



Astrodienst Ephemeris Tables for the year 1408

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 D5EPH

ASTRODIENST EPHEMERIS for the year 1408

geocentric

JANUARY 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	7 12 57	18°34'00	14°43'	16°35'	28°16'	8°R38	26°R 2	25°49'	22°30'	23°R 7	11°R46	25°R58	24°R32	25°34'	12°R27	S 1
M 2	7 16 53	19°47'07	26°38'	18°15'	28°44'	8°II34	26°R 0	25°53'	22°34'	23°II 5	11°II45	25°R48	24°29'	25°50'	12°R23	M 2
T 3	7 20 50	20°48'14	8°37'	19°54'	29°10'	8°31'	25°58'	25°58'	22°37'	23° 4	11°44'	25°38'	24°26'	25°57'	12°19'	T 3
W 4	7 24 46	21°49'19	20°44'	21°35'	29°34'	8°29'	25°56'	26° 2	22°41'	23° 2	11°44'	25°31'	24°23'	26° 4	12°15'	W 4
T 5	7 28 43	22°50'24	3°V 2	23°16'	29°56'	8°27'	25°54'	26° 7	22°44'	23° 1	11°43'	25°27'	24°20'	26°10'	12°10'	T 5
F 6	7 32 40	23°51'27	15°35'	24°57'	0°H17	8°D27	25°53'	26°12'	22°48'	22°59'	11°42'	25°25'	24°16'	26°17'	12° 6	F 6
S 7	7 36 36	24°52'29	28°26'	26°39'	0°35'	8°27'	25°52'	26°16'	22°52'	22°58'	11°41'	25°D24	24°13'	26°24'	12° 2	S 7
S 8	7 40 33	25°53'31	11°R41	28°22'	0°51'	8°28'	25°51'	26°21'	22°55'	22°57'	11°40'	25°25'	24°10'	26°30'	11°57'	S 8
M 9	7 44 29	26°54'31	25°22'	0°55'	1° 5	8°29'	25°50'	26°26'	22°59'	22°55'	11°39'	25°R25	24° 7	26°37'	11°53'	M 9
T 10	7 48 26	27°55'30	9°II32	1°49'	1°17'	8°32'	25°49'	26°31'	23° 2	22°54'	11°39'	25°25'	24° 4	26°44'	11°49'	T 10
W11	7 52 22	28°56'28	24° 9	3°33'	1°27'	8°35'	25°49'	26°36'	23° 6	22°53'	11°38'	25°22'	24° 1	26°51'	11°44'	W11
T 12	7 56 19	29°57'25	9°R 9	5°18'	1°34'	8°39'	25°D49	26°42'	23° 9	22°51'	11°37'	25°16'	23°57'	26°57'	11°40'	T 12
F 13	8 0 15	0°58'21	24°26'	7° 3	1°39'	8°43'	25°49'	26°47'	23°13'	22°50'	11°36'	25° 8	23°54'	27° 4	11°35'	F 13
S 14	8 4 12	1°59'15	9°R48	8°49'	1°41'	8°49'	25°49'	26°52'	23°16'	22°49'	11°36'	24°58'	23°51'	27°11'	11°31'	S 14
S 15	8 8 9	3° 0'09	25° 3	10°35'	1°R41	8°54'	25°50'	26°58'	23°20'	22°47'	11°35'	24°47'	23°48'	27°17'	11°26'	S 15
M16	8 12 5	4° 1'01	10°R 1	12°21'	1°39'	9° 1	25°50'	27° 3	23°23'	22°46'	11°34'	24°37'	23°45'	27°24'	11°22'	M16
T 17	8 16 2	5° 1'53	24°34'	14° 8	1°34'	9° 8	25°51'	27° 9	23°27'	22°45'	11°34'	24°29'	23°41'	27°31'	11°17'	T 17
W18	8 19 58	6° 2'43	8°R37	15°54'	1°26'	9°16'	25°52'	27°14'	23°30'	22°44'	11°33'	24°24'	23°38'	27°38'	11°12'	W18
T 19	8 23 55	7° 3'33	22°10'	17°40'	1°16'	9°25'	25°53'	27°20'	23°34'	22°43'	11°33'	24°21'	23°35'	27°44'	11° 8	T 19
F 20	8 27 51	8° 4'22	5°R14	19°27'	1° 4	9°34'	25°55'	27°26'	23°37'	22°42'	11°32'	24°D20	23°32'	27°51'	11° 3	F 20
S 21	8 31 48	9° 5'10	17°54'	21°12'	0°49'	9°43'	25°57'	27°31'	23°41'	22°41'	11°31'	24°R20	23°29'	27°58'	10°58'	S 21
S 22	8 35 44	10° 5'57	0°R15	22°57'	0°31'	9°54'	25°58'	27°37'	23°44'	22°40'	11°31'	24°20'	23°26'	28° 4	10°54'	S 22
M23	8 39 41	11° 6'43	12°22'	24°40'	0°12'	10° 5	26° 0	27°43'	23°47'	22°39'	11°30'	24°19'	23°22'	28°11'	10°49'	M23
T 24	8 43 38	12° 7'27	24°19'	26°23'	29°R49	10°16'	26° 3	27°49'	23°51'	22°38'	11°30'	24°15'	23°19'	28°18'	10°44'	T 24
W25	8 47 34	13° 8'11	6°R10	28° 3	29°25'	10°28'	26° 5	27°55'	23°54'	22°37'	11°29'	24° 9	23°16'	28°25'	10°40'	W25
T 26	8 51 31	14° 8'54	18° 0	29°41'	28°59'	10°41'	26° 8	28° 1	23°58'	22°36'	11°29'	23°59'	23°13'	28°31'	10°35'	T 26
F 27	8 55 27	15° 9'35	29°50'	1°H17	28°30'	10°54'	26°11'	28° 8	24° 1	22°35'	11°28'	23°47'	23°10'	28°38'	10°30'	F 27
S 28	8 59 24	16°10'14	11°R43	2°49'	28° 0	11° 7	26°14'	28°14'	24° 4	22°34'	11°28'	23°33'	23° 7	28°45'	10°26'	S 28
S 29	9 3 20	17°10'52	23°40'	4°17'	27°28'	11°21'	26°17'	28°20'	24° 8	22°33'	11°28'	23°17'	23° 3	28°51'	10°21'	S 29
M30	9 7 17	18°11'29	5°H41	5°41'	26°55'	11°36'	26°20'	28°26'	24°11'	22°32'	11°27'	23° 3	23° 0	28°58'	10°17'	M30
T 31	9 11 14	19°R12'04	17°H49	7°H 0	26°R20	11°II51	26°R24	28°H33	24°R14	22°II31	11°II27	22°R50	22°R57	29°R 5	10°R12	T 31

Delta T = 07m40s

Julian Calendar 1 Jan. 1408 == Greg. Calendar 10 Jan. 1408

FEBRUARY 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	9 15 10	20°R12'37	0°V 4	8°H12	25°R44	12°II 7	26°R28	28°H39	24°R17	22°R31	11°R27	22°R39	22°R54	29°R12	10°R 7	W 1
T 2	9 19 7	21°13'09	12°29'	9°18'	25°R 8	12°23'	26°32'	28°46'	24°21'	22°II30	11°II26	22°R32	22°51'	29°18'	10°R 3	T 2
F 3	9 23 3	22°13'38	25° 6	10°17'	24°30'	12°39'	26°36'	28°52'	24°24'	22°29'	11°26'	22°28'	22°47'	29°25'	9°58'	F 3
S 4	9 27 0	23°14'06	7°R58	11° 8	23°53'	12°56'	26°40'	28°59'	24°27'	22°29'	11°26'	22°26'	22°44'	29°32'	9°54'	S 4
S 5	9 30 56	24°14'32	21° 8	11°51'	23°15'	13°14'	26°45'	29° 5	24°30'	22°28'	11°25'	22°25'	22°41'	29°38'	9°49'	S 5
M 6	9 34 53	25°14'56	4°II39	12°24'	22°38'	13°31'	26°49'	29°12'	24°34'	22°27'	11°25'	22°25'	22°38'	29°45'	9°45'	M 6
T 7	9 38 49	26°15'18	18°35'	12°48'	22° 1	13°50'	26°54'	29°19'	24°37'	22°27'	11°25'	22°24'	22°35'	29°52'	9°40'	T 7
W 8	9 42 46	27°15'38	2°R56	13° 3	21°25'	14° 8	26°59'	29°26'	24°40'	22°26'	11°25'	22°21'	22°32'	29°59'	9°36'	W 8
T 9	9 46 43	28°15'57	17°39'	13°R 7	20°50'	14°27'	27° 5	29°32'	24°43'	22°26'	11°25'	22°15'	22°28'	0°R 5	9°32'	T 9
F 10	9 50 39	29°16'13	2°R41	13° 2	20°16'	14°47'	27°10'	29°39'	24°46'	22°25'	11°24'	22° 6	22°25'	0°12'	9°28'	F 10
S 11	9 54 36	0°H16'27	17°52'	12°47'	19°43'	15° 6	27°16'	29°46'	24°49'	22°25'	11°24'	21°55'	22°22'	0°19'	9°23'	S 11
S 12	9 58 32	1°16'39	3°R 2	12°23'	19°12'	15°26'	27°21'	29°53'	24°52'	22°24'	11°24'	21°44'	22°19'	0°25'	9°19'	S 12
M13	10 2 29	2°16'49	18° 0	11°51'	18°42'	15°47'	27°27'	0°V 0	24°55'	22°24'	11°24'	21°33'	22°16'	0°32'	9°15'	M13
T 14	10 6 25	3°16'58	2°R38	11°10'	18°15'	16° 8	27°33'	0° 7	24°58'	22°24'	11°24'	21°24'	22°12'	0°39'	9°11'	T 14
W15	10 10 22	4°17'05	16°48'	10°24'	17°50'	16°29'	27°40'	0°14'	25° 1	22°23'	11°24'	21°17'	22° 9	0°46'	9° 7	W15
T 16	10 14 18	5°17'10	0°R29	9°31'	17°26'	16°50'	27°46'	0°21'	25° 4	22°23'	11°24'	21°13'	22° 6	0°52'	9° 3	T 16
F 17	10 18 15	6°17'14	13°41'	8°34'	17° 6	17°12'	27°52'	0°28'	25° 7	22°23'	11°24'	21°12'	22° 3	0°59'	8°59'	F 17
S 18	10 22 11	7°17'16	26°27'	7°35'	16°47'	17°34'	27°59'	0°36'	25°10'	22°23'	11°24'	21°D11	22° 0	1° 6	8°55'	S 18
S 19	10 26 8	8°17'16	8°R52	6°35'	16°31'	17°57'	28° 6	0°43'	25°12'	22°23'	11°24'	21°R12	21°57'	1°12'	8°52'	S 19
M20	10 30 5	9°17'15	21° 0	5°34'	16°17'	18°19'	28°13'	0°50'	25°15'	22°22'	11°24'	21°11'	21°53'	1°19'	8°48'	M20
T 21	10 34 1	10°17'13	2°R57	4°35'	16° 6	18°42'	28°20'	0°57'	25°18'	22°22'	11°24'	21° 8	21°50'	1°26'	8°44'	T 21
W22	10 37 58	11°17'08	14°48'	3°39'	15°57'	19° 6	28°27'	1° 4	25°21'	22°22'	11°24'	21° 4	21°47'	1°33'	8°41'	W22
T 23	10 41 54	12°17'02	26°38'	2°46'	15°51'	19°29'	28°35'	1°12'	25°23'	22°22'	11°25'	20°56'	21°44'	1°39'	8°37'	T 23
F 24	10 45 51	13°16'54	8°R29	1°58'	15°48'	19°53'	28°43'	1°19'	25°26'	22°D22	11°25'	20°46'	21°41'	1°46'	8°34'	F 24
S 25	10 49 47	14°16'44	20°25'	1°15'	15°D46	20°17'	28°50'	1°26'	25°29'	22°22'	11°25'	20°34'	21°38'	1°53'	8°30'	S 25
S 26	10 53 44	15°16'32	2°H29	0°37'	15°47'	20°42'	28°58'	1°34'	25°31'	22°22'	11°25'	20°21'	21°34'	1°59'	8°27'	S 26
M27	10 57 40	16°16'18	14°40'	0° 6	15°51'	21° 6	29° 6	1°41'	25°34'	22°22'	11°25'	20° 9	21°31'	2° 6	8°24'	M27
T 28	11 1 37	17°16'02	27° 0	29°R41	15°57'	21°31'	29°14'	1°48'	25°36'	22°23'	11°26'	19°58'	21°28'	2°13'	8°21'	T 28
W29	11 5 34	18°H15'45	9°V30	29°R22	16°R 5	21°II56	29°R23	1°V56	25°R39	22°II23	11°II26	19°R49	21°R25	2°R20	8°R18	W29

Delta T = 07m40s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1408

geocentric

MARCH 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	11 9 30	19°15'24	22°10'	29°R10	16°15'	22°11'	29°31'	2°11'	25°44'	22°23'	11°27'	19°R43	21°18'	2°33'	8°R15	T 1
F 2	11 13 27	20°15'02	5°1'	29°11'	16°27'	22°47'	29°40'	2°11'	25°44'	22°23'	11°27'	19°R39	21°18'	2°33'	8°R12	F 2
S 3	11 17 23	21°14'38	18°4'	29°D 4	16°42'	23°13'	29°48'	2°18'	25°46'	22°23'	11°27'	19°D38	21°15'	2°40'	8°9	S 3
S 4	11 21 20	22°14'11	1°11'22	29°10'	16°58'	23°39'	29°57'	2°26'	25°48'	22°24'	11°27'	19°39'	21°12'	2°46'	8°7	S 4
M 5	11 25 16	23°13'42	14°55'	29°21'	17°17'	24°6'	0°11'22	2°33'	25°51'	22°24'	11°28'	19°40'	21°9'	2°53'	8°4	M 5
T 6	11 29 13	24°13'11	28°45'	29°38'	17°37'	24°32'	0°15'	2°41'	25°53'	22°24'	11°28'	19°R40	21°6'	3°0'	8°2	T 6
W 7	11 33 9	25°12'38	12°53'	29°59'	17°59'	24°59'	0°24'	2°48'	25°55'	22°25'	11°29'	19°38'	21°3'	3°7'	7°59	W 7
T 8	11 37 6	26°12'02	27°18'	0°11'26	18°23'	25°26'	0°34'	2°56'	25°57'	22°25'	11°29'	19°35'	20°59'	3°13'	7°57	T 8
F 9	11 41 3	27°11'23	11°57'	0°57'	18°49'	25°53'	0°43'	3°3'	25°59'	22°26'	11°29'	19°29'	20°56'	3°20'	7°55	F 9
S 10	11 44 59	28°10'43	26°44'	1°32'	19°16'	26°20'	0°53'	3°11'	26°1'	22°26'	11°30'	19°22'	20°53'	3°27'	7°53	S 10
S 11	11 48 56	29°10'00	11°11'31	2°11'	19°45'	26°48'	1°2'	3°18'	26°3'	22°27'	11°30'	19°14'	20°50'	3°33'	7°51	S 11
M12	11 52 52	0°11'51	26°12'	2°54'	20°15'	27°15'	1°12'	3°26'	26°5'	22°27'	11°31'	19°6'	20°47'	3°40'	7°49	M12
T 13	11 56 49	1°8'27	10°11'37	3°41'	20°47'	27°43'	1°22'	3°34'	26°7'	22°28'	11°32'	19°0'	20°44'	3°47'	7°47	T 13
W14	12 0 45	2°7'38	24°41'	4°31'	21°20'	28°11'	1°32'	3°41'	26°9'	22°29'	11°32'	18°55'	20°40'	3°54'	7°46	W14
T 15	12 4 42	3°6'47	8°11'21	5°24'	21°55'	28°39'	1°42'	3°49'	26°11'	22°29'	11°33'	18°53'	20°37'	4°0'	7°44	T 15
F 16	12 8 38	4°5'54	21°35'	6°20'	22°30'	29°8'	1°52'	3°56'	26°13'	22°30'	11°33'	18°D52	20°34'	4°7'	7°43	F 16
S 17	12 12 35	5°4'59	4°11'25	7°19'	23°8'	29°36'	2°2'	4°4'	26°15'	22°31'	11°34'	18°53'	20°31'	4°14'	7°41	S 17
S 18	12 16 32	6°4'02	16°54'	8°21'	23°46'	0°5'5	2°13'	4°11'	26°17'	22°31'	11°35'	18°55'	20°28'	4°20'	7°40	S 18
M19	12 20 28	7°3'04	29°7'	9°26'	24°25'	0°34'	2°23'	4°19'	26°18'	22°32'	11°35'	18°56'	20°24'	4°27'	7°39	M19
T 20	12 24 25	8°2'04	11°11'3	10°33'	25°6'	1°3'	2°34'	4°26'	26°20'	22°33'	11°36'	18°R56	20°21'	4°34'	7°38	T 20
W21	12 28 21	9°1'02	23°1'	11°42'	25°48'	1°32'	2°44'	4°34'	26°22'	22°34'	11°37'	18°55'	20°18'	4°41'	7°37	W21
T 22	12 32 18	9°59'58	4°11'52	12°54'	26°31'	2°1'	2°55'	4°42'	26°23'	22°35'	11°37'	18°52'	20°15'	4°47'	7°36	T 22
F 23	12 36 14	10°58'52	16°46'	14°8'	27°14'	2°30'	3°6'	4°49'	26°25'	22°36'	11°38'	18°48'	20°12'	4°54'	7°35	F 23
S 24	12 40 11	11°57'45	28°46'	15°24'	27°59'	3°0'	3°17'	4°57'	26°26'	22°37'	11°39'	18°42'	20°9'	5°1'	7°35	S 24
S 25	12 44 7	12°56'35	10°11'55	16°42'	28°44'	3°30'	3°28'	5°4'	26°27'	22°38'	11°40'	18°35'	20°5'	5°7'	7°34	S 25
M26	12 48 4	13°55'24	23°15'	18°2'	29°31'	4°0'	3°39'	5°12'	26°29'	22°39'	11°41'	18°29'	20°2'	5°14'	7°34	M26
T 27	12 52 1	14°54'11	5°11'49	19°23'	0°11'18	4°30'	3°51'	5°19'	26°30'	22°40'	11°41'	18°23'	19°59'	5°21'	7°33	T 27
W28	12 55 57	15°52'56	18°36'	20°47'	1°6'	5°0'	4°2'	5°27'	26°31'	22°41'	11°42'	18°19'	19°56'	5°28'	7°33	W28
T 29	12 59 54	16°51'39	1°11'35	22°13'	1°55'	5°30'	4°13'	5°34'	26°33'	22°42'	11°43'	18°16'	19°53'	5°34'	7°D33	T 29
F 30	13 3 50	17°50'20	14°48'	23°40'	2°44'	6°0'	4°25'	5°42'	26°34'	22°43'	11°44'	18°D15	19°49'	5°41'	7°33	F 30
S 31	13 7 47	18°48'59	28°11'3	25°11'9	3°11'35	6°31'	4°11'36	5°11'49	26°35'	22°44'	11°45'	18°15'	19°46'	5°48'	7°D33	S 31

Delta T = 07m40s

Julian Calendar 1 March 1408 == Greg. Calendar 10 March 1408

APRIL 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	13 11 43	19°47'35	11°11'50	26°11'40	4°11'26	7°5'1	4°11'48	5°11'57	26°33'36	22°44'45	11°44'46	18°11'17	19°43'43	5°11'54	7°D33	S 1
M 2	13 15 40	20°46'10	25°37'	28°13'	5°17'	7°32'	5°0'	6°4'	26°37'	22°47'	11°47'	18°18'	19°40'	6°1'	7°34	M 2
T 3	13 19 36	21°44'42	9°23'35	29°47'	6°9'	8°3'	5°11'	6°11'	26°38'	22°48'	11°48'	18°19'	19°37'	6°8'	7°34	T 3
W 4	13 23 33	22°43'13	23°42'	1°11'24	7°2'	8°34'	5°23'	6°19'	26°39'	22°49'	11°49'	18°R20	19°34'	6°15'	7°35	W 4
T 5	13 27 30	23°41'41	7°11'26	3°1'	7°56'	9°5'	5°35'	6°26'	26°40'	22°51'	11°50'	18°19'	19°30'	6°21'	7°36	T 5
F 6	13 31 26	24°40'06	22°16'	4°41'	8°49'	9°36'	5°47'	6°33'	26°41'	22°52'	11°51'	18°17'	19°27'	6°28'	7°36	F 6
S 7	13 35 23	25°38'30	6°11'38	6°22'	9°44'	10°8'	5°59'	6°41'	26°42'	22°53'	11°52'	18°15'	19°24'	6°35'	7°37	S 7
S 8	13 39 19	26°36'51	20°57'	8°5'	10°39'	10°39'	6°11'	6°48'	26°42'	22°55'	11°53'	18°12'	19°21'	6°42'	7°38	S 8
M 9	13 43 16	27°35'10	5°11'9	9°50'	11°34'	11°11'	6°24'	6°55'	26°43'	22°56'	11°54'	18°9'	19°18'	6°48'	7°39	M 9
T 10	13 47 12	28°33'28	19°10'	11°36'	12°30'	11°42'	6°36'	7°3'	26°44'	22°57'	11°55'	18°7'	19°15'	6°55'	7°41	T 10
W11	13 51 9	29°31'43	2°11'54	13°25'	13°27'	12°14'	6°48'	7°10'	26°44'	22°59'	11°56'	18°5'	19°11'	7°2'	7°42	W11
T 12	13 55 5	0°11'29'57	16°21'	15°15'	14°24'	12°46'	7°0'	7°17'	26°45'	23°0'	11°57'	18°D 5	19°8'	7°8'	7°43	T 12
F 13	13 59 2	1°28'09	29°27'	17°6'	15°21'	13°18'	7°13'	7°24'	26°45'	23°2'	11°58'	18°5'	19°5'	7°15'	7°45	F 13
S 14	14 2 58	2°26'19	12°11'14	19°0'	16°19'	13°50'	7°25'	7°31'	26°46'	23°4'	11°59'	18°6'	19°2'	7°22'	7°47	S 14
S 15	14 6 55	3°24'28	24°43'	20°55'	17°17'	14°22'	7°38'	7°38'	26°46'	23°5'	12°0'	18°7'	18°59'	7°29'	7°48	S 15
M16	14 10 52	4°22'36	6°11'35	22°52'	18°16'	14°54'	7°51'	7°45'	26°47'	23°7'	12°1'	18°8'	18°55'	7°35'	7°50	M16
T 17	14 14 48	5°20'42	19°0'	24°50'	19°15'	15°26'	8°3'	7°52'	26°47'	23°8'	12°3'	18°9'	18°52'	7°42'	7°52	T 17
W18	14 18 45	6°18'46	0°11'56	26°51'	20°14'	15°58'	8°16'	7°59'	26°47'	23°10'	12°4'	18°10'	18°49'	7°49'	7°54	W18
T 19	14 22 41	7°16'49	12°49'	28°53'	21°14'	16°31'	8°29'	8°6'	26°47'	23°12'	12°5'	18°R10	18°46'	7°55'	7°56	T 19
F 20	14 26 38	8°14'51	24°44'	0°11'56	22°14'	17°3'	8°42'	8°13'	26°47'	23°13'	12°6'	18°9'	18°43'	8°2'	7°59	F 20
S 21	14 30 34	9°12'51	6°11'46	3°1'	23°15'	17°36'	8°54'	8°20'	26°48'	23°15'	12°7'	18°9'	18°40'	8°9'	8°1	S 21
S 22	14 34 31	10°10'50	18°59'	5°7'	24°15'	18°9'	9°7'	8°27'	26°R48	23°17'	12°9'	18°8'	18°36'	8°16'	8°4	S 22
M23	14 38 27	11°8'48	1°11'25	7°15'	25°16'	18°41'	9°20'	8°34'	26°48'	23°18'	12°10'	18°7'	18°33'	8°22'	8°6	M23
T 24	14 42 24	12°6'44	14°8'	9°24'	26°18'	19°14'	9°33'	8°41'	26°48'	23°20'	12°11'	18°6'	18°30'	8°29'	8°9	T 24
W25	14 46 21	13°4'38	27°9'	11°33'	27°19'	19°47'	9°46'	8°47'	26°47'	23°22'	12°12'	18°5'	18°27'	8°36'	8°12	W25
T 26	14 50 17	14°2'31	10°11'28	13°44'	28°21'	20°20'	9°59'	8°54'	26°47'	23°24'	12°13'	18°5'	18°24'	8°42'	8°15	T 26
F 27	14 54 14	15°0'23	24°4'	15°55'	29°23'	20°53'	10°12'	9°1'	26°47'	23°26'	12°15'	18°D 5	18°21'	8°49'	8°18	F 27
S 28	14 58 10	15°58'14	7°11'55	18°6'	0°11'26	21°26'	10°26'	9°7'	26°47'	23°27'	12°16'	18°5'	18°17'	8°56'	8°21	S 28
S 29	15 2 7	16°56'02	21°59'	20°17'	1°28'	22°0'	10°39'	9°14'	26°47'	23°29'	12°17'	18°5'	18°14'	9°3'	8°24	S 29
M30	15 6 3	17°53'50	6°11'10	22°11'28	2°11'31	22°33'	10°11'52	9°11'20	26°46'	23°31'	12°19'	18°R 5	18°11'	9°11'9	8°D27	M30

Delta T = 07m40s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1408

geocentric

MAY 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	15 10 0	18♂51'35	20♂27	24♂38	3♂34	23♂6	11♂5	9♂27	26♂46	23♂33	12♂20	18♂R 5	18♂8	9♂16	8♂31	T 1
W 2	15 13 56	19°49'19	4♂44	26°47	4°38	23°40	11°19	9°33	26♂45	23°35	12°21	18♂5	18°5	9°23	8°34	W 2
T 3	15 17 53	20°47'01	19°0	28°55	5°41	24°13	11°32	9°40	26°45	23°37	12°22	18°D 5	18°1	9°30	8°38	T 3
F 4	15 21 50	21°44'42	3♂11	1♂2	6°45	24°47	11°45	9°46	26°44	23°39	12°24	18°5	17°58	9°36	8°41	F 4
S 5	15 25 46	22°42'21	17°15	3°7	7°49	25°21	11°59	9°52	26°44	23°41	12°25	18°5	17°55	9°43	8°45	S 5
S 6	15 29 43	23°39'58	1♂11	5°10	8°53	25°54	12°12	9°58	26°43	23°43	12°26	18°6	17°52	9°50	8°49	S 6
M 7	15 33 39	24°37'34	14°55	7°12	9°58	26°28	12°26	10°4	26°42	23°45	12°28	18°6	17°49	9°56	8°53	M 7
T 8	15 37 36	25°35'08	28°28	9°11	11°2	27°2	12°39	10°11	26°42	23°47	12°29	18°7	17°46	10°3	8°57	T 8
W 9	15 41 32	26°32'41	11♂48	11°7	12°7	27°36	12°53	10°17	26°41	23°49	12°30	18°R 7	17°42	10°10	9°1	W 9
T 10	15 45 29	27°30'13	24°53	13°1	13°12	28°10	13°6	10°23	26°40	23°51	12°32	18°7	17°39	10°17	9°5	T 10
F 11	15 49 25	28°27'44	7♂44	14°53	14°17	28°44	13°20	10°28	26°39	23°53	12°33	18°7	17°36	10°23	9°10	F 11
S 12	15 53 22	29°25'13	20°20	16°42	15°23	29°18	13°33	10°34	26°38	23°55	12°35	18°6	17°33	10°30	9°14	S 12
S 13	15 57 19	0♂22'42	2♂44	18°28	16°28	29°52	13°47	10°40	26°37	23°57	12°36	18°4	17°30	10°37	9°18	S 13
M14	16 1 15	1°20'10	14°55	20°12	17°34	0♂27	14°1	10°46	26°36	23°59	12°37	18°2	17°27	10°44	9°23	M14
T 15	16 5 12	2°17'37	26°57	21°52	18°40	1°1	14°14	10°52	26°35	24°1	12°39	18°0	17°23	10°50	9°28	T 15
W16	16 9 8	3°15'03	8♂52	23°30	19°46	1°35	14°28	10°57	26°34	24°3	12°40	17°59	17°20	10°57	9°32	W16
T 17	16 13 5	4°12'29	20°45	25°5	20°52	2°10	14°41	11°3	26°33	24°5	12°41	17°58	17°17	11°4	9°37	T 17
F 18	16 17 1	5°9'53	2♂40	26°37	21°58	2°44	14°55	11°8	26°32	24°8	12°43	17°D57	17°14	11°10	9°42	F 18
S 19	16 20 58	6°7'17	14°42	28°7	23°5	3°19	15°9	11°14	26°31	24°10	12°44	17°57	17°11	11°17	9°47	S 19
S 20	16 24 55	7°4'40	26°54	29°33	24°11	3°53	15°23	11°19	26°29	24°12	12°46	17°58	17°7	11°24	9°52	S 20
M21	16 28 51	8°2'03	9♂21	0♂56	25°18	4°28	15°36	11°24	26°28	24°14	12°47	17°59	17°4	11°31	9°57	M21
T 22	16 32 48	8°59'25	22°8	2°16	26°25	5°3	15°50	11°30	26°27	24°16	12°48	18°1	17°1	11°37	10°2	T 22
W23	16 36 44	9°56'47	5♂16	3°34	27°32	5°37	16°4	11°35	26°25	24°18	12°50	18°2	16°58	11°44	10°8	W23
T 24	16 40 41	10°54'08	18°48	4°48	28°39	6°12	16°17	11°40	26°24	24°21	12°51	18°R 2	16°55	11°51	10°13	T 24
F 25	16 44 37	11°51'28	2♂43	5°59	29°46	6°47	16°31	11°45	26°23	24°23	12°53	18°2	16°52	11°57	10°18	F 25
S 26	16 48 34	12°48'48	16°57	7°6	0♂53	7°22	16°45	11°50	26°21	24°25	12°54	18°0	16°48	12°4	10°24	S 26
S 27	16 52 30	13°46'07	1♂27	8°11	2°1	7°57	16°59	11°55	26°20	24°27	12°56	17°57	16°45	12°11	10°30	S 27
M28	16 56 27	14°43'26	16°6	9°12	3°9	8°32	17°12	11°59	26°18	24°29	12°57	17°54	16°42	12°18	10°35	M28
T 29	17 0 24	15°40'44	0♂48	10°10	4°16	9°7	17°26	12°4	26°16	24°32	12°58	17°50	16°39	12°24	10°41	T 29
W30	17 4 20	16°38'00	15°25	11°4	5°24	9°42	17°40	12°9	26°15	24°34	13°0	17°47	16°36	12°31	10°47	W30
T 31	17 8 17	17♂35'16	29♂52	11♂55	6♂32	10♂18	17♂54	12♂13	26♂13	24♂36	13♂1	17♂44	16♂33	12♂38	10♂53	T 31

Delta T = 07m40s

Julian Calendar 1 May 1408 == Greg. Calendar 10 May 1408

JUNE 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	17 12 13	18♂32'31	14♂6	12♂41	7♂40	10♂53	18♂8	12♂18	26♂11	24♂38	13♂3	17°D43	16♂29	12♂45	10♂59	F 1
S 2	17 16 10	19°29'46	28°3	13°24	8°48	11°28	18°21	12°22	26♂10	24°40	13°4	17♂44	16°26	12°51	11°5	S 2
S 3	17 20 6	20°26'59	11♂44	14°3	9°56	12°4	18°35	12°27	26°8	24°43	13°5	17°45	16°23	12°58	11°11	S 3
M 4	17 24 3	21°24'12	25°9	14°39	11°4	12°39	18°49	12°31	26°6	24°45	13°7	17°46	16°20	13°5	11°17	M 4
T 5	17 27 59	22°21'24	8♂19	15°9	12°13	13°14	19°3	12°35	26°4	24°47	13°8	17°47	16°17	13°11	11°23	T 5
W 6	17 31 56	23°18'36	21°16	15°36	13°21	13°50	19°16	12°39	26°2	24°49	13°9	17°R48	16°13	13°18	11°29	W 6
T 7	17 35 53	24°15'47	4♂7	15°58	14°30	14°26	19°30	12°43	26°0	24°52	13°11	17°46	16°10	13°25	11°36	T 7
F 8	17 39 49	25°12'58	16°33	16°16	15°39	15°1	19°44	12°47	25°58	24°54	13°12	17°44	16°7	13°32	11°42	F 8
S 9	17 43 46	26°10'08	28°56	16°30	16°47	15°37	19°57	12°51	25°56	24°56	13°14	17°39	16°4	13°38	11°48	S 9
S 10	17 47 42	27°7'19	11♂9	16°38	17°56	16°13	20°11	12°55	25°54	24°58	13°15	17°33	16°1	13°45	11°55	S 10
M11	17 51 39	28°4'29	23°14	16°R43	19°5	16°48	20°25	12°58	25°52	25°1	13°16	17°25	15°58	13°52	12°2	M11
T 12	17 55 35	29°1'39	5♂12	16°42	20°14	17°24	20°39	13°2	25°50	25°3	13°18	17°18	15°54	13°59	12°8	T 12
W13	17 59 32	29°58'49	17°6	16°37	21°23	18°0	20°52	13°5	25°48	25°5	13°19	17°11	15°51	14°5	12°15	W13
T 14	18 3 28	0♂56'00	28°58	16°27	22°33	18°36	21°6	13°9	25°46	25°7	13°20	17°5	15°48	14°12	12°22	T 14
F 15	18 7 25	1°53'10	10♂52	16°13	23°42	19°12	21°19	13°12	25°44	25°9	13°22	17°1	15°45	14°19	12°28	F 15
S 16	18 11 22	2°50'20	22°52	15°55	24°51	19°48	21°33	13°15	25°42	25°12	13°23	16°59	15°42	14°25	12°35	S 16
S 17	18 15 18	3°47'31	5♂2	15°33	26°1	20°24	21°47	13°18	25°40	25°14	13°24	16°D58	15°39	14°32	12°42	S 17
M18	18 19 15	4°44'42	17°26	15°7	27°10	21°0	22°0	13°21	25°38	25°16	13°26	16°59	15°35	14°39	12°49	M18
T 19	18 23 11	5°41'54	0♂11	14°38	28°20	21°36	22°14	13°24	25°35	25°18	13°27	17°0	15°32	14°46	12°56	T 19
W20	18 27 8	6°39'05	13°19	14°6	29°30	22°12	22°27	13°27	25°33	25°21	13°28	17°R 1	15°29	14°52	13°3	W20
T 21	18 31 4	7°36'18	26°54	13°31	0♂40	22°49	22°41	13°30	25°31	25°23	13°30	17°1	15°26	14°59	13°10	T 21
F 22	18 35 1	8°33'30	10♂57	12°54	1°50	23°25	22°54	13°33	25°29	25°25	13°31	16°58	15°23	15°6	13°17	F 22
S 23	18 38 57	9°30'43	25°25	12°16	2°59	24°1	23°8	13°35	25°27	25°27	13°32	16°54	15°19	15°12	13°24	S 23
S 24	18 42 54	10°27'57	10♂14	11°38	4°9	24°38	23°21	13°38	25°24	25°29	13°34	16°48	15°16	15°19	13°32	S 24
M25	18 46 51	11°25'11	25°16	10°59	5°20	25°14	23°35	13°40	25°22	25°31	13°35	16°40	15°13	15°26	13°39	M25
T 26	18 50 47	12°22'24	10♂21	10°21	6°30	25°51	23°48	13°42	25°20	25°34	13°36	16°32	15°10	15°33	13°46	T 26
W27	18 54 44	13°19'38	25°20	9°44	7°40	26°27	24°1	13°44	25°17	25°36	13°37	16°24	15°7	15°39	13°54	W27
T 28	18 58 40	14°16'52	10♂4	9°10	8°50	27°4	24°15	13°47	25°15	25°38	13°39	16°18	15°4	15°46	14°1	T 28
F 29	19 2 37	15°14'06	24°28	8°37	10°1	27°40	24°28	13°49	25°13	25°40	13°40	16°14	15°0	15°53	14°8	F 29
S 30	19 6 33	16♂11'21	8♂28	8♂8	11♂11	28♂17	24♂41	13♂50	25♂10	25♂42	13♂41	16♂12	14♂57	16♂0	14♂16	S 30

Delta T = 07m40s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1408

geocentric

JULY 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	19 10 30	17° 8'35"	22° 5'	7° R43	12° II22	28° Ω54	24° II54	13° Υ52	25° R 8	25° II44	13° II42	16° D12	14° Ω54	16° ≈ 6	14° Ω23	S 1
M 2	19 14 27	18° 5'49"	5° III21	7° Ω22	13° 32	29° 31	25° 7	13° 54	25° Ω 5	25° 46	13° 44	16° Ω13	14° 51	16° 13	14° 31	M 2
T 3	19 18 23	19° 3'04"	18° 18	7° 5	14° 43	0° III 7	25° 21	13° 55	25° 3	25° 49	13° 45	16° R13	14° 48	16° 20	14° 38	T 3
W 4	19 22 20	20° 0'19"	0° Ω59	6° 54	15° 54	0° 44	25° 34	13° 57	25° 1	25° 51	13° 46	16° 12	14° 45	16° 26	14° 46	W 4
T 5	19 26 16	20° 57'35"	13° 27	6° 47	17° 4	1° 21	25° 47	13° 58	24° 58	25° 53	13° 47	16° 9	14° 41	16° 33	14° 54	T 5
F 6	19 30 13	21° 54'51"	25° 45	6° D47	18° 15	1° 58	26° 0	14° 0	24° 56	25° 55	13° 48	16° 3	14° 38	16° 40	15° 1	F 6
S 7	19 34 9	22° 52'08"	7° Ω55	6° 52	19° 26	2° 35	26° 13	14° 1	24° 54	25° 57	13° 49	15° 55	14° 35	16° 47	15° 9	S 7
S 8	19 38 6	23° 49'25"	19° 58	7° 3	20° 37	3° 12	26° 26	14° 2	24° 51	25° 59	13° 50	15° 44	14° 32	16° 53	15° 17	S 8
M 9	19 42 2	24° 46'43"	1° ≈ 57	7° 20	21° 48	3° 49	26° 38	14° 3	24° 49	26° 1	13° 52	15° 32	14° 29	17° 0	15° 25	M 9
T 10	19 45 59	25° 44'01"	13° 51	7° 43	22° 59	4° 26	26° 51	14° 4	24° 46	26° 3	13° 53	15° 19	14° 25	17° 7	15° 32	T 10
W 11	19 49 56	26° 41'21"	25° 44	8° 12	24° 10	5° 4	27° 4	14° 4	24° 44	26° 5	13° 54	15° 7	14° 22	17° 14	15° 40	W 11
T 12	19 53 52	27° 38'41"	7° Ω36	8° 47	25° 22	5° 41	27° 17	14° 5	24° 42	26° 7	13° 55	14° 57	14° 19	17° 20	15° 48	T 12
F 13	19 57 49	28° 36'02"	19° 30	9° 28	26° 33	6° 18	27° 29	14° 6	24° 39	26° 9	13° 56	14° 49	14° 16	17° 27	15° 56	F 13
S 14	20 1 45	29° 33'24"	1° Υ29	10° 15	27° 44	6° 55	27° 42	14° 6	24° 37	26° 11	13° 57	14° 43	14° 13	17° 34	16° 4	S 14
S 15	20 5 42	0° Ω30'48"	13° 38	11° 8	28° 56	7° 33	27° 55	14° 7	24° 34	26° 13	13° 58	14° 40	14° 10	17° 40	16° 12	S 15
M 16	20 9 38	1° 28'12"	26° 0	12° 7	0° Ω 7	8° 10	28° 7	14° 7	24° 32	26° 15	13° 59	14° 39	14° 6	17° 47	16° 20	M 16
T 17	20 13 35	2° 25'38"	8° Ω40	13° 12	1° 19	8° 48	28° 20	14° 7	24° 30	26° 16	14° 0	14° 39	14° 3	17° 54	16° 28	T 17
W 18	20 17 31	3° 23'05"	21° 44	14° 22	2° 30	9° 25	28° 32	14° R 7	24° 27	26° 18	14° 1	14° 39	14° 0	18° 1	16° 36	W 18
T 19	20 21 28	4° 20'34"	5° II15	15° 37	3° 42	10° 3	28° 44	14° 7	24° 25	26° 20	14° 2	14° 37	13° 57	18° 7	16° 44	T 19
F 20	20 25 25	5° 18'03"	19° 15	16° 58	4° 54	10° 40	28° 57	14° 7	24° 22	26° 22	14° 3	14° 34	13° 54	18° 14	16° 52	F 20
S 21	20 29 21	6° 15'35"	3° Ω43	18° 24	6° 6	11° 18	29° 9	14° 6	24° 20	26° 24	14° 4	14° 28	13° 51	18° 21	17° 0	S 21
S 22	20 33 18	7° 13'07"	18° 37	19° 55	7° 18	11° 56	29° 21	14° 6	24° 18	26° 26	14° 5	14° 20	13° 47	18° 28	17° 8	S 22
M 23	20 37 14	8° 10'41"	3° Ω48	21° 30	8° 29	12° 34	29° 33	14° 6	24° 15	26° 27	14° 6	14° 9	13° 44	18° 34	17° 16	M 23
T 24	20 41 11	9° 8'15"	19° 7	23° 9	9° 41	13° 11	29° 45	14° 5	24° 13	26° 29	14° 7	13° 59	13° 41	18° 41	17° 24	T 24
W 25	20 45 7	10° 5'51"	4° III21	24° 52	10° 54	13° 49	29° 57	14° 4	24° 11	26° 31	14° 7	13° 48	13° 38	18° 48	17° 32	W 25
T 26	20 49 4	11° 3'28"	19° 20	26° 38	12° 6	14° 27	0° Ω 9	14° 4	24° 9	26° 33	14° 8	13° 40	13° 35	18° 54	17° 40	T 26
F 27	20 53 0	12° 1'06"	3° Ω57	28° 28	13° 18	15° 5	0° 21	14° 3	24° 6	26° 34	14° 9	13° 34	13° 31	19° 1	17° 48	F 27
S 28	20 56 57	12° 58'44"	18° 7	0° Ω21	14° 30	15° 43	0° 33	14° 2	24° 4	26° 36	14° 10	13° 31	13° 28	19° 8	17° 56	S 28
S 29	21 0 54	13° 56'24"	1° III49	2° 15	15° 42	16° 21	0° 44	14° 1	24° 2	26° 38	14° 11	13° 29	13° 25	19° 15	18° 5	S 29
M 30	21 4 50	14° 54'05"	15° 5	4° 12	16° 55	16° 59	0° 56	13° 59	24° 0	26° 39	14° 12	13° 29	13° 22	19° 21	18° 13	M 30
T 31	21 8 47	15° Ω51'47"	27° III58	6° Ω10	18° Ω 7	17° III37	1° Ω 7	13° Υ58	23° Ω58	26° II41	14° II12	13° Ω29	13° Ω19	19° ≈ 28	18° Ω21	T 31

Delta T = 07m39s

Julian Calendar 1 July 1408 == Greg. Calendar 10 July 1408

AUGUST 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	21 12 43	16° Ω49'30"	10° Ω32	8° Ω 9	19° Ω19	18° III16	1° Ω19	13° R57	23° R55	26° II42	14° II13	13° R27	13° Ω16	19° ≈ 35	18° Ω29	W 1
T 2	21 16 40	17° 47'14"	22° 51	10° 9	20° 32	18° 54	1° 30	13° Υ55	23° Ω53	26° 44	14° 14	13° Ω24	13° 12	19° 41	18° 37	T 2
F 3	21 20 36	18° 44'59"	5° Ω 0	12° 10	21° 45	19° 32	1° 41	13° 54	23° 51	26° 46	14° 14	13° 17	13° 9	19° 48	18° 45	F 3
S 4	21 24 33	19° 42'46"	17° 1	14° 11	22° 57	20° 10	1° 53	13° 52	23° 49	26° 47	14° 15	13° 8	13° 6	19° 55	18° 53	S 4
S 5	21 28 29	20° 40'34"	28° 58	16° 12	24° 10	20° 49	2° 4	13° 50	23° 47	26° 49	14° 16	12° 56	13° 3	20° 2	19° 2	S 5
M 6	21 32 26	21° 38'23"	10° ≈ 52	18° 12	25° 23	21° 27	2° 15	13° 48	23° 45	26° 50	14° 16	12° 43	13° 0	20° 8	19° 10	M 6
T 7	21 36 23	22° 36'14"	22° 45	20° 12	26° 35	22° 6	2° 26	13° 46	23° 43	26° 51	14° 17	12° 29	12° 57	20° 15	19° 18	T 7
W 8	21 40 19	23° 34'06"	4° Ω37	22° 11	27° 48	22° 44	2° 37	13° 44	23° 41	26° 53	14° 18	12° 16	12° 53	20° 22	19° 26	W 8
T 9	21 44 16	24° 32'00"	16° 32	24° 10	29° 1	23° 23	2° 47	13° 42	23° 39	26° 54	14° 18	12° 4	12° 50	20° 29	19° 34	T 9
F 10	21 48 12	25° 29'55"	28° 30	26° 7	0° Ω14	24° 1	2° 58	13° 40	23° 37	26° 56	14° 19	11° 55	12° 47	20° 35	19° 42	F 10
S 11	21 52 9	26° 27'52"	10° Υ34	28° 4	1° 27	24° 40	3° 9	13° 37	23° 35	26° 57	14° 19	11° 49	12° 44	20° 42	19° 51	S 11
S 12	21 56 5	27° 25'51"	22° 46	29° 59	2° 40	25° 19	3° 19	13° 35	23° 33	26° 58	14° 20	11° 45	12° 41	20° 49	19° 59	S 12
M 13	22 0 2	28° 23'52"	5° Ω10	1° III54	3° 53	25° 57	3° 30	13° 32	23° 31	27° 0	14° 20	11° 44	12° 37	20° 55	20° 7	M 13
T 14	22 3 58	29° 21'54"	17° 50	3° 47	5° 6	26° 36	3° 40	13° 30	23° 30	27° 1	14° 21	11° D43	12° 34	21° 2	20° 15	T 14
W 15	22 7 55	0° III19'59"	0° II51	5° 39	6° 20	27° 15	3° 50	13° 27	23° 28	27° 2	14° 21	11° R44	12° 31	21° 9	20° 23	W 15
T 16	22 11 52	1° 18'06"	14° 15	7° 30	7° 33	27° 54	4° 0	13° 24	23° 26	27° 3	14° 22	11° 43	12° 28	21° 16	20° 31	T 16
F 17	22 15 48	2° 16'15"	28° 6	9° 19	8° 46	28° 33	4° 10	13° 21	23° 24	27° 4	14° 22	11° 41	12° 25	21° 22	20° 39	F 17
S 18	22 19 45	3° 14'26"	12° Ω25	11° 8	10° 0	29° 12	4° 20	13° 18	23° 23	27° 6	14° 23	11° 36	12° 22	21° 29	20° 47	S 18
S 19	22 23 41	4° 12'39"	27° 10	12° 55	11° 13	29° 51	4° 30	13° 15	23° 21	27° 7	14° 23	11° 29	12° 18	21° 36	20° 55	S 19
M 20	22 27 38	5° 10'53"	12° Ω14	14° 41	12° 26	0° Ω30	4° 40	13° 12	23° 19	27° 8	14° 24	11° 20	12° 15	21° 42	21° 4	M 20
T 21	22 31 34	6° 9'10"	27° 29	16° 26	13° 40	1° 9	4° 49	13° 9	23° 18	27° 9	14° 24	11° 10	12° 12	21° 49	21° 12	T 21
W 22	22 35 31	7° 7'28"	12° III45	18° 10	14° 54	1° 49	4° 59	13° 5	23° 16	27° 10	14° 24	11° 1	12° 9	21° 56	21° 20	W 22
T 23	22 39 27	8° 5'48"	27° 49	19° 52	16° 7	2° 28	5° 8	13° 2	23° 15	27° 11	14° 24	10° 53	12° 6	22° 3	21° 28	T 23
F 24	22 43 24	9° 4'10"	12° Ω34	21° 33	17° 21	3° 7	5° 17	12° 59	23° 13	27° 12	14° 25	10° 48	12° 2	22° 9	21° 36	F 24
S 25	22 47 21	10° 2'34"	26° 52	23° 14	18° 35	3° 47	5° 27	12° 55	23° 12	27° 13	14° 25	10° 45	11° 59	22° 16	21° 44	S 25
S 26	22 51 17	11° 0'59"	10° III42	24° 53	19° 48	4° 26	5° 36	12° 51	23° 11	27° 14	14° 25	10° D44	11° 56	22° 23	21° 51	S 26
M 27	22 55 14	11° 59'26"	24° 4	26° 31	21° 2	5° 5	5° 44	12° 48	23° 9	27° 14	14° 25	10° 45	11° 53	22° 30	21° 59	M 27
T 28	22 59 10	12° 57'55"	7° Ω 0	28° 8	22° 16	5° 45	5° 53	12° 44	23° 8	27° 15	14° 26	10° R45	11° 50	22° 36	22° 7	T 28
W 29	23 3 7	13° 56'25"	19° 35	29° 44	23° 30	6° 24	6° 2	12° 40	23° 7	27° 16	14° 26	10° 45	11° 47	22° 43	22° 15	W 29
T 30	23 7 3	14° 54'57"	1° Ω53	1° Ω18	24° 44	7° 4	6° 10	12° 36	23° 6	27° 17	14° 26	10° 44	11° 43	22° 50	22° 23	T 30
F 31	23 11 0	15° III53'30"	13° Ω58	2° Ω52	25° Ω58	7° Ω44	6° Ω19	12° Υ32	23° Ω 7	27° II18	14° II26	10° Ω40	11° Ω40	22° ≈ 56	22° Ω31	F 31

Delta T = 07m39s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1408

geocentric

SEPTEMBER 1408 JC

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	23 14 56	16 ^h 52 ^m 05 ^s	25 ^h 35 ^m	4 ^h 25 ^m	27 ^h 01 ^m 12 ^s	8 ^h 23 ^m	6 ^h 27 ^m	12 ^h R28	23 ^h R 3	27 ^h II18	14 ^h II26	10 ^h R34	11 ^h 8 ^m 37 ^s	23 ^h 33 ^m 3	22 ^h 02 ^m 39 ^s	S 1
S 2	23 18 53	17 ^h 50 ^m 42 ^s	7 ^h 34 ^m 49 ^s	5 ^h 57 ^m	28 ^h 26 ^m	9 ^h 3	6 ^h 35 ^m	12 ^h Y24	23 ^h 3 2	27 ^h 19	14 ^h 26	10 ^h 8 ^m 26 ^s	11 ^h 34	23 ^h 10	22 ^h 46 ^m	S 2
M 3	23 22 50	18 ^h 49 ^m 21 ^s	19 ^h 41 ^m	7 ^h 27 ^m	29 ^h 40 ^m	9 ^h 43	6 ^h 43 ^m	12 ^h 20	23 ^h 1	27 ^h 20	14 ^h 26	10 ^h 16	11 ^h 31	23 ^h 17	22 ^h 54 ^m	M 3
T 4	23 26 46	19 ^h 48 ^m 02 ^s	1 ^h 35 ^m	8 ^h 57 ^m	0 ^h 54 ^m	10 ^h 23	6 ^h 51 ^m	12 ^h 16	23 ^h 0	27 ^h 20	14 ^h 26	10 ^h 7	11 ^h 28	23 ^h 23	23 ^h 2	T 4
W 5	23 30 43	20 ^h 46 ^m 44 ^s	13 ^h 31 ^m	10 ^h 25 ^m	2 ^h 8	11 ^h 3	6 ^h 59 ^m	12 ^h 12	22 ^h 59	27 ^h 21	14 ^h R26	9 ^h 57	11 ^h 24	23 ^h 30	23 ^h 9	W 5
T 6	23 34 39	21 ^h 45 ^m 28 ^s	25 ^h 32 ^m	11 ^h 53 ^m	3 ^h 23	11 ^h 43	7 ^h 6	12 ^h 8	22 ^h 58	27 ^h 21	14 ^h 26	9 ^h 49	11 ^h 21	23 ^h 37	23 ^h 17	T 6
F 7	23 38 36	22 ^h 44 ^m 15 ^s	7 ^h Y39	13 ^h 19 ^m	4 ^h 37	12 ^h 23	7 ^h 14	12 ^h 3	22 ^h 58	27 ^h 22	14 ^h 26	9 ^h 42	11 ^h 18	23 ^h 43	23 ^h 25	F 7
S 8	23 42 32	23 ^h 43 ^m 03 ^s	19 ^h 53 ^m	14 ^h 45 ^m	5 ^h 51 ^m	13 ^h 3	7 ^h 21	11 ^h 59	22 ^h 57	27 ^h 22	14 ^h 26	9 ^h 38	11 ^h 15	23 ^h 50	23 ^h 32	S 8
S 9	23 46 29	24 ^h 41 ^m 54 ^s	2 ^h 8 ^m 16 ^s	16 ^h 9	7 ^h 5	13 ^h 43	7 ^h 28	11 ^h 55	22 ^h 56	27 ^h 23	14 ^h 26	9 ^h 36	11 ^h 12	23 ^h 57	23 ^h 40	S 9
M10	23 50 25	25 ^h 40 ^m 46 ^s	14 ^h 50 ^m	17 ^h 32 ^m	8 ^h 20	14 ^h 23	7 ^h 35	11 ^h 50	22 ^h 55	27 ^h 23	14 ^h 26	9 ^h D36	11 ^h 8	24 ^h 4	23 ^h 47	M10
T 11	23 54 22	26 ^h 39 ^m 42 ^s	27 ^h 38 ^m	18 ^h 55 ^m	9 ^h 34	15 ^h 3	7 ^h 42	11 ^h 46	22 ^h 55	27 ^h 24	14 ^h 26	9 ^h 37	11 ^h 5	24 ^h 10	23 ^h 55	T 11
W12	23 58 18	27 ^h 38 ^m 39 ^s	10 ^h II42	20 ^h 16 ^m	10 ^h 49	15 ^h 44	7 ^h 49	11 ^h 41	22 ^h 54	27 ^h 24	14 ^h 26	9 ^h 39	11 ^h 2	24 ^h 17	24 ^h 2	W12
T 13	0 2 15	28 ^h 37 ^m 39 ^s	24 ^h 6	21 ^h 35 ^m	12 ^h 3	16 ^h 24	7 ^h 55	11 ^h 37	22 ^h 54	27 ^h 24	14 ^h 26	9 ^h R40	10 ^h 59	24 ^h 24	24 ^h 9	T 13
F 14	0 6 12	29 ^h 36 ^m 41 ^s	7 ^h 55 ^m	22 ^h 54 ^m	13 ^h 18	17 ^h 4	8 ^h 2	11 ^h 32	22 ^h 53	27 ^h 25	14 ^h 26	9 ^h 39	10 ^h 56	24 ^h 30	24 ^h 17	F 14
S 15	0 10 8	0 ^h 35 ^m 46 ^s	21 ^h 57 ^m	24 ^h 11 ^m	14 ^h 32	17 ^h 45	8 ^h 8	11 ^h 27	22 ^h 53	27 ^h 25	14 ^h 25	9 ^h 37	10 ^h 53	24 ^h 37	24 ^h 24	S 15
S 16	0 14 5	1 ^h 34 ^m 53 ^s	6 ^h 02 ^m 25 ^s	25 ^h 27 ^m	15 ^h 47	18 ^h 25	8 ^h 14	11 ^h 23	22 ^h 52	27 ^h 25	14 ^h 25	9 ^h 34	10 ^h 49	24 ^h 44	24 ^h 31	S 16
M17	0 18 1	2 ^h 34 ^m 02 ^s	21 ^h 10 ^m	26 ^h 41 ^m	17 ^h 2	19 ^h 6	8 ^h 20	11 ^h 18	22 ^h 52	27 ^h 25	14 ^h 25	9 ^h 29	10 ^h 46	24 ^h 51	24 ^h 38	M17
T 18	0 21 58	3 ^h 33 ^m 13 ^s	6 ^h Y 7	27 ^h 54 ^m	18 ^h 16	19 ^h 46	8 ^h 26	11 ^h 13	22 ^h 51	27 ^h 25	14 ^h 25	9 ^h 24	10 ^h 43	24 ^h 57	24 ^h 46	T 18
W19	0 25 54	4 ^h 32 ^m 27 ^s	21 ^h 7	29 ^h 5	19 ^h 31	20 ^h 27	8 ^h 32	11 ^h 9	22 ^h 51	27 ^h 25	14 ^h 24	9 ^h 19	10 ^h 40	25 ^h 4	24 ^h 53	W19
T 20	0 29 51	5 ^h 31 ^m 43 ^s	6 ^h 0	0 ^h II14	20 ^h 46	21 ^h 8	8 ^h 37	11 ^h 4	22 ^h 51	27 ^h 25	14 ^h 24	9 ^h 14	10 ^h 37	25 ^h 11	25 ^h 0	T 20
F 21	0 33 47	6 ^h 31 ^m 01 ^s	20 ^h 40 ^m	1 ^h 21	22 ^h 0	21 ^h 48	8 ^h 43	10 ^h 59	22 ^h 51	27 ^h 26	14 ^h 24	9 ^h 12	10 ^h 34	25 ^h 18	25 ^h 7	F 21
S 22	0 37 44	7 ^h 30 ^m 20 ^s	4 ^h II58	2 ^h 26	23 ^h 15	22 ^h 29	8 ^h 48	10 ^h 54	22 ^h 51	27 ^h R26	14 ^h 23	9 ^h D10	10 ^h 30	25 ^h 24	25 ^h 14	S 22
S 23	0 41 41	8 ^h 29 ^m 42 ^s	18 ^h 51 ^m	3 ^h 29	24 ^h 30	23 ^h 10	8 ^h 53	10 ^h 50	22 ^h 51	27 ^h 26	14 ^h 23	9 ^h 11	10 ^h 27	25 ^h 31	25 ^h 21	S 23
M24	0 45 37	9 ^h 29 ^m 06 ^s	2 ^h Y18	4 ^h 30	25 ^h 45	23 ^h 51	8 ^h 57	10 ^h 45	22 ^h D51	27 ^h 25	14 ^h 23	9 ^h 12	10 ^h 24	25 ^h 38	25 ^h 27	M24
T 25	0 49 34	10 ^h 28 ^m 31 ^s	15 ^h 20 ^m	5 ^h 27	27 ^h 0	24 ^h 32	9 ^h 2	10 ^h 40	22 ^h 51	27 ^h 25	14 ^h 22	9 ^h 13	10 ^h 21	25 ^h 44	25 ^h 34	T 25
W26	0 53 30	11 ^h 27 ^m 59 ^s	27 ^h 59 ^m	6 ^h 22	28 ^h 15	25 ^h 13	9 ^h 6	10 ^h 35	22 ^h 51	27 ^h 25	14 ^h 22	9 ^h 15	10 ^h 18	25 ^h 51	25 ^h 41	W26
T 27	0 57 27	12 ^h 27 ^m 28 ^s	10 ^h 320	7 ^h 14	29 ^h 30	25 ^h 54	9 ^h 11	10 ^h 31	22 ^h 51	27 ^h 25	14 ^h 21	9 ^h R16	10 ^h 14	25 ^h 58	25 ^h 47	T 27
F 28	1 1 23	13 ^h 26 ^m 59 ^s	22 ^h 27 ^m	8 ^h 2	0 ^h 45	26 ^h 35	9 ^h 15	10 ^h 26	22 ^h 51	27 ^h 25	14 ^h 21	9 ^h 15	10 ^h 11	26 ^h 5	25 ^h 54	F 28
S 29	1 5 20	14 ^h 26 ^m 32 ^s	4 ^h 324	8 ^h 46	2 ^h 0	27 ^h 16	9 ^h 19	10 ^h 21	22 ^h 51	27 ^h 25	14 ^h 20	9 ^h 14	10 ^h 8	26 ^h 11	26 ^h 1	S 29
S 30	1 9 16	15 ^h 26 ^m 06 ^s	16 ^h 317	9 ^h II26	3 ^h 15	27 ^h 58	9 ^h 23	10 ^h Y16	22 ^h 52	27 ^h II24	14 ^h II20	9 ^h 8 ^m 11 ^s	10 ^h 8 ^m 5	26 ^h 318	26 ^h 02 7	S 30

Delta T = 07m39s

Julian Calendar 1 Sept. 1408 == Greg. Calendar 10 Sept. 1408

OCTOBER 1408 JC

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	Day
M 1	1 13 13	16♂25'42	28♂10	10♂ 1	4♂30	28♂39	9♂26	10°R12	22♂52	27°R24	14°R19	9°R 8	10♂ 2	26♂25	26♂13	M 1
T 2	1 17 10	17°25'20	10♂ 5	10°30	5°45	29°20	9°29	10°Y 7	22°52	27°II24	14°II19	9♂ 4	9°59	26°31	26°20	T 2
W 3	1 21 6	18°25'00	22° 5	10°55	7° 0	0♂ 2	9°33	10° 2	22°53	27°23	14°18	9° 0	9°55	26°38	26°26	W 3
T 4	1 25 3	19°24'42	4°Y14	11°12	8°15	0°43	9°36	9°58	22°53	27°23	14°18	8°57	9°52	26°45	26°32	T 4
F 5	1 28 59	20°24'26	16°33	11°23	9°30	1°24	9°39	9°53	22°54	27°23	14°17	8°55	9°49	26°52	26°38	F 5
S 6	1 32 56	21°24'12	29° 2	11°R27	10°45	2° 6	9°41	9°48	22°54	27°22	14°16	8°54	9°46	26°58	26°44	S 6
S 7	1 36 52	22°23'59	11♂43	11°23	12° 0	2°48	9°44	9°44	22°55	27°22	14°16	8°D54	9°43	27° 5	26°50	S 7
M 8	1 40 49	23°23'49	24°36	11°10	13°15	3°29	9°46	9°39	22°56	27°21	14°15	8°54	9°39	27°12	26°56	M 8
T 9	1 44 45	24°23'41	7°II43	10°48	14°30	4°11	9°48	9°35	22°57	27°21	14°14	8°55	9°36	27°18	27° 2	T 9
W10	1 48 42	25°23'36	21° 2	10°17	15°46	4°53	9°50	9°30	22°57	27°20	14°14	8°57	9°33	27°25	27° 8	W10
T 11	1 52 39	26°23'32	4♂36	9°37	17° 1	5°34	9°52	9°26	22°58	27°19	14°13	8°58	9°30	27°32	27°14	T 11
F 12	1 56 35	27°23'31	18°23	8°48	18°16	6°16	9°53	9°21	22°59	27°19	14°12	8°58	9°27	27°39	27°19	F 12
S 13	2 0 32	28°23'32	2♂24	7°50	19°31	6°58	9°54	9°17	23° 0	27°18	14°12	8°R58	9°24	27°45	27°25	S 13
S 14	2 4 28	29°23'35	16°38	6°45	20°46	7°40	9°55	9°12	23° 1	27°17	14°11	8°58	9°20	27°52	27°30	S 14
M15	2 8 25	0♂23'40	1♂ 2	5°33	22° 2	8°22	9°56	9° 8	23° 2	27°17	14°10	8°57	9°17	27°59	27°36	M15
T 16	2 12 21	1°23'47	15°32	4°18	23°17	9° 4	9°57	9° 4	23° 3	27°16	14° 9	8°56	9°14	28° 5	27°41	T 16
W17	2 16 18	2°23'57	0♂ 5	2°59	24°32	9°46	9°57	9° 0	23° 4	27°15	14° 8	8°55	9°11	28°12	27°46	W17
T 18	2 20 14	3°24'08	14°33	1°41	25°48	10°29	9°58	8°56	23° 6	27°14	14° 8	8°55	9° 8	28°19	27°51	T 18
F 19	2 24 11	4°24'22	28°53	0°26	27° 3	11°11	9°R58	8°52	23° 7	27°13	14° 7	8°55	9° 5	28°26	27°57	F 19
S 20	2 28 8	5°24'37	12♂L57	29♂15	28°18	11°53	9°58	8°48	23° 8	27°12	14° 6	8°D54	9° 1	28°32	28° 1	S 20
S 21	2 32 4	6°24'54	26°43	28°12	29°34	12°35	9°57	8°44	23°10	27°11	14° 5	8°55	8°58	28°39	28° 6	S 21
M22	2 36 1	7°25'13	10♂ 8	27°18	0♂L49	13°18	9°57	8°40	23°11	27°11	14° 4	8°55	8°55	28°46	28°11	M22
T 23	2 39 57	8°25'33	23°11	26°34	2° 5	14° 0	9°56	8°36	23°12	27°10	14° 3	8°R55	8°52	28°52	28°16	T 23
W24	2 43 54	9°25'55	5♂53	26° 1	3°20	14°43	9°55	8°32	23°14	27° 9	14° 2	8°55	8°49	28°59	28°21	W24
T 25	2 47 50	10°26'19	18°17	25°40	4°35	15°25	9°54	8°28	23°15	27° 8	14° 1	8°55	8°45	29° 6	28°25	T 25
F 26	2 51 47	11°26'44	0♂26	25°D31	5°51	16° 8	9°53	8°25	23°17	27° 6	14° 0	8°55	8°42	29°13	28°29	F 26
S 27	2 55 43	12°27'10	12°25	25°33	7° 6	16°51	9°51	8°21	23°19	27° 5	13°59	8°D55	8°39	29°19	28°34	S 27
S 28	2 59 40	13°27'37	24°19	25°45	8°22	17°33	9°50	8°18	23°20	27° 4	13°58	8°55	8°36	29°26	28°38	S 28
M29	3 3 37	14°28'06	6♂11	26° 8	9°37	18°16	9°48	8°15	23°22	27° 3	13°57	8°55	8°33	29°33	28°42	M29
T 30	3 7 33	15°28'36	18° 7	26°40	10°52	18°59	9°46	8°11	23°24	27° 2	13°56	8°56	8°30	29°39	28°46	T 30
W31	3 11 30	16♂L29'08	0°Y10	27♂20	12♂ 8	19♂L42	9♂43	8°Y 8	23♂26	27°II 1	13°II55	8♂56	8♂26	29♂46	28♂L50	W31

ASTRODIENST EPHEMERIS for the year 1408

geocentric

NOVEMBER 1408 JC

00:00 UT

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

Delta T = 07m39s

Julian Calendar 1 Nov. 1408 == Greg. Calendar 10 Nov. 1408

DECEMBER 1408 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	5 13 43	17 ¹⁰ 56'20	15 ¹⁰ 36	10 ¹⁰ 26	21 ¹⁰ 8	12 ¹⁰ 16	7 ¹⁰ R 5	7 ¹⁰ D16	24 ¹⁰ 342	26 ¹⁰ R15	13 ¹⁰ R21	8 ¹⁰ R27	6 ¹⁰ 848	3 ¹⁰ 14	0 ¹⁰ 0	S 1
S 2	5 17 40	18 ¹⁰ 57'26	28 ¹⁰ 53	12 ¹⁰ 0	22 ¹⁰ 24	13 ¹⁰ 1	6 ¹⁰ 58	7 ¹⁰ Y16	24 ¹⁰ 45	26 ¹⁰ II13	13 ¹⁰ II19	8 ¹⁰ 825	6 ¹⁰ 45	3 ¹⁰ 21	0 ¹⁰ 1	S 2
M 3	5 21 36	19 ¹⁰ 58'32	12 ¹⁰ II31	13 ¹⁰ 33	23 ¹⁰ 39	13 ¹⁰ 45	6 ¹⁰ 51	7 ¹⁰ 16	24 ¹⁰ 48	26 ¹⁰ 11	13 ¹⁰ 18	8 ¹⁰ 21	6 ¹⁰ 42	3 ¹⁰ 28	0 ¹⁰ 1	M 3
T 4	5 25 33	20 ¹⁰ 59'39	26 ¹⁰ 30	15 ¹⁰ 7	24 ¹⁰ 55	14 ¹⁰ 30	6 ¹⁰ 43	7 ¹⁰ 17	24 ¹⁰ 51	26 ¹⁰ 10	13 ¹⁰ 17	8 ¹⁰ 15	6 ¹⁰ 38	3 ¹⁰ 34	0 ¹⁰ 1	T 4
W 5	5 29 29	22 ¹⁰ 0'47	10 ¹⁰ 346	16 ¹⁰ 41	26 ¹⁰ 10	15 ¹⁰ 14	6 ¹⁰ 35	7 ¹⁰ 17	24 ¹⁰ 54	26 ¹⁰ 8	13 ¹⁰ 16	8 ¹⁰ 8	6 ¹⁰ 35	3 ¹⁰ 41	0 ¹⁰ R1	W 5
T 6	5 33 26	23 ¹⁰ 1'55	25 ¹⁰ 12	18 ¹⁰ 15	27 ¹⁰ 25	15 ¹⁰ 59	6 ¹⁰ 28	7 ¹⁰ 18	24 ¹⁰ 57	26 ¹⁰ 6	13 ¹⁰ 15	8 ¹⁰ 1	6 ¹⁰ 32	3 ¹⁰ 48	0 ¹⁰ 1	T 6
F 7	5 37 22	24 ¹⁰ 3'03	9 ¹⁰ 142	19 ¹⁰ 49	28 ¹⁰ 41	16 ¹⁰ 44	6 ¹⁰ 20	7 ¹⁰ 18	25 ¹⁰ 0	26 ¹⁰ 5	13 ¹⁰ 14	7 ¹⁰ 54	6 ¹⁰ 29	3 ¹⁰ 55	0 ¹⁰ 1	F 7
S 8	5 41 19	25 ¹⁰ 4'12	24 ¹⁰ 11	21 ¹⁰ 24	29 ¹⁰ 56	17 ¹⁰ 29	6 ¹⁰ 12	7 ¹⁰ 19	25 ¹⁰ 3	26 ¹⁰ 3	13 ¹⁰ 12	7 ¹⁰ 48	6 ¹⁰ 26	4 ¹⁰ 1	0 ¹⁰ 1	S 8
S 9	5 45 15	26 ¹⁰ 5'21	8 ¹⁰ 32	22 ¹⁰ 58	1 ¹⁰ 12	18 ¹⁰ 13	6 ¹⁰ 4	7 ¹⁰ 20	25 ¹⁰ 7	26 ¹⁰ 1	13 ¹⁰ 11	7 ¹⁰ 45	6 ¹⁰ 23	4 ¹⁰ 8	0 ¹⁰ 1	S 9
M10	5 49 12	27 ¹⁰ 6'31	22 ¹⁰ 44	24 ¹⁰ 33	2 ¹⁰ 27	18 ¹⁰ 58	5 ¹⁰ 56	7 ¹⁰ 20	25 ¹⁰ 10	26 ¹⁰ 59	13 ¹⁰ 10	7 ¹⁰ D43	6 ¹⁰ 19	4 ¹⁰ 15	0 ¹⁰ 0	M10
T 11	5 53 9	28 ¹⁰ 7'42	6 ¹⁰ 44	26 ¹⁰ 9	3 ¹⁰ 43	19 ¹⁰ 43	5 ¹⁰ 48	7 ¹⁰ 22	25 ¹⁰ 13	25 ¹⁰ 58	13 ¹⁰ 9	7 ¹⁰ 43	6 ¹⁰ 16	4 ¹⁰ 21	29 ¹⁰ 59	T 11
W12	5 57 5	29 ¹⁰ 8'53	20 ¹⁰ 32	27 ¹⁰ 44	4 ¹⁰ 58	20 ¹⁰ 28	5 ¹⁰ 40	7 ¹⁰ 23	25 ¹⁰ 16	25 ¹⁰ 56	13 ¹⁰ 8	7 ¹⁰ 44	6 ¹⁰ 13	4 ¹⁰ 28	29 ¹⁰ 59	W12
T 13	6 1 2	0 ¹⁰ 10'04	4 ¹⁰ 11	29 ¹⁰ 20	6 ¹⁰ 14	21 ¹⁰ 13	5 ¹⁰ 32	7 ¹⁰ 24	25 ¹⁰ 20	25 ¹⁰ 54	13 ¹⁰ 7	7 ¹⁰ R45	6 ¹⁰ 10	4 ¹⁰ 35	29 ¹⁰ 58	T 13
F 14	6 4 58	1 ¹⁰ 11'16	17 ¹⁰ 33	0 ¹⁰ 56	7 ¹⁰ 29	21 ¹⁰ 58	5 ¹⁰ 24	7 ¹⁰ 25	25 ¹⁰ 23	25 ¹⁰ 53	13 ¹⁰ 6	7 ¹⁰ 45	6 ¹⁰ 7	4 ¹⁰ 41	29 ¹⁰ 57	F 14
S 15	6 8 55	2 ¹⁰ 12'28	0 ¹⁰ 47	2 ¹⁰ 33	8 ¹⁰ 45	22 ¹⁰ 43	5 ¹⁰ 16	7 ¹⁰ 27	25 ¹⁰ 26	25 ¹⁰ 51	13 ¹⁰ 5	7 ¹⁰ 42	6 ¹⁰ 3	4 ¹⁰ 48	29 ¹⁰ 56	S 15
S 16	6 12 51	3 ¹⁰ 13'41	13 ¹⁰ 50	4 ¹⁰ 10	10 ¹⁰ 0	23 ¹⁰ 28	5 ¹⁰ 8	7 ¹⁰ 28	25 ¹⁰ 29	25 ¹⁰ 49	13 ¹⁰ 3	7 ¹⁰ 37	6 ¹⁰ 0	4 ¹⁰ 55	29 ¹⁰ 55	S 16
M17	6 16 48	4 ¹⁰ 14'53	26 ¹⁰ 42	5 ¹⁰ 47	11 ¹⁰ 15	24 ¹⁰ 13	5 ¹⁰ 0	7 ¹⁰ 30	25 ¹⁰ 33	25 ¹⁰ 48	13 ¹⁰ 2	7 ¹⁰ 29	5 ¹⁰ 57	5 ¹⁰ 2	29 ¹⁰ 54	M17
T 18	6 20 44	5 ¹⁰ 16'06	9 ¹⁰ 32	7 ¹⁰ 25	12 ¹⁰ 31	24 ¹⁰ 59	4 ¹⁰ 52	7 ¹⁰ 32	25 ¹⁰ 36	25 ¹⁰ 46	13 ¹⁰ 1	7 ¹⁰ 19	5 ¹⁰ 54	5 ¹⁰ 8	29 ¹⁰ 52	T 18
W19	6 24 41	6 ¹⁰ 17'18	21 ¹⁰ 51	9 ¹⁰ 3	13 ¹⁰ 46	25 ¹⁰ 44	4 ¹⁰ 44	7 ¹⁰ 34	25 ¹⁰ 40	25 ¹⁰ 44	13 ¹⁰ 0	7 ¹⁰ 8	5 ¹⁰ 51	5 ¹⁰ 15	29 ¹⁰ 51	W19
T 20	6 28 38	7 ¹⁰ 18'30	4 ¹⁰ 8	10 ¹⁰ 41	15 ¹⁰ 2	26 ¹⁰ 29	4 ¹⁰ 36	7 ¹⁰ 36	25 ¹⁰ 43	25 ¹⁰ 43	12 ¹⁰ 59	6 ¹⁰ 56	5 ¹⁰ 48	5 ¹⁰ 22	29 ¹⁰ 49	T 20
F 21	6 32 34	8 ¹⁰ 19'42	16 ¹⁰ 14	12 ¹⁰ 20	16 ¹⁰ 17	27 ¹⁰ 15	4 ¹⁰ 28	7 ¹⁰ 38	25 ¹⁰ 46	25 ¹⁰ 41	12 ¹⁰ 58	6 ¹⁰ 44	5 ¹⁰ 44	5 ¹⁰ 28	29 ¹⁰ 48	F 21
S 22	6 36 31	9 ¹⁰ 20'53	28 ¹⁰ 11	13 ¹⁰ 59	17 ¹⁰ 33	28 ¹⁰ 0	4 ¹⁰ 19	7 ¹⁰ 40	25 ¹⁰ 50	25 ¹⁰ 39	12 ¹⁰ 57	6 ¹⁰ 35	5 ¹⁰ 41	5 ¹⁰ 35	29 ¹⁰ 46	S 22
S 23	6 40 27	10 ¹⁰ 22'04	10 ¹⁰ 11	15 ¹⁰ 38	18 ¹⁰ 48	28 ¹⁰ 45	4 ¹⁰ 11	7 ¹⁰ 42	25 ¹⁰ 53	25 ¹⁰ 38	12 ¹⁰ 56	6 ¹⁰ 28	5 ¹⁰ 38	5 ¹⁰ 42	29 ¹⁰ 44	S 23
M24	6 44 24	11 ¹⁰ 23'15	21 ¹⁰ 52	17 ¹⁰ 18	20 ¹⁰ 3	29 ¹⁰ 31	4 ¹⁰ 3	7 ¹⁰ 45	25 ¹⁰ 57	25 ¹⁰ 36	12 ¹⁰ 55	6 ¹⁰ 23	5 ¹⁰ 35	5 ¹⁰ 49	29 ¹⁰ 42	M24
T 25	6 48 20	12 ¹⁰ 24'24	3 ¹⁰ Y43	18 ¹⁰ 58	21 ¹⁰ 19	0 ¹⁰ 16	3 ¹⁰ 55	7 ¹⁰ 47	26 ¹⁰ 0	25 ¹⁰ 34	12 ¹⁰ 54	6 ¹⁰ 21	5 ¹⁰ 32	5 ¹⁰ 55	29 ¹⁰ 40	T 25
W26	6 52 17	13 ¹⁰ 25'34	15 ¹⁰ 42	20 ¹⁰ 39	22 ¹⁰ 34	1 ¹⁰ 2	3 ¹⁰ 48	7 ¹⁰ 50	26 ¹⁰ 3	25 ¹⁰ 33	12 ¹⁰ 53	6 ¹⁰ D21	5 ¹⁰ 29	6 ¹⁰ 2	29 ¹⁰ 37	W26
T 27	6 56 13	14 ¹⁰ 26'42	27 ¹⁰ 54	22 ¹⁰ 19	23 ¹⁰ 49	1 ¹⁰ 47	3 ¹⁰ 40	7 ¹⁰ 53	26 ¹⁰ 7	25 ¹⁰ 31	12 ¹⁰ 52	6 ¹⁰ 21	5 ¹⁰ 25	6 ¹⁰ 9	29 ¹⁰ 35	T 27
F 28	7 0 10	15 ¹⁰ 27'50	10 ¹⁰ 824	24 ¹⁰ 0	25 ¹⁰ 5	2 ¹⁰ 33	3 ¹⁰ 32	7 ¹⁰ 55	26 ¹⁰ 10	25 ¹⁰ 30	12 ¹⁰ 51	6 ¹⁰ R21	5 ¹⁰ 22	6 ¹⁰ 15	29 ¹⁰ 33	F 28
S 29	7 4 7	16 ¹⁰ 28'57	23 ¹⁰ 18	25 ¹⁰ 42	26 ¹⁰ 20	3 ¹⁰ 19	3 ¹⁰ 24	7 ¹⁰ 58	26 ¹⁰ 14	25 ¹⁰ 28	12 ¹⁰ 50	6 ¹⁰ 20	5 ¹⁰ 19	6 ¹⁰ 22	29 ¹⁰ 30	S 29
S 30	7 8 3	17 ¹⁰ 30'03	6 ¹⁰ II38	27 ¹⁰ 23	27 ¹⁰ 35	4 ¹⁰ 4	3 ¹⁰ 16	8 ¹⁰ 1	26 ¹⁰ 17	25 ¹⁰ 27	12 ¹⁰ 49	6 ¹⁰ 16	5 ¹⁰ 16	6 ¹⁰ 29	29 ¹⁰ 27	S 30
M31	7 12 0	18 ¹⁰ 31'09	20 ¹⁰ II26	29 ¹⁰ 34	28 ¹⁰ 351	4 ¹⁰ 350	3 ¹⁰ 39	8 ¹⁰ Y 5	26 ¹⁰ 321	25 ¹⁰ II25	12 ¹⁰ II48	6 ¹⁰ 810	5 ¹⁰ 813	6 ¹⁰ 1135	29 ¹⁰ 25	M31