2 14	7 8	0 40	6 21
S 10	6 41	17 36	3 6	18 11	3 25	14 0	0 16	7 49	3 7	1 37	1 6	4 42	2 14	7 7	0 40	6 21
S 11	7 4	11 29	1 56	18 19	3 26	14 26	0 13	7 46	3 4	1 42	1 6	4 45	2 14	7 6	0 40	6 20
M 12	7 26	4 36	0 37	18 23	3 25	14 52	0 10	7 42	3 1	1 47	1 6	4 48	2 14	7 5	0 40	6 19
T 13	7 49	2s39	0s46	18 24	3 24	15 17	0 8	7 39	2 57	1 52	1 6	4 51	2 14	7 4	0 40	6 18
W 14	8 11	9 47	2 6	18 22	3 21	15 42	0 5	7 35	2 54	1 57	1 6	4 53	2 14	7 3	0 40	6 18
T 15	8 33	16 19	3 17	18 16	3 17	16 7	0 3	7 31	2 50	2 2	1 6	4 56	2 14	7 3	0 40	6 17
F 16	8 55	21 48	4 13	18 6	3 12	16 31	0s 0	7 28	2 46	2 7	1 6	4 59	2 14	7 2	0 40	6 16
S 17	9 17	25 49	4 51	17 52	3 5	16 55	0 3	7 24	2 43	2 12	1 6	5 2	2 14	7 1	0 40	6 16
S 18	9 39	28 6	5 11	17 34	2 57	17 18	0 5	7 21	2 39	2 17	1 6	5 4	2 14	7 0	0 40	6 15
M 19	10 1	28 36	5 12	17 11	2 46	17 41	0 8	7 18	2 35	2 22	1 6	5 7	2 14	6 59	0 40	6 14
T 20	10 22	27 26	4 56	16 44	2 34	18 4	0 11	7 14	2 31	2 27	1 6	5 10	2 14	6 58	0 40	6 13
W 21	10 44	24 52	4 26	16 13	2 20	18 26	0 14	7 11	2 27	2 32	1 6	5 13	2 14	6 57	0 40	6 13
T 22	11 5	21 11	3 44	15 37	2 4	18 48	0 16	7 8	2 23	2 37	1 6	5 15	2 14	6 56	0 40	6 12
F 23	11 26	16 41	2 53	14 58	1 47	19 9	0 19	7 5	2 19	2 42	1 6	5 18	2 14	6 55	0 40	6 11
S 24	11 47	11 36	1 56	14 16	1 29	19 29	0 22	7 2	2 15	2 46	1 6	5 21	2 14	6 54	0 40	6 11
S 25	12 8	6 10	0 53	13 31	1 9	19 49	0 25	7 0	2 11	2 51	1 6	5 23	2 14	6 54	0 40	6 10
M 26	12 28	0 32	0n11	12 46	0 48	20 9	0 27	6 57	2 6	2 56	1 7	5 26	2 14	6 53	0 40	6 10
T 27	12 49	5n 7	1 14	12 1	0 28	20 28	0 30	6 55	2 2	3 1	1 7	5 29	2 15	6 52	0 40	6 9
W 28	13 9	10 37	2 15	11 18	0 7	20 46	0 33	6 53	1 58	3 6	1 7	5 31	2 15	6 51	0 40	6 8
T 29	13 29	15 47	3 10	10 37	0n13	21 4	0 35	6 51	1 54	3 10	1 7	5 34	2 15	6 50	0 40	6 8
F 30	13 48	20 24	3 57	10 0	0 32	21 22	0 38	6 49	1 50	3 15	1 7	5 37	2 15	6 49	0 40	6 7
S 31	14s 8	24n12	4n34	9s28	0n50	21s38	0s41	6n47	1s46	3s20	1n 7	5s39	2n15	6n48	0s40	6n 7

Julian Day Number = 2487977.5, Delta T = 93.07 sec
Ecliptic obliquity = 23°25'44", Nutation = 0°00'00", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 26°08'02", Lahiri = 25°15'03"

ASTRODIENST EPHEMERIS for the year 2099

geocentric

NOVEMBER 2099

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	2 42 27	8♌52°45	10♏41	25°R59	5♈25	21°R23	11♏13	19♏54	18°R55	16♏42	3°R15	25°R45	24♏10	5♏28	24♌2	S 1
M 2	2 46 24	9°52'44	23°19	25♏38	6°39	21°Y10	11°25	20° 1	18°Y52	16°43	3♏13	25°Y38	24° 7	5°34	24°10	M 2
T 3	2 50 20	10°52'44	6♏9	25°D28	7°53	20°58	11°38	20° 8	18°50	16°45	3°12	25°31	24° 4	5°41	24°18	T 3
W 4	2 54 17	11°52'47	19°13	25°29	9° 7	20°46	11°50	20°15	18°48	16°46	3°11	25°27	24° 0	5°48	24°26	W 4
T 5	2 58 13	12°52'52	2♏33	25°42	10°21	20°35	12° 2	20°22	18°46	16°48	3°10	25°24	23°57	5°54	24°34	T 5
F 6	3 2 10	13°52'59	16° 9	26° 4	11°35	20°24	12°14	20°29	18°44	16°49	3° 9	25°D24	23°54	6° 1	24°41	F 6
S 7	3 6 7	14°53'08	0♏3	26°36	12°49	20°14	12°26	20°36	18°42	16°50	3° 8	25°25	23°51	6° 8	24°49	S 7
S 8	3 10 3	15°53'20	14°16	27°17	14° 3	20° 5	12°38	20°43	18°40	16°52	3° 7	25°26	23°48	6°14	24°57	S 8
M 9	3 14 0	16°53'33	28°46	28° 6	15°17	19°57	12°49	20°50	18°37	16°53	3° 6	25°R26	23°45	6°21	25° 5	M 9
T 10	3 17 56	17°53'48	13♏30	29° 1	16°31	19°50	13° 1	20°57	18°35	16°54	3° 4	25°25	23°41	6°27	25°13	T 10
W11	3 21 53	18°54'05	28°23	0♌3	17°45	19°43	13°13	21° 4	18°33	16°56	3° 3	25°21	23°38	6°34	25°21	W11
T 12	3 25 49	19°54'24	13♌16	1°10	18°59	19°38	13°24	21°11	18°31	16°57	3° 2	25°15	23°35	6°41	25°29	T 12
F 13	3 29 46	20°54'45	28° 3	2°21	20°13	19°33	13°36	21°17	18°29	16°58	3° 1	25° 6	23°32	6°47	25°37	F 13
S 14	3 33 42	21°55'08	12♏34	3°36	21°27	19°29	13°48	21°24	18°28	16°59	3° 0	24°57	23°29	6°54	25°45	S 14
S 15	3 37 39	22°55'32	26°42	4°55	22°41	19°25	13°59	21°31	18°26	17° 0	2°59	24°47	23°26	7° 1	25°53	S 15
M16	3 41 36	23°55'58	10♏25	6°16	23°54	19°23	14°10	21°37	18°24	17° 1	2°58	24°39	23°22	7° 7	26° 1	M16
T 17	3 45 32	24°56'25	23°39	7°40	25° 8	19°21	14°22	21°44	18°22	17° 3	2°57	24°32	23°19	7°14	26° 9	T 17
W18	3 49 29	25°56'53	6♏28	9° 6	26°22	19°D21	14°33	21°50	18°20	17° 4	2°56	24°28	23°16	7°21	26°17	W18
T 19	3 53 25	26°57'23	18°34	10°33	27°36	19°21	14°44	21°57	18°18	17° 5	2°55	24°26	23°13	7°27	26°25	T 19
F 20	3 57 22	27°57'54	1♏3	12° 2	28°50	19°21	14°55	22° 3	18°17	17° 6	2°54	24°D26	23°10	7°34	26°33	F 20
S 21	4 1 18	28°58'26	12°58	13°32	0♏4	19°23	15° 6	22°10	18°15	17° 7	2°53	24°26	23° 6	7°41	26°41	S 21
S 22	4 5 15	29°58'59	24°47	15° 3	1°18	19°25	15°17	22°16	18°13	17° 7	2°52	24°R27	23° 3	7°47	26°49	S 22
M23	4 9 11	0♏59°34	6♏34	16°34	2°31	19°29	15°28	22°22	18°12	17° 8	2°51	24°26	23° 0	7°54	26°57	M23
T 24	4 13 8	2° 0'09	18°24	18° 6	3°45	19°32	15°39	22°29	18°10	17° 9	2°50	24°23	22°57	8° 1	27° 5	T 24
W25	4 17 5	3° 0'46	0♏20	19°39	4°59	19°37	15°50	22°35	18° 9	17°10	2°49	24°17	22°54	8° 7	27°13	W25
T 26	4 21 1	4° 1'25	12°27	21°12	6°13	19°43	16° 0	22°41	18° 7	17°11	2°48	24° 9	22°51	8°14	27°21	T 26
F 27	4 24 58	5° 2'05	24°46	22°45	7°26	19°49	16°11	22°47	18° 6	17°12	2°47	23°58	22°47	8°21	27°29	F 27
S 28	4 28 54	6° 2'46	7♏18	24°19	8°40	19°56	16°21	22°53	18° 4	17°12	2°46	23°46	22°44	8°27	27°37	S 28
S 29	4 32 51	7° 3'28	20° 4	25°52	9°54	20° 3	16°32	22°59	18° 3	17°13	2°45	23°33	22°41	8°34	27°45	S 29
M30	4 36 47	8♏4°12	3♏2	27♌26	11♏7	20°Y12	16♏42	23♏5	18°Y2	17°Y14	2♏44	23♏20	22♏38	8°Y40	27♌53	M30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	14s27	26n57	4n58	9s 0	1n 6	21s54	0s43	6n46	1s42	3s25	1n 7	5s42	2n15	6n48	0s40	6n 6	0n55	3s34	17s 9	1s41	2s19	3n 6	16s 9	2n42			
M 2	14 46	28 23	5 8	8 39	1 21	22 10	0 46	6 45	1 37	3 29	1 7	5 44	2 15	6 47	0 40	6 6	0 55	3 34	17 9	1 44	2 20	3 9	16 11	2 42			
T 3	15 5	28 20	5 3	8 23	1 33	22 25	0 49	6 44	1 33	3 34	1 7	5 47	2 15	6 46	0 40	6 5	0 55	3 34	17 8	1 47	2 21	3 13	16 13	2 43			
W 4	15 24	26 43	4 43	8 14	1 44	22 39	0 51	6 43	1 29	3 39	1 7	5 50	2 15	6 45	0 40	6 4	0 56	3 35	17 8	1 49	2 23	3 16	16 14	2 43			
T 5	15 42	23 35	4 6	8 10	1 54	22 53	0 54	6 43	1 25	3 43	1 7	5 52	2 15	6 44	0 40	6 4	0 56	3 35	17 8	1 50	2 24	3 19	16 16	2 43			
F 6	16 0	19 6	3 16	8 11	2 1	23 6	0 57	6 43	1 21	3 48	1 8	5 55	2 15	6 44	0 40	6 3	0 56	3 35	17 8	1 50	2 25	3 23	16 18	2 43			
S 7	16 18	13 31	2 12	8 17	2 7	23 18	0 59	6 43	1 17	3 52	1 8	5 57	2 15	6 43	0 40	6 3	0 56	3 36	17 8	1 49	2 26	3 26	16 19	2 43			
S 8	16 35	7 7	1 0	8 28	2 11	23 30	1 2	6 43	1 13	3 57	1 8	6 0	2 16	6 42	0 40	6 2	0 56	3 36	17 8	1 49	2 28	3 30	16 21	2 44			
M 9	16 52	0 13	0s18	8 42	2 14	23 41	1 4	6 43	1 10	4 1	1 8	6 2	2 16	6 41	0 39	6 2	0 56	3 36	17 8	1 49	2 29	3 33	16 23	2 44			
T 10	17 9	6s48	1 36	9 0	2 16	23 51	1 7	6 44	1 6	4 6	1 8	6 4	2 16	6 40	0 39	6 1	0 56	3 36	17 8	1 49	2 30	3 37	16 24	2 44			
W11	17 26	13 30	2 47	9 21	2 16	24 1	1 9	6 45	1 2	4 10	1 8	6 7	2 16	6 40	0 39	6 1	0 56	3 37	17 8	1 51	2 32	3 40	16 26	2 44			
T 12	17 42	19 26	3 48	9 45	2 16	24 10	1 11	6 47	0 58	4 15	1 8	6 9	2 16	6 39	0 39	6 1	0 56	3 37	17 8	1 53	2 33	3 43	16 28	2 44			
F 13	17 59	24 8	4 32	10 11	2 14	24 18	1 14	6 48	0 55	4 19	1 8	6 12	2 16	6 38	0 39	6 0	0 56	3 37	17 8	1 57	2 34	3 47	16 29	2 45			
S 14	18 14	27 13	4 58	10 39	2 12	24 25	1 16	6 50	0 51	4 23	1 8	6 14	2 16	6 38	0 39	6 0	0 56	3 37	17 7	2 0	2 35	3 50	16 31	2 45			
S 15	18 30	28 28	5 5	11 8	2 9	24 32	1 18	6 52	0 47	4 28	1 9	6 16	2 16	6 37	0 39	5 59	0 56	3 38	17 7	2 4	2 37	3 54	16 33	2 45			
M16	18 45	27 54	4 54	11 38	2 5	24 38	1 21	6 54	0 44	4 32	1 9	6 19	2 16	6 36	0 39	5 59	0 56	3 38	17 7	2 7	2 38	3 57	16 34	2 45			
T 17	19 0	25 44	4 27	12 9	2 1	24 43	1 23	6 57	0 40	4 36	1 9	6 21	2 17	6 35	0 39	5 58	0 56	3 38	17 7	2 10	2 39	4 1	16 36	2 45			
W18	19 14	22 19	3 47	12 41	1 56	24 48	1 25	7 0	0 37	4 40	1 9	6 23	2 17	6 35	0 39	5 58	0 56	3 38	17 7	2 12	2 40	4 4	16 38	2 46			
T 19	19 28	17 58	2 58	13 13	1 51	24 52	1 27	7 3	0 34	4 45	1 9	6 26	2 17	6 34	0 39	5 58	0 56	3 38	17 7	2 13	2 42	4 7	16 39	2 46			
F 20	19 42	13 0	2 2	13 46	1 46	24 55	1 29	7 6	0 30	4 49	1 9	6 28	2 17	6 34	0 39	5 57	0 56	3 39	17 6	2 13	2 43	4 11	16 41	2 46			
S 21	19 55	7 37	1 1	14 19	1 40	24 57	1 31	7 10	0 27	4 53	1 9	6 30	2 17	6 33	0 39	5 57	0 56	3 39	17 6	2 13	2 44	4 14	16 42	2 46			
S 22	20 8	2 3	0n 2	14 51	1 34	24 59	1 33	7 14	0 24	4 57	1 9	6 32	2 17	6 32	0 39	5 57	0 56	3 39	17 6	2 12	2 45	4 18	16 44	2 47			
M23	20 21	3n35	1 4	15 23	1 27	24 59	1 35	7 18	0 21	5 1	1 10	6 35	2 17	6 32	0 39	5 56	0 56	3 39	17 6	2 13	2 47	4 21	16 46	2 47			
T 24	20 33	9 7	2 4	15 55	1 21	24 59	1 37	7 22	0 18	5 5	1 10	6 37	2 18	6 31	0 39	5 56	0 56	3 39	17 6	2 14	2 48	4 24	16 47	2 47			
W25	20 45	14 22	2 59	16 27	1 14	24 59	1 39	7 26	0 15	5 9	1 10	6 39	2 18	6 31	0 39	5 56	0 56	3 39	17 6	2 16	2 49	4 28	16 49	2 47			
T 26	20 57	19 9	3 46	16 58	1 7	24 57	1 40	7 31	0 12	5 13	1 10	6 41	2 18	6 30	0 39	5 56	0 56	3 39	17 5	2 19	2 50	4 31	16 50	2 48			
F 27	21 8	23 13	4 23	17 29	1 0	24 55	1 42	7 36	0 9	5 17	1 10	6 43	2 18	6 30	0 39	5 55	0 56	3 39	17 5	2 24	2 52	4 35	16 52	2 48			
S 28	21 18	26 16	4 49	17 59	0 53	24 52	1 44	7 41	0 6	5 21	1 10	6 45	2 18	6 29	0 39	5 55	0 56	3 40	17 5	2 29	2 53	4 38	16 53	2 48			
S 29	21 29	28 3	5 0	18 28	0 46	24 49	1 45	7 47	0 4	5 25	1 10	6 47	2 18	6 29	0 39	5 55	0 56	3 40	17 5	2 34	2 54	4 41	16 55	2 49			
M30	21s39	28n20	4n57	18s56	0n39	24s44	1s47	7n52	0s 1	5s28	1n11	6s49	2n19	6n28	0s39	5n55	0n57	3s40	17s 5	2s39	2s55	4n45	16s56	2n49			

ASTRODIENST EPHEMERIS for the year 2099

geocentric

DECEMBER 2099

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	4 40 44	9♈ 4'57	16♏11	29♍0	12♋21	20♊21	16♏52	23♏11	18°R 0	17♎14	2°R43	23°R 9	22♈35	8♊47	28♌1	T 1
W 2	4 44 40	10° 5'43	29°32	0♈34	13°34	20°30	17° 2	23°17	17°Y59	17°15	2♈43	23♈1	22°32	8°54	28° 9	W 2
T 3	4 48 37	11° 6'31	13♏2	2° 8	14°48	20°40	17°12	23°22	17°58	17°16	2°42	22°55	22°28	9° 0	28°17	T 3
F 4	4 52 34	12° 7'21	26°43	3°42	16° 1	20°51	17°22	23°28	17°57	17°16	2°41	22°53	22°25	9° 7	28°24	F 4
S 5	4 56 30	13° 8'11	10♎33	5°16	17°15	21° 3	17°32	23°34	17°56	17°17	2°40	22°D52	22°22	9°14	28°32	S 5
S 6	5 0 27	14° 9'03	24°35	6°50	18°28	21°15	17°41	23°39	17°55	17°17	2°39	22°R52	22°19	9°20	28°40	S 6
M 7	5 4 23	15° 9'57	8♏46	8°23	19°42	21°28	17°51	23°45	17°54	17°18	2°38	22°51	22°16	9°27	28°48	M 7
T 8	5 8 20	16°10'52	23° 7	9°57	20°55	21°41	18° 1	23°50	17°53	17°18	2°38	22°49	22°12	9°34	28°56	T 8
W 9	5 12 16	17°11'48	7♌34	11°31	22° 9	21°55	18°10	23°56	17°52	17°18	2°37	22°43	22° 9	9°40	29° 3	W 9
T 10	5 16 13	18°12'45	22° 3	13° 5	23°22	22°10	18°19	24° 1	17°51	17°19	2°36	22°35	22° 6	9°47	29°11	T 10
F 11	5 20 9	19°13'44	6♈28	14°39	24°35	22°25	18°28	24° 6	17°50	17°19	2°35	22°24	22° 3	9°54	29°19	F 11
S 12	5 24 6	20°14'43	20°42	16°13	25°49	22°41	18°37	24°11	17°49	17°19	2°35	22°11	22° 0	10° 0	29°26	S 12
S 13	5 28 3	21°15'44	4♋39	17°47	27° 2	22°57	18°46	24°16	17°49	17°20	2°34	21°58	21°57	10° 7	29°34	S 13
M14	5 31 59	22°16'45	18°15	19°21	28°15	23°14	18°55	24°21	17°48	17°20	2°33	21°47	21°53	10°14	29°42	M14
T 15	5 35 56	23°17'47	1♏28	20°56	29°28	23°31	19° 4	24°26	17°47	17°20	2°33	21°37	21°50	10°20	29°49	T 15
W16	5 39 52	24°18'49	14°18	22°30	0♏41	23°49	19°13	24°31	17°47	17°20	2°32	21°30	21°47	10°27	29°57	W16
T 17	5 43 49	25°19'52	26°45	24° 4	1°54	24° 7	19°21	24°36	17°46	17°20	2°31	21°25	21°44	10°34	0♈ 4	T 17
F 18	5 47 45	26°20'55	8♈55	25°39	3° 8	24°26	19°29	24°41	17°46	17°20	2°31	21°23	21°41	10°40	0°12	F 18
S 19	5 51 42	27°21'59	20°53	27°13	4°21	24°45	19°38	24°45	17°45	17°20	2°30	21°23	21°38	10°47	0°19	S 19
S 20	5 55 39	28°23'03	2♊42	28°48	5°33	25° 4	19°46	24°50	17°45	17°20	2°30	21°23	21°34	10°54	0°26	S 20
M21	5 59 35	29°24'07	14°30	0♋23	6°46	25°24	19°54	24°54	17°45	17°20	2°29	21°22	21°31	11° 0	0°34	M21
T 22	6 3 32	0♋25'12	26°21	1°58	7°59	25°45	20° 1	24°59	17°44	17°20	2°28	21°20	21°28	11° 7	0°41	T 22
W23	6 7 28	1°26'17	8♏21	3°33	9°12	26° 6	20° 9	25° 3	17°44	17°20	2°28	21°14	21°25	11°14	0°48	W23
T 24	6 11 25	2°27'22	20°34	5° 9	10°25	26°27	20°17	25° 7	17°44	17°20	2°27	21° 6	21°22	11°20	0°56	T 24
F 25	6 15 21	3°28'28	3♏2	6°44	11°37	26°49	20°24	25°11	17°44	17°20	2°27	20°56	21°18	11°27	1° 3	F 25
S 26	6 19 18	4°29'34	15°48	8°20	12°50	27°11	20°31	25°15	17°44	17°19	2°26	20°44	21°15	11°33	1°10	S 26
S 27	6 23 14	5°30'40	28°52	9°56	14° 3	27°34	20°39	25°19	17°D44	17°19	2°26	20°30	21°12	11°40	1°17	S 27
M28	6 27 11	6°31'47	12♏12	11°33	15°15	27°57	20°46	25°23	17°44	17°19	2°26	20°18	21° 9	11°47	1°24	M28
T 29	6 31 8	7°32'53	25°47	13° 9	16°27	28°20	20°53	25°27	17°44	17°19	2°25	20° 7	21° 6	11°53	1°31	T 29
W30	6 35 4	8°34'01	9♏33	14°46	17°40	28°43	20°59	25°31	17°44	17°18	2°25	19°58	21° 3	12° 0	1°38	W30
T 31	6 39 1	9♋35'08	23♏26	16♋23	18°52	29°Y 7	21♏6	25♏34	17°Y44	17°Y18	2♋25	19°Y53	20°Y59	12°Y 7	1°Y45	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	21s48	27n 2	4n37	19s24	0n32	24s39	1s48	7n58	0n 2	5s32	1n11	6s51	2n19	6n28	0s39	5n54
W 2	21 57	24 12	4 3	19 51	0 25	24 33	1 49	8 4	0 4	5 36	1 11	6 53	2 19	6 27	0 39	5 54
T 3	22 6	20 0	3 14	20 17	0 18	24 26	1 51	8 10	0 7	5 40	1 11	6 55	2 19	6 27	0 39	5 54
F 4	22 14	14 42	2 14	20 42	0 11	24 19	1 52	8 17	0 9	5 43	1 11	6 57	2 19	6 26	0 39	5 54
S 5	22 22	8 36	1 5	21 6	0 4	24 11	1 53	8 23	0 11	5 47	1 11	6 59	2 19	6 26	0 39	5 54
S 6	22 29	2 1	0s 9	21 29	0s 3	24 2	1 54	8 30	0 14	5 50	1 12	7 1	2 20	6 26	0 39	5 53
M 7	22 36	4s45	1 23	21 51	0 10	23 53	1 55	8 37	0 16	5 54	1 12	7 3	2 20	6 25	0 39	5 53
T 8	22 43	11 20	2 33	22 12	0 16	23 43	1 56	8 44	0 18	5 57	1 12	7 5	2 20	6 25	0 39	5 53
W 9	22 49	17 23	3 33	22 32	0 23	23 32	1 57	8 51	0 20	6 1	1 12	7 6	2 20	6 25	0 39	5 53
T 10	22 54	22 26	4 19	22 51	0 30	23 20	1 57	8 58	0 22	6 4	1 12	7 8	2 20	6 24	0 39	5 53
F 11	23 0	26 7	4 49	23 9	0 36	23 8	1 58	9 6	0 24	6 7	1 12	7 10	2 21	6 24	0 39	5 53
S 12	23 4	28 5	5 0	23 25	0 42	22 55	1 59	9 13	0 26	6 11	1 13	7 12	2 21	6 24	0 39	5 53
S 13	23 8	28 13	4 53	23 40	0 49	22 41	1 59	9 21	0 28	6 14	1 13	7 13	2 21	6 24	0 38	5 53
M14	23 12	26 38	4 29	23 55	0 55	22 27	2 0	9 29	0 30	6 17	1 13	7 15	2 21	6 23	0 38	5 53
T 15	23 16	23 35	3 51	24 7	1 0	22 12	2 0	9 37	0 32	6 20	1 13	7 16	2 21	6 23	0 38	5 53
W16	23 18	19 37	3 3	24 19	1 6	21 57	2 0	9 46	0 34	6 23	1 13	7 18	2 22	6 23	0 38	5 53
T 17	23 21	14 34	2 6	24 29	1 12	21 41	2 0	9 54	0 36	6 26	1 13	7 20	2 22	6 23	0 38	5 53
F 18	23 23	9 14	1 6	24 38	1 17	21 24	2 0	10 2	0 37	6 29	1 14	7 21	2 22	6 23	0 38	5 53
S 19	23 24	3 39	0 3	24 46	1 22	21 7	2 0	10 11	0 39	6 32	1 14	7 23	2 22	6 22	0 38	5 53
S 20	23 25	1n59	1n 0	24 53	1 27	20 49	2 0	10 20	0 41	6 35	1 14	7 24	2 23	6 22	0 38	5 53
M21	23 26	7 33	1 59	24 58	1 32	20 30	2 0	10 29	0 42	6 38	1 14	7 25	2 23	6 22	0 38	5 53
T 22	23 26	12 52	2 54	25 1	1 36	20 11	2 0	10 38	0 44	6 41	1 14	7 27	2 23	6 22	0 38	5 53
W23	23 25	17 46	3 42	25 4	1 41	19 52	1 59	10 47	0 45	6 43	1 15	7 28	2 23	6 22	0 38	5 53
T 24	23 24	22 3	4 20	25 4	1 45	19 32	1 59	10 56	0 47	6 46	1 15	7 29	2 23	6 22	0 38	5 53
F 25	23 23	25 26	4 47	25 4	1 49	19 11	1 58	11 5	0 48	6 48	1 15	7 31	2 24	6 22	0 38	5 53
S 26	23 21	27 38	5 0	25 2	1 52	18 50	1 57	11 14	0 50	6 51	1 15	7 32	2 24	6 22	0 38	5 53
S 27	23 19	28 23	4 58	24 58	1 55	18 28	1 57	11 24	0 51	6 54	1 16	7 33	2 24	6 22	0 38	5 54
M28	23 16	27 30	4 40	24 54	1 58	18 6	1 56	11 33	0 52	6 56	1 16	7 34	2 24	6 22	0 38	5 54
T 29	23 13	25 0	4 5	24 47	2 1	17 43	1 55	11 43	0 53	6 58	1 16	7 36	2 25	6 22	0 38	5 54
W30	23 9	21 0	3 16	24 39	2 3	17 20	1 54	11 52	0 55	7 1	1 16	7 37	2 25	6 22	0 38	5 54
T 31	23s 5	15n50	2n15	24s30	2s 5	16s57	1s52	12n 2	0n56	7s 3	1n16	7s38	2n25	6n22	0s38	5n54

Julian Day Number = 2488038.5, Delta T = 93.14 sec

Ecliptic obliquity = 23°25'43", Nutation = 0°00'01", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 26°08'11", Lahiri = 25°15'11"