Astrodienst Ephemeris Tables

for the year 1650

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 AG, Dammstr. 23, CH-8702 Zollikon / Zürich, www.astro.com / order@astro.com

ASTRODIENST EPHEMERIS for the year 1650
geocentric

JANUARY 1650 GC

00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
S 1	6 42 54	10♑51'32	20♐31	19♐49	11♐47	3♒25	5♏27	25°R43	15♐16	15♐37	9°R33	26°R 3	24♉23	1♊59	1°R53	S 1
S 2	6 46 50	11°52'44	5♑28	21° 8	13° 2	4°13	5°36	25♊38	15°19	15°39	9♊32	25♉59	24°20	2° 5	1♍51	S 2
M 3	6 50 47	12°53'55	20°19	22°28	14°16	5° 0	5°44	25°34	15°23	15°41	9°31	25°52	24°17	2°12	1°49	M 3
T 4	6 54 43	13°55'07	4♒55	23°50	15°31	5°47	5°52	25°29	15°26	15°43	9°30	25°44	24°14	2°19	1°47	T 4
W 5	6 58 40	14°56'17	19°10	25°12	16°45	6°35	6° 1	25°24	15°29	15°45	9°30	25°36	24°10	2°25	1°44	W 5
T 6	7 2 37	15°57'28	2♓57	26°36	18° 0	7°22	6° 9	25°20	15°33	15°47	9°29	25°28	24° 7	2°32	1°42	T 6
F 7	7 6 33	16°58'38	16°17	28° 0	19°14	8° 9	6°17	25°16	15°36	15°49	9°28	25°22	24° 4	2°39	1°40	F 7
S 8	7 10 30	17°59'47	29°11	29°25	20°29	8°57	6°24	25°11	15°39	15°51	9°27	25°18	24° 1	2°45	1°37	S 8
S 9	7 14 26	19° 0'55	11♈41	0♑51	21°44	9°44	6°32	25° 7	15°42	15°53	9°26	25°16	23°58	2°52	1°35	S 9
M10	7 18 23	20° 2'02	23°52	2°18	22°58	10°31	6°39	25° 3	15°46	15°55	9°25	25°D16	23°54	2°59	1°32	M10
T 11	7 22 19	21° 3'09	5♉49	3°45	24°13	11°19	6°47	24°58	15°49	15°57	9°24	25°17	23°51	3° 5	1°29	T 11
W12	7 26 16	22° 4'15	17°38	5°14	25°28	12° 6	6°54	24°54	15°52	15°59	9°24	25°18	23°48	3°12	1°26	W12
T 13	7 30 12	23° 5'21	29°25	6°42	26°42	12°54	7° 1	24°50	15°55	16° 1	9°23	25°R18	23°45	3°19	1°23	T 13
F 14	7 34 9	24° 6'25	11♊13	8°12	27°57	13°41	7° 8	24°46	15°58	16° 3	9°22	25°16	23°42	3°25	1°20	F 14
S 15	7 38 6	25° 7'29	23° 7	9°42	29°11	14°29	7°15	24°42	16° 1	16° 5	9°21	25°12	23°39	3°32	1°17	S 15
S 16	7 42 2	26° 8'32	5♋10	11°12	0♑26	15°16	7°21	24°38	16° 4	16° 7	9°20	25° 6	23°35	3°39	1°14	S 16
M17	7 45 59	27° 9'34	17°24	12°44	1°41	16° 3	7°28	24°34	16° 7	16° 9	9°20	24°57	23°32	3°45	1°11	M17
T 18	7 49 55	28°10'35	29°51	14°16	2°55	16°51	7°34	24°31	16°10	16°10	9°19	24°45	23°29	3°52	1° 7	T 18
W19	7 53 52	29°11'36	12♌30	15°48	4°10	17°38	7°41	24°27	16°13	16°12	9°18	24°33	23°26	3°58	1° 4	W19
T 20	7 57 48	0♒12'36	25°23	17°21	5°25	18°26	7°47	24°24	16°16	16°14	9°18	24°21	23°23	4° 5	1° 0	T 20
F 21	8 1 45	1°13'35	8♍27	18°55	6°40	19°13	7°53	24°20	16°19	16°16	9°17	24°10	23°20	4°12	0°57	F 21
S 22	8 5 41	2°14'33	21°43	20°29	7°54	20° 0	7°58	24°17	16°22	16°17	9°16	24° 2	23°16	4°18	0°53	S 22
S 23	8 9 38	3°15'30	5♎ 9	22° 4	9° 9	20°48	8° 4	24°13	16°24	16°19	9°16	23°56	23°13	4°25	0°49	S 23
M24	8 13 35	4°16'27	18°46	23°40	10°24	21°35	8° 9	24°10	16°27	16°21	9°15	23°53	23°10	4°32	0°45	M24
T 25	8 17 31	5°17'23	2♏35	25°16	11°38	22°23	8°15	24° 7	16°30	16°22	9°14	23°D52	23° 7	4°38	0°41	T 25
W26	8 21 28	6°18'18	16°35	26°53	12°53	23°10	8°20	24° 4	16°33	16°24	9°14	23°R52	23° 4	4°45	0°37	W26
T 27	8 25 24	7°19'13	0♐46	28°31	14° 8	23°58	8°25	24° 1	16°35	16°26	9°13	23°52	23° 0	4°52	0°33	T 27
F 28	8 29 21	8°20'07	15° 8	0♒ 9	15°23	24°45	8°30	23°58	16°38	16°27	9°13	23°50	22°57	4°58	0°29	F 28
S 29	8 33 17	9°21'00	29°37	1°49	16°38	25°32	8°34	23°56	16°41	16°29	9°12	23°46	22°54	5° 5	0°25	S 29
S 30	8 37 14	10°21'52	14♑10	3°28	17°52	26°20	8°39	23°53	16°43	16°30	9°12	23°39	22°51	5°12	0°21	S 30
M31	8 41 11	11♒22'44	28♑39	5♒ 9	19♑ 7	27♒ 7	8♏43	23♊50	16♐46	16♐32	9♊11	23♉30	22♉48	5♊18	0♍16	M31

Day	☉	☽		☿		♀		♂		♃		♄		♅		♆		♇		☊	☊	⚸	⚷	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
S 1	23s 2	25s17	2s 8	22s14	0n52	21s 4	1n12	20s32	1s 9	12s15	1n11	22n19	1s 6	22s42	0s 1	21s19	1n24	11n43	10s20	19n18	18n54	21n16	4n45	6s30
S 2	22 57	26 39	3 17	22 28	0 44	21 16	1 9	20 21	1 8	12 18	1 11	22 19	1 6	22 42	0 1	21 19	1 24	11 43	10 20	19 17	18 53	21 18	4 45	6 31
M 3	22 52	26 5	4 11	22 41	0 35	21 27	1 7	20 10	1 8	12 21	1 11	22 19	1 6	22 42	0 1	21 19	1 24	11 43	10 19	19 16	18 53	21 20	4 45	6 31
T 4	22 45	23 43	4 48	22 53	0 27	21 38	1 4	19 58	1 8	12 23	1 11	22 19	1 6	22 43	0 1	21 20	1 24	11 43	10 19	19 14	18 52	21 23	4 46	6 32
W 5	22 39	19 56	5 6	23 5	0 19	21 48	1 2	19 46	1 8	12 26	1 11	22 19	1 6	22 43	0 1	21 20	1 24	11 43	10 19	19 12	18 51	21 25	4 46	6 32
T 6	22 32	15 10	5 5	23 16	0 11	21 57	0 59	19 34	1 8	12 28	1 11	22 19	1 6	22 43	0 1	21 20	1 24	11 43	10 19	19 10	18 50	21 27	4 46	6 32
F 7	22 24	9 50	4 47	23 25	0 3	22 6	0 57	19 21	1 8	12 31	1 12	22 19	1 6	22 44	0 1	21 20	1 24	11 43	10 19	19 9	18 50	21 29	4 47	6 33
S 8	22 16	4 14	4 16	23 34	0s 5	22 14	0 54	19 9	1 8	12 33	1 12	22 19	1 5	22 44	0 1	21 20	1 24	11 43	10 18	19 8	18 49	21 31	4 47	6 33
S 9	22 8	1n22	3 33	23 41	0 12	22 22	0 52	18 56	1 7	12 36	1 12	22 19	1 5	22 45	0 1	21 21	1 24	11 43	10 18	19 7	18 48	21 33	4 48	6 34
M10	21 59	6 47	2 41	23 47	0 19	22 29	0 49	18 43	1 7	12 38	1 12	22 19	1 5	22 45	0 1	21 21	1 24	11 43	10 18	19 7	18 47	21 36	4 49	6 34
T 11	21 50	11 52	1 43	23 53	0 27	22 35	0 46	18 30	1 7	12 40	1 12	22 19	1 5	22 45	0 2	21 21	1 24	11 43	10 18	19 7	18 46	21 38	4 49	6 34
W12	21 40	16 28	0 41	23 57	0 34	22 41	0 44	18 16	1 7	12 42	1 12	22 19	1 5	22 46	0 2	21 21	1 24	11 43	10 18	19 7	18 46	21 40	4 50	6 35
T 13	21 30	20 25	0n22	23 59	0 40	22 46	0 41	18 3	1 7	12 44	1 12	22 19	1 5	22 46	0 2	21 21	1 24	11 43	10 18	19 7	18 45	21 42	4 51	6 35
F 14	21 20	23 33	1 24	24 1	0 47	22 50	0 38	17 49	1 7	12 47	1 13	22 19	1 4	22 46	0 2	21 21	1 24	11 43	10 17	19 7	18 44	21 44	4 51	6 35
S 15	21 9	25 41	2 23	24 1	0 54	22 53	0 36	17 35	1 6	12 49	1 13	22 19	1 4	22 47	0 2	21 22	1 24	11 43	10 17	19 6	18 43	21 46	4 52	6 36
S 16	20 58	26 39	3 16	24 0	1 0	22 56	0 33	17 21	1 6	12 51	1 13	22 19	1 4	22 47	0 2	21 22	1 24	11 43	10 17	19 5	18 42	21 48	4 53	6 36
M17	20 46	26 20	4 1	23 58	1 6	22 58	0 30	17 6	1 6	12 53	1 13	22 19	1 4	22 47	0 2	21 22	1 24	11 44	10 17	19 2	18 42	21 50	4 54	6 36
T 18	20 34	24 42	4 35	23 54	1 11	23 0	0 27	16 52	1 6	12 54	1 13	22 19	1 4	22 48	0 2	21 22	1 24	11 44	10 17	19 0	18 41	21 53	4 55	6 37
W19	20 22	21 49	4 56	23 49	1 17	23 1	0 25	16 37	1 5	12 56	1 14	22 19	1 4	22 48	0 2	21 22	1 24	11 44	10 16	18 57	18 40	21 55	4 56	6 37
T 20	20 9	17 50	5 3	23 43	1 22	23 1	0 22	16 22	1 5	12 58	1 14	22 19	1 3	22 48	0 2	21 22	1 24	11 44	10 16	18 54	18 39	21 57	4 57	6 37
F 21	19 56	12 57	4 53	23 35	1 27	23 0	0 19	16 7	1 5	13 0	1 14	22 19	1 3	22 48	0 2	21 23	1 24	11 44	10 16	18 51	18 38	21 59	4 58	6 37
S 22	19 42	7 24	4 28	23 26	1 32	22 59	0 16	15 52	1 5	13 2	1 14	22 19	1 3	22 49	0 2	21 23	1 24	11 44	10 16	18 49	18 38	22 1	4 59	6 38
S 23	19 28	1 27	3 48	23 16	1 36	22 56	0 14	15 36	1 4	13 3	1 14	22 19	1 3	22 49	0 2	21 23	1 24	11 44	10 15	18 48	18 37	22 3	5 0	6 38
M24	19 14	4s40	2 55	23 4	1 41	22 54	0 11	15 21	1 4	13 5	1 14	22 19	1 3	22 49	0 2	21 23	1 24	11 44	10 15	18 47	18 36	22 5	5 1	6 38
T 25	18 59	10 40	1 51	22 50	1 44	22 50	0 8	15 5	1 4	13 6	1 15	22 19	1 3	22 50	0 2	21 23	1 25	11 45	10 15	18 47	18 35	22 7	5 2	6 38
W26	18 44	16 13	0 39	22 35	1 48	22 46	0 6	14 49	1 4	13 8	1 15	22 19	1 2	22 50	0 2	21 23	1 25	11 45	10 15	18 47	18 34	22 9	5 3	6 38
T 27	18 29	20 57	0s37	22 19	1 51	22 41	0 3	14 33	1 3	13 9	1 15	22 19	1 2	22 50	0 2	21 23	1 25	11 45	10 15	18 47	18 34	22 11	5 5	6 39
F 28	18 13	24 29	1 50	22 1	1 54	22 36	0 0	14 17	1 3	13 11	1 15	22 19	1 2	22 50	0 2	21 24	1 25	11 45	10 14	18 46	18 33	22 13	5 6	6 39
S 29	17 57	26 26	2 57	21 42	1 57	22 29	0s 3	14 1	1 3	13 12	1 15	22 19	1 2	22 51	0 2	21 24	1 25	11 45	10 14	18 45	18 32	22 16	5 7	6 39
S 30	17 41	26 36	3 53	21 21	1 59	22 23	0 5	13 45	1 2	13 13	1 16	22 19	1 2	22 51	0 2	21 24	1 25	11 45	10 14	18 43	18 31	22 18	5 9	6 39
M31	17s24	24s56	4s33	20s58	2s 1	22s15	0s 8	13s28	1s 2	13s14	1n16	22n19	1s 1	22s51	0s 2	21s24	1n25	11n45	10s14	18n41	18n30	22n20	5n10	6s39

Julian Day Number = 2323710.5, Delta T = 43.31 sec
Ecliptic obliquity = 23°29'10, Nutation = - 0°00'13, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'18, Lahiri = 18°58'19Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

FEBRUARY 1650 GC

00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
T 1	8 45 7	12♒23'34	12♒59	6♒51	20♉22	27♒55	8♏47	23°R48	16♐48	16♐33	9°R11	23°R18	22♉45	5♊25	0°R12	T 1
W 2	8 49 4	13°24'22	27° 3	8°33	21°37	28°42	8°51	23♊46	16°50	16°35	9♊10	23♉ 5	22°41	5°32	0♍ 8	W 2
T 3	8 53 0	14°25'09	10♓46	10°16	22°51	29°29	8°55	23°43	16°53	16°36	9°10	22°53	22°38	5°38	0° 3	T 3
F 4	8 56 57	15°25'55	24° 5	11°59	24° 6	0♓17	8°58	23°41	16°55	16°38	9°10	22°43	22°35	5°45	29♌59	F 4
S 5	9 0 53	16°26'39	7♈ 0	13°44	25°21	1° 4	9° 2	23°39	16°57	16°39	9° 9	22°35	22°32	5°51	29°54	S 5
S 6	9 4 50	17°27'22	19°33	15°29	26°36	1°51	9° 5	23°37	17° 0	16°40	9° 9	22°30	22°29	5°58	29°50	S 6
M 7	9 8 46	18°28'03	1♉46	17°16	27°50	2°39	9° 8	23°35	17° 2	16°42	9° 9	22°27	22°26	6° 5	29°45	M 7
T 8	9 12 43	19°28'42	13°45	19° 3	29° 5	3°26	9°11	23°34	17° 4	16°43	9° 8	22°26	22°22	6°11	29°40	T 8
W 9	9 16 39	20°29'20	25°36	20°50	0♒20	4°13	9°14	23°32	17° 6	16°44	9° 8	22°26	22°19	6°18	29°36	W 9
T 10	9 20 36	21°29'56	7♊23	22°39	1°35	5° 1	9°16	23°31	17° 8	16°45	9° 8	22°26	22°16	6°25	29°31	T 10
F 11	9 24 33	22°30'30	19°13	24°28	2°49	5°48	9°18	23°29	17°10	16°47	9° 8	22°24	22°13	6°31	29°26	F 11
S 12	9 28 29	23°31'03	1♋10	26°18	4° 4	6°35	9°21	23°28	17°12	16°48	9° 7	22°19	22°10	6°38	29°22	S 12
S 13	9 32 26	24°31'33	13°19	28° 9	5°19	7°22	9°23	23°27	17°14	16°49	9° 7	22°12	22° 6	6°45	29°17	S 13
M14	9 36 22	25°32'02	25°42	0♓ 1	6°33	8° 9	9°24	23°26	17°16	16°50	9° 7	22° 2	22° 3	6°51	29°12	M14
T 15	9 40 19	26°32'30	8♌23	1°52	7°48	8°57	9°26	23°25	17°18	16°51	9° 7	21°50	22° 0	6°58	29° 8	T 15
W16	9 44 15	27°32'55	21°20	3°45	9° 3	9°44	9°27	23°24	17°20	16°52	9° 7	21°37	21°57	7° 5	29° 3	W16
T 17	9 48 12	28°33'19	4♍35	5°37	10°18	10°31	9°29	23°23	17°22	16°53	9° 7	21°23	21°54	7°11	28°58	T 17
F 18	9 52 9	29°33'41	18° 3	7°30	11°32	11°18	9°30	23°23	17°23	16°54	9° 6	21°11	21°51	7°18	28°53	F 18
S 19	9 56 5	0♓34'01	1♎43	9°23	12°47	12° 5	9°31	23°22	17°25	16°55	9° 6	21° 2	21°47	7°25	28°48	S 19
S 20	10 0 2	1°34'20	15°32	11°16	14° 2	12°52	9°31	23°22	17°26	16°56	9° 6	20°55	21°44	7°31	28°44	S 20
M21	10 3 58	2°34'37	29°27	13° 8	15°16	13°39	9°32	23°21	17°28	16°57	9°D 6	20°51	21°41	7°38	28°39	M21
T 22	10 7 55	3°34'53	13♏27	15° 0	16°31	14°26	9°32	23°21	17°30	16°58	9° 6	20°49	21°38	7°45	28°34	T 22
W23	10 11 51	4°35'08	27°30	16°50	17°46	15°13	9°R32	23°D21	17°31	16°59	9° 6	20°49	21°35	7°51	28°29	W23
T 24	10 15 48	5°35'21	11♐35	18°39	19° 1	16° 0	9°32	23°21	17°32	16°59	9° 6	20°49	21°32	7°58	28°25	T 24
F 25	10 19 44	6°35'33	25°42	20°26	20°15	16°47	9°32	23°22	17°34	17° 0	9° 6	20°48	21°28	8° 4	28°20	F 25
S 26	10 23 41	7°35'43	9♑50	22°11	21°30	17°34	9°31	23°22	17°35	17° 1	9° 7	20°45	21°25	8°11	28°15	S 26
S 27	10 27 38	8°35'51	23°56	23°54	22°45	18°21	9°31	23°22	17°36	17° 1	9° 7	20°38	21°22	8°18	28°11	S 27
M28	10 31 34	9♓35'58	7♒58	25♓33	23♒59	19♓ 8	9♏30	23♊23	17♐38	17♐ 2	9♊ 7	20♉29	21♉19	8♊24	28♌ 6	M28

Day	☉	☽		☿		♀		♂		♃		♄		♅		♆		♇		☊	☊	⚸	⚷	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
T 1	17s 7	21s40	4s56	20s34	2s 3	22s 7	0s10	13s11	1s 2	13s15	1n16	22n19	1s 1	22s52	0s 2	21s24	1n25	11n46	10s13	18n38	18n30	22n22	5n11	6s39
W 2	16 50	17 13	5 0	20 9	2 4	21 58	0 13	12 55	1 1	13 16	1 16	22 19	1 1	22 52	0 2	21 24	1 25	11 46	10 13	18 35	18 29	22 24	5 13	6 39
T 3	16 32	11 57	4 46	19 42	2 4	21 48	0 16	12 38	1 1	13 17	1 16	22 19	1 1	22 52	0 2	21 24	1 25	11 46	10 13	18 32	18 28	22 26	5 14	6 39
F 4	16 14	6 17	4 17	19 14	2 5	21 38	0 18	12 21	1 1	13 18	1 17	22 20	1 1	22 52	0 2	21 24	1 25	11 46	10 13	18 29	18 27	22 28	5 16	6 39
S 5	15 56	0 31	3 36	18 44	2 5	21 27	0 21	12 3	1 0	13 19	1 17	22 20	1 0	22 52	0 2	21 24	1 25	11 46	10 12	18 27	18 26	22 30	5 17	6 39
S 6	15 38	5n 7	2 45	18 12	2 4	21 15	0 23	11 46	1 0	13 20	1 17	22 20	1 0	22 53	0 2	21 25	1 25	11 47	10 12	18 26	18 26	22 32	5 19	6 39
M 7	15 19	10 26	1 47	17 39	2 3	21 3	0 26	11 29	1 0	13 21	1 17	22 20	1 0	22 53	0 2	21 25	1 25	11 47	10 12	18 25	18 25	22 34	5 20	6 39
T 8	15 0	15 16	0 46	17 4	2 2	20 50	0 28	11 11	0 59	13 22	1 17	22 20	1 0	22 53	0 2	21 25	1 25	11 47	10 12	18 25	18 24	22 36	5 22	6 39
W 9	14 41	19 28	0n17	16 28	2 0	20 37	0 31	10 54	0 59	13 22	1 17	22 20	1 0	22 53	0 2	21 25	1 25	11 47	10 11	18 25	18 23	22 38	5 24	6 39
T 10	14 22	22 52	1 18	15 50	1 57	20 23	0 33	10 36	0 59	13 23	1 18	22 20	1 0	22 54	0 2	21 25	1 25	11 47	10 11	18 25	18 22	22 40	5 25	6 39
F 11	14 2	25 19	2 17	15 11	1 54	20 8	0 35	10 18	0 58	13 24	1 18	22 20	0 59	22 54	0 2	21 25	1 25	11 48	10 11	18 24	18 22	22 42	5 27	6 39
S 12	13 42	26 38	3 10	14 31	1 51	19 53	0 38	10 0	0 58	13 24	1 18	22 20	0 59	22 54	0 2	21 25	1 25	11 48	10 11	18 23	18 21	22 44	5 29	6 39
S 13	13 22	26 43	3 55	13 48	1 47	19 37	0 40	9 43	0 57	13 25	1 18	22 21	0 59	22 54	0 2	21 25	1 25	11 48	10 10	18 21	18 20	22 46	5 30	6 39
M14	13 2	25 27	4 30	13 5	1 42	19 21	0 42	9 25	0 57	13 25	1 18	22 21	0 59	22 54	0 2	21 25	1 25	11 48	10 10	18 19	18 19	22 48	5 32	6 39
T 15	12 42	22 54	4 52	12 20	1 37	19 4	0 44	9 6	0 57	13 25	1 19	22 21	0 59	22 55	0 2	21 25	1 25	11 49	10 10	18 16	18 18	22 50	5 34	6 39
W16	12 21	19 9	5 0	11 34	1 31	18 47	0 46	8 48	0 56	13 25	1 19	22 21	0 58	22 55	0 2	21 25	1 25	11 49	10 10	18 12	18 17	22 52	5 36	6 39
T 17	12 0	14 23	4 52	10 47	1 25	18 29	0 49	8 30	0 56	13 26	1 19	22 21	0 58	22 55	0 2	21 25	1 25	11 49	10 9	18 9	18 17	22 54	5 37	6 39
F 18	11 39	8 51	4 28	9 58	1 17	18 10	0 51	8 12	0 55	13 26	1 19	22 21	0 58	22 55	0 2	21 25	1 25	11 49	10 9	18 6	18 16	22 56	5 39	6 38
S 19	11 18	2 49	3 49	9 9	1 10	17 51	0 53	7 53	0 55	13 26	1 19	22 22	0 58	22 55	0 2	21 26	1 25	11 49	10 9	18 3	18 15	22 58	5 41	6 38
S 20	10 56	3s26	2 55	8 18	1 1	17 31	0 55	7 35	0 55	13 26	1 20	22 22	0 58	22 55	0 2	21 26	1 25	11 50	10 9	18 1	18 14	22 59	5 43	6 38
M21	10 35	9 35	1 51	7 27	0 52	17 11	0 56	7 16	0 54	13 26	1 20	22 22	0 57	22 56	0 2	21 26	1 25	11 50	10 8	18 0	18 13	23 1	5 45	6 38
T 22	10 13	15 17	0 39	6 35	0 43	16 51	0 58	6 58	0 54	13 26	1 20	22 22	0 57	22 56	0 2	21 26	1 26	11 50	10 8	18 0	18 12	23 3	5 46	6 38
W23	9 51	20 13	0s35	5 42	0 32	16 30	1 0	6 39	0 53	13 26	1 20	22 22	0 57	22 56	0 2	21 26	1 26	11 51	10 8	18 0	18 12	23 5	5 48	6 37
T 24	9 29	24 0	1 48	4 50	0 22	16 8	1 2	6 21	0 53	13 25	1 20	22 23	0 57	22 56	0 2	21 26	1 26	11 51	10 8	18 0	18 11	23 7	5 50	6 37
F 25	9 7	26 19	2 54	3 57	0 10	15 46	1 4	6 2	0 52	13 25	1 21	22 23	0 57	22 56	0 2	21 26	1 26	11 51	10 7	17 59	18 10	23 9	5 52	6 37
S 26	8 44	26 56	3 49	3 5	0n 2	15 24	1 5	5 43	0 52	13 25	1 21	22 23	0 56	22 56	0 2	21 26	1 26	11 51	10 7	17 58	18 9	23 11	5 54	6 37
S 27	8 22	25 48	4 30	2 13	0 14	15 1	1 7	5 24	0 51	13 24	1 21	22 23	0 56	22 56	0 2	21 26	1 26	11 52	10 7	17 57	18 8	23 13	5 56	6 36
M28	7s59	23s 3	4s55	1s22	0n27	14s38	1s 8	5s 6	0s51	13s24	1n21	22n23	0s56	22s57	0s 2	21s26	1n26	11n52	10s 6	17n54	18n 7	23n15	5n58	6s36

Julian Day Number = 2323741.5, Delta T = 43.25 sec
Ecliptic obliquity = 23°29'11, Nutation = - 0°00'12, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'23, Lahiri = 18°58'23Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

MARCH 1650 GC — 00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
T 1	10 35 31	10♓36'03	21♒51	27♓ 8	25♒14	19♓54	9°R29	23♊23	17♐39	17♐ 3	9♊ 7	20°R18	21♉16	8♊31	28°R 1	T 1
W 2	10 39 27	11°36'06	5♓32	28°39	26°29	20°41	9♏28	23°24	17°40	17° 3	9° 7	20♉ 6	21°12	8°38	27♌57	W 2
T 3	10 43 24	12°36'08	18°57	0♈ 5	27°43	21°28	9°26	23°25	17°41	17° 4	9° 7	19°55	21° 9	8°44	27°52	T 3
F 4	10 47 20	13°36'07	2♈ 3	1°25	28°58	22°15	9°25	23°26	17°42	17° 4	9° 8	19°45	21° 6	8°51	27°48	F 4
S 5	10 51 17	14°36'04	14°51	2°40	0♓12	23° 1	9°23	23°27	17°43	17° 5	9° 8	19°37	21° 3	8°58	27°43	S 5
S 6	10 55 13	15°36'00	27°19	3°48	1°27	23°48	9°21	23°28	17°44	17° 5	9° 8	19°32	21° 0	9° 4	27°39	S 6
M 7	10 59 10	16°35'53	9♉32	4°49	2°42	24°35	9°19	23°30	17°45	17° 6	9° 8	19°30	20°57	9°11	27°34	M 7
T 8	11 3 6	17°35'44	21°31	5°43	3°56	25°21	9°16	23°31	17°45	17° 6	9° 9	19°D30	20°53	9°18	27°30	T 8
W 9	11 7 3	18°35'33	3♊23	6°30	5°11	26° 8	9°14	23°33	17°46	17° 7	9° 9	19°30	20°50	9°24	27°26	W 9
T 10	11 11 0	19°35'19	15°11	7° 8	6°25	26°54	9°11	23°34	17°47	17° 7	9° 9	19°R31	20°47	9°31	27°22	T 10
F 11	11 14 56	20°35'04	27° 1	7°38	7°40	27°41	9° 8	23°36	17°47	17° 7	9°10	19°31	20°44	9°38	27°17	F 11
S 12	11 18 53	21°34'46	9♋ 0	8° 0	8°55	28°27	9° 5	23°38	17°48	17° 7	9°10	19°29	20°41	9°44	27°13	S 12
S 13	11 22 49	22°34'26	21°10	8°13	10° 9	29°14	9° 2	23°40	17°49	17° 8	9°11	19°25	20°37	9°51	27° 9	S 13
M14	11 26 46	23°34'03	3♌38	8°R18	11°24	0♈ 0	8°59	23°42	17°49	17° 8	9°11	19°19	20°34	9°58	27° 5	M14
T 15	11 30 42	24°33'38	16°26	8°15	12°38	0°46	8°55	23°44	17°50	17° 8	9°11	19°11	20°31	10° 4	27° 1	T 15
W16	11 34 39	25°33'11	29°35	8° 4	13°53	1°33	8°51	23°46	17°50	17° 8	9°12	19° 2	20°28	10°11	26°57	W16
T 17	11 38 35	26°32'42	13♍ 5	7°46	15° 7	2°19	8°48	23°49	17°50	17° 8	9°12	18°52	20°25	10°18	26°54	T 17
F 18	11 42 32	27°32'11	26°55	7°20	16°22	3° 5	8°43	23°51	17°50	17° 8	9°13	18°44	20°22	10°24	26°50	F 18
S 19	11 46 29	28°31'37	11♎ 0	6°48	17°36	3°51	8°39	23°54	17°51	17°R 8	9°13	18°37	20°18	10°31	26°46	S 19
S 20	11 50 25	29°31'02	25°16	6°11	18°51	4°38	8°35	23°56	17°51	17° 8	9°14	18°33	20°15	10°37	26°43	S 20
M21	11 54 22	0♈30'25	9♏37	5°29	20° 5	5°24	8°30	23°59	17°51	17° 8	9°15	18°31	20°12	10°44	26°39	M21
T 22	11 58 18	1°29'46	24° 0	4°43	21°19	6°10	8°26	24° 2	17°51	17° 8	9°15	18°D30	20° 9	10°51	26°36	T 22
W23	12 2 15	2°29'05	8♐19	3°54	22°34	6°56	8°21	24° 5	17°R51	17° 8	9°16	18°31	20° 6	10°57	26°32	W23
T 24	12 6 11	3°28'22	22°33	3° 4	23°48	7°42	8°16	24° 8	17°51	17° 8	9°17	18°32	20° 3	11° 4	26°29	T 24
F 25	12 10 8	4°27'38	6♑40	2°13	25° 3	8°28	8°11	24°11	17°51	17° 8	9°17	18°R33	19°59	11°11	26°26	F 25
S 26	12 14 4	5°26'52	20°38	1°22	26°17	9°14	8° 5	24°15	17°51	17° 8	9°18	18°32	19°56	11°17	26°23	S 26
S 27	12 18 1	6°26'04	4♒27	0°33	27°32	9°59	8° 0	24°18	17°51	17° 7	9°19	18°29	19°53	11°24	26°20	S 27
M28	12 21 58	7°25'15	18° 6	29♓46	28°46	10°45	7°54	24°22	17°50	17° 7	9°19	18°24	19°50	11°31	26°17	M28
T 29	12 25 54	8°24'23	1♓33	29° 2	0♈ 0	11°31	7°49	24°25	17°50	17° 7	9°20	18°18	19°47	11°37	26°14	T 29
W30	12 29 51	9°23'30	14°48	28°22	1°15	12°17	7°43	24°29	17°50	17° 6	9°21	18°11	19°43	11°44	26°12	W30
T 31	12 33 47	10♈22'34	27♓49	27♓46	2♈29	13♈ 2	7♏37	24♊33	17♐49	17♐ 6	9♊22	18♉ 5	19♉40	11♊51	26♌ 9	T 31

Day	☉	☽		☿		♀		♂		♃		♄		♅		♆		♇		☊	☊	⚸	⚷	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
T 1	7s36	19s 0	5s 2	0s32	0n40	14s14	1s10	4s47	0s50	13s24	1n21	22n24	0s56	22s57	0s 2	21s26	1n26	11n52	10s 6	17n51	18n 7	23n17	5n59	6s36
W 2	7 14	14 1	4 51	0n17	0 54	13 50	1 11	4 28	0 50	13 23	1 22	22 24	0 56	22 57	0 2	21 26	1 26	11 52	10 6	17 48	18 6	23 19	6 1	6 35
T 3	6 51	8 26	4 25	1 4	1 7	13 26	1 13	4 9	0 50	13 22	1 22	22 24	0 55	22 57	0 2	21 26	1 26	11 53	10 6	17 45	18 5	23 21	6 3	6 35
F 4	6 28	2 37	3 44	1 48	1 21	13 1	1 14	3 50	0 49	13 22	1 22	22 24	0 55	22 57	0 2	21 26	1 26	11 53	10 5	17 43	18 4	23 22	6 5	6 34
S 5	6 4	3n12	2 54	2 31	1 35	12 36	1 15	3 31	0 49	13 21	1 22	22 25	0 55	22 57	0 2	21 26	1 26	11 53	10 5	17 40	18 3	23 24	6 7	6 34
S 6	5 41	8 45	1 55	3 10	1 48	12 10	1 17	3 12	0 48	13 20	1 22	22 25	0 55	22 57	0 2	21 26	1 26	11 54	10 5	17 39	18 2	23 26	6 9	6 34
M 7	5 18	13 51	0 53	3 47	2 2	11 44	1 18	2 53	0 48	13 19	1 22	22 25	0 55	22 57	0 2	21 26	1 26	11 54	10 5	17 38	18 2	23 28	6 11	6 33
T 8	4 55	18 21	0n11	4 20	2 15	11 18	1 19	2 34	0 47	13 18	1 23	22 25	0 54	22 57	0 2	21 26	1 26	11 54	10 4	17 38	18 1	23 30	6 13	6 33
W 9	4 31	22 5	1 14	4 50	2 27	10 52	1 20	2 15	0 47	13 17	1 23	22 26	0 54	22 57	0 2	21 26	1 26	11 54	10 4	17 38	18 0	23 32	6 15	6 32
T 10	4 8	24 52	2 13	5 16	2 39	10 25	1 21	1 56	0 46	13 16	1 23	22 26	0 54	22 58	0 2	21 26	1 26	11 55	10 4	17 39	17 59	23 34	6 16	6 32
F 11	3 44	26 34	3 7	5 38	2 49	9 58	1 22	1 37	0 46	13 15	1 23	22 26	0 54	22 58	0 2	21 26	1 26	11 55	10 4	17 39	17 58	23 35	6 18	6 31
S 12	3 21	27 4	3 53	5 55	2 59	9 31	1 22	1 18	0 45	13 14	1 23	22 26	0 54	22 58	0 2	21 26	1 26	11 55	10 3	17 38	17 57	23 37	6 20	6 31
S 13	2 57	26 15	4 30	6 9	3 8	9 4	1 23	0 59	0 44	13 13	1 23	22 27	0 53	22 58	0 2	21 26	1 26	11 56	10 3	17 37	17 57	23 39	6 22	6 30
M14	2 34	24 9	4 55	6 18	3 16	8 36	1 24	0 40	0 44	13 12	1 24	22 27	0 53	22 58	0 2	21 26	1 26	11 56	10 3	17 35	17 56	23 41	6 24	6 30
T 15	2 10	20 48	5 5	6 22	3 22	8 8	1 25	0 21	0 43	13 11	1 24	22 27	0 53	22 58	0 2	21 26	1 26	11 56	10 3	17 33	17 55	23 43	6 26	6 29
W16	1 46	16 20	5 1	6 22	3 26	7 40	1 25	0 2	0 43	13 9	1 24	22 28	0 53	22 58	0 2	21 26	1 26	11 57	10 2	17 31	17 54	23 44	6 28	6 29
T 17	1 23	10 57	4 39	6 17	3 29	7 11	1 26	0n17	0 42	13 8	1 24	22 28	0 53	22 58	0 2	21 26	1 26	11 57	10 2	17 28	17 53	23 46	6 29	6 28
F 18	0 59	4 55	4 1	6 9	3 31	6 43	1 26	0 35	0 42	13 6	1 24	22 28	0 52	22 58	0 2	21 26	1 27	11 57	10 2	17 26	17 52	23 48	6 31	6 27
S 19	0 35	1s29	3 8	5 56	3 30	6 14	1 26	0 54	0 41	13 5	1 24	22 29	0 52	22 58	0 2	21 26	1 27	11 58	10 2	17 24	17 51	23 50	6 33	6 27
S 20	0 12	7 54	2 2	5 39	3 28	5 45	1 27	1 13	0 41	13 3	1 24	22 29	0 52	22 58	0 2	21 26	1 27	11 58	10 1	17 23	17 51	23 52	6 35	6 26
M21	0n12	13 58	0 48	5 18	3 24	5 16	1 27	1 32	0 40	13 2	1 25	22 29	0 52	22 58	0 2	21 26	1 27	11 58	10 1	17 22	17 50	23 53	6 36	6 26
T 22	0 36	19 17	0s30	4 55	3 18	4 47	1 27	1 51	0 40	13 0	1 25	22 29	0 52	22 58	0 2	21 26	1 27	11 59	10 1	17 22	17 49	23 55	6 38	6 25
W23	0 59	23 28	1 45	4 28	3 11	4 18	1 27	2 9	0 39	12 59	1 25	22 30	0 51	22 58	0 2	21 25	1 27	11 59	10 1	17 22	17 48	23 57	6 40	6 24
T 24	1 23	26 10	2 54	4 0	3 2	3 48	1 27	2 28	0 38	12 57	1 25	22 30	0 51	22 58	0 2	21 25	1 27	11 59	10 0	17 23	17 47	23 59	6 42	6 24
F 25	1 47	27 10	3 51	3 30	2 51	3 18	1 27	2 47	0 38	12 55	1 25	22 30	0 51	22 58	0 2	21 25	1 27	12 0	10 0	17 23	17 46	24 0	6 43	6 23
S 26	2 10	26 24	4 34	2 59	2 39	2 49	1 27	3 5	0 37	12 53	1 25	22 31	0 51	22 58	0 2	21 25	1 27	12 0	10 0	17 22	17 46	24 2	6 45	6 22
S 27	2 34	24 3	5 0	2 27	2 26	2 19	1 27	3 24	0 37	12 51	1 25	22 31	0 51	22 58	0 2	21 25	1 27	12 0	10 0	17 22	17 45	24 4	6 47	6 22
M28	2 57	20 20	5 10	1 55	2 12	1 49	1 27	3 43	0 36	12 49	1 25	22 31	0 51	22 58	0 2	21 25	1 27	12 1	10 0	17 20	17 44	24 6	6 48	6 21
T 29	3 20	15 38	5 1	1 24	1 57	1 19	1 27	4 1	0 36	12 48	1 26	22 32	0 50	22 58	0 2	21 25	1 27	12 1	9 59	17 19	17 43	24 7	6 50	6 20
W30	3 44	10 15	4 37	0 54	1 41	0 49	1 26	4 19	0 35	12 46	1 26	22 32	0 50	22 58	0 2	21 25	1 27	12 1	9 59	17 17	17 42	24 9	6 51	6 19
T 31	4n 7	4s31	3s59	0n25	1n25	0s19	1s26	4n38	0s34	12s44	1n26	22n32	0s50	22s58	0s 2	21s25	1n27	12n 2	9s59	17n15	17n41	24n11	6n53	6s19

Julian Day Number = 2323769.5, Delta T = 43.20 sec
Ecliptic obliquity = 23°29'11, Nutation = - 0°00'12, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'26, Lahiri = 18°58'27Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

APRIL 1650 GC — 00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
F 1	12 37 44	11♈21'37	10♈35	27°R14	3♈43	13♈48	7°R31	24♊37	17°R49	17°R 6	9♊22	17°R59	19♉37	11♊57	26°R 6	F 1
S 2	12 41 40	12°20'38	23° 7	26♓48	4°58	14°34	7♏24	24°41	17♐48	17♐ 5	9°23	17♉55	19°34	12° 4	26♌ 4	S 2
S 3	12 45 37	13°19'36	5♉26	26°27	6°12	15°19	7°18	24°45	17°48	17° 5	9°24	17°52	19°31	12°11	26° 2	S 3
M 4	12 49 33	14°18'32	17°32	26°11	7°26	16° 5	7°12	24°49	17°47	17° 4	9°25	17°D51	19°28	12°17	25°59	M 4
T 5	12 53 30	15°17'27	29°29	26° 0	8°41	16°50	7° 5	24°53	17°46	17° 4	9°26	17°52	19°24	12°24	25°57	T 5
W 6	12 57 27	16°16'19	11♊19	25°D55	9°55	17°35	6°58	24°57	17°46	17° 3	9°27	17°54	19°21	12°31	25°55	W 6
T 7	13 1 23	17°15'09	23° 8	25°56	11° 9	18°21	6°52	25° 2	17°45	17° 3	9°27	17°55	19°18	12°37	25°53	T 7
F 8	13 5 20	18°13'56	4♋58	26° 1	12°23	19° 6	6°45	25° 6	17°44	17° 2	9°28	17°57	19°15	12°44	25°52	F 8
S 9	13 9 16	19°12'42	16°56	26°12	13°38	19°51	6°38	25°11	17°43	17° 1	9°29	17°R58	19°12	12°51	25°50	S 9
S 10	13 13 13	20°11'25	29° 6	26°28	14°52	20°37	6°31	25°15	17°42	17° 1	9°30	17°57	19° 9	12°57	25°48	S 10
M11	13 17 9	21°10'06	11♌33	26°48	16° 6	21°22	6°24	25°20	17°41	17° 0	9°31	17°56	19° 5	13° 4	25°47	M11
T 12	13 21 6	22° 8'44	24°21	27°13	17°20	22° 7	6°17	25°25	17°40	16°59	9°32	17°53	19° 2	13°11	25°45	T 12
W13	13 25 2	23° 7'21	7♍32	27°42	18°34	22°52	6° 9	25°30	17°39	16°58	9°33	17°50	18°59	13°17	25°44	W13
T 14	13 28 59	24° 5'55	21° 9	28°16	19°49	23°37	6° 2	25°35	17°38	16°58	9°34	17°46	18°56	13°24	25°43	T 14
F 15	13 32 55	25° 4'27	5♎ 9	28°53	21° 3	24°22	5°55	25°40	17°37	16°57	9°35	17°43	18°53	13°31	25°42	F 15
S 16	13 36 52	26° 2'57	19°31	29°34	22°17	25° 7	5°47	25°45	17°36	16°56	9°36	17°40	18°49	13°37	25°41	S 16
S 17	13 40 49	27° 1'25	4♏ 8	0♈19	23°31	25°52	5°40	25°50	17°35	16°55	9°37	17°39	18°46	13°44	25°40	S 17
M18	13 44 45	27°59'51	18°55	1° 8	24°45	26°36	5°32	25°56	17°34	16°54	9°38	17°D38	18°43	13°50	25°39	M18
T 19	13 48 42	28°58'16	3♐43	1°59	25°59	27°21	5°25	26° 1	17°32	16°53	9°39	17°39	18°40	13°57	25°39	T 19
W20	13 52 38	29°56'39	18°26	2°54	27°13	28° 6	5°17	26° 6	17°31	16°52	9°41	17°40	18°37	14° 4	25°38	W20
T 21	13 56 35	0♑55'00	2♑59	3°52	28°27	28°51	5°10	26°12	17°29	16°51	9°42	17°41	18°34	14°10	25°38	T 21
F 22	14 0 31	1°53'20	17°18	4°53	29°41	29°35	5° 2	26°17	17°28	16°50	9°43	17°42	18°30	14°17	25°37	F 22
S 23	14 4 28	2°51'38	1♒19	5°57	0♑55	0♑20	4°54	26°23	17°27	16°49	9°44	17°R43	18°27	14°24	25°37	S 23
S 24	14 8 25	3°49'55	15° 3	7° 3	2° 9	1° 4	4°47	26°29	17°25	16°48	9°45	17°42	18°24	14°30	25°D37	S 24
M25	14 12 21	4°48'10	28°29	8°12	3°24	1°49	4°39	26°35	17°23	16°47	9°46	17°41	18°21	14°37	25°37	M25
T 26	14 16 18	5°46'23	11♓39	9°23	4°38	2°33	4°31	26°40	17°22	16°46	9°47	17°40	18°18	14°44	25°37	T 26
W27	14 20 14	6°44'35	24°32	10°37	5°52	3°17	4°24	26°46	17°20	16°45	9°49	17°39	18°14	14°50	25°38	W27
T 28	14 24 11	7°42'46	7♈12	11°54	7° 6	4° 2	4°16	26°52	17°19	16°44	9°50	17°37	18°11	14°57	25°38	T 28
F 29	14 28 7	8°40'55	19°39	13°12	8°20	4°46	4° 8	26°58	17°17	16°43	9°51	17°36	18° 8	15° 4	25°38	F 29
S 30	14 32 4	9♉39'02	1♉55	14♈33	9♉34	5♉30	4♏ 1	27♊ 5	17♐15	16♐41	9♊52	17♉35	18♉ 5	15♊10	25♌39	S 30

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
F 1	4n30	1n18	3s 9	0s 3	1n 9	0n11	1s25	4n56	0s34	12s41	1n26	22n33	0s50	22s58	0s 2	21s25	1n27	12n 2	9s59	17n13	17n40	24n13	6n54	6s18
S 2	4 53	6 59	2 11	0 28	0 53	0 41	1 25	5 14	0 33	12 39	1 26	22 33	0 50	22 58	0 2	21 25	1 27	12 2	9 58	17 12	17 40	24 14	6 56	6 17
S 3	5 16	12 18	1 7	0 51	0 37	1 11	1 24	5 32	0 33	12 37	1 26	22 33	0 50	22 58	0 2	21 25	1 27	12 3	9 58	17 11	17 39	24 16	6 57	6 17
M 4	5 39	17 4	0 2	1 12	0 21	1 41	1 24	5 51	0 32	12 35	1 26	22 34	0 49	22 58	0 2	21 25	1 27	12 3	9 58	17 11	17 38	24 18	6 59	6 16
T 5	6 2	21 7	1n 3	1 30	0 6	2 11	1 23	6 9	0 32	12 33	1 26	22 34	0 49	22 58	0 2	21 25	1 27	12 3	9 58	17 11	17 37	24 19	7 0	6 15
W 6	6 25	24 15	2 5	1 46	0s 9	2 41	1 22	6 26	0 31	12 31	1 26	22 34	0 49	22 58	0 2	21 24	1 27	12 4	9 58	17 12	17 36	24 21	7 2	6 14
T 7	6 47	26 20	3 1	1 59	0 24	3 10	1 21	6 44	0 30	12 28	1 26	22 35	0 49	22 58	0 2	21 24	1 27	12 4	9 57	17 12	17 35	24 23	7 3	6 14
F 8	7 10	27 14	3 50	2 10	0 38	3 40	1 20	7 2	0 30	12 26	1 26	22 35	0 49	22 58	0 2	21 24	1 27	12 4	9 57	17 13	17 34	24 24	7 4	6 13
S 9	7 32	26 52	4 29	2 18	0 51	4 10	1 20	7 20	0 29	12 24	1 26	22 35	0 48	22 58	0 2	21 24	1 27	12 5	9 57	17 13	17 33	24 26	7 6	6 12
S 10	7 54	25 13	4 57	2 23	1 4	4 40	1 19	7 37	0 29	12 22	1 26	22 36	0 48	22 57	0 2	21 24	1 27	12 5	9 57	17 13	17 33	24 28	7 7	6 11
M11	8 16	22 21	5 12	2 26	1 16	5 9	1 17	7 55	0 28	12 19	1 26	22 36	0 48	22 57	0 2	21 24	1 27	12 5	9 57	17 12	17 32	24 29	7 8	6 10
T 12	8 38	18 20	5 12	2 27	1 27	5 39	1 16	8 12	0 27	12 17	1 26	22 36	0 48	22 57	0 3	21 24	1 27	12 6	9 56	17 12	17 31	24 31	7 9	6 10
W13	9 0	13 20	4 56	2 25	1 38	6 8	1 15	8 30	0 27	12 14	1 26	22 37	0 48	22 57	0 3	21 24	1 28	12 6	9 56	17 11	17 30	24 33	7 11	6 9
T 14	9 22	7 32	4 23	2 21	1 48	6 37	1 14	8 47	0 26	12 12	1 26	22 37	0 48	22 57	0 3	21 24	1 28	12 6	9 56	17 10	17 29	24 34	7 12	6 8
F 15	9 43	1 13	3 33	2 14	1 57	7 6	1 13	9 4	0 26	12 10	1 26	22 37	0 48	22 57	0 3	21 24	1 28	12 7	9 56	17 9	17 28	24 36	7 13	6 7
S 16	10 5	5s21	2 29	2 5	2 6	7 35	1 11	9 21	0 25	12 7	1 26	22 38	0 47	22 57	0 3	21 23	1 28	12 7	9 56	17 8	17 27	24 38	7 14	6 6
S 17	10 26	11 46	1 14	1 55	2 13	8 4	1 10	9 38	0 24	12 5	1 26	22 38	0 47	22 57	0 3	21 23	1 28	12 7	9 55	17 8	17 26	24 39	7 15	6 5
M18	10 47	17 35	0s 7	1 42	2 21	8 33	1 8	9 55	0 24	12 2	1 26	22 38	0 47	22 57	0 3	21 23	1 28	12 8	9 55	17 8	17 26	24 41	7 16	6 5
T 19	11 8	22 22	1 28	1 27	2 27	9 1	1 7	10 12	0 23	12 0	1 26	22 39	0 47	22 57	0 3	21 23	1 28	12 8	9 55	17 8	17 25	24 42	7 17	6 4
W20	11 28	25 40	2 42	1 11	2 33	9 29	1 5	10 28	0 22	11 57	1 26	22 39	0 47	22 57	0 3	21 23	1 28	12 8	9 55	17 8	17 24	24 44	7 18	6 3
T 21	11 49	27 12	3 45	0 52	2 38	9 57	1 4	10 45	0 22	11 55	1 26	22 39	0 47	22 56	0 3	21 23	1 28	12 9	9 55	17 8	17 23	24 46	7 19	6 2
F 22	12 9	26 53	4 33	0 32	2 42	10 25	1 2	11 1	0 21	11 52	1 26	22 40	0 46	22 56	0 3	21 23	1 28	12 9	9 54	17 9	17 22	24 47	7 20	6 1
S 23	12 29	24 50	5 4	0 10	2 46	10 52	1 1	11 17	0 21	11 50	1 26	22 40	0 46	22 56	0 3	21 23	1 28	12 9	9 54	17 9	17 21	24 49	7 21	6 0
S 24	12 49	21 23	5 16	0n13	2 49	11 20	0 59	11 33	0 20	11 47	1 26	22 40	0 46	22 56	0 3	21 22	1 28	12 9	9 54	17 9	17 20	24 50	7 21	6 0
M25	13 9	16 52	5 11	0 38	2 52	11 47	0 57	11 50	0 19	11 45	1 26	22 41	0 46	22 56	0 3	21 22	1 28	12 10	9 54	17 8	17 19	24 52	7 22	5 59
T 26	13 28	11 40	4 49	1 4	2 53	12 13	0 55	12 5	0 19	11 42	1 26	22 41	0 46	22 56	0 3	21 22	1 28	12 10	9 54	17 8	17 19	24 53	7 23	5 58
W27	13 48	6 3	4 13	1 32	2 55	12 40	0 53	12 21	0 18	11 40	1 26	22 41	0 46	22 56	0 3	21 22	1 28	12 10	9 54	17 8	17 18	24 55	7 24	5 57
T 28	14 7	0 17	3 26	2 2	2 55	13 6	0 52	12 37	0 17	11 37	1 26	22 41	0 46	22 55	0 3	21 22	1 28	12 11	9 53	17 7	17 17	24 57	7 24	5 56
F 29	14 25	5n24	2 29	2 32	2 55	13 32	0 50	12 52	0 17	11 35	1 26	22 42	0 45	22 55	0 3	21 22	1 28	12 11	9 53	17 7	17 16	24 58	7 25	5 55
S 30	14n44	10n49	1s26	3n 4	2s54	13n57	0s48	13n 8	0s16	11s32	1n26	22n42	0s45	22s55	0s 3	21s22	1n28	12n11	9s53	17n 7	17n15	25n 0	7n26	5s55

Julian Day Number = 2323800.5, Delta T = 43.14 sec
Ecliptic obliquity = 23°29'12, Nutation = - 0°00'13, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'31, Lahiri = 18°58'31Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

MAY 1650 GC

00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
S 1	14 36 0	10♉37'08	14♉ 0	15♈56	10♉48	6♉14	3°R53	27♊11	17°R13	16°R40	9♊53	17°D35	18♉ 2	15♊17	25♌40	S 1
M 2	14 39 57	11°35'12	25°58	17°21	12° 1	6°59	3♏46	27°17	17♐12	16♐39	9°55	17♉35	17°59	15°24	25°41	M 2
T 3	14 43 53	12°33'14	7♊51	18°49	13°15	7°43	3°38	27°23	17°10	16°38	9°56	17°35	17°55	15°30	25°42	T 3
W 4	14 47 50	13°31'15	19°39	20°18	14°29	8°27	3°31	27°30	17° 8	16°36	9°57	17°36	17°52	15°37	25°43	W 4
T 5	14 51 47	14°29'13	1♋28	21°50	15°43	9°11	3°23	27°36	17° 6	16°35	9°58	17°36	17°49	15°44	25°44	T 5
F 6	14 55 43	15°27'11	13°19	23°23	16°57	9°54	3°16	27°42	17° 4	16°34	10° 0	17°37	17°46	15°50	25°45	F 6
S 7	14 59 40	16°25'06	25°17	24°59	18°11	10°38	3° 9	27°49	17° 2	16°33	10° 1	17°37	17°43	15°57	25°47	S 7
S 8	15 3 36	17°22'59	7♌26	26°37	19°25	11°22	3° 1	27°55	17° 0	16°31	10° 2	17°R37	17°40	16° 4	25°48	S 8
M 9	15 7 33	18°20'51	19°51	28°17	20°39	12° 6	2°54	28° 2	16°58	16°30	10° 3	17°D37	17°36	16°10	25°50	M 9
T 10	15 11 29	19°18'41	2♍35	29°59	21°53	12°49	2°47	28° 9	16°56	16°28	10° 5	17°37	17°33	16°17	25°51	T 10
W11	15 15 26	20°16'29	15°42	1♉43	23° 7	13°33	2°40	28°15	16°54	16°27	10° 6	17°37	17°30	16°24	25°53	W11
T 12	15 19 22	21°14'16	29°15	3°29	24°20	14°17	2°33	28°22	16°52	16°26	10° 7	17°37	17°27	16°30	25°55	T 12
F 13	15 23 19	22°12'00	13♎14	5°17	25°34	15° 0	2°26	28°29	16°50	16°24	10° 9	17°38	17°24	16°37	25°57	F 13
S 14	15 27 16	23° 9'43	27°39	7° 7	26°48	15°44	2°19	28°36	16°47	16°23	10°10	17°38	17°20	16°44	25°59	S 14
S 15	15 31 12	24° 7'25	12♏25	8°59	28° 2	16°27	2°13	28°43	16°45	16°21	10°11	17°R38	17°17	16°50	26° 2	S 15
M16	15 35 9	25° 5'05	27°26	10°53	29°16	17°10	2° 6	28°50	16°43	16°20	10°13	17°38	17°14	16°57	26° 4	M16
T 17	15 39 5	26° 2'45	12♐34	12°49	0♊29	17°54	2° 0	28°57	16°41	16°18	10°14	17°38	17°11	17° 4	26° 7	T 17
W18	15 43 2	27° 0'22	27°39	14°47	1°43	18°37	1°53	29° 4	16°39	16°17	10°15	17°37	17° 8	17°10	26° 9	W18
T 19	15 46 58	27°57'59	12♑33	16°48	2°57	19°20	1°47	29°11	16°36	16°15	10°17	17°36	17° 5	17°17	26°12	T 19
F 20	15 50 55	28°55'35	27° 8	18°50	4°11	20° 3	1°41	29°18	16°34	16°14	10°18	17°35	17° 1	17°24	26°15	F 20
S 21	15 54 52	29°53'10	11♒22	20°53	5°24	20°46	1°35	29°25	16°32	16°12	10°19	17°34	16°58	17°30	26°18	S 21
S 22	15 58 48	0♊50'44	25°10	22°59	6°38	21°29	1°29	29°32	16°29	16°11	10°21	17°D33	16°55	17°37	26°21	S 22
M23	16 2 45	1°48'17	8♓34	25° 6	7°52	22°12	1°23	29°39	16°27	16° 9	10°22	17°33	16°52	17°44	26°24	M23
T 24	16 6 41	2°45'49	21°36	27°14	9° 6	22°55	1°17	29°47	16°25	16° 8	10°24	17°34	16°49	17°50	26°27	T 24
W25	16 10 38	3°43'20	4♈18	29°24	10°19	23°38	1°12	29°54	16°22	16° 6	10°25	17°35	16°46	17°57	26°30	W25
T 26	16 14 34	4°40'50	16°43	1♊34	11°33	24°21	1° 6	0♋ 1	16°20	16° 5	10°26	17°36	16°42	18° 4	26°34	T 26
F 27	16 18 31	5°38'20	28°56	3°45	12°47	25° 4	1° 1	0° 9	16°17	16° 3	10°28	17°38	16°39	18°10	26°37	F 27
S 28	16 22 27	6°35'49	10♉59	5°57	14° 1	25°46	0°56	0°16	16°15	16° 1	10°29	17°38	16°36	18°17	26°41	S 28
S 29	16 26 24	7°33'16	22°54	8° 9	15°14	26°29	0°51	0°23	16°13	16° 0	10°30	17°R38	16°33	18°24	26°45	S 29
M30	16 30 21	8°30'43	4♊45	10°21	16°28	27°12	0°46	0°31	16°10	15°58	10°32	17°37	16°30	18°30	26°48	M30
T 31	16 34 17	9♊28'09	16♊34	12♊33	17♊42	27♉54	0♏42	0♋38	16♐ 8	15♐57	10♊33	17♉35	16♉26	18♊37	26♌52	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	15n 2	15n46	0s20	3n37	2s53	14n22	0s46	13n23	0s16	11s30	1n26	22n42	0s45	22s55	0s 3	21s21	1n28	12n12	9s53	17n 7	17n14	25n 1	7n26	5s54
M 2	15 20	20 2	0n46	4 11	2 51	14 47	0 44	13 38	0 15	11 27	1 26	22 43	0 45	22 55	0 3	21 21	1 28	12 12	9 53	17 7	17 13	25 3	7 27	5 53
T 3	15 38	23 28	1 50	4 47	2 49	15 11	0 42	13 53	0 14	11 25	1 26	22 43	0 45	22 55	0 3	21 21	1 28	12 12	9 53	17 7	17 12	25 4	7 27	5 52
W 4	15 56	25 53	2 49	5 23	2 46	15 35	0 39	14 8	0 14	11 22	1 25	22 43	0 45	22 54	0 3	21 21	1 28	12 13	9 53	17 7	17 11	25 6	7 28	5 51
T 5	16 13	27 9	3 40	6 1	2 42	15 59	0 37	14 23	0 13	11 20	1 25	22 43	0 45	22 54	0 3	21 21	1 28	12 13	9 52	17 7	17 11	25 7	7 28	5 50
F 6	16 30	27 10	4 23	6 39	2 38	16 22	0 35	14 37	0 12	11 18	1 25	22 44	0 44	22 54	0 3	21 21	1 28	12 13	9 52	17 7	17 10	25 9	7 28	5 49
S 7	16 47	25 56	4 54	7 18	2 34	16 45	0 33	14 52	0 12	11 15	1 25	22 44	0 44	22 54	0 3	21 21	1 28	12 14	9 52	17 7	17 9	25 10	7 29	5 49
S 8	17 3	23 29	5 13	7 58	2 29	17 7	0 31	15 6	0 11	11 13	1 25	22 44	0 44	22 54	0 3	21 20	1 28	12 14	9 52	17 7	17 8	25 12	7 29	5 48
M 9	17 19	19 54	5 17	8 39	2 23	17 29	0 29	15 20	0 10	11 10	1 25	22 44	0 44	22 54	0 3	21 20	1 28	12 14	9 52	17 7	17 7	25 13	7 29	5 47
T 10	17 35	15 20	5 7	9 21	2 17	17 51	0 26	15 34	0 10	11 8	1 25	22 45	0 44	22 53	0 3	21 20	1 28	12 14	9 52	17 7	17 6	25 15	7 30	5 46
W11	17 51	9 57	4 40	10 3	2 10	18 12	0 24	15 48	0 9	11 6	1 25	22 45	0 44	22 53	0 3	21 20	1 28	12 15	9 52	17 7	17 5	25 16	7 30	5 45
T 12	18 6	3 56	3 58	10 46	2 3	18 33	0 22	16 1	0 8	11 4	1 24	22 45	0 44	22 53	0 3	21 20	1 28	12 15	9 52	17 7	17 4	25 18	7 30	5 44
F 13	18 21	2s29	3 0	11 30	1 55	18 53	0 19	16 15	0 8	11 1	1 24	22 45	0 43	22 53	0 3	21 20	1 28	12 15	9 52	17 7	17 3	25 19	7 30	5 44
S 14	18 36	8 58	1 49	12 13	1 47	19 12	0 17	16 28	0 7	10 59	1 24	22 45	0 43	22 53	0 3	21 19	1 28	12 16	9 51	17 8	17 3	25 20	7 30	5 43
S 15	18 50	15 8	0 29	12 58	1 39	19 31	0 15	16 41	0 7	10 57	1 24	22 46	0 43	22 52	0 3	21 19	1 28	12 16	9 51	17 8	17 2	25 22	7 30	5 42
M16	19 4	20 30	0s54	13 42	1 30	19 50	0 12	16 54	0 6	10 55	1 24	22 46	0 43	22 52	0 3	21 19	1 28	12 16	9 51	17 8	17 1	25 23	7 30	5 41
T 17	19 18	24 34	2 14	14 26	1 21	20 8	0 10	17 7	0 5	10 53	1 24	22 46	0 43	22 52	0 3	21 19	1 28	12 16	9 51	17 7	17 0	25 25	7 30	5 40
W18	19 32	26 52	3 24	15 10	1 11	20 25	0 8	17 19	0 5	10 51	1 23	22 46	0 43	22 52	0 3	21 19	1 28	12 17	9 51	17 7	16 59	25 26	7 30	5 39
T 19	19 45	27 12	4 20	15 55	1 1	20 42	0 5	17 32	0 4	10 49	1 23	22 46	0 43	22 52	0 3	21 19	1 28	12 17	9 51	17 7	16 58	25 28	7 30	5 39
F 20	19 58	25 37	4 57	16 38	0 51	20 59	0 3	17 44	0 3	10 47	1 23	22 47	0 43	22 51	0 3	21 18	1 28	12 17	9 51	17 7	16 57	25 29	7 30	5 38
S 21	20 10	22 27	5 15	17 22	0 41	21 14	0 1	17 56	0 3	10 45	1 23	22 47	0 42	22 51	0 3	21 18	1 28	12 17	9 51	17 6	16 56	25 30	7 29	5 37
S 22	20 22	18 5	5 14	18 4	0 30	21 29	0n 2	18 8	0 2	10 43	1 23	22 47	0 42	22 51	0 3	21 18	1 28	12 18	9 51	17 6	16 55	25 32	7 29	5 36
M23	20 34	12 56	4 56	18 46	0 19	21 44	0 4	18 20	0 1	10 41	1 22	22 47	0 42	22 51	0 3	21 18	1 28	12 18	9 51	17 6	16 54	25 33	7 29	5 35
T 24	20 45	7 22	4 23	19 26	0 9	21 58	0 7	18 32	0 1	10 40	1 22	22 47	0 42	22 50	0 3	21 18	1 28	12 18	9 51	17 6	16 54	25 35	7 29	5 34
W25	20 56	1 37	3 37	20 5	0n 2	22 11	0 9	18 43	0 0	10 38	1 22	22 47	0 42	22 50	0 3	21 18	1 28	12 19	9 51	17 7	16 53	25 36	7 28	5 34
T 26	21 7	4n 5	2 43	20 43	0 12	22 24	0 11	18 54	0n 1	10 36	1 22	22 47	0 42	22 50	0 3	21 17	1 28	12 19	9 50	17 7	16 52	25 37	7 28	5 33
F 27	21 17	9 32	1 42	21 19	0 23	22 36	0 14	19 5	0 1	10 35	1 22	22 47	0 42	22 50	0 3	21 17	1 28	12 19	9 50	17 7	16 51	25 39	7 27	5 32
S 28	21 27	14 34	0 37	21 53	0 33	22 48	0 16	19 16	0 2	10 33	1 21	22 48	0 42	22 50	0 3	21 17	1 28	12 19	9 50	17 8	16 50	25 40	7 27	5 31
S 29	21 37	19 0	0n29	22 25	0 43	22 59	0 19	19 27	0 2	10 32	1 21	22 48	0 42	22 49	0 3	21 17	1 28	12 19	9 50	17 8	16 49	25 41	7 27	5 30
M30	21 46	22 39	1 33	22 55	0 52	23 9	0 21	19 37	0 3	10 30	1 21	22 48	0 41	22 49	0 3	21 17	1 28	12 20	9 50	17 7	16 48	25 43	7 26	5 30
T 31	21n55	25n20	2n33	23n22	1n 2	23n18	0n23	19n48	0n 4	10s29	1n21	22n48	0s41	22s49	0s 3	21s17	1n28	12n20	9s50	17n 7	16n47	25n44	7n25	5s29

Julian Day Number = 2323830.5, Delta T = 43.08 sec
Ecliptic obliquity = 23°29'11, Nutation = - 0°00'14, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'35, Lahiri = 18°58'35Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

JUNE 1650 GC — 00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
W 1	16 38 14	10♊25'35	28♊23	14♊44	18♊55	28♉37	0°R37	0♋46	16°R 5	15°R55	10♊35	17°R32	16♉23	18♊44	26♌56	W 1
T 2	16 42 10	11°22'59	10♋13	16°54	20° 9	29°19	0♏33	0°53	16♐ 3	15♐53	10°36	17♉29	16°20	18°50	27° 0	T 2
F 3	16 46 7	12°20'22	22° 8	19° 4	21°23	0♊ 2	0°29	1° 1	16° 0	15°52	10°37	17°25	16°17	18°57	27° 5	F 3
S 4	16 50 3	13°17'44	4♌10	21°12	22°36	0°44	0°24	1° 9	15°58	15°50	10°39	17°21	16°14	19° 4	27° 9	S 4
S 5	16 54 0	14°15'06	16°21	23°18	23°50	1°26	0°21	1°16	15°56	15°48	10°40	17°17	16°11	19°10	27°13	S 5
M 6	16 57 56	15°12'26	28°46	25°23	25° 4	2° 9	0°17	1°24	15°53	15°47	10°42	17°15	16° 7	19°17	27°18	M 6
T 7	17 1 53	16° 9'45	11♍27	27°26	26°17	2°51	0°13	1°31	15°51	15°45	10°43	17°D14	16° 4	19°24	27°22	T 7
W 8	17 5 50	17° 7'03	24°29	29°27	27°31	3°33	0°10	1°39	15°48	15°44	10°44	17°14	16° 1	19°30	27°27	W 8
T 9	17 9 46	18° 4'20	7♎54	1♋26	28°44	4°15	0° 7	1°47	15°46	15°42	10°46	17°15	15°58	19°37	27°32	T 9
F 10	17 13 43	19° 1'36	21°45	3°23	29°58	4°57	0° 4	1°54	15°43	15°40	10°47	17°17	15°55	19°44	27°37	F 10
S 11	17 17 39	19°58'52	6♏ 2	5°17	1♋12	5°39	0° 1	2° 2	15°41	15°39	10°48	17°18	15°52	19°50	27°42	S 11
S 12	17 21 36	20°56'07	20°43	7° 9	2°25	6°21	29♎58	2°10	15°38	15°37	10°50	17°R18	15°48	19°57	27°47	S 12
M13	17 25 32	21°53'21	5♐43	9° 0	3°39	7° 3	29°56	2°18	15°36	15°36	10°51	17°17	15°45	20° 4	27°52	M13
T 14	17 29 29	22°50'34	20°56	10°47	4°52	7°45	29°53	2°25	15°33	15°34	10°53	17°14	15°42	20°10	27°57	T 14
W15	17 33 25	23°47'47	6♑11	12°33	6° 6	8°26	29°51	2°33	15°31	15°32	10°54	17°10	15°39	20°17	28° 2	W15
T 16	17 37 22	24°45'00	21°18	14°16	7°19	9° 8	29°49	2°41	15°29	15°31	10°55	17° 5	15°36	20°24	28° 7	T 16
F 17	17 41 19	25°42'12	6♒ 7	15°57	8°33	9°50	29°47	2°49	15°26	15°29	10°57	16°59	15°32	20°30	28°13	F 17
S 18	17 45 15	26°39'25	20°33	17°35	9°46	10°31	29°46	2°56	15°24	15°28	10°58	16°55	15°29	20°37	28°18	S 18
S 19	17 49 12	27°36'37	4♓30	19°11	11° 0	11°13	29°44	3° 4	15°21	15°26	10°59	16°51	15°26	20°44	28°24	S 19
M20	17 53 8	28°33'48	17°59	20°45	12°13	11°54	29°43	3°12	15°19	15°24	11° 1	16°49	15°23	20°50	28°30	M20
T 21	17 57 5	29°31'00	1♈ 1	22°16	13°27	12°36	29°42	3°20	15°17	15°23	11° 2	16°D48	15°20	20°57	28°35	T 21
W22	18 1 1	0♋28'12	13°39	23°45	14°40	13°17	29°41	3°28	15°14	15°21	11° 3	16°49	15°17	21° 4	28°41	W22
T 23	18 4 58	1°25'24	25°59	25°11	15°54	13°59	29°40	3°36	15°12	15°20	11° 5	16°50	15°13	21°10	28°47	T 23
F 24	18 8 54	2°22'36	8♉ 4	26°35	17° 7	14°40	29°40	3°43	15°10	15°18	11° 6	16°51	15°10	21°17	28°53	F 24
S 25	18 12 51	3°19'48	20° 0	27°56	18°21	15°21	29°39	3°51	15° 7	15°17	11° 7	16°R52	15° 7	21°24	28°59	S 25
S 26	18 16 48	4°17'01	1♊50	29°15	19°34	16° 2	29°39	3°59	15° 5	15°15	11° 9	16°50	15° 4	21°30	29° 5	S 26
M27	18 20 44	5°14'13	13°38	0♌31	20°48	16°44	29°D39	4° 7	15° 3	15°14	11°10	16°47	15° 1	21°37	29°11	M27
T 28	18 24 41	6°11'25	25°26	1°45	22° 1	17°25	29°39	4°15	15° 1	15°12	11°11	16°42	14°58	21°44	29°18	T 28
W29	18 28 37	7° 8'38	7♋17	2°56	23°15	18° 6	29°39	4°23	14°58	15°11	11°12	16°34	14°54	21°50	29°24	W29
T 30	18 32 34	8♋ 5'50	19♋13	4♌ 4	24♋28	18♊47	29♎40	4♋30	14♐56	15♐ 9	11♊14	16♉25	14♉51	21♊57	29♌30	T 30

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
W 1	22n 3	26n54	3n26	23n46	1n10	23n27	0n26	19n58	0n 4	10s27	1n20	22n48	0s41	22s49	0s 3	21s16	1n28	12n20	9s50	17n 6	16n46	25n45	7n25	5s28
T 2	22 11	27 15	4 10	24 8	1 18	23 35	0 28	20 8	0 5	10 26	1 20	22 48	0 41	22 48	0 3	21 16	1 28	12 20	9 50	17 5	16 45	25 47	7 24	5 27
F 3	22 19	26 20	4 44	24 27	1 26	23 43	0 30	20 17	0 6	10 25	1 20	22 48	0 41	22 48	0 3	21 16	1 28	12 21	9 50	17 4	16 44	25 48	7 23	5 27
S 4	22 26	24 12	5 5	24 44	1 32	23 49	0 33	20 27	0 6	10 24	1 20	22 48	0 41	22 48	0 3	21 16	1 28	12 21	9 50	17 3	16 44	25 49	7 23	5 26
S 5	22 33	20 57	5 13	24 57	1 38	23 55	0 35	20 36	0 7	10 22	1 19	22 48	0 41	22 48	0 3	21 16	1 28	12 21	9 50	17 2	16 43	25 51	7 22	5 25
M 6	22 40	16 43	5 7	25 8	1 44	24 1	0 37	20 45	0 8	10 21	1 19	22 48	0 41	22 47	0 3	21 16	1 28	12 21	9 50	17 1	16 42	25 52	7 21	5 24
T 7	22 46	11 41	4 46	25 16	1 48	24 5	0 39	20 54	0 8	10 20	1 19	22 48	0 41	22 47	0 3	21 16	1 28	12 21	9 50	17 1	16 41	25 53	7 20	5 24
W 8	22 52	6 1	4 10	25 21	1 52	24 9	0 42	21 3	0 9	10 19	1 19	22 48	0 40	22 47	0 3	21 15	1 28	12 22	9 50	17 1	16 40	25 54	7 19	5 23
T 9	22 57	0s 5	3 19	25 24	1 56	24 13	0 44	21 11	0 9	10 19	1 18	22 48	0 40	22 47	0 3	21 15	1 28	12 22	9 50	17 1	16 39	25 56	7 19	5 22
F 10	23 2	6 24	2 15	25 25	1 58	24 15	0 46	21 20	0 10	10 18	1 18	22 48	0 40	22 46	0 3	21 15	1 28	12 22	9 50	17 1	16 38	25 57	7 18	5 21
S 11	23 6	12 36	1 1	25 22	2 0	24 17	0 48	21 28	0 11	10 17	1 18	22 48	0 40	22 46	0 3	21 15	1 28	12 22	9 50	17 2	16 37	25 58	7 17	5 21
S 12	23 11	18 16	0s19	25 18	2 1	24 18	0 50	21 36	0 11	10 16	1 18	22 48	0 40	22 46	0 3	21 15	1 28	12 22	9 50	17 2	16 36	25 59	7 16	5 20
M13	23 14	22 55	1 39	25 11	2 1	24 18	0 52	21 44	0 12	10 16	1 17	22 48	0 40	22 46	0 3	21 15	1 28	12 23	9 50	17 2	16 35	26 1	7 15	5 19
T 14	23 18	26 3	2 53	25 3	2 0	24 18	0 54	21 51	0 13	10 15	1 17	22 48	0 40	22 45	0 3	21 14	1 28	12 23	9 50	17 1	16 34	26 2	7 13	5 18
W15	23 20	27 15	3 55	24 52	1 59	24 17	0 56	21 58	0 13	10 15	1 17	22 48	0 40	22 45	0 3	21 14	1 28	12 23	9 50	17 0	16 33	26 3	7 12	5 18
T 16	23 23	26 24	4 40	24 40	1 57	24 15	0 58	22 6	0 14	10 14	1 17	22 48	0 40	22 45	0 3	21 14	1 28	12 23	9 50	16 58	16 32	26 4	7 11	5 17
F 17	23 25	23 42	5 5	24 26	1 55	24 13	1 0	22 12	0 15	10 14	1 16	22 48	0 40	22 45	0 3	21 14	1 28	12 23	9 50	16 57	16 32	26 6	7 10	5 16
S 18	23 27	19 34	5 10	24 10	1 51	24 9	1 2	22 19	0 15	10 13	1 16	22 48	0 39	22 44	0 3	21 14	1 28	12 23	9 50	16 55	16 31	26 7	7 9	5 16
S 19	23 28	14 28	4 56	23 53	1 47	24 5	1 4	22 26	0 16	10 13	1 16	22 48	0 39	22 44	0 3	21 14	1 28	12 24	9 50	16 54	16 30	26 8	7 7	5 15
M20	23 29	8 50	4 26	23 35	1 43	24 1	1 6	22 32	0 16	10 13	1 16	22 48	0 39	22 44	0 3	21 13	1 28	12 24	9 50	16 54	16 29	26 9	7 6	5 14
T 21	23 29	3 0	3 43	23 15	1 38	23 55	1 7	22 38	0 17	10 13	1 15	22 47	0 39	22 44	0 3	21 13	1 28	12 24	9 50	16 53	16 28	26 10	7 5	5 14
W22	23 29	2n47	2 50	22 54	1 32	23 49	1 9	22 44	0 18	10 13	1 15	22 47	0 39	22 43	0 3	21 13	1 28	12 24	9 50	16 54	16 27	26 11	7 4	5 13
T 23	23 29	8 20	1 51	22 32	1 25	23 42	1 11	22 50	0 18	10 13	1 15	22 47	0 39	22 43	0 3	21 13	1 28	12 24	9 50	16 54	16 26	26 13	7 2	5 12
F 24	23 28	13 29	0 47	22 10	1 19	23 35	1 12	22 55	0 19	10 13	1 14	22 47	0 39	22 43	0 3	21 13	1 28	12 24	9 50	16 54	16 25	26 14	7 1	5 12
S 25	23 27	18 3	0n17	21 46	1 11	23 27	1 14	23 0	0 20	10 13	1 14	22 47	0 39	22 43	0 3	21 13	1 28	12 25	9 50	16 54	16 24	26 15	6 59	5 11
S 26	23 25	21 53	1 20	21 22	1 3	23 18	1 15	23 5	0 20	10 13	1 14	22 47	0 39	22 42	0 3	21 13	1 28	12 25	9 50	16 54	16 23	26 16	6 58	5 10
M27	23 23	24 47	2 19	20 58	0 54	23 8	1 17	23 10	0 21	10 13	1 14	22 47	0 39	22 42	0 3	21 12	1 28	12 25	9 50	16 53	16 22	26 17	6 56	5 10
T 28	23 20	26 37	3 13	20 33	0 45	22 58	1 18	23 15	0 22	10 14	1 13	22 47	0 39	22 42	0 3	21 12	1 28	12 25	9 50	16 51	16 21	26 18	6 55	5 9
W29	23 18	27 14	3 57	20 7	0 36	22 47	1 19	23 19	0 22	10 14	1 13	22 46	0 39	22 42	0 3	21 12	1 28	12 25	9 50	16 49	16 20	26 20	6 53	5 9
T 30	23n14	26n36	4n32	19n41	0n25	22n36	1n21	23n23	0n23	10s14	1n13	22n46	0s38	22s41	0s 3	21s12	1n28	12n25	9s50	16n47	16n19	26n21	6n51	5s 8

Julian Day Number = 2323861.5, Delta T = 43.02 sec
Ecliptic obliquity = 23°29'11, Nutation = - 0°00'13, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'39, Lahiri = 18°58'39Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

JULY 1650 GC

00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
F 1	18 36 30	9♋ 3'03	1♌16	5♌ 9	25♋42	19♊28	29♎41	4♋38	14°R54	15°R 8	11♊15	16°R15	14♉48	22♊ 4	29♌37	F 1
S 2	18 40 27	10° 0'15	13°26	6°12	26°55	20° 9	29°42	4°46	14♐52	15♐ 6	11°16	16♉ 6	14°45	22°11	29°43	S 2
S 3	18 44 24	10°57'27	25°45	7°11	28° 9	20°49	29°43	4°54	14°50	15° 5	11°17	15°57	14°42	22°17	29°50	S 3
M 4	18 48 20	11°54'39	8♍16	8° 7	29°22	21°30	29°44	5° 2	14°48	15° 4	11°19	15°50	14°38	22°24	29°57	M 4
T 5	18 52 17	12°51'52	21° 1	9° 0	0♌36	22°11	29°45	5° 9	14°46	15° 2	11°20	15°46	14°35	22°31	0♍ 3	T 5
W 6	18 56 13	13°49'04	4♎ 1	9°50	1°49	22°52	29°47	5°17	14°43	15° 1	11°21	15°44	14°32	22°37	0°10	W 6
T 7	19 0 10	14°46'16	17°22	10°36	3° 2	23°32	29°49	5°25	14°41	14°59	11°22	15°D43	14°29	22°44	0°17	T 7
F 8	19 4 6	15°43'28	1♏ 3	11°19	4°16	24°13	29°51	5°33	14°39	14°58	11°23	15°44	14°26	22°51	0°24	F 8
S 9	19 8 3	16°40'40	15° 8	11°57	5°29	24°54	29°53	5°40	14°38	14°57	11°25	15°R44	14°23	22°57	0°31	S 9
S 10	19 11 59	17°37'52	29°35	12°32	6°42	25°34	29°55	5°48	14°36	14°55	11°26	15°44	14°19	23° 4	0°38	S 10
M11	19 15 56	18°35'04	14♐23	13° 3	7°56	26°14	29°57	5°56	14°34	14°54	11°27	15°41	14°16	23°11	0°45	M11
T 12	19 19 53	19°32'17	29°26	13°30	9° 9	26°55	0♏ 0	6° 4	14°32	14°53	11°28	15°36	14°13	23°17	0°52	T 12
W13	19 23 49	20°29'30	14♑35	13°52	10°22	27°35	0° 3	6°11	14°30	14°52	11°29	15°28	14°10	23°24	0°59	W13
T 14	19 27 46	21°26'43	29°40	14°10	11°36	28°15	0° 6	6°19	14°28	14°50	11°30	15°19	14° 7	23°31	1° 6	T 14
F 15	19 31 42	22°23'57	14♒32	14°23	12°49	28°56	0° 9	6°27	14°26	14°49	11°31	15° 9	14° 4	23°37	1°14	F 15
S 16	19 35 39	23°21'11	29° 2	14°31	14° 2	29°36	0°12	6°34	14°25	14°48	11°32	15° 0	14° 0	23°44	1°21	S 16
S 17	19 39 35	24°18'26	13♓ 6	14°R35	15°16	0♋16	0°16	6°42	14°23	14°47	11°33	14°53	13°57	23°51	1°28	S 17
M18	19 43 32	25°15'42	26°39	14°33	16°29	0°56	0°20	6°49	14°21	14°46	11°35	14°47	13°54	23°57	1°36	M18
T 19	19 47 28	26°12'59	9♈45	14°27	17°42	1°36	0°23	6°57	14°20	14°45	11°36	14°44	13°51	24° 4	1°43	T 19
W20	19 51 25	27°10'16	22°25	14°15	18°55	2°16	0°27	7° 4	14°18	14°44	11°37	14°D43	13°48	24°11	1°51	W20
T 21	19 55 22	28° 7'35	4♉45	13°59	20° 9	2°56	0°31	7°12	14°17	14°42	11°38	14°43	13°44	24°17	1°58	T 21
F 22	19 59 18	29° 4'54	16°49	13°38	21°22	3°36	0°36	7°19	14°15	14°41	11°39	14°R43	13°41	24°24	2° 6	F 22
S 23	20 3 15	0♌ 2'15	28°43	13°12	22°35	4°16	0°40	7°27	14°14	14°40	11°40	14°42	13°38	24°31	2°14	S 23
S 24	20 7 11	0°59'37	10♊31	12°42	23°48	4°56	0°45	7°34	14°12	14°39	11°41	14°40	13°35	24°37	2°21	S 24
M25	20 11 8	1°57'00	22°19	12° 8	25° 1	5°36	0°50	7°42	14°11	14°38	11°42	14°35	13°32	24°44	2°29	M25
T 26	20 15 4	2°54'23	4♋10	11°30	26°14	6°15	0°55	7°49	14° 9	14°37	11°42	14°27	13°29	24°51	2°37	T 26
W27	20 19 1	3°51'48	16° 6	10°49	27°28	6°55	1° 0	7°56	14° 8	14°36	11°43	14°16	13°25	24°57	2°45	W27
T 28	20 22 57	4°49'14	28°11	10° 6	28°41	7°35	1° 5	8° 4	14° 7	14°36	11°44	14° 4	13°22	25° 4	2°53	T 28
F 29	20 26 54	5°46'40	10♌24	9°21	29°54	8°14	1°10	8°11	14° 6	14°35	11°45	13°50	13°19	25°11	3° 1	F 29
S 30	20 30 51	6°44'08	22°47	8°34	1♍ 7	8°54	1°16	8°18	14° 4	14°34	11°46	13°37	13°16	25°17	3° 9	S 30
S 31	20 34 47	7♌41'36	5♍21	7♌48	2♍20	9♋33	1♏22	8♋25	14♐ 3	14♐33	11♊47	13♉25	13♉13	25♊24	3♍17	S 31

Day	☉	☽		☿		♀		♂		♃		♄		♅		♆		♇		☊	☊	⚸	⚷	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
F 1	23n11	24n43	4n55	19n15	0n15	22n23	1n22	23n27	0n23	10s15	1n13	22n46	0s38	22s41	0s 3	21s12	1n28	12n25	9s50	16n44	16n19	26n22	6n50	5s 7
S 2	23 7	21 41	5 5	18 49	0 4	22 10	1 23	23 31	0 24	10 16	1 12	22 46	0 38	22 41	0 3	21 12	1 28	12 25	9 50	16 41	16 18	26 23	6 48	5 7
S 3	23 2	17 41	5 1	18 23	0s 7	21 57	1 24	23 35	0 25	10 16	1 12	22 46	0 38	22 41	0 3	21 12	1 28	12 25	9 51	16 39	16 17	26 24	6 46	5 6
M 4	22 57	12 51	4 43	17 58	0 19	21 43	1 25	23 38	0 25	10 17	1 12	22 45	0 38	22 40	0 3	21 12	1 28	12 26	9 51	16 37	16 16	26 25	6 45	5 6
T 5	22 52	7 24	4 10	17 32	0 32	21 28	1 26	23 41	0 26	10 18	1 11	22 45	0 38	22 40	0 3	21 11	1 28	12 26	9 51	16 35	16 15	26 26	6 43	5 5
W 6	22 46	1 31	3 24	17 7	0 44	21 13	1 27	23 44	0 27	10 18	1 11	22 45	0 38	22 40	0 3	21 11	1 28	12 26	9 51	16 35	16 14	26 27	6 41	5 4
T 7	22 40	4s35	2 26	16 42	0 57	20 57	1 28	23 47	0 27	10 19	1 11	22 45	0 38	22 40	0 3	21 11	1 28	12 26	9 51	16 35	16 13	26 28	6 39	5 4
F 8	22 33	10 39	1 18	16 18	1 10	20 40	1 29	23 49	0 28	10 20	1 11	22 44	0 38	22 40	0 3	21 11	1 28	12 26	9 51	16 35	16 12	26 29	6 37	5 3
S 9	22 27	16 21	0 3	15 54	1 24	20 23	1 30	23 52	0 28	10 21	1 10	22 44	0 38	22 39	0 3	21 11	1 28	12 26	9 51	16 35	16 11	26 30	6 35	5 3
S 10	22 19	21 18	1s13	15 31	1 37	20 5	1 30	23 54	0 29	10 22	1 10	22 44	0 38	22 39	0 3	21 11	1 28	12 26	9 51	16 35	16 10	26 32	6 33	5 2
M11	22 12	25 0	2 27	15 9	1 51	19 47	1 31	23 56	0 30	10 23	1 10	22 44	0 38	22 39	0 3	21 11	1 28	12 26	9 51	16 34	16 9	26 33	6 31	5 2
T 12	22 4	27 0	3 31	14 48	2 5	19 28	1 31	23 57	0 30	10 25	1 10	22 43	0 38	22 39	0 3	21 11	1 28	12 26	9 51	16 33	16 8	26 34	6 30	5 1
W13	21 55	27 0	4 21	14 29	2 19	19 9	1 32	23 59	0 31	10 26	1 9	22 43	0 37	22 38	0 3	21 10	1 28	12 26	9 51	16 30	16 7	26 35	6 27	5 1
T 14	21 46	25 1	4 52	14 10	2 33	18 49	1 32	24 0	0 31	10 27	1 9	22 43	0 37	22 38	0 3	21 10	1 28	12 26	9 51	16 28	16 6	26 36	6 25	5 0
F 15	21 37	21 20	5 3	13 53	2 47	18 29	1 33	24 1	0 32	10 29	1 9	22 42	0 37	22 38	0 3	21 10	1 27	12 26	9 51	16 25	16 5	26 37	6 23	5 0
S 16	21 28	16 25	4 54	13 37	3 1	18 8	1 33	24 2	0 33	10 30	1 8	22 42	0 37	22 38	0 3	21 10	1 27	12 26	9 52	16 22	16 4	26 38	6 21	4 59
S 17	21 18	10 46	4 27	13 23	3 15	17 47	1 33	24 2	0 33	10 31	1 8	22 42	0 37	22 38	0 3	21 10	1 27	12 26	9 52	16 20	16 3	26 39	6 19	4 59
M18	21 8	4 47	3 46	13 11	3 28	17 25	1 33	24 3	0 34	10 33	1 8	22 42	0 37	22 38	0 3	21 10	1 27	12 26	9 52	16 18	16 3	26 40	6 17	4 58
T 19	20 57	1n12	2 55	13 1	3 41	17 2	1 33	24 3	0 34	10 34	1 8	22 41	0 37	22 37	0 4	21 10	1 27	12 26	9 52	16 17	16 2	26 41	6 15	4 58
W20	20 46	6 57	1 56	12 52	3 53	16 40	1 33	24 3	0 35	10 36	1 7	22 41	0 37	22 37	0 4	21 10	1 27	12 26	9 52	16 17	16 1	26 42	6 13	4 57
T 21	20 35	12 18	0 53	12 46	4 4	16 16	1 33	24 3	0 36	10 38	1 7	22 41	0 37	22 37	0 4	21 10	1 27	12 26	9 52	16 17	16 0	26 43	6 10	4 57
F 22	20 23	17 4	0n11	12 41	4 15	15 53	1 33	24 3	0 36	10 40	1 7	22 40	0 37	22 37	0 4	21 10	1 27	12 26	9 52	16 17	15 59	26 44	6 8	4 56
S 23	20 11	21 6	1 14	12 39	4 25	15 29	1 33	24 2	0 37	10 41	1 7	22 40	0 37	22 37	0 4	21 10	1 27	12 26	9 52	16 17	15 58	26 45	6 6	4 56
S 24	19 59	24 15	2 12	12 40	4 33	15 4	1 33	24 1	0 38	10 43	1 6	22 39	0 37	22 36	0 4	21 10	1 27	12 26	9 52	16 16	15 57	26 45	6 4	4 55
M25	19 46	26 21	3 5	12 42	4 41	14 39	1 32	24 0	0 38	10 45	1 6	22 39	0 37	22 36	0 4	21 9	1 27	12 26	9 53	16 15	15 56	26 46	6 1	4 55
T 26	19 33	27 15	3 50	12 47	4 46	14 14	1 32	23 59	0 39	10 47	1 6	22 39	0 37	22 36	0 4	21 9	1 27	12 26	9 53	16 12	15 55	26 47	5 59	4 54
W27	19 20	26 54	4 25	12 53	4 51	13 48	1 31	23 58	0 39	10 49	1 6	22 38	0 37	22 36	0 4	21 9	1 27	12 26	9 53	16 9	15 54	26 48	5 57	4 54
T 28	19 6	25 17	4 49	13 2	4 54	13 22	1 31	23 56	0 40	10 51	1 5	22 38	0 36	22 36	0 4	21 9	1 27	12 26	9 53	16 5	15 53	26 49	5 54	4 53
F 29	18 52	22 28	4 59	13 13	4 55	12 56	1 30	23 54	0 41	10 53	1 5	22 38	0 36	22 36	0 4	21 9	1 27	12 26	9 53	16 1	15 52	26 50	5 52	4 53
S 30	18 38	18 36	4 56	13 25	4 54	12 29	1 29	23 52	0 41	10 55	1 5	22 37	0 36	22 36	0 4	21 9	1 27	12 26	9 53	15 58	15 51	26 51	5 49	4 53
S 31	18n23	13n53	4n39	13n40	4s51	12n 2	1n28	23n50	0n42	10s58	1n 5	22n37	0s36	22s35	0s 4	21s 9	1n27	12n26	9s53	15n54	15n50	26n52	5n47	4s52

Julian Day Number = 2323891.5, Delta T = 42.97 sec
Ecliptic obliquity = 23°29'11, Nutation = - 0°00'11, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'43, Lahiri = 18°58'44Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

AUGUST 1650 GC

00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
M 1	20 38 44	8♌39'05	18♍ 5	7°R 2	3♍33	10♋13	1♏27	8♋33	14°R 2	14°R32	11♊48	13°R16	13♉10	25♊31	3♍25	M 1
T 2	20 42 40	9°36'36	1♎ 2	6♌18	4°46	10°52	1°33	8°40	14♐ 1	14♐32	11°49	13♉ 9	13° 6	25°38	3°33	T 2
W 3	20 46 37	10°34'06	14°10	5°37	5°59	11°32	1°40	8°47	14° 0	14°31	11°49	13° 5	13° 3	25°44	3°41	W 3
T 4	20 50 33	11°31'38	27°33	4°58	7°12	12°11	1°46	8°54	13°59	14°30	11°50	13° 3	13° 0	25°51	3°49	T 4
F 5	20 54 30	12°29'11	11♏12	4°24	8°25	12°50	1°52	9° 1	13°58	14°29	11°51	13° 3	12°57	25°58	3°57	F 5
S 6	20 58 26	13°26'44	25° 8	3°54	9°38	13°29	1°59	9° 8	13°57	14°29	11°52	13° 3	12°54	26° 4	4° 5	S 6
S 7	21 2 23	14°24'19	9♐22	3°29	10°51	14° 8	2° 5	9°15	13°57	14°28	11°52	13° 2	12°50	26°11	4°13	S 7
M 8	21 6 20	15°21'54	23°52	3°11	12° 4	14°47	2°12	9°22	13°56	14°28	11°53	12°58	12°47	26°18	4°22	M 8
T 9	21 10 16	16°19'31	8♑34	2°59	13°17	15°27	2°19	9°28	13°55	14°27	11°54	12°52	12°44	26°24	4°30	T 9
W10	21 14 13	17°17'08	23°24	2°D54	14°30	16° 6	2°26	9°35	13°54	14°26	11°55	12°44	12°41	26°31	4°38	W10
T 11	21 18 9	18°14'47	8♒13	2°55	15°43	16°44	2°34	9°42	13°54	14°26	11°55	12°33	12°38	26°38	4°46	T 11
F 12	21 22 6	19°12'27	22°53	3° 4	16°56	17°23	2°41	9°49	13°53	14°25	11°56	12°22	12°35	26°44	4°55	F 12
S 13	21 26 2	20°10'08	7♓15	3°21	18° 8	18° 2	2°48	9°55	13°53	14°25	11°57	12°11	12°31	26°51	5° 3	S 13
S 14	21 29 59	21° 7'50	21°15	3°45	19°21	18°41	2°56	10° 2	13°52	14°25	11°57	12° 2	12°28	26°58	5°12	S 14
M15	21 33 55	22° 5'34	4♈48	4°16	20°34	19°20	3° 4	10° 8	13°52	14°24	11°58	11°55	12°25	27° 4	5°20	M15
T 16	21 37 52	23° 3'20	17°55	4°55	21°47	19°59	3°12	10°15	13°51	14°24	11°58	11°51	12°22	27°11	5°28	T 16
W17	21 41 49	24° 1'07	0♉37	5°41	22°59	20°37	3°20	10°21	13°51	14°24	11°59	11°49	12°19	27°18	5°37	W17
T 18	21 45 45	24°58'56	12°59	6°35	24°12	21°16	3°28	10°28	13°51	14°23	11°59	11°D48	12°16	27°24	5°45	T 18
F 19	21 49 42	25°56'47	25° 4	7°35	25°25	21°54	3°36	10°34	13°51	14°23	12° 0	11°R49	12°12	27°31	5°54	F 19
S 20	21 53 38	26°54'40	6♊59	8°42	26°38	22°33	3°44	10°40	13°50	14°23	12° 0	11°48	12° 9	27°38	6° 2	S 20
S 21	21 57 35	27°52'34	18°49	9°55	27°50	23°11	3°53	10°46	13°50	14°23	12° 1	11°46	12° 6	27°45	6°11	S 21
M22	22 1 31	28°50'31	0♋39	11°14	29° 3	23°50	4° 1	10°52	13°50	14°22	12° 1	11°42	12° 3	27°51	6°19	M22
T 23	22 5 28	29°48'29	12°33	12°38	0♎15	24°28	4°10	10°58	13°D50	14°22	12° 2	11°35	12° 0	27°58	6°28	T 23
W24	22 9 24	0♍46'29	24°35	14° 7	1°28	25° 7	4°19	11° 4	13°50	14°22	12° 2	11°26	11°56	28° 5	6°36	W24
T 25	22 13 21	1°44'30	6♌48	15°42	2°41	25°45	4°28	11°10	13°50	14°22	12° 2	11°15	11°53	28°11	6°45	T 25
F 26	22 17 18	2°42'34	19°14	17°20	3°53	26°23	4°37	11°16	13°50	14°D22	12° 3	11° 3	11°50	28°18	6°53	F 26
S 27	22 21 14	3°40'39	1♍53	19° 2	5° 6	27° 1	4°46	11°22	13°51	14°22	12° 3	10°51	11°47	28°25	7° 2	S 27
S 28	22 25 11	4°38'45	14°44	20°47	6°18	27°40	4°55	11°28	13°51	14°22	12° 3	10°40	11°44	28°31	7°10	S 28
M29	22 29 7	5°36'54	27°49	22°34	7°30	28°18	5° 5	11°34	13°51	14°22	12° 4	10°32	11°41	28°38	7°19	M29
T 30	22 33 4	6°35'04	11♎ 5	24°24	8°43	28°56	5°14	11°39	13°52	14°22	12° 4	10°26	11°37	28°45	7°28	T 30
W31	22 37 0	7♍33'15	24♎31	26♌16	9♎55	29♋34	5♏24	11♋45	13♐52	14♐22	12♊ 4	10♉22	11♉34	28♊51	7♍36	W31

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
M 1	18n 8	8n30	4n 7	13n55	4s47	11n35	1n28	23n48	0n42	11s 0	1n 4	22n36	0s36	22s35	0s 4	21s 9	1n27	12n26	9s53	15n51	15n49	26n53	5n44	4s52
T 2	17 53	2 41	3 22	14 12	4 40	11 7	1 27	23 45	0 43	11 2	1 4	22 36	0 36	22 35	0 4	21 9	1 27	12 26	9 54	15 49	15 48	26 54	5 42	4 51
W 3	17 37	3s21	2 26	14 30	4 33	10 40	1 26	23 42	0 44	11 5	1 4	22 36	0 36	22 35	0 4	21 9	1 27	12 26	9 54	15 48	15 47	26 55	5 39	4 51
T 4	17 22	9 22	1 21	14 48	4 23	10 11	1 25	23 40	0 44	11 7	1 4	22 35	0 36	22 35	0 4	21 9	1 27	12 26	9 54	15 47	15 46	26 55	5 37	4 51
F 5	17 5	15 4	0 10	15 7	4 12	9 43	1 23	23 36	0 45	11 9	1 3	22 35	0 36	22 35	0 4	21 9	1 27	12 26	9 54	15 47	15 45	26 56	5 34	4 50
S 6	16 49	20 7	1s 3	15 26	3 59	9 14	1 22	23 33	0 45	11 12	1 3	22 34	0 36	22 35	0 4	21 9	1 27	12 26	9 54	15 47	15 44	26 57	5 32	4 50
S 7	16 33	24 7	2 14	15 45	3 46	8 45	1 21	23 30	0 46	11 14	1 3	22 34	0 36	22 35	0 4	21 9	1 26	12 26	9 54	15 47	15 43	26 58	5 29	4 50
M 8	16 16	26 38	3 18	16 4	3 31	8 16	1 19	23 26	0 46	11 17	1 3	22 34	0 36	22 35	0 4	21 9	1 26	12 26	9 55	15 46	15 42	26 59	5 26	4 49
T 9	15 58	27 21	4 9	16 22	3 15	7 47	1 18	23 22	0 47	11 20	1 2	22 33	0 36	22 35	0 4	21 9	1 26	12 26	9 55	15 44	15 41	27 0	5 24	4 49
W10	15 41	26 7	4 44	16 39	2 59	7 17	1 16	23 18	0 48	11 22	1 2	22 33	0 36	22 35	0 4	21 9	1 26	12 26	9 55	15 41	15 40	27 0	5 21	4 49
T 11	15 23	23 4	5 0	16 55	2 42	6 48	1 15	23 14	0 48	11 25	1 2	22 32	0 36	22 34	0 4	21 9	1 26	12 26	9 55	15 38	15 40	27 1	5 18	4 48
F 12	15 6	18 34	4 55	17 10	2 25	6 18	1 13	23 10	0 49	11 28	1 2	22 32	0 36	22 34	0 4	21 9	1 26	12 26	9 55	15 35	15 39	27 2	5 16	4 48
S 13	14 47	13 5	4 33	17 23	2 7	5 48	1 11	23 5	0 49	11 30	1 2	22 31	0 36	22 34	0 4	21 9	1 26	12 26	9 55	15 31	15 38	27 3	5 13	4 48
S 14	14 29	7 3	3 54	17 34	1 50	5 17	1 10	23 0	0 50	11 33	1 1	22 31	0 36	22 34	0 4	21 9	1 26	12 26	9 55	15 29	15 37	27 4	5 10	4 47
M15	14 10	0 53	3 2	17 44	1 33	4 47	1 8	22 56	0 51	11 36	1 1	22 30	0 36	22 34	0 4	21 9	1 26	12 26	9 56	15 26	15 36	27 4	5 7	4 47
T 16	13 52	5n 9	2 3	17 51	1 16	4 16	1 6	22 50	0 51	11 39	1 1	22 30	0 35	22 34	0 4	21 9	1 26	12 25	9 56	15 25	15 35	27 5	5 5	4 47
W17	13 32	10 47	0 59	17 56	0 59	3 46	1 4	22 45	0 52	11 42	1 1	22 30	0 35	22 34	0 4	21 9	1 26	12 25	9 56	15 25	15 34	27 6	5 2	4 46
T 18	13 13	15 52	0n 6	17 59	0 42	3 15	1 2	22 40	0 52	11 45	1 0	22 29	0 35	22 34	0 4	21 9	1 26	12 25	9 56	15 24	15 33	27 7	4 59	4 46
F 19	12 54	20 12	1 10	17 59	0 27	2 44	1 0	22 34	0 53	11 48	1 0	22 29	0 35	22 34	0 4	21 9	1 26	12 25	9 56	15 24	15 32	27 8	4 56	4 46
S 20	12 34	23 39	2 9	17 56	0 11	2 13	0 57	22 29	0 54	11 51	1 0	22 28	0 35	22 34	0 4	21 9	1 26	12 25	9 56	15 24	15 31	27 8	4 53	4 46
S 21	12 14	26 3	3 3	17 51	0n 3	1 42	0 55	22 23	0 54	11 54	1 0	22 28	0 35	22 34	0 4	21 9	1 26	12 25	9 57	15 24	15 30	27 9	4 50	4 45
M22	11 54	27 18	3 49	17 42	0 17	1 11	0 53	22 17	0 55	11 57	1 0	22 27	0 35	22 34	0 4	21 9	1 26	12 25	9 57	15 22	15 29	27 10	4 48	4 45
T 23	11 34	27 17	4 25	17 31	0 29	0 40	0 51	22 11	0 55	12 0	0 59	22 27	0 35	22 34	0 4	21 9	1 26	12 25	9 57	15 20	15 28	27 10	4 45	4 45
W24	11 13	25 59	4 49	17 17	0 41	0 9	0 48	22 4	0 56	12 3	0 59	22 26	0 35	22 34	0 4	21 9	1 26	12 25	9 57	15 18	15 27	27 11	4 42	4 45
T 25	10 53	23 27	5 1	16 59	0 52	0s22	0 46	21 58	0 56	12 7	0 59	22 26	0 35	22 34	0 4	21 9	1 26	12 24	9 57	15 14	15 26	27 12	4 39	4 44
F 26	10 32	19 49	4 59	16 39	1 2	0 53	0 43	21 51	0 57	12 10	0 59	22 26	0 35	22 34	0 4	21 9	1 25	12 24	9 57	15 10	15 25	27 13	4 36	4 44
S 27	10 11	15 13	4 42	16 16	1 11	1 24	0 40	21 44	0 58	12 13	0 59	22 25	0 35	22 34	0 4	21 9	1 25	12 24	9 58	15 7	15 24	27 13	4 33	4 44
S 28	9 50	9 52	4 11	15 50	1 19	1 56	0 38	21 37	0 58	12 16	0 58	22 25	0 35	22 34	0 4	21 9	1 25	12 24	9 58	15 3	15 23	27 14	4 30	4 44
M29	9 28	4 1	3 26	15 22	1 26	2 27	0 35	21 30	0 59	12 20	0 58	22 24	0 35	22 34	0 4	21 9	1 25	12 24	9 58	15 1	15 22	27 15	4 27	4 43
T 30	9 7	2s 6	2 29	14 51	1 32	2 58	0 32	21 23	0 59	12 23	0 58	22 24	0 35	22 34	0 4	21 9	1 25	12 24	9 58	14 59	15 21	27 15	4 24	4 43
W31	8n45	8s14	1n23	14n18	1n36	3s29	0n30	21n16	1n 0	12s26	0n58	22n23	0s35	22s34	0s 4	21s10	1n25	12n24	9s58	14n58	15n20	27n16	4n21	4s43

Julian Day Number = 2323922.5, Delta T = 42.91 sec
Ecliptic obliquity = 23°29'12, Nutation = - 0°00'10, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'47, Lahiri = 18°58'48Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

SEPTEMBER 1650 GC — 00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
T 1	22 40 57	8♍31'28	8♏ 8	28♌ 9	11♎ 8	0♌12	5♏34	11♋50	13♐52	14♐23	12♊ 5	10°D21	11♉31	28♊58	7♍45	T 1
F 2	22 44 53	9°29'43	21°55	0♍ 3	12°20	0°50	5°43	11°56	13°53	14°23	12° 5	10♉22	11°28	29° 5	7°53	F 2
S 3	22 48 50	10°27'59	5♐51	1°58	13°32	1°27	5°53	12° 1	13°53	14°23	12° 5	10°R22	11°25	29°11	8° 2	S 3
S 4	22 52 47	11°26'17	19°58	3°53	14°44	2° 5	6° 3	12° 6	13°54	14°23	12° 5	10°22	11°22	29°18	8°10	S 4
M 5	22 56 43	12°24'36	4♑14	5°48	15°57	2°43	6°13	12°11	13°55	14°24	12° 5	10°20	11°18	29°25	8°19	M 5
T 6	23 0 40	13°22'57	18°36	7°43	17° 9	3°21	6°23	12°16	13°55	14°24	12° 5	10°16	11°15	29°31	8°28	T 6
W 7	23 4 36	14°21'19	3♒ 1	9°38	18°21	3°58	6°34	12°21	13°56	14°24	12° 6	10° 9	11°12	29°38	8°36	W 7
T 8	23 8 33	15°19'43	17°24	11°32	19°33	4°36	6°44	12°26	13°57	14°25	12° 6	10° 1	11° 9	29°45	8°45	T 8
F 9	23 12 29	16°18'09	1♓39	13°26	20°45	5°13	6°54	12°31	13°58	14°25	12° 6	9°53	11° 6	29°52	8°53	F 9
S 10	23 16 26	17°16'36	15°41	15°19	21°57	5°51	7° 5	12°36	13°59	14°26	12° 6	9°44	11° 2	29°58	9° 2	S 10
S 11	23 20 22	18°15'06	29°26	17°11	23° 9	6°28	7°15	12°41	14° 0	14°26	12°R 6	9°37	10°59	0♋ 5	9°10	S 11
M12	23 24 19	19°13'37	12♈49	19° 3	24°21	7° 6	7°26	12°45	14° 1	14°27	12° 6	9°32	10°56	0°12	9°19	M12
T 13	23 28 16	20°12'10	25°50	20°53	25°33	7°43	7°37	12°50	14° 2	14°27	12° 6	9°29	10°53	0°18	9°27	T 13
W14	23 32 12	21°10'46	8♉30	22°43	26°45	8°20	7°48	12°54	14° 3	14°28	12° 6	9°D28	10°50	0°25	9°36	W14
T 15	23 36 9	22° 9'23	20°52	24°31	27°57	8°58	7°59	12°59	14° 4	14°28	12° 6	9°28	10°47	0°32	9°44	T 15
F 16	23 40 5	23° 8'03	2♊59	26°19	29° 9	9°35	8°10	13° 3	14° 5	14°29	12° 6	9°30	10°43	0°38	9°53	F 16
S 17	23 44 2	24° 6'46	14°55	28° 5	0♏21	10°12	8°21	13° 7	14° 6	14°30	12° 5	9°31	10°40	0°45	10° 1	S 17
S 18	23 47 58	25° 5'30	26°46	29°51	1°32	10°49	8°32	13°11	14° 8	14°30	12° 5	9°R31	10°37	0°52	10°10	S 18
M19	23 51 55	26° 4'17	8♋38	1♎36	2°44	11°26	8°43	13°15	14° 9	14°31	12° 5	9°30	10°34	0°58	10°18	M19
T 20	23 55 51	27° 3'06	20°34	3°20	3°56	12° 3	8°55	13°19	14°10	14°32	12° 5	9°28	10°31	1° 5	10°27	T 20
W21	23 59 48	28° 1'57	2♌39	5° 2	5° 7	12°40	9° 6	13°23	14°12	14°33	12° 5	9°23	10°27	1°12	10°35	W21
T 22	0 3 45	29° 0'51	14°58	6°44	6°19	13°17	9°17	13°27	14°13	14°34	12° 5	9°17	10°24	1°19	10°43	T 22
F 23	0 7 41	29°59'46	27°32	8°25	7°30	13°54	9°29	13°30	14°15	14°35	12° 4	9°10	10°21	1°25	10°52	F 23
S 24	0 11 38	0♎58'44	10♍24	10° 5	8°42	14°31	9°41	13°34	14°16	14°35	12° 4	9° 4	10°18	1°32	11° 0	S 24
S 25	0 15 34	1°57'44	23°33	11°44	9°53	15° 7	9°52	13°37	14°18	14°36	12° 4	8°57	10°15	1°39	11° 8	S 25
M26	0 19 31	2°56'46	6♎59	13°23	11° 5	15°44	10° 4	13°41	14°20	14°37	12° 3	8°53	10°12	1°45	11°16	M26
T 27	0 23 27	3°55'50	20°39	15° 0	12°16	16°21	10°16	13°44	14°21	14°38	12° 3	8°49	10° 8	1°52	11°25	T 27
W28	0 27 24	4°54'56	4♏31	16°37	13°28	16°57	10°28	13°47	14°23	14°39	12° 3	8°D48	10° 5	1°59	11°33	W28
T 29	0 31 20	5°54'04	18°32	18°12	14°39	17°34	10°39	13°50	14°25	14°40	12° 2	8°48	10° 2	2° 5	11°41	T 29
F 30	0 35 17	6♎53'14	2♐38	19♎47	15♏50	18♌10	10♏51	13♋53	14♐27	14♐42	12♊ 2	8♉50	9♉59	2♋12	11♍49	F 30

Day	☉	☽		☿		♀		♂		♃		♄		♅		♆		♇		☊	☊	⚸	⚷	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
T 1	8n23	14s 3	0n12	13n43	1n41	4s 0	0n27	21n 8	1n 1	12s30	0n58	22n23	0s35	22s34	0s 4	21s10	1n25	12n24	9s58	14n57	15n19	27n17	4n18	4s43
F 2	8 1	19 16	1s 1	13 5	1 44	4 31	0 24	21 0	1 1	12 33	0 57	22 22	0 35	22 34	0 4	21 10	1 25	12 23	9 59	14 57	15 18	27 17	4 15	4 43
S 3	7 39	23 29	2 12	12 27	1 46	5 2	0 21	20 53	1 2	12 37	0 57	22 22	0 35	22 35	0 4	21 10	1 25	12 23	9 59	14 58	15 17	27 18	4 12	4 43
S 4	7 17	26 21	3 15	11 46	1 47	5 33	0 18	20 45	1 2	12 40	0 57	22 22	0 35	22 35	0 4	21 10	1 25	12 23	9 59	14 57	15 16	27 19	4 9	4 42
M 5	6 55	27 32	4 7	11 4	1 48	6 3	0 15	20 37	1 3	12 44	0 57	22 21	0 35	22 35	0 4	21 10	1 25	12 23	9 59	14 57	15 15	27 19	4 6	4 42
T 6	6 33	26 53	4 44	10 22	1 48	6 34	0 12	20 28	1 3	12 47	0 57	22 21	0 35	22 35	0 4	21 10	1 25	12 23	9 59	14 56	15 14	27 20	4 3	4 42
W 7	6 10	24 26	5 3	9 38	1 47	7 4	0 9	20 20	1 4	12 51	0 57	22 20	0 35	22 35	0 4	21 10	1 25	12 23	10 0	14 54	15 13	27 20	4 0	4 42
T 8	5 48	20 27	5 3	8 53	1 46	7 35	0 6	20 12	1 5	12 54	0 56	22 20	0 35	22 35	0 4	21 10	1 25	12 22	10 0	14 51	15 12	27 21	3 57	4 42
F 9	5 25	15 19	4 44	8 7	1 44	8 5	0 2	20 3	1 5	12 58	0 56	22 19	0 35	22 35	0 4	21 10	1 25	12 22	10 0	14 48	15 11	27 22	3 54	4 42
S 10	5 2	9 27	4 8	7 21	1 41	8 35	0s 1	19 54	1 6	13 1	0 56	22 19	0 34	22 35	0 4	21 10	1 25	12 22	10 0	14 46	15 10	27 22	3 51	4 42
S 11	4 39	3 15	3 18	6 35	1 39	9 5	0 4	19 46	1 6	13 5	0 56	22 19	0 34	22 35	0 4	21 11	1 25	12 22	10 0	14 43	15 9	27 23	3 48	4 41
M12	4 16	2n57	2 18	5 48	1 35	9 34	0 7	19 37	1 7	13 9	0 56	22 18	0 34	22 35	0 4	21 11	1 25	12 22	10 0	14 42	15 8	27 23	3 45	4 41
T 13	3 53	8 52	1 13	5 1	1 31	10 4	0 11	19 28	1 7	13 12	0 56	22 18	0 34	22 36	0 4	21 11	1 24	12 22	10 1	14 41	15 7	27 24	3 42	4 41
W14	3 30	14 17	0 5	4 14	1 27	10 33	0 14	19 19	1 8	13 16	0 55	22 17	0 34	22 36	0 4	21 11	1 24	12 21	10 1	14 40	15 6	27 24	3 39	4 41
T 15	3 7	18 59	1n 1	3 26	1 22	11 2	0 17	19 9	1 9	13 20	0 55	22 17	0 34	22 36	0 4	21 11	1 24	12 21	10 1	14 41	15 5	27 25	3 36	4 41
F 16	2 44	22 49	2 4	2 39	1 17	11 31	0 21	19 0	1 9	13 23	0 55	22 17	0 34	22 36	0 4	21 11	1 24	12 21	10 1	14 41	15 4	27 26	3 33	4 41
S 17	2 21	25 37	3 0	1 52	1 12	11 59	0 24	18 50	1 10	13 27	0 55	22 16	0 34	22 36	0 4	21 11	1 24	12 21	10 1	14 41	15 3	27 26	3 29	4 41
S 18	1 57	27 15	3 48	1 5	1 7	12 28	0 27	18 41	1 10	13 31	0 55	22 16	0 34	22 36	0 4	21 11	1 24	12 21	10 1	14 42	15 2	27 27	3 26	4 41
M19	1 34	27 38	4 26	0 18	1 1	12 56	0 31	18 31	1 11	13 34	0 55	22 16	0 34	22 36	0 4	21 12	1 24	12 20	10 2	14 41	15 1	27 27	3 23	4 41
T 20	1 10	26 44	4 53	0s29	0 55	13 23	0 34	18 21	1 11	13 38	0 54	22 15	0 34	22 37	0 4	21 12	1 24	12 20	10 2	14 40	15 0	27 28	3 20	4 41
W21	0 47	24 35	5 7	1 15	0 49	13 51	0 38	18 11	1 12	13 42	0 54	22 15	0 34	22 37	0 4	21 12	1 24	12 20	10 2	14 39	14 59	27 28	3 17	4 41
T 22	0 24	21 17	5 8	2 2	0 43	14 18	0 41	18 1	1 13	13 46	0 54	22 15	0 34	22 37	0 4	21 12	1 24	12 20	10 2	14 37	14 58	27 29	3 14	4 41
F 23	0 0	16 57	4 54	2 47	0 36	14 45	0 45	17 51	1 13	13 50	0 54	22 14	0 34	22 37	0 4	21 12	1 24	12 20	10 2	14 35	14 57	27 29	3 11	4 40
S 24	0s23	11 46	4 25	3 33	0 30	15 11	0 48	17 41	1 14	13 53	0 54	22 14	0 34	22 37	0 4	21 12	1 24	12 20	10 2	14 33	14 56	27 30	3 8	4 40
S 25	0 47	5 57	3 41	4 18	0 23	15 37	0 51	17 31	1 14	13 57	0 54	22 14	0 34	22 38	0 4	21 12	1 24	12 19	10 3	14 31	14 55	27 30	3 5	4 40
M26	1 10	0s15	2 45	5 3	0 16	16 3	0 55	17 21	1 15	14 1	0 54	22 13	0 34	22 38	0 4	21 13	1 24	12 19	10 3	14 29	14 54	27 31	3 2	4 40
T 27	1 34	6 35	1 37	5 47	0 9	16 29	0 58	17 10	1 15	14 5	0 53	22 13	0 34	22 38	0 4	21 13	1 24	12 19	10 3	14 28	14 53	27 31	2 58	4 40
W28	1 57	12 41	0 23	6 30	0 2	16 54	1 2	17 0	1 16	14 9	0 53	22 13	0 34	22 38	0 4	21 13	1 24	12 19	10 3	14 28	14 52	27 31	2 55	4 40
T 29	2 21	18 13	0s53	7 14	0s 5	17 18	1 5	16 49	1 17	14 13	0 53	22 12	0 34	22 38	0 4	21 13	1 24	12 18	10 3	14 28	14 51	27 32	2 52	4 40
F 30	2s44	22s48	2s 7	7s56	0s12	17s42	1s 9	16n38	1n17	14s16	0n53	22n12	0s34	22s39	0s 4	21s13	1n24	12n18	10s 3	14n28	14n50	27n32	2n49	4s40

Julian Day Number = 2323953.5, Delta T = 42.85 sec
Ecliptic obliquity = 23°29'12, Nutation = - 0°00'11, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'52, Lahiri = 18°58'52Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

OCTOBER 1650 GC

00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
S 1	0 39 13	7♎52'25	16♐48	21♎22	17♏ 1	18♌47	11♏ 4	13♋56	14♐29	14♐43	12°R 2	8♉51	9♉56	2♋19	11♍57	S 1
S 2	0 43 10	8°51'39	1♑ 0	22°55	18°12	19°23	11°16	13°59	14°31	14°44	12♊ 1	8°52	9°53	2°25	12° 5	S 2
M 3	0 47 7	9°50'54	15°11	24°28	19°24	19°59	11°28	14° 1	14°33	14°45	12° 1	8°R52	9°49	2°32	12°13	M 3
T 4	0 51 3	10°50'11	29°19	25°59	20°35	20°35	11°40	14° 4	14°35	14°46	12° 0	8°51	9°46	2°39	12°21	T 4
W 5	0 55 0	11°49'30	13♒23	27°30	21°46	21°11	11°52	14° 6	14°37	14°47	12° 0	8°49	9°43	2°46	12°29	W 5
T 6	0 58 56	12°48'50	27°19	29° 1	22°56	21°48	12° 5	14° 9	14°39	14°49	11°59	8°45	9°40	2°52	12°37	T 6
F 7	1 2 53	13°48'13	11♓ 7	0♏30	24° 7	22°24	12°17	14°11	14°41	14°50	11°59	8°42	9°37	2°59	12°45	F 7
S 8	1 6 49	14°47'37	24°42	1°59	25°18	22°59	12°29	14°13	14°43	14°51	11°58	8°38	9°33	3° 6	12°53	S 8
S 9	1 10 46	15°47'03	8♈ 2	3°27	26°29	23°35	12°42	14°15	14°46	14°53	11°58	8°35	9°30	3°12	13° 1	S 9
M10	1 14 42	16°46'31	21° 7	4°54	27°39	24°11	12°54	14°17	14°48	14°54	11°57	8°33	9°27	3°19	13° 9	M10
T 11	1 18 39	17°46'01	3♉55	6°21	28°50	24°47	13° 7	14°19	14°50	14°55	11°57	8°D32	9°24	3°26	13°16	T 11
W12	1 22 36	18°45'34	16°27	7°47	0♐ 0	25°23	13°19	14°20	14°53	14°57	11°56	8°32	9°21	3°32	13°24	W12
T 13	1 26 32	19°45'08	28°44	9°11	1°11	25°58	13°32	14°22	14°55	14°58	11°55	8°33	9°18	3°39	13°32	T 13
F 14	1 30 29	20°44'45	10♊50	10°35	2°21	26°34	13°45	14°23	14°58	15° 0	11°55	8°34	9°14	3°46	13°39	F 14
S 15	1 34 25	21°44'24	22°46	11°59	3°32	27° 9	13°57	14°25	15° 0	15° 1	11°54	8°36	9°11	3°53	13°47	S 15
S 16	1 38 22	22°44'05	4♋38	13°21	4°42	27°45	14°10	14°26	15° 3	15° 3	11°53	8°37	9° 8	3°59	13°54	S 16
M17	1 42 18	23°43'49	16°29	14°42	5°52	28°20	14°23	14°27	15° 5	15° 4	11°53	8°38	9° 5	4° 6	14° 2	M17
T 18	1 46 15	24°43'35	28°25	16° 2	7° 2	28°56	14°36	14°28	15° 8	15° 6	11°52	8°R38	9° 2	4°13	14° 9	T 18
W19	1 50 11	25°43'23	10♌30	17°21	8°12	29°31	14°49	14°29	15°11	15° 8	11°51	8°38	8°59	4°19	14°17	W19
T 20	1 54 8	26°43'13	22°48	18°39	9°22	0♍ 6	15° 2	14°30	15°13	15° 9	11°50	8°36	8°55	4°26	14°24	T 20
F 21	1 58 5	27°43'06	5♍25	19°56	10°32	0°41	15°15	14°31	15°16	15°11	11°50	8°35	8°52	4°33	14°31	F 21
S 22	2 2 1	28°43'00	18°22	21°11	11°42	1°16	15°28	14°31	15°19	15°13	11°49	8°34	8°49	4°39	14°38	S 22
S 23	2 5 58	29°42'57	1♎41	22°25	12°51	1°51	15°40	14°32	15°21	15°14	11°48	8°32	8°46	4°46	14°45	S 23
M24	2 9 54	0♏42'56	15°22	23°37	14° 1	2°26	15°54	14°32	15°24	15°16	11°47	8°32	8°43	4°53	14°52	M24
T 25	2 13 51	1°42'57	29°23	24°48	15°10	3° 1	16° 7	14°32	15°27	15°18	11°46	8°31	8°39	4°59	14°59	T 25
W26	2 17 47	2°42'59	13♏41	25°56	16°20	3°36	16°20	14°33	15°30	15°20	11°46	8°D31	8°36	5° 6	15° 6	W26
T 27	2 21 44	3°43'04	28°10	27° 2	17°29	4°10	16°33	14°R33	15°33	15°21	11°45	8°31	8°33	5°13	15°13	T 27
F 28	2 25 40	4°43'11	12♐45	28° 5	18°38	4°45	16°46	14°33	15°36	15°23	11°44	8°32	8°30	5°20	15°20	F 28
S 29	2 29 37	5°43'19	27°19	29° 6	19°47	5°19	16°59	14°32	15°39	15°25	11°43	8°32	8°27	5°26	15°27	S 29
S 30	2 33 34	6°43'29	11♑48	0♐ 4	20°56	5°54	17°12	14°32	15°42	15°27	11°42	8°32	8°24	5°33	15°33	S 30
M31	2 37 30	7♏43'40	26♑ 7	0♐58	22♐ 5	6♍28	17♏25	14♋32	15♐45	15♐29	11♊41	8♉32	8♉20	5♋40	15♍40	M31

Day	☉	☽		☿		♀		♂		♃		♄		♅		♆		♇		☊	☊	⚸	⚷	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
S 1	3s 8	26s 2	3s13	8s38	0s19	18s 6	1s12	16n27	1n18	14s20	0n53	22n12	0s34	22s39	0s 4	21s13	1n24	12n18	10s 4	14n29	14n49	27n33	2n46	4s40
S 2	3 31	27 37	4 8	9 20	0 26	18 30	1 16	16 17	1 18	14 24	0 53	22 12	0 34	22 39	0 4	21 14	1 24	12 18	10 4	14 29	14 48	27 33	2 43	4 40
M 3	3 55	27 22	4 47	10 1	0 33	18 53	1 19	16 6	1 19	14 28	0 53	22 11	0 34	22 39	0 4	21 14	1 23	12 18	10 4	14 29	14 47	27 34	2 40	4 40
T 4	4 18	25 22	5 9	10 41	0 40	19 15	1 22	15 55	1 19	14 32	0 52	22 11	0 34	22 40	0 4	21 14	1 23	12 17	10 4	14 29	14 46	27 34	2 37	4 40
W 5	4 41	21 49	5 12	11 20	0 47	19 37	1 26	15 44	1 20	14 36	0 52	22 11	0 34	22 40	0 4	21 14	1 23	12 17	10 4	14 28	14 45	27 34	2 34	4 41
T 6	5 4	17 4	4 57	11 59	0 54	19 59	1 29	15 33	1 21	14 40	0 52	22 11	0 34	22 40	0 4	21 14	1 23	12 17	10 4	14 27	14 44	27 35	2 31	4 41
F 7	5 27	11 30	4 25	12 38	1 1	20 20	1 32	15 21	1 21	14 44	0 52	22 10	0 34	22 40	0 4	21 15	1 23	12 17	10 5	14 26	14 43	27 35	2 28	4 41
S 8	5 50	5 27	3 38	13 15	1 8	20 40	1 36	15 10	1 22	14 47	0 52	22 10	0 34	22 41	0 4	21 15	1 23	12 17	10 5	14 24	14 42	27 35	2 25	4 41
S 9	6 13	0n45	2 40	13 52	1 15	21 0	1 39	14 59	1 22	14 51	0 52	22 10	0 33	22 41	0 4	21 15	1 23	12 16	10 5	14 23	14 41	27 36	2 22	4 41
M10	6 36	6 48	1 34	14 28	1 22	21 20	1 42	14 47	1 23	14 55	0 52	22 10	0 33	22 41	0 4	21 15	1 23	12 16	10 5	14 23	14 40	27 36	2 19	4 41
T 11	6 59	12 27	0 25	15 3	1 28	21 39	1 45	14 36	1 24	14 59	0 52	22 10	0 33	22 41	0 4	21 15	1 23	12 16	10 5	14 22	14 39	27 37	2 16	4 41
W12	7 22	17 29	0n44	15 37	1 35	21 57	1 48	14 24	1 24	15 3	0 51	22 10	0 33	22 42	0 4	21 16	1 23	12 16	10 5	14 23	14 38	27 37	2 13	4 41
T 13	7 44	21 42	1 49	16 11	1 41	22 15	1 52	14 13	1 25	15 7	0 51	22 9	0 33	22 42	0 4	21 16	1 23	12 16	10 5	14 23	14 37	27 37	2 10	4 41
F 14	8 7	24 54	2 49	16 44	1 47	22 33	1 55	14 1	1 25	15 11	0 51	22 9	0 33	22 42	0 4	21 16	1 23	12 15	10 6	14 23	14 36	27 38	2 7	4 41
S 15	8 29	26 58	3 41	17 15	1 53	22 49	1 58	13 50	1 26	15 15	0 51	22 9	0 33	22 43	0 4	21 16	1 23	12 15	10 6	14 24	14 35	27 38	2 4	4 41
S 16	8 52	27 47	4 22	17 46	1 59	23 6	2 1	13 38	1 26	15 19	0 51	22 9	0 33	22 43	0 4	21 16	1 23	12 15	10 6	14 24	14 34	27 38	2 1	4 41
M17	9 14	27 19	4 53	18 16	2 5	23 21	2 3	13 26	1 27	15 22	0 51	22 9	0 33	22 43	0 4	21 17	1 23	12 15	10 6	14 24	14 33	27 38	1 58	4 41
T 18	9 36	25 36	5 11	18 45	2 10	23 36	2 6	13 14	1 28	15 26	0 51	22 9	0 33	22 43	0 4	21 17	1 23	12 14	10 6	14 24	14 32	27 39	1 55	4 42
W19	9 58	22 42	5 16	19 13	2 16	23 51	2 9	13 3	1 28	15 30	0 51	22 9	0 33	22 44	0 4	21 17	1 23	12 14	10 6	14 24	14 31	27 39	1 52	4 42
T 20	10 19	18 46	5 7	19 40	2 21	24 4	2 12	12 51	1 29	15 34	0 51	22 9	0 33	22 44	0 4	21 17	1 23	12 14	10 6	14 24	14 30	27 39	1 49	4 42
F 21	10 41	13 55	4 43	20 5	2 25	24 17	2 15	12 39	1 29	15 38	0 51	22 9	0 33	22 44	0 4	21 18	1 23	12 14	10 6	14 24	14 29	27 40	1 46	4 42
S 22	11 2	8 20	4 3	20 30	2 30	24 30	2 17	12 27	1 30	15 42	0 50	22 9	0 33	22 45	0 4	21 18	1 23	12 14	10 6	14 23	14 28	27 40	1 43	4 42
S 23	11 24	2 14	3 10	20 53	2 34	24 42	2 20	12 15	1 31	15 46	0 50	22 9	0 33	22 45	0 4	21 18	1 23	12 13	10 7	14 23	14 27	27 40	1 40	4 42
M24	11 45	4s 9	2 5	21 15	2 38	24 53	2 22	12 3	1 31	15 50	0 50	22 9	0 33	22 45	0 4	21 18	1 23	12 13	10 7	14 22	14 26	27 40	1 38	4 42
T 25	12 6	10 29	0 50	21 36	2 41	25 3	2 25	11 51	1 32	15 53	0 50	22 9	0 33	22 46	0 4	21 18	1 23	12 13	10 7	14 22	14 25	27 41	1 35	4 43
W26	12 26	16 26	0s29	21 56	2 44	25 13	2 27	11 39	1 32	15 57	0 50	22 9	0 33	22 46	0 4	21 19	1 22	12 13	10 7	14 22	14 24	27 41	1 32	4 43
T 27	12 47	21 32	1 47	22 14	2 46	25 22	2 29	11 27	1 33	16 1	0 50	22 9	0 33	22 46	0 4	21 19	1 22	12 13	10 7	14 22	14 23	27 41	1 29	4 43
F 28	13 7	25 19	2 59	22 30	2 48	25 31	2 32	11 14	1 34	16 5	0 50	22 9	0 33	22 47	0 4	21 19	1 22	12 12	10 7	14 22	14 22	27 41	1 26	4 43
S 29	13 27	27 26	3 59	22 45	2 49	25 39	2 34	11 2	1 34	16 9	0 50	22 9	0 33	22 47	0 4	21 19	1 22	12 12	10 7	14 23	14 21	27 41	1 24	4 43
S 30	13 47	27 40	4 43	22 58	2 50	25 46	2 36	10 50	1 35	16 13	0 50	22 9	0 33	22 47	0 4	21 20	1 22	12 12	10 7	14 23	14 20	27 42	1 21	4 43
M31	14s 7	26s 2	5s10	23s10	2s50	25s52	2s38	10n38	1n35	16s16	0n50	22n 9	0s33	22s48	0s 4	21s20	1n22	12n12	10s 7	14n23	14n19	27n42	1n18	4s44

Julian Day Number = 2323983.5, Delta T = 42.79 sec
Ecliptic obliquity = 23°29'12, Nutation = - 0°00'11, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°51'56, Lahiri = 18°58'56Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

NOVEMBER 1650 GC — 00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
T 1	2 41 27	8♏43'53	10♒14	1♐49	23♐14	7♍ 2	17♏39	14°R31	15♐48	15♐31	11°R40	8♉32	8♉17	5♋46	15♍46	T 1
W 2	2 45 23	9°44'07	24° 7	2°35	24°23	7°36	17°52	14♋30	15°51	15°32	11♊39	8°32	8°14	5°53	15°53	W 2
T 3	2 49 20	10°44'23	7♓45	3°16	25°31	8°10	18° 5	14°30	15°54	15°34	11°38	8°32	8°11	6° 0	15°59	T 3
F 4	2 53 16	11°44'40	21° 8	3°51	26°40	8°44	18°18	14°29	15°57	15°36	11°37	8°33	8° 8	6° 7	16° 6	F 4
S 5	2 57 13	12°44'59	4♈18	4°21	27°48	9°18	18°32	14°28	16° 1	15°38	11°36	8°33	8° 4	6°13	16°12	S 5
S 6	3 1 9	13°45'19	17°13	4°44	28°56	9°52	18°45	14°27	16° 4	15°40	11°35	8°34	8° 1	6°20	16°18	S 6
M 7	3 5 6	14°45'41	29°56	5° 0	0♌ 4	10°26	18°58	14°25	16° 7	15°42	11°34	8°34	7°58	6°27	16°24	M 7
T 8	3 9 3	15°46'04	12♉27	5°R 7	1°12	10°59	19°11	14°24	16°10	15°44	11°33	8°R34	7°55	6°33	16°30	T 8
W 9	3 12 59	16°46'29	24°46	5° 6	2°19	11°33	19°25	14°23	16°14	15°46	11°32	8°34	7°52	6°40	16°36	W 9
T 10	3 16 56	17°46'56	6♊55	4°55	3°27	12° 6	19°38	14°21	16°17	15°48	11°31	8°33	7°49	6°47	16°42	T 10
F 11	3 20 52	18°47'24	18°56	4°34	4°34	12°40	19°51	14°20	16°20	15°50	11°30	8°32	7°45	6°53	16°48	F 11
S 12	3 24 49	19°47'55	0♋51	4° 3	5°41	13°13	20° 5	14°18	16°24	15°52	11°29	8°30	7°42	7° 0	16°53	S 12
S 13	3 28 45	20°48'27	12°42	3°22	6°48	13°46	20°18	14°16	16°27	15°55	11°28	8°28	7°39	7° 7	16°59	S 13
M14	3 32 42	21°49'00	24°33	2°30	7°55	14°19	20°31	14°14	16°30	15°57	11°27	8°26	7°36	7°14	17° 4	M14
T 15	3 36 38	22°49'36	6♌27	1°29	9° 2	14°52	20°45	14°12	16°34	15°59	11°26	8°25	7°33	7°20	17°10	T 15
W16	3 40 35	23°50'13	18°30	0°20	10° 8	15°25	20°58	14°10	16°37	16° 1	11°25	8°D24	7°30	7°27	17°15	W16
T 17	3 44 32	24°50'52	0♍45	29♏ 4	11°14	15°58	21°11	14° 8	16°41	16° 3	11°24	8°24	7°26	7°34	17°20	T 17
F 18	3 48 28	25°51'32	13°16	27°44	12°20	16°31	21°25	14° 5	16°44	16° 5	11°23	8°25	7°23	7°40	17°25	F 18
S 19	3 52 25	26°52'15	26°10	26°22	13°26	17° 3	21°38	14° 3	16°47	16° 7	11°21	8°26	7°20	7°47	17°31	S 19
S 20	3 56 21	27°52'58	9♎27	25° 1	14°32	17°36	21°51	14° 0	16°51	16°10	11°20	8°28	7°17	7°54	17°35	S 20
M21	4 0 18	28°53'44	23°11	23°43	15°37	18° 8	22° 5	13°57	16°54	16°12	11°19	8°29	7°14	8° 0	17°40	M21
T 22	4 4 14	29°54'31	7♏21	22°32	16°42	18°40	22°18	13°55	16°58	16°14	11°18	8°R30	7°10	8° 7	17°45	T 22
W23	4 8 11	0♐55'19	21°55	21°29	17°47	19°12	22°31	13°52	17° 1	16°16	11°17	8°29	7° 7	8°14	17°50	W23
T 24	4 12 7	1°56'09	6♐46	20°36	18°52	19°44	22°44	13°49	17° 5	16°18	11°16	8°27	7° 4	8°21	17°54	T 24
F 25	4 16 4	2°57'00	21°47	19°54	19°56	20°16	22°58	13°46	17° 9	16°21	11°15	8°25	7° 1	8°27	17°59	F 25
S 26	4 20 1	3°57'52	6♑49	19°24	21° 0	20°48	23°11	13°43	17°12	16°23	11°14	8°21	6°58	8°34	18° 3	S 26
S 27	4 23 57	4°58'45	21°43	19° 5	22° 4	21°19	23°24	13°39	17°16	16°25	11°12	8°17	6°55	8°41	18° 8	S 27
M28	4 27 54	5°59'39	6♒21	18°D57	23° 8	21°51	23°37	13°36	17°19	16°27	11°11	8°14	6°51	8°47	18°12	M28
T 29	4 31 50	7° 0'34	20°39	19° 0	24°11	22°22	23°50	13°33	17°23	16°29	11°10	8°12	6°48	8°54	18°16	T 29
W30	4 35 47	8♐ 1'29	4♓34	19♏12	25♑14	22♍53	24♏ 4	13♋29	17♐27	16♐32	11♊ 9	8°D11	6♉45	9♋ 1	18♍20	W30

Day	☉	☽		☿		♀		♂		♃		♄		♅		♆		♇		☊	☊	⚸	⚷	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
T 1	14s26	22s48	5s17	23s20	2s49	25s58	2s39	10n26	1n36	16s20	0n50	22n 9	0s33	22s48	0s 4	21s20	1n22	12n12	10s 7	14n23	14n18	27n42	1n16	4s44
W 2	14 46	18 19	5 6	23 28	2 48	26 3	2 41	10 14	1 37	16 24	0 50	22 9	0 33	22 48	0 4	21 20	1 22	12 11	10 8	14 23	14 17	27 42	1 13	4 44
T 3	15 5	12 58	4 37	23 33	2 45	26 7	2 43	10 1	1 37	16 28	0 49	22 9	0 33	22 49	0 4	21 21	1 22	12 11	10 8	14 23	14 16	27 42	1 10	4 44
F 4	15 23	7 6	3 54	23 37	2 42	26 11	2 44	9 49	1 38	16 31	0 49	22 10	0 32	22 49	0 4	21 21	1 22	12 11	10 8	14 23	14 15	27 42	1 8	4 44
S 5	15 42	1 2	2 59	23 38	2 37	26 14	2 46	9 37	1 38	16 35	0 49	22 10	0 32	22 49	0 4	21 21	1 22	12 11	10 8	14 23	14 14	27 43	1 5	4 45
S 6	16 0	5n 0	1 56	23 37	2 32	26 16	2 47	9 25	1 39	16 39	0 49	22 10	0 32	22 50	0 4	21 21	1 22	12 11	10 8	14 23	14 13	27 43	1 2	4 45
M 7	16 18	10 44	0 48	23 33	2 25	26 18	2 49	9 12	1 40	16 42	0 49	22 10	0 32	22 50	0 4	21 21	1 22	12 10	10 8	14 23	14 12	27 43	1 0	4 45
T 8	16 36	15 57	0n21	23 26	2 16	26 19	2 50	9 0	1 40	16 46	0 49	22 10	0 32	22 50	0 4	21 22	1 22	12 10	10 8	14 23	14 11	27 43	0 57	4 45
W 9	16 53	20 26	1 29	23 16	2 7	26 19	2 51	8 48	1 41	16 50	0 49	22 11	0 32	22 51	0 4	21 22	1 22	12 10	10 8	14 23	14 10	27 43	0 55	4 46
T 10	17 10	23 59	2 31	23 3	1 55	26 18	2 52	8 36	1 41	16 54	0 49	22 11	0 32	22 51	0 4	21 22	1 22	12 10	10 8	14 23	14 9	27 43	0 52	4 46
F 11	17 27	26 26	3 25	22 46	1 42	26 17	2 53	8 24	1 42	16 57	0 49	22 11	0 32	22 51	0 4	21 22	1 22	12 10	10 8	14 22	14 7	27 43	0 50	4 46
S 12	17 43	27 40	4 11	22 26	1 28	26 15	2 53	8 11	1 43	17 1	0 49	22 11	0 32	22 52	0 4	21 23	1 22	12 9	10 8	14 22	14 6	27 43	0 47	4 46
S 13	17 59	27 36	4 45	22 2	1 12	26 12	2 54	7 59	1 43	17 4	0 49	22 11	0 32	22 52	0 4	21 23	1 22	12 9	10 8	14 21	14 5	27 43	0 45	4 47
M14	18 15	26 17	5 7	21 35	0 54	26 9	2 54	7 47	1 44	17 8	0 49	22 12	0 32	22 52	0 4	21 23	1 22	12 9	10 8	14 21	14 4	27 43	0 43	4 47
T 15	18 31	23 47	5 16	21 4	0 35	26 5	2 55	7 35	1 45	17 12	0 49	22 12	0 32	22 53	0 4	21 23	1 22	12 9	10 8	14 20	14 3	27 44	0 40	4 47
W16	18 46	20 14	5 11	20 31	0 15	26 0	2 55	7 22	1 45	17 15	0 49	22 12	0 32	22 53	0 4	21 24	1 22	12 9	10 8	14 20	14 2	27 44	0 38	4 47
T 17	19 1	15 47	4 52	19 54	0n 5	25 55	2 55	7 10	1 46	17 19	0 49	22 13	0 32	22 53	0 4	21 24	1 22	12 9	10 8	14 20	14 1	27 44	0 36	4 48
F 18	19 16	10 35	4 19	19 17	0 26	25 49	2 55	6 58	1 47	17 22	0 48	22 13	0 32	22 54	0 4	21 24	1 22	12 8	10 8	14 20	14 0	27 44	0 34	4 48
S 19	19 30	4 47	3 33	18 38	0 46	25 42	2 55	6 46	1 47	17 26	0 48	22 13	0 32	22 54	0 4	21 24	1 22	12 8	10 8	14 21	13 59	27 44	0 31	4 48
S 20	19 44	1s24	2 33	18 0	1 5	25 35	2 54	6 34	1 48	17 29	0 48	22 13	0 32	22 54	0 4	21 25	1 22	12 8	10 8	14 21	13 58	27 44	0 29	4 48
M21	19 57	7 44	1 23	17 23	1 24	25 27	2 54	6 22	1 48	17 33	0 48	22 14	0 32	22 55	0 4	21 25	1 22	12 8	10 8	14 22	13 57	27 44	0 27	4 49
T 22	20 10	13 54	0 6	16 50	1 40	25 18	2 53	6 10	1 49	17 36	0 48	22 14	0 32	22 55	0 4	21 25	1 22	12 8	10 8	14 22	13 56	27 44	0 25	4 49
W23	20 23	19 28	1s13	16 19	1 55	25 9	2 52	5 58	1 50	17 40	0 48	22 15	0 31	22 55	0 4	21 25	1 22	12 8	10 8	14 22	13 55	27 44	0 23	4 49
T 24	20 35	23 56	2 29	15 53	2 7	24 59	2 51	5 46	1 50	17 43	0 48	22 15	0 31	22 56	0 4	21 26	1 22	12 8	10 8	14 21	13 54	27 44	0 21	4 50
F 25	20 47	26 49	3 36	15 32	2 18	24 49	2 50	5 34	1 51	17 46	0 48	22 15	0 31	22 56	0 4	21 26	1 22	12 7	10 8	14 20	13 53	27 44	0 19	4 50
S 26	20 59	27 46	4 27	15 16	2 26	24 38	2 49	5 22	1 52	17 50	0 48	22 16	0 31	22 57	0 4	21 26	1 22	12 7	10 8	14 19	13 52	27 44	0 17	4 50
S 27	21 10	26 40	5 0	15 5	2 32	24 26	2 48	5 10	1 52	17 53	0 48	22 16	0 31	22 57	0 4	21 26	1 22	12 7	10 8	14 18	13 51	27 44	0 15	4 51
M28	21 21	23 46	5 13	14 59	2 37	24 14	2 46	4 58	1 53	17 56	0 48	22 16	0 31	22 57	0 4	21 27	1 22	12 7	10 8	14 17	13 50	27 44	0 13	4 51
T 29	21 31	19 28	5 6	14 57	2 39	24 1	2 45	4 46	1 54	18 0	0 48	22 17	0 31	22 58	0 4	21 27	1 22	12 7	10 8	14 16	13 49	27 44	0 11	4 51
W30	21s41	14s12	4s41	15s 0	2n40	23s48	2s43	4n35	1n54	18s 3	0n48	22n17	0s31	22s58	0s 4	21s27	1n22	12n 7	10s 8	14n16	13n48	27n44	0n 9	4s52

Julian Day Number = 2324014.5, Delta T = 42.73 sec
Ecliptic obliquity = 23°29'12, Nutation = - 0°00'12, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°52'00, Lahiri = 18°59'00Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1650
geocentric

DECEMBER 1650 GC

00:00 UT

Day	Sid.t	☉	☽	☿	♀	♂	♃	♄	♅	♆	♇	☊	☊	⚸	⚷	Day
T 1	4 39 43	9♐ 2'25	18♓ 7	19♏34	26♑16	23♍24	24♏17	13°R26	17♐30	16♐34	11°R 8	8♉11	6♉42	9♋ 8	18♍24	T 1
F 2	4 43 40	10° 3'22	1♈18	20° 5	27°19	23°55	24°30	13♋22	17°34	16°36	11♊ 7	8°12	6°39	9°14	18°27	F 2
S 3	4 47 37	11° 4'20	14°10	20°42	28°20	24°26	24°43	13°18	17°37	16°38	11° 5	8°14	6°36	9°21	18°31	S 3
S 4	4 51 33	12° 5'18	26°47	21°27	29°22	24°57	24°56	13°14	17°41	16°41	11° 4	8°15	6°32	9°28	18°35	S 4
M 5	4 55 30	13° 6'17	9♉12	22°17	0♒23	25°27	25° 9	13°10	17°45	16°43	11° 3	8°R16	6°29	9°34	18°38	M 5
T 6	4 59 26	14° 7'17	21°26	23°12	1°24	25°58	25°22	13° 6	17°48	16°45	11° 2	8°15	6°26	9°41	18°42	T 6
W 7	5 3 23	15° 8'17	3♊32	24°12	2°24	26°28	25°35	13° 2	17°52	16°47	11° 1	8°12	6°23	9°48	18°45	W 7
T 8	5 7 19	16° 9'18	15°32	25°16	3°24	26°58	25°48	12°58	17°56	16°50	11° 0	8° 7	6°20	9°55	18°48	T 8
F 9	5 11 16	17°10'20	27°27	26°23	4°24	27°28	26° 1	12°54	17°59	16°52	10°59	8° 1	6°16	10° 1	18°51	F 9
S 10	5 15 12	18°11'23	9♋20	27°33	5°23	27°57	26°14	12°50	18° 3	16°54	10°57	7°53	6°13	10° 8	18°54	S 10
S 11	5 19 9	19°12'27	21°11	28°46	6°21	28°27	26°27	12°46	18° 7	16°57	10°56	7°45	6°10	10°15	18°57	S 11
M12	5 23 6	20°13'31	3♌ 3	0♐ 1	7°19	28°56	26°39	12°41	18°10	16°59	10°55	7°37	6° 7	10°21	18°59	M12
T 13	5 27 2	21°14'36	14°59	1°18	8°17	29°26	26°52	12°37	18°14	17° 1	10°54	7°30	6° 4	10°28	19° 2	T 13
W14	5 30 59	22°15'42	27° 0	2°37	9°14	29°55	27° 5	12°32	18°18	17° 3	10°53	7°24	6° 1	10°35	19° 4	W14
T 15	5 34 55	23°16'48	9♍12	3°57	10°10	0♎24	27°18	12°28	18°21	17° 6	10°52	7°21	5°57	10°41	19° 7	T 15
F 16	5 38 52	24°17'56	21°39	5°19	11° 6	0°52	27°30	12°23	18°25	17° 8	10°51	7°D20	5°54	10°48	19° 9	F 16
S 17	5 42 48	25°19'04	4♎24	6°41	12° 1	1°21	27°43	12°19	18°28	17°10	10°49	7°20	5°51	10°55	19°11	S 17
S 18	5 46 45	26°20'13	17°33	8° 5	12°56	1°49	27°55	12°14	18°32	17°12	10°48	7°21	5°48	11° 2	19°13	S 18
M19	5 50 41	27°21'22	1♏ 9	9°30	13°50	2°18	28° 8	12° 9	18°36	17°15	10°47	7°R22	5°45	11° 8	19°15	M19
T 20	5 54 38	28°22'32	15°13	10°56	14°43	2°46	28°20	12° 5	18°39	17°17	10°46	7°22	5°42	11°15	19°17	T 20
W21	5 58 35	29°23'43	29°45	12°22	15°36	3°13	28°33	12° 0	18°43	17°19	10°45	7°20	5°38	11°22	19°18	W21
T 22	6 2 31	0♑24'54	14♐41	13°49	16°28	3°41	28°45	11°55	18°46	17°21	10°44	7°16	5°35	11°28	19°20	T 22
F 23	6 6 28	1°26'06	29°55	15°17	17°19	4° 8	28°57	11°50	18°50	17°24	10°43	7° 9	5°32	11°35	19°21	F 23
S 24	6 10 24	2°27'18	15♑14	16°45	18° 9	4°35	29°10	11°45	18°54	17°26	10°42	7° 0	5°29	11°42	19°22	S 24
S 25	6 14 21	3°28'30	0♒29	18°13	18°59	5° 2	29°22	11°41	18°57	17°28	10°41	6°51	5°26	11°49	19°24	S 25
M26	6 18 17	4°29'42	15°28	19°43	19°48	5°29	29°34	11°36	19° 1	17°30	10°40	6°43	5°22	11°55	19°25	M26
T 27	6 22 14	5°30'53	0♓ 3	21°12	20°36	5°56	29°46	11°31	19° 4	17°32	10°39	6°36	5°19	12° 2	19°25	T 27
W28	6 26 11	6°32'05	14°10	22°42	21°23	6°22	29°58	11°26	19° 8	17°35	10°38	6°31	5°16	12° 9	19°26	W28
T 29	6 30 7	7°33'16	27°49	24°13	22° 9	6°48	0♐10	11°21	19°11	17°37	10°37	6°29	5°13	12°15	19°27	T 29
F 30	6 34 4	8°34'27	11♈ 0	25°44	22°54	7°14	0°22	11°16	19°15	17°39	10°36	6°D28	5°10	12°22	19°27	F 30
S 31	6 38 0	9♑35'37	23♈48	27♐15	23♒38	7♎39	0♐34	11♋11	19♐18	17♐41	10♊35	6♉29	5♉ 7	12♋29	19♍28	S 31

Day	☉	☽		☿		♀		♂		♃		♄		♅		♆		♇		☊	☊	⚸	⚷	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
T 1	21s51	8s24	4s 1	15s 6	2n40	23s34	2s41	4n23	1n55	18s 6	0n48	22n18	0s31	22s58	0s 4	21s27	1n22	12n 7	10s 8	14n16	13n47	27n43	0n 7	4s52
F 2	22 0	2 22	3 8	15 16	2 38	23 20	2 38	4 11	1 56	18 9	0 48	22 18	0 31	22 59	0 4	21 28	1 22	12 7	10 8	14 16	13 46	27 43	0 6	4 52
S 3	22 9	3n38	2 8	15 28	2 35	23 5	2 36	4 0	1 56	18 13	0 48	22 19	0 31	22 59	0 4	21 28	1 22	12 6	10 8	14 17	13 45	27 43	0 4	4 52
S 4	22 17	9 23	1 2	15 43	2 31	22 50	2 34	3 48	1 57	18 16	0 48	22 19	0 31	22 59	0 4	21 28	1 22	12 6	10 8	14 17	13 44	27 43	0 2	4 53
M 5	22 25	14 40	0n 5	16 0	2 27	22 34	2 31	3 37	1 58	18 19	0 48	22 20	0 31	23 0	0 4	21 28	1 22	12 6	10 8	14 17	13 43	27 43	0 0	4 53
T 6	22 32	19 18	1 11	16 19	2 22	22 17	2 28	3 25	1 58	18 22	0 48	22 20	0 31	23 0	0 4	21 28	1 21	12 6	10 8	14 17	13 41	27 43	0s 1	4 53
W 7	22 39	23 5	2 13	16 39	2 16	22 1	2 25	3 14	1 59	18 25	0 48	22 20	0 30	23 0	0 4	21 29	1 21	12 6	10 8	14 16	13 40	27 43	0 3	4 54
T 8	22 46	25 49	3 9	17 1	2 10	21 44	2 21	3 2	2 0	18 28	0 48	22 21	0 30	23 1	0 4	21 29	1 21	12 6	10 8	14 15	13 39	27 43	0 4	4 54
F 9	22 52	27 23	3 55	17 23	2 3	21 26	2 18	2 51	2 0	18 31	0 48	22 21	0 30	23 1	0 4	21 29	1 21	12 6	10 8	14 12	13 38	27 43	0 6	4 54
S 10	22 58	27 40	4 31	17 46	1 57	21 8	2 14	2 40	2 1	18 34	0 48	22 22	0 30	23 1	0 5	21 29	1 21	12 6	10 8	14 10	13 37	27 43	0 7	4 55
S 11	23 3	26 41	4 56	18 9	1 49	20 50	2 10	2 29	2 2	18 37	0 48	22 22	0 30	23 2	0 5	21 30	1 21	12 6	10 8	14 7	13 36	27 42	0 9	4 55
M12	23 8	24 30	5 7	18 32	1 42	20 31	2 6	2 18	2 3	18 40	0 48	22 23	0 30	23 2	0 5	21 30	1 21	12 6	10 8	14 5	13 35	27 42	0 10	4 56
T 13	23 12	21 14	5 6	18 55	1 35	20 12	2 2	2 7	2 3	18 43	0 48	22 23	0 30	23 2	0 5	21 30	1 21	12 6	10 8	14 2	13 34	27 42	0 11	4 56
W14	23 16	17 5	4 51	19 18	1 27	19 52	1 58	1 56	2 4	18 46	0 48	22 24	0 30	23 3	0 5	21 30	1 21	12 5	10 7	14 1	13 33	27 42	0 13	4 56
T 15	23 19	12 11	4 22	19 41	1 19	19 33	1 53	1 45	2 5	18 49	0 48	22 24	0 30	23 3	0 5	21 30	1 21	12 5	10 7	14 0	13 32	27 42	0 14	4 57
F 16	23 22	6 42	3 41	20 4	1 11	19 13	1 48	1 34	2 5	18 52	0 48	22 25	0 30	23 3	0 5	21 31	1 21	12 5	10 7	13 59	13 31	27 42	0 15	4 57
S 17	23 24	0 49	2 48	20 26	1 4	18 52	1 43	1 23	2 6	18 55	0 48	22 25	0 30	23 4	0 5	21 31	1 21	12 5	10 7	13 59	13 30	27 41	0 16	4 57
S 18	23 26	5s17	1 45	20 47	0 56	18 32	1 38	1 13	2 7	18 58	0 48	22 26	0 30	23 4	0 5	21 31	1 21	12 5	10 7	14 0	13 29	27 41	0 17	4 58
M19	23 28	11 22	0 34	21 8	0 48	18 11	1 32	1 2	2 8	19 1	0 48	22 26	0 29	23 4	0 5	21 31	1 21	12 5	10 7	14 0	13 28	27 41	0 18	4 58
T 20	23 29	17 6	0s42	21 28	0 40	17 50	1 26	0 52	2 8	19 3	0 48	22 27	0 29	23 5	0 5	21 32	1 21	12 5	10 7	14 0	13 27	27 41	0 19	4 58
W21	23 29	22 3	1 57	21 47	0 32	17 28	1 21	0 41	2 9	19 6	0 48	22 27	0 29	23 5	0 5	21 32	1 21	12 5	10 7	13 59	13 26	27 40	0 20	4 59
T 22	23 29	25 41	3 6	22 6	0 25	17 7	1 14	0 31	2 10	19 9	0 48	22 28	0 29	23 5	0 5	21 32	1 21	12 5	10 7	13 58	13 25	27 40	0 21	4 59
F 23	23 29	27 33	4 3	22 23	0 17	16 45	1 8	0 21	2 11	19 12	0 48	22 29	0 29	23 6	0 5	21 32	1 21	12 5	10 7	13 56	13 24	27 40	0 22	4 59
S 24	23 28	27 18	4 43	22 40	0 10	16 23	1 1	0 11	2 11	19 14	0 48	22 29	0 29	23 6	0 5	21 32	1 21	12 5	10 6	13 53	13 22	27 40	0 23	5 0
S 25	23 26	25 1	5 3	22 56	0 2	16 1	0 54	0 1	2 12	19 17	0 48	22 30	0 29	23 6	0 5	21 33	1 21	12 5	10 6	13 50	13 21	27 39	0 24	5 0
M26	23 25	21 1	5 1	23 10	0s 5	15 39	0 47	0s 9	2 13	19 19	0 48	22 30	0 29	23 6	0 5	21 33	1 21	12 5	10 6	13 47	13 20	27 39	0 24	5 0
T 27	23 22	15 50	4 40	23 24	0 12	15 17	0 40	0 19	2 14	19 22	0 48	22 31	0 29	23 7	0 5	21 33	1 21	12 5	10 6	13 45	13 19	27 39	0 25	5 1
W28	23 20	9 57	4 2	23 36	0 19	14 55	0 32	0 29	2 14	19 25	0 48	22 31	0 29	23 7	0 5	21 33	1 21	12 5	10 6	13 43	13 18	27 39	0 26	5 1
T 29	23 16	3 48	3 11	23 48	0 26	14 32	0 24	0 38	2 15	19 27	0 48	22 32	0 28	23 7	0 5	21 33	1 21	12 5	10 6	13 42	13 17	27 38	0 26	5 1
F 30	23 13	2n21	2 12	23 58	0 33	14 10	0 16	0 48	2 16	19 30	0 48	22 32	0 28	23 8	0 5	21 34	1 22	12 5	10 6	13 42	13 16	27 38	0 27	5 2
S 31	23s 8	8n13	1s 7	24s 7	0s40	13s48	0s 8	0s57	2n17	19s32	0n48	22n33	0s28	23s 8	0s 5	21s34	1n22	12n 5	10s 5	13n42	13n15	27n38	0s27	5s 2

Julian Day Number = 2324044.5, Delta T = 42.67 sec
Ecliptic obliquity = 23°29'12, Nutation = - 0°00'11, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°52'04, Lahiri = 18°59'05Greg. Calendar