



Astrodienst Ephemeris Tables for the year 1828

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 1828

geocentric

JANUARY 1828

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 38 32	9°37'13	26°11'3	21°27'2	0°32'32	7°14'47	9°12'25	17°12'23	27°12'12	15°12'40	4°12'24	3°12'7	1°12'44	14°12'37	24°12'31	T 1
W 2	6 42 28	10°38'21	7°12'56	22°27'1	1°47'8	8°23'9	9°35'17	17°12'18	27°12'16	15°12'42	4°12'24	2°12'55	1°12'41	14°12'43	24°12'31	W 2
T 3	6 46 25	11°39'30	19°48'19	23°52'3	3°2'8	8°59'9	9°44'17	17°13'8	27°12'19	15°12'44	4°12'24	2°12'57	1°12'38	14°12'50	24°12'31	T 3
F 4	6 50 22	12°40'39	16°41'12	25°19'4	4°17'9	9°36'9	9°53'17	17°8'8	27°12'23	15°12'46	4°12'25	2°12'59	1°12'35	14°12'57	24°12'31	F 4
S 5	6 54 18	13°41'47	13°36'26	26°46'5	5°32'10	10°12'10	10°2'17	17°3'3	27°12'26	15°12'49	4°12'25	2°12'59	1°12'32	15°4'24	24°12'31	S 5
S 6	6 58 15	14°42'56	25°35'28	28°13'6	6°47'10	10°48'10	10°10'16	16°58'27	27°12'29	15°12'51	4°12'25	2°12'59	1°12'29	15°10'24	24°12'31	S 6
M 7	7 2 11	15°44'05	7°12'41	29°42'8	8°2'11	11°24'10	10°19'16	16°54'27	27°12'33	15°12'53	4°12'26	1°12'54	1°12'25	15°17'24	24°12'31	M 7
T 8	7 6 8	16°45'13	19°55'13	1°11'9	9°16'12	12°0'10	10°28'16	16°49'27	27°12'36	15°12'56	4°12'26	1°12'59	1°12'22	15°24'24	24°12'31	T 8
W 9	7 10 4	17°46'22	2°12'22	2°40'10	10°31'12	12°36'10	10°36'16	16°44'27	27°12'40	15°12'58	4°12'27	1°12'59	1°12'19	15°31'24	24°12'31	W 9
T 10	7 14 1	18°47'30	15°7'4	4°10'11	11°46'13	12°12'10	10°44'16	16°39'27	27°12'43	16°0'0	4°12'27	1°12'59	1°12'16	15°37'24	24°12'31	T 10
F 11	7 17 57	19°48'39	28°13'5	5°40'13	13°1'13	13°48'10	10°53'16	16°34'27	27°12'47	16°2'2	4°12'28	1°12'59	1°12'13	15°44'24	24°12'32	F 11
S 12	7 21 54	20°49'47	11°12'44	7°11'14	14°16'14	14°24'11	11°1'16	16°29'27	27°12'50	16°5'5	4°12'28	1°12'59	1°12'10	15°51'24	24°12'32	S 12
S 13	7 25 51	21°50'55	25°43'10	8°43'15	15°30'15	15°0'11	11°9'16	16°24'27	27°12'54	16°7'7	4°12'29	1°12'59	1°12'6	15°57'24	24°12'33	S 13
M14	7 29 47	22°52'04	10°12'10	10°15'16	16°45'15	15°36'11	11°16'16	16°19'27	27°12'57	16°9'9	4°12'29	1°12'59	1°12'3	16°4'24	24°12'33	M14
T 15	7 33 44	23°53'12	25°2'11	11°47'18	18°0'16	11°24'11	11°24'16	16°14'28	28°1'1	16°11'4	4°12'30	1°12'59	1°12'0	16°11'24	24°12'34	T 15
W16	7 37 40	24°54'19	10°13'14	13°20'19	19°15'16	16°47'11	11°31'16	16°9'28	28°5'5	16°14'4	4°12'31	1°12'59	1°12'0	16°18'24	24°12'34	W16
T 17	7 41 37	25°55'27	25°35'14	20°29'17	20°29'17	17°23'11	11°39'16	16°4'28	28°8'8	16°16'4	4°12'31	1°12'59	1°12'0	16°24'24	24°12'35	T 17
F 18	7 45 33	26°56'33	10°16'28	21°44'17	21°44'17	17°59'11	11°46'15	15°59'28	28°12'16	16°18'4	4°12'32	1°12'59	1°12'0	16°31'24	24°12'36	F 18
S 19	7 49 30	27°57'39	25°57'18	22°59'18	22°59'18	18°34'11	11°53'15	15°55'28	28°15'16	16°20'4	4°12'33	1°12'59	1°12'0	16°38'24	24°12'36	S 19
S 20	7 53 26	28°58'44	10°18'38	19°38'24	24°13'19	19°10'12	12°0'15	15°50'28	28°19'16	16°23'4	4°12'33	1°12'59	1°12'0	16°44'24	24°12'37	S 20
M21	7 57 23	29°59'48	24°50'21	25°28'19	25°28'19	19°45'12	12°7'15	15°45'28	28°22'16	16°25'4	4°12'34	1°12'59	1°12'0	16°51'24	24°12'38	M21
T 22	8 1 20	1°0'51	8°13'32	22°50'26	26°42'20	20°21'12	12°14'15	15°40'28	28°26'16	16°27'4	4°12'35	1°12'59	1°12'0	16°58'24	24°12'39	T 22
W23	8 5 16	2°1'53	21°44'24	24°27'27	27°57'20	20°56'12	12°20'15	15°36'28	28°29'16	16°29'4	4°12'36	1°12'59	1°12'0	17°5'24	24°12'40	W23
T 24	8 9 13	3°2'54	4°13'31	26°5'29	29°11'21	21°32'12	12°26'15	15°31'28	28°33'16	16°32'4	4°12'36	1°12'59	1°12'0	17°11'24	24°12'41	T 24
F 25	8 13 9	4°3'53	16°58'27	27°43'0	27°43'0	22°7'12	12°33'15	15°27'28	28°36'16	16°34'4	4°12'37	1°12'59	1°12'0	17°18'24	24°12'42	F 25
S 26	8 17 6	5°4'52	29°8'29	29°21'1	1°40'22	22°42'12	12°39'15	15°22'28	28°40'16	16°36'4	4°12'38	1°12'59	1°12'0	17°25'24	24°12'44	S 26
S 27	8 21 2	6°5'50	11°12'8	1°12'2	2°55'23	23°17'12	12°45'15	15°18'28	28°43'16	16°38'4	4°12'39	1°12'59	1°12'0	17°31'24	24°12'45	S 27
M28	8 24 59	7°6'46	23°2'2	2°41'4	4°9'23	23°52'12	12°50'15	15°13'28	28°47'16	16°40'4	4°12'40	1°12'59	1°12'0	17°38'24	24°12'46	M28
T 29	8 28 55	8°7'41	4°12'53	4°22'5	5°23'24	24°28'12	12°56'15	15°9'28	28°50'16	16°42'4	4°12'41	1°12'59	1°12'0	17°45'24	24°12'47	T 29
W30	8 32 52	9°8'35	16°44'6	6°3'6	6°38'25	25°3'13	13°1'15	15°4'28	28°54'16	16°45'4	4°12'42	1°12'59	1°12'0	17°52'24	24°12'49	W30
T 31	8 36 49	10°9'28	28°38'7	7°46'7	7°46'7	25°13'13	13°7'15	15°0'28	28°57'16	16°47'4	4°12'42	1°12'59	1°12'0	17°58'24	24°12'50	T 31

Delta T = 12.04 sec

FEBRUARY 1828

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	8 40 45	11°10'20	10°12'35	9°29'00	9°16'26	26°13'13	13°12'12	14°12'56	29°12'29	16°12'49	4°12'43	29°12'23	0°12'06	18°12'05	24°12'52	F 1
S 2	8 44 42	12°11'10	22°37'11	11°12'10	10°20'26	26°47'13	13°17'17	14°12'52	29°04'29	16°51'16	4°44'29	29°12'09	0°03'18	18°12'53	24°53'18	S 2
S 3	8 48 38	13°12'00	4°12'45	12°57'11	11°34'27	27°22'13	13°22'14	14°48'29	29°08'16	16°53'04	4°45'28	29°12'59	18°19'29	24°55'18	24°55'18	S 3
M 4	8 52 35	14°12'48	17°00'14	14°42'12	12°48'27	27°57'13	13°26'14	14°44'29	29°11'16	16°55'04	4°46'28	29°12'56	18°25'29	24°57'18	24°57'18	M 4
T 5	8 56 31	15°13'35	29°24'16	16°27'14	14°02'28	28°32'13	13°31'14	14°40'29	29°15'16	16°57'04	4°47'28	29°12'53	18°32'29	24°58'18	24°58'18	T 5
W 6	9 0 28	16°14'22	11°12'59	18°14'15	15°16'29	29°06'13	13°35'14	14°36'29	29°18'16	16°59'04	4°48'28	29°12'50	18°39'29	25°00'25	25°00'25	W 6
T 7	9 4 24	17°15'07	24°47'20	20°01'16	16°30'29	29°41'13	13°39'14	14°32'29	29°21'17	17°01'49	4°49'28	29°12'47	18°45'29	25°02'18	25°02'18	T 7
F 8	9 8 21	18°15'51	7°12'52	21°49'17	17°44'17	0°15'13	13°43'14	14°29'29	29°25'17	17°03'51	4°51'28	29°12'44	18°52'29	25°04'18	25°04'18	F 8
S 9	9 12 18	19°16'34	21°17'23	23°37'18	18°58'00	0°50'13	13°47'14	14°25'29	29°28'17	17°05'52	4°52'28	29°12'41	18°59'29	25°06'18	25°06'18	S 9
S 10	9 16 14	20°17'17	5°12'05	25°26'20	20°12'01	1°24'13	13°50'14	14°21'29	29°32'17	17°07'53	4°53'28	29°12'37	19°06'29	25°08'18	25°08'18	S 10
M11	9 20 11	21°17'58	19°16'27	27°16'21	21°25'01	1°58'13	13°54'14	14°18'29	29°35'17	17°09'54	4°54'28	29°12'34	19°12'29	25°10'18	25°10'18	M11
T 12	9 24 7	22°18'38	3°12'51	29°06'22	22°39'02	2°33'13	13°57'14	14°15'29	29°38'17	17°11'55	4°55'28	29°12'31	19°19'29	25°12'18	25°12'18	T 12
W13	9 28 4	23°19'17	18°44'00	0°12'56	23°53'03	3°07'14	14°01'14	14°11'29	29°42'17	17°13'45	4°56'28	29°12'28	19°26'29	25°14'18	25°14'18	W13
T 14	9 32 0	24°19'55	3°12'48	2°46'25	25°06'34	14°03'14	14°08'29	29°45'17	17°15'45	4°57'28	29°12'25	19°32'29	25°16'18	25°16'18	25°16'18	T 14
F 15	9 35 57	25°20'31	18°55'04	4°37'26	26°20'41	14°06'14	14°05'29	29°48'17	17°17'45	4°58'28	29°12'22	19°39'29	25°19'18	25°19'18	25°19'18	F 15
S 16	9 39 53	26°21'06	3°12'54	6°27'27	27°34'49	14°08'14	14°02'29	29°51'17	17°19'05	5°00'27	29°12'18	19°46'29	25°21'18	25°21'18	25°21'18	S 16
S 17	9 43 50	27°21'39	18°34'08	8°17'28	28°47'52	5°23'14	14°11'13	13°59'29	29°55'17	17°21'05	5°01'27	29°12'15	19°53'29	25°23'18	25°23'18	S 17
M18	9 47 47	28°22'10	2°12'51	10°06'00	0°12'56	5°56'14	14°13'13	13°56'29	29°58'17	17°23'05	5°02'27	29°12'12	19°59'29	25°26'18	25°26'18	M18
T 19	9 51 43	29°22'40	16°39'11	11°54'17	1°14'06	6°30'14	14°15'13	13°53'00	17°24'17	17°24'17	5°03'27	29°12'09	20°06'29	25°28'19	25°28'19	T 19
W20	9 55 40	0°12'30	29°59'13	13°41'02	2°27'07	7°04'14	14°17'13	13°51'00	17°26'17	17°26'17	5°04'27	29°12'06	20°13'29	25°30'20	25°30'20	W20
T 21	9 59 36	1°23'33	12°12'53	15°26'03	3°40'07	7°37'14	14°18'13	13°48'00	17°28'17	17°28'17	5°06'27	29°12'02	20°19'29	25°33'20	25°33'20	T 21
F 22	10 3 33	2°23'58	25°25'17	9°45'38	4°53'10	8°10'14	14°20'13	13°46'00	17°30'17	17°30'17	5°07'27	29°12'03	20°26'29	25°35'20	25°35'20	F 22
S 23	10 7 29	3°24'20	7°12'39	18°50'06	6°07'08	8°44'14	14°21'13	13°44'00	17°31'17	17°31'17	5°08'27	29°12'03	20°33'29	25°38'20	25°38'20	S 23
S 24	10 11 26	4°24'40	19°40'20	20°27'09	7°20'17	9°17'14	14°22'13	13°41'00	17°33'17	17°33'17	5°10'27	29°12'03	20°40'29	25°41'20	25°41'20	S 24
M25	10 15 22	5°24'58	1°12'34	22°01'08	8°33'09	9°50'14	14°23'13	13°39'00	17°35'17	17°35'17	5°11'27	29°12'03	20°46'29	25°43'20	25°43'20	M25
T 26	10 19 19	6°25'14	13°25'23	30°09'46	10°23'14	10°23'14	14°24'13	13°37'00	17°37'17	17°37'17	5°12'27	29°12'03	20°53'29	25°46'20	25°46'20	T 26
W27	10 23 16	7°25'29	25°17'24	54°10'58	10°56'10	10°56'10	14°24'13	13°35'00	17°38'17	17°38'17	5°13'27	29°12'03	21°00'29	25°49'20	25°49'20	W27
T 28	10 27 12	8°25'41	7°12'53	26°13'10	12°11'11	11°29'14	14°24'13	13°33'00	17°40'17	17°40'17	5°15'27	29°12'03	21°07'29	25°52'20	25°52'20	T 28
F 29	10 31 9	9°12'55	19°12'51	27°12'26	13°12'24	12°12'14	14°25'13	13°32'00	17°41'17	17°41'17	5°16'27	29°12'03	21°13'29	25°54'20	25°54'20	F 29

ASTRODIENST EPHEMERIS for the year 1828

geocentric

MARCH 1828

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	10 35 5	10 ^h 26'00	1 ^m 26	28 ^h 32	14 ^h 36	12 ^h 34	14 ^h R24	13 ^h R30	0 ^h 35	17 ^h 43	5 ^h 17	26 ^h R50	28 ^h 34	21 ^h 20	25 ^h 57	S 1
S 2	10 39 2	11 ^h 26'06	13 ^h 46	29 ^h 32	15 ^h 49	13 ^h 6	14 ^h M24	13 ^h 29	0 ^h 37	17 ^h 44	5 ^h 19	26 ^h 42	28 ^h 31	21 ^h 27	26 ^h 0	S 2
M 3	10 42 58	12 ^h 26'11	26 ^h 16	0 ^h 23	17 ^h 1	13 ^h 39	14 ^h 24	13 ^h 27	0 ^h 40	17 ^h 46	5 ^h 20	26 ^h 36	28 ^h 27	21 ^h 33	26 ^h 3	M 3
T 4	10 46 55	13 ^h 26'14	8 ^h 57	1 ^h 6	18 ^h 14	14 ^h 11	14 ^h 23	13 ^h 26	0 ^h 43	17 ^h 47	5 ^h 22	26 ^h 32	28 ^h 24	21 ^h 40	26 ^h 6	T 4
W 5	10 50 51	14 ^h 26'15	21 ^h 49	1 ^h 41	19 ^h 26	14 ^h 43	14 ^h 22	13 ^h 25	0 ^h 46	17 ^h 49	5 ^h 23	26 ^h D31	28 ^h 21	21 ^h 47	26 ^h 9	W 5
T 6	10 54 48	15 ^h 26'14	4 ^h M52	2 ^h 7	20 ^h 38	15 ^h 15	14 ^h 21	13 ^h 24	0 ^h 49	17 ^h 50	5 ^h 24	26 ^h 31	28 ^h 18	21 ^h 54	26 ^h 12	T 6
F 7	10 58 44	16 ^h 26'12	18 ^h 10	2 ^h 24	21 ^h 50	15 ^h 47	14 ^h 20	13 ^h 23	0 ^h 51	17 ^h 52	5 ^h 26	26 ^h 32	28 ^h 15	22 ^h 0	26 ^h 15	F 7
S 8	11 2 41	17 ^h 26'08	1 ^h 41	2 ^h R32	23 ^h 2	16 ^h 19	14 ^h 19	13 ^h 22	0 ^h 54	17 ^h 53	5 ^h 27	26 ^h 34	28 ^h 12	22 ^h 7	26 ^h 18	S 8
S 9	11 6 38	18 ^h 26'03	15 ^h 28	2 ^h 31	24 ^h 14	16 ^h 50	14 ^h 17	13 ^h 21	0 ^h 57	17 ^h 54	5 ^h 29	26 ^h R35	28 ^h 8	22 ^h 14	26 ^h 21	S 9
M10	11 10 34	19 ^h 25'56	29 ^h 31	2 ^h 22	25 ^h 26	17 ^h 22	14 ^h 15	13 ^h 20	0 ^h 59	17 ^h 56	5 ^h 30	26 ^h 34	28 ^h 5	22 ^h 20	26 ^h 25	M10
T 11	11 14 31	20 ^h 25'47	13 ^h 50	2 ^h 4	26 ^h 38	17 ^h 53	14 ^h 13	13 ^h 20	1 ^h 2	17 ^h 57	5 ^h 31	26 ^h 32	28 ^h 2	22 ^h 27	26 ^h 28	T 11
W12	11 18 27	21 ^h 25'37	28 ^h 20	1 ^h 38	27 ^h 50	18 ^h 25	14 ^h 11	13 ^h 20	1 ^h 5	17 ^h 58	5 ^h 33	26 ^h 29	27 ^h 59	22 ^h 34	26 ^h 31	W12
T 13	11 22 24	22 ^h 25'25	12 ^h 59	1 ^h 6	29 ^h 2	18 ^h 56	14 ^h 9	13 ^h 19	1 ^h 7	18 ^h 0	5 ^h 34	26 ^h 24	27 ^h 56	22 ^h 41	26 ^h 34	T 13
F 14	11 26 20	23 ^h 25'11	27 ^h 39	0 ^h 27	0 ^h 13	19 ^h 27	14 ^h 6	13 ^h 19	1 ^h 10	18 ^h 1	5 ^h 36	26 ^h 19	27 ^h 53	22 ^h 47	26 ^h 38	F 14
S 15	11 30 17	24 ^h 24'55	12 ^h 15	29 ^h 42	1 ^h 25	19 ^h 58	14 ^h 4	13 ^h D19	1 ^h 12	18 ^h 2	5 ^h 37	26 ^h 14	27 ^h 49	22 ^h 54	26 ^h 41	S 15
S 16	11 34 13	25 ^h 24'37	26 ^h 38	28 ^h 54	2 ^h 36	20 ^h 28	14 ^h 1	13 ^h 19	1 ^h 15	18 ^h 3	5 ^h 39	26 ^h 10	27 ^h 46	23 ^h 1	26 ^h 44	S 16
M17	11 38 10	26 ^h 24'17	10 ^h 44	28 ^h 2	3 ^h 47	20 ^h 59	13 ^h 58	13 ^h 19	1 ^h 17	18 ^h 4	5 ^h 40	26 ^h 8	27 ^h 43	23 ^h 8	26 ^h 48	M17
T 18	11 42 7	27 ^h 23'55	24 ^h 28	27 ^h 8	4 ^h 58	21 ^h 29	13 ^h 55	13 ^h 19	1 ^h 19	18 ^h 5	5 ^h 42	26 ^h D 7	27 ^h 40	23 ^h 14	26 ^h 51	T 18
W19	11 46 3	28 ^h 23'31	7 ^h 8	26 ^h 13	6 ^h 10	21 ^h 59	13 ^h 51	13 ^h 20	1 ^h 22	18 ^h 6	5 ^h 43	26 ^h 7	27 ^h 37	23 ^h 21	26 ^h 54	W19
T 20	11 50 0	29 ^h 23'05	20 ^h 44	25 ^h 18	7 ^h 21	22 ^h 29	13 ^h 48	13 ^h 20	1 ^h 24	18 ^h 7	5 ^h 44	26 ^h 9	27 ^h 33	23 ^h 28	26 ^h 58	T 20
F 21	11 53 56	0 ^h 22'37	3 ^h II20	24 ^h 25	8 ^h 31	22 ^h 59	13 ^h 44	13 ^h 21	1 ^h 26	18 ^h 8	5 ^h 46	26 ^h 10	27 ^h 30	23 ^h 34	27 ^h 1	F 21
S 22	11 57 53	1 ^h 22'06	15 ^h 38	23 ^h 35	9 ^h 42	23 ^h 29	13 ^h 40	13 ^h 22	1 ^h 28	18 ^h 9	5 ^h 47	26 ^h 12	27 ^h 27	23 ^h 41	27 ^h 5	S 22
S 23	12 1 49	2 ^h 21'33	27 ^h 43	22 ^h 47	10 ^h 53	23 ^h 58	13 ^h 36	13 ^h 22	1 ^h 30	18 ^h 10	5 ^h 49	26 ^h R13	27 ^h 24	23 ^h 48	27 ^h 8	S 23
M24	12 5 46	3 ^h 20'58	9 ^h 39	22 ^h 4	12 ^h 3	24 ^h 28	13 ^h 32	13 ^h 23	1 ^h 32	18 ^h 11	5 ^h 50	26 ^h 13	27 ^h 21	23 ^h 55	27 ^h 12	M24
T 25	12 9 42	4 ^h 20'20	21 ^h 32	21 ^h 25	13 ^h 14	24 ^h 57	13 ^h 27	13 ^h 24	1 ^h 35	18 ^h 12	5 ^h 52	26 ^h 12	27 ^h 18	24 ^h 1	27 ^h 15	T 25
W26	12 13 39	5 ^h 19'40	3 ^h II25	20 ^h 52	14 ^h 24	25 ^h 26	13 ^h 23	13 ^h 26	1 ^h 37	18 ^h 13	5 ^h 53	26 ^h 10	27 ^h 14	24 ^h 8	27 ^h 19	W26
T 27	12 17 36	6 ^h 18'58	15 ^h 23	20 ^h 24	15 ^h 34	25 ^h 54	13 ^h 18	13 ^h 27	1 ^h 38	18 ^h 14	5 ^h 55	26 ^h 7	27 ^h 11	24 ^h 15	27 ^h 23	T 27
F 28	12 21 32	7 ^h 18'13	27 ^h 30	20 ^h 1	16 ^h 45	26 ^h 23	13 ^h 13	13 ^h 28	1 ^h 40	18 ^h 15	5 ^h 56	26 ^h 4	27 ^h 8	24 ^h 22	27 ^h 26	F 28
S 29	12 25 29	8 ^h 17'27	9 ^h 48	19 ^h 44	17 ^h 55	26 ^h 51	13 ^h 8	13 ^h 30	1 ^h 42	18 ^h 15	5 ^h 58	26 ^h 1	27 ^h 5	24 ^h 28	27 ^h 30	S 29
S 30	12 29 25	9 ^h 16'38	22 ^h 20	19 ^h 33	19 ^h 4	27 ^h 20	13 ^h 3	13 ^h 31	1 ^h 44	18 ^h 16	5 ^h 59	25 ^h 59	27 ^h 2	24 ^h 35	27 ^h 33	S 30
M31	12 33 22	10 ^h 15'46	5 ^h 6	19 ^h D28	20 ^h 14	27 ^h 48	12 ^h M58	13 ^h 33	1 ^h 46	18 ^h 17	6 ^h 1	25 ^h 57	26 ^h 58	24 ^h 42	27 ^h 37	M31

Delta T = 11.92 sec

APRIL 1828

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 37 18	11°14'53	18°06	19°28	21°24	28°15	12°R53	13°35	1°48	18°17	6°2	25°R56	26°55	24°48	27°41	T 1
W 2	12 41 15	12°13'58	1°M21	19°33	22°33	28°43	12°M47	13°37	1°49	18°18	6°4	25°D56	26°52	24°55	27°44	W 2
T 3	12 45 11	13°13'01	14°49	19°44	23°42	29°10	12°41	13°39	1°51	18°19	6°5	25°56	26°49	25°2	27°48	T 3
F 4	12 49 8	14°12'02	28°29	20°0	24°52	29°37	12°35	13°41	1°53	18°19	6°6	25°57	26°46	25°9	27°52	F 4
S 5	12 53 4	15°11'01	12°20	20°21	26°1	0°34	12°29	13°43	1°54	18°20	6°8	25°58	26°43	25°15	27°56	S 5
S 6	12 57 1	16°9'59	26°20	20°47	27°9	0°31	12°23	13°45	1°56	18°20	6°9	25°59	26°39	25°22	27°59	S 6
M 7	13 0 58	17°8'55	10°38	21°17	28°18	0°57	12°17	13°48	1°57	18°21	6°11	26°0	26°36	25°29	28°3	M 7
T 8	13 4 54	18°7'49	24°40	21°51	29°27	1°23	12°11	13°50	1°59	18°21	6°12	26°R0	26°33	25°35	28°7	T 8
W 9	13 8 51	19°6'41	8°56	22°29	0°II35	1°49	12°4	13°53	2°0	18°21	6°14	25°59	26°30	25°42	28°11	W 9
T 10	13 12 47	20°5'32	23°12	23°11	1°44	2°15	11°58	13°56	2°2	18°22	6°15	25°59	26°27	25°49	28°14	T 10
F 11	13 16 44	21°4'20	7°24	23°57	2°52	2°40	11°51	13°59	2°3	18°22	6°17	25°58	26°24	25°56	28°18	F 11
S 12	13 20 40	22°3'07	21°31	24°46	4°0	3°5	11°45	14°2	2°4	18°22	6°18	25°58	26°20	26°2	28°22	S 12
S 13	13 24 37	23°1'53	5°26	25°38	5°8	3°30	11°38	14°5	2°5	18°23	6°19	25°57	26°17	26°9	28°26	S 13
M14	13 28 33	24°0'36	19°9	26°34	6°15	3°54	11°31	14°8	2°6	18°23	6°21	25°57	26°14	26°16	28°29	M14
T 15	13 32 30	24°59'17	2°35	27°32	7°23	4°18	11°24	14°11	2°8	18°23	6°22	25°D57	26°11	26°23	28°33	T 15
W16	13 36 27	25°57'57	15°44	28°34	8°30	4°42	11°17	14°14	2°9	18°23	6°24	25°R57	26°8	26°29	28°37	W16
T 17	13 40 23	26°56'34	28°35	29°38	9°37	5°5	11°10	14°18	2°10	18°23	6°25	25°57	26°4	26°36	28°41	T 17
F 18	13 44 20	27°55'10	11°II9	0°24	10°44	5°29	11°2	14°21	2°11	18°23	6°26	25°57	26°1	26°43	28°45	F 18
S 19	13 48 16	28°53'43	23°27	1°53	11°51	5°51	10°55	14°25	2°11	18°23	6°28	25°57	25°58	26°49	28°48	S 19
S 20	13 52 13	29°52'14	5°34	3°5	12°58	6°14	10°48	14°29	2°12	18°R23	6°29	25°56	25°55	26°56	28°52	S 20
M21	13 56 9	0°50'43	17°31	4°19	14°4	6°36	10°40	14°32	2°13	18°23	6°31	25°56	25°52	27°3	28°56	M21
T 22	14 0 6	1°49'10	29°25	5°35	15°10	6°58	10°33	14°36	2°14	18°23	6°32	25°D56	25°49	27°10	29°0	T 22
W23	14 4 2	2°47'34	11°II9	6°53	16°16	7°19	10°25	14°40	2°15	18°23	6°33	25°56	25°45	27°16	29°4	W23
T 24	14 7 59	3°45'57	23°18	8°13	17°22	7°40	10°18	14°44	2°15	18°23	6°35	25°56	25°42	27°23	29°7	T 24
F 25	14 11 56	4°44'17	5°26	9°36	18°28	8°1	10°10	14°49	2°16	18°23	6°36	25°57	25°39	27°30	29°11	F 25
S 26	14 15 52	5°42'36	17°47	11°0	19°33	8°21	10°3	14°53	2°16	18°23	6°37	25°58	25°36	27°36	29°15	S 26
S 27	14 19 49	6°40'52	0°26	12°27	20°38	8°41	9°55	14°57	2°17	18°23	6°39	25°59	25°33	27°43	29°19	S 27
M28	14 23 45	7°39'06	13°23	13°55	21°43	9°1	9°47	15°2	2°17	18°22	6°40	26°0	25°30	27°50	29°23	M28
T 29	14 27 42	8°37'19	26°40	15°26	22°47	9°20	9°40	15°6	2°18	18°22	6°41	26°R0	25°26	27°57	29°26	T 29
W30	14 31 38	9°35'30	10°M17	16°25	23°II52	9°38	9°M32	15°11	2°18	18°22	6°42	25°59	25°23	28°23	29°30	W30

ASTRODIENST EPHEMERIS for the year 1828

geocentric

MAY 1828

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	14 35 35	10 ⁸ 33'39	24 ¹¹ 12	18 ⁷ 33	24 ¹¹ 56	9 ⁸ 57	9 ⁸ R24	15 ¹⁵ 15	2 ²² 18	18 ¹⁸ R22	6 ⁷ 44	25 ⁵ R58	25 ⁵ 20	28 ¹⁰ 10	29 ⁷ 34	T 1
F 2	14 39 31	11 ⁰ 31'46	8 ⁷ 20	20° 9	26° 0	10°14	9 ¹¹ 17	15°20	2°19	18 ¹⁸ 21	6°45	25 ⁵ 57	25°17	28°17	29°38	F 2
S 3	14 43 28	12°29'52	22°38	21°47	27° 3	10°32	9° 9	15°25	2°19	18°21	6°46	25°55	25°14	28°24	29°41	S 3
S 4	14 47 25	13°27'56	7 ⁸ 2	23°27	28° 7	10°48	9° 2	15°30	2°19	18°20	6°47	25°52	25°10	28°30	29°45	S 4
M 5	14 51 21	14°25'59	21°25	25° 9	29°10	11° 5	8°54	15°35	2°19	18°20	6°49	25°51	25° 7	28°37	29°49	M 5
T 6	14 55 18	15°24'01	5 ⁸ 44	26°53	0 ¹⁰ 12	11°21	8°46	15°40	2°19	18°19	6°50	25°50	25° 4	28°44	29°53	T 6
W 7	14 59 14	16°22'01	19°57	28°39	1°15	11°36	8°39	15°45	2°R19	18°19	6°51	25°D49	25° 1	28°50	29°56	W 7
T 8	15 3 11	17°20'00	4 ⁸ 0	0 ¹⁰ 27	2°17	11°51	8°31	15°50	2°19	18°18	6°52	25°50	24°58	28°57	29°59	T 8
F 9	15 7 7	18°17'58	17°52	2°17	3°19	12° 5	8°24	15°55	2°19	18°18	6°53	25°51	24°55	29° 4	0 ¹⁰ 4	F 9
S 10	15 11 4	19°15'54	1 ⁷ 33	4° 8	4°20	12°19	8°16	16° 1	2°19	18°17	6°55	25°53	24°51	29°11	0° 7	S 10
S 11	15 15 0	20°13'49	15° 2	6° 2	5°21	12°32	8° 9	16° 6	2°19	18°17	6°56	25°54	24°48	29°17	0°11	S 11
M12	15 18 57	21°11'43	28°19	7°58	6°22	12°45	8° 2	16°12	2°19	18°16	6°57	25°R54	24°45	29°24	0°14	M12
T 13	15 22 53	22° 9'35	11 ⁸ 23	9°55	7°22	12°57	7°54	16°17	2°18	18°15	6°58	25°53	24°42	29°31	0°18	T 13
W14	15 26 50	23° 7'26	24°13	11°54	8°23	13° 8	7°47	16°23	2°18	18°14	6°59	25°51	24°39	29°37	0°22	W14
T 15	15 30 47	24° 5'15	6 ¹¹ 51	13°55	9°22	13°19	7°40	16°29	2°18	18°14	7° 0	25°48	24°35	29°44	0°25	T 15
F 16	15 34 43	25° 3'03	19°16	15°58	10°22	13°30	7°33	16°34	2°17	18°13	7° 1	25°43	24°32	29°51	0°29	F 16
S 17	15 38 40	26° 0'50	1 ¹⁰ 30	18° 2	11°21	13°39	7°26	16°40	2°17	18°12	7° 2	25°38	24°29	29°58	0°32	S 17
S 18	15 42 36	26°58'35	13°34	20° 8	12°19	13°48	7°19	16°46	2°16	18°11	7° 3	25°33	24°26	0 ¹⁰ 4	0°36	S 18
M19	15 46 33	27°56'18	25°31	22°16	13°17	13°57	7°12	16°52	2°16	18°10	7° 4	25°28	24°23	0°11	0°39	M19
T 20	15 50 29	28°54'00	7 ¹⁰ 23	24°24	14°15	14° 4	7° 6	16°58	2°15	18° 9	7° 5	25°25	24°20	0°18	0°43	T 20
W21	15 54 26	29°51'40	19°16	26°34	15°12	14°11	6°59	17° 4	2°14	18° 9	7° 6	25°23	24°16	0°25	0°46	W21
T 22	15 58 23	0 ¹¹ 49'19	1 ¹¹ 14	28°45	16° 9	14°18	6°53	17°10	2°14	18° 8	7° 7	25°D22	24°13	0°31	0°50	T 22
F 23	16 2 19	1°46'56	13°20	0 ¹¹ 56	17° 5	14°24	6°46	17°16	2°13	18° 7	7° 8	25°23	24°10	0°38	0°53	F 23
S 24	16 6 16	2°44'32	25°41	3° 8	18° 1	14°29	6°40	17°23	2°12	18° 6	7° 9	25°24	24° 7	0°45	0°56	S 24
S 25	16 10 12	3°42'06	8 ¹² 20	5°20	18°56	14°33	6°34	17°29	2°11	18° 5	7°10	25°26	24° 4	0°51	1° 0	S 25
M26	16 14 9	4°39'39	21°22	7°32	19°51	14°37	6°28	17°35	2°10	18° 4	7°11	25°R27	24° 1	0°58	1° 3	M26
T 27	16 18 5	5°37'11	4 ¹³ 48	9°43	20°45	14°39	6°22	17°42	2° 9	18° 3	7°12	25°26	23°57	1° 5	1° 6	T 27
W28	16 22 2	6°34'41	18°39	11°54	21°38	14°42	6°16	17°48	2° 8	18° 1	7°13	25°24	23°54	1°12	1°10	W28
T 29	16 25 58	7°32'10	2 ¹⁴ 58	14° 3	22°31	14°43	6°10	17°55	2° 7	18° 0	7°13	25°20	23°51	1°18	1°13	T 29
F 30	16 29 55	8°29'38	17°27	16°12	23°23	14°44	6° 5	18° 1	2° 6	17°59	7°14	25°15	23°48	1°25	1°16	F 30
S 31	16 33 52	9 ¹² 27'05	2 ¹⁵ 13	18 ¹² 19	24 ¹⁵ 15	14°R44	5 ¹¹ 59	18 ¹⁵ 8	2 ²² 5	17 ¹⁸ 58	7°15	25 ¹⁵ 9	23 ¹⁵ 45	1 ¹⁰ 32	1 ¹⁸ 19	S 31

Delta T = 11.80 sec

JUNE 1828

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 37 48	10 ¹² 24'32	17 ⁸ 3	20 ¹² 25	25 ¹⁵ 6	14°R43	5°R54	18 ¹⁵ 15	2°R 4	17°R57	7°16	25°R 2	23 ¹⁵ 41	1 ¹⁰ 39	1 ¹⁸ 22	S 1
M 2	16 41 45	11°21'57	1 ¹⁴ 49	22°28	25°56	14 ¹⁸ 42	5 ¹¹ 44	18°21	2 ²² 3	17 ¹⁸ 56	7°17	24 ¹⁵ 56	23°38	1°45	1°26	M 2
T 3	16 45 41	12°19'22	16°24	24°30	26°46	14°40	5°44	18°28	2° 2	17°54	7°17	24°52	23°35	1°52	1°29	T 3
W 4	16 49 38	13°16'46	0 ¹⁴ 44	26°30	27°35	14°37	5°39	18°35	2° 0	17°53	7°18	24°49	23°32	1°59	1°32	W 4
T 5	16 53 34	14°14'09	14°46	28°27	28°23	14°33	5°34	18°42	1°59	17°52	7°19	24°D48	23°29	2° 5	1°35	T 5
F 6	16 57 31	15°11'32	28°30	0 ¹⁵ 23	29°10	14°29	5°30	18°49	1°58	17°51	7°20	24°49	23°26	2°12	1°38	F 6
S 7	17 1 127	16° 8'54	11 ¹⁷ 55	2°15	29°56	14°23	5°26	18°56	1°56	17°49	7°20	24°50	23°22	2°19	1°41	S 7
S 8	17 5 24	17° 6'16	25° 5	4° 6	0 ¹⁰ 42	14°17	5°21	19° 3	1°55	17°48	7°21	24°R51	23°19	2°26	1°44	S 8
M 9	17 9 21	18° 3'38	8 ¹⁸ 1	5°54	1°27	14°11	5°17	19°10	1°53	17°47	7°21	24°50	23°16	2°32	1°47	M 9
T 10	17 13 17	19° 0'58	20°44	7°40	2°10	14° 3	5°13	19°17	1°52	17°45	7°22	24°47	23°13	2°39	1°49	T 10
W11	17 17 14	19°58'19	3 ¹¹ 16	9°23	2°53	13°55	5°10	19°24	1°50	17°44	7°23	24°41	23°10	2°46	1°52	W11
T 12	17 21 10	20°55'38	15°39	11° 3	3°35	13°46	5° 6	19°31	1°49	17°43	7°23	24°34	23° 7	2°52	1°55	T 12
F 13	17 25 7	21°52'57	27°53	12°41	4°16	13°36	5° 3	19°38	1°47	17°41	7°24	24°24	23° 3	2°59	1°58	F 13
S 14	17 29 3	22°50'16	9 ¹⁵ 58	14°17	4°56	13°26	4°59	19°45	1°45	17°40	7°24	24°13	23° 0	3° 6	2° 1	S 14
S 15	17 33 0	23°47'34	21°57	15°50	5°34	13°15	4°56	19°53	1°44	17°38	7°25	24° 2	22°57	3°13	2° 3	S 15
M16	17 36 56	24°44'51	3 ¹⁶ 51	17°20	6°12	13° 3	4°53	20° 0	1°42	17°37	7°25	23°52	22°54	3°19	2° 6	M16
T 17	17 40 53	25°42'07	15°42	18°48	6°48	12°51	4°51	20° 7	1°40	17°35	7°26	23°44	22°51	3°26	2° 8	T 17
W18	17 44 50	26°39'23	27°34	20°13	7°23	12°38	4°48	20°15	1°38	17°34	7°26	23°38	22°47	3°33	2°11	W18
T 19	17 48 46	27°36'38	9 ¹⁷ 29	21°35	7°57	12°24	4°46	20°22	1°36	17°32	7°27	23°34	22°44	3°40	2°14	T 19
F 20	17 52 43	28°33'52	21°33	22°55	8°29	12°10	4°44	20°29	1°35	17°31	7°27	23°32	22°41	3°46	2°16	F 20
S 21	17 56 39	29°31'06	3 ¹⁸ 51	24°12	9° 0	11°56	4°42	20°37	1°33	17°29	7°27	23°D32	22°38	3°53	2°18	S 21
S 22	18 0 36	0 ¹⁹ 28'19	16°27	25°26	9°30	11°41	4°40	20°44	1°31	17°28	7°28	23°32	22°35	4° 0	2°21	S 22
M23	18 4 32	1°25'31	29°27	26°37	9°58	11°25	4°38	20°52	1°29	17°26	7°28	23°R32	22°32	4° 6	2°23	M23
T 24	18 8 29	2°22'43	12 ¹⁹ 53	27°45	10°24	11°10	4°37	20°59	1°27	17°25	7°28	23°31	22°28	4°13	2°25	T 24
W25	18 12 25	3°19'54	26°49	28°51	10°49	10°53	4°35	21° 7	1°25	17°23	7°29	23°27	22°25	4°20	2°28	W25
T 26	18 16 22	4°17'05	11 ²¹ 12	29°53	11°12	10°37	4°34	21°14	1°23	17°22	7°29	23°21	22°22	4°27	2°30	T 26
F 27	18 20 19	5°14'16	25°59	0 ²⁰ 52	11°33	10°20	4°33	21°22	1°21	17°20	7°29	23°13	22°19	4°33	2°32	F 27
S 28	18 24 15	6°11'27	11 ²³ 3	1°48	11°53	10° 3	4°33	21°29	1°19	17°19	7°29	23° 3	22°16	4°40	2°34	S 28
S 29	18 28 12	7° 8'37	26°14	2°40	12°11	9°45	4°32	21°37	1°17	17°17	7°30	22°53	22°13	4°47	2°36	S 29
M30	18 32 8	8° 5'47	11 ²⁴ 22	3 ²⁰ 29	12 ¹⁰ 26	9 ¹⁸ 28	4 ¹¹ 32	21 ⁴⁰ 45	1 ¹⁸ 14	17 ¹⁸ 15	7°30	22 ¹⁵ 44	22 ¹⁵ 9	4 ¹⁰ 53	2 ¹⁸ 38	M30

Delta T = 11.74 sec

ASTRODIENST EPHEMERIS for the year 1828

geocentric

JULY 1828

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 36 5	9°25'58"	26°16'16"	4°15'15"	12°12'40"	9°10'10"	4°31'31"	21°52'52"	1°12'12"	17°14'14"	7°30'30"	22°36'36"	22°06'06"	5°00'00"	2°40'40"	T 1
W 2	18 40 1	10°00'08"	10°16'50"	4°56'56"	12°52'52"	8°52'52"	4°31'31"	22°00'00"	1°10'10"	17°12'12"	7°30'30"	22°31'31"	22°03'03"	5°07'07"	2°42'42"	W 2
T 3	18 43 58	10°57'19"	24°59'59"	5°34'34"	13°02'02"	8°34'34"	4°31'31"	22°08'08"	1°08'08"	17°11'11"	7°30'30"	22°29'29"	22°00'00"	5°14'14"	2°44'44"	T 3
F 4	18 47 54	11°54'30"	8°14'44"	6°08'08"	13°09'09"	8°16'16"	4°32'32"	22°15'15"	1°06'06"	17°09'09"	7°30'30"	22°28'28"	21°57'57"	5°20'20"	2°46'46"	F 4
S 5	18 51 51	12°51'42"	22°05'05"	6°38'38"	13°14'14"	7°58'58"	4°32'32"	22°23'23"	1°04'04"	17°07'07"	7°30'30"	22°28'28"	21°53'53"	5°27'27"	2°48'48"	S 5
S 6	18 55 48	13°48'54"	5°06'06"	7°04'04"	13°18'18"	7°41'41"	4°33'33"	22°31'31"	1°01'01"	17°06'06"	7°30'30"	22°28'28"	21°50'50"	5°34'34"	2°50'50"	S 6
M 7	18 59 44	14°46'06"	17°49'49"	7°25'25"	13°18'18"	7°23'23"	4°34'34"	22°38'38"	0°59'59"	17°04'04"	7°30'30"	22°26'26"	21°47'47"	5°40'40"	2°51'51"	M 7
T 8	19 3 41	15°43'19"	0°11'19"	7°42'42"	13°17'17"	7°05'05"	4°35'35"	22°46'46"	0°57'57"	17°02'02"	7°30'30"	22°21'21"	21°44'44"	5°47'47"	2°53'53"	T 8
W 9	19 7 37	16°40'32"	12°37'37"	7°54'54"	13°13'13"	6°48'48"	4°36'36"	22°54'54"	0°54'54"	17°01'01"	7°30'30"	22°14'14"	21°41'41"	5°54'54"	2°55'55"	W 9
T 10	19 11 34	17°37'46"	24°47'47"	8°01'01"	13°07'07"	6°31'31"	4°38'38"	23°02'02"	0°52'52"	16°59'59"	7°30'30"	22°04'04"	21°38'38"	6°01'01"	2°56'56"	T 10
F 11	19 15 30	18°35'00"	6°51'51"	8°04'04"	12°59'59"	6°14'14"	4°39'39"	23°09'09"	0°50'50"	16°58'58"	7°30'30"	21°52'52"	21°34'34"	6°07'07"	2°58'58"	F 11
S 12	19 19 27	19°32'14"	18°49'49"	8°02'02"	12°48'48"	5°58'58"	4°41'41"	23°17'17"	0°47'47"	16°56'56"	7°30'30"	21°38'38"	21°31'31"	6°14'14"	2°59'59"	S 12
S 13	19 23 23	20°29'29"	0°14'43"	7°55'55"	12°34'34"	5°42'42"	4°43'43"	23°25'25"	0°45'45"	16°54'54"	7°30'30"	21°24'24"	21°28'28"	6°21'21"	3°01'01"	S 13
M14	19 27 20	21°26'44"	12°34'34"	7°44'44"	12°19'19"	5°27'27"	4°45'45"	23°33'33"	0°43'43"	16°53'53"	7°30'30"	21°11'11"	21°25'25"	6°28'28"	3°02'02"	M14
T 15	19 31 17	22°23'59"	24°25'25"	7°27'27"	12°01'01"	5°12'12"	4°47'47"	23°41'41"	0°40'40"	16°51'51"	7°30'30"	21°00'00"	21°22'22"	6°34'34"	3°03'03"	T 15
W16	19 35 13	23°21'14"	6°17'17"	7°07'07"	11°41'41"	4°57'57"	4°50'50"	23°48'48"	0°38'38"	16°50'50"	7°30'30"	20°51'51"	21°19'19"	6°41'41"	3°04'04"	W16
T 17	19 39 10	24°18'30"	18°13'13"	6°41'41"	11°18'18"	4°43'43"	4°52'52"	23°56'56"	0°36'36"	16°48'48"	7°29'29"	20°46'46"	21°15'15"	6°48'48"	3°06'06"	T 17
F 18	19 43 6	25°15'46"	0°11'46"	6°12'12"	10°54'54"	4°30'30"	4°55'55"	24°04'04"	0°33'33"	16°46'46"	7°29'29"	20°43'43"	21°12'12"	6°54'54"	3°07'07"	F 18
S 19	19 47 3	26°13'02"	12°34'34"	5°39'39"	10°27'27"	4°17'17"	4°58'58"	24°12'12"	0°31'31"	16°45'45"	7°29'29"	20°41'41"	21°09'09"	7°01'01"	3°08'08"	S 19
S 20	19 50 59	27°10'18"	25°08'08"	5°03'03"	9°58'58"	4°05'05"	5°01'01"	24°19'19"	0°28'28"	16°43'43"	7°29'29"	20°41'41"	21°06'06"	7°08'08"	3°09'09"	S 20
M21	19 54 56	28°07'35"	8°16'35"	4°24'24"	9°28'28"	3°54'54"	5°05'05"	24°27'27"	0°26'26"	16°42'42"	7°28'28"	20°41'41"	21°03'03"	7°15'15"	3°10'10"	M21
T 22	19 58 52	29°04'52"	21°24'24"	3°44'44"	8°56'56"	3°43'43"	5°08'08"	24°35'35"	0°24'24"	16°40'40"	7°28'28"	20°40'40"	20°59'59"	7°21'21"	3°11'11"	T 22
W23	20 2 49	0°12'10"	5°15'15"	3°01'01"	8°23'23"	3°33'33"	5°12'12"	24°43'43"	0°21'21"	16°38'38"	7°28'28"	20°36'36"	20°56'56"	7°28'28"	3°12'12"	W23
T 24	20 6 46	0°59'28"	19°35'35"	2°18'18"	7°48'48"	3°24'24"	5°15'15"	24°50'50"	0°19'19"	16°37'37"	7°27'27"	20°30'30"	20°53'53"	7°35'35"	3°12'12"	T 24
F 25	20 10 42	1°56'46"	4°32'11"	1°35'35"	7°13'13"	3°15'15"	5°19'19"	24°58'58"	0°16'16"	16°35'35"	7°27'27"	20°22'22"	20°50'50"	7°41'41"	3°13'13"	F 25
S 26	20 14 39	2°54'05"	19°29'29"	0°52'52"	6°36'36"	3°08'08"	5°24'24"	25°06'06"	0°14'14"	16°34'34"	7°27'27"	20°12'12"	20°47'47"	7°48'48"	3°14'14"	S 26
S 27	20 18 35	3°51'25"	4°48'48"	0°12'12"	5°59'59"	3°01'01"	5°28'28"	25°14'14"	0°12'12"	16°32'32"	7°26'26"	20°02'02"	20°44'44"	7°55'55"	3°15'15"	S 27
M28	20 22 32	4°48'45"	20°06'06"	29°33'33"	5°22'22"	2°55'55"	5°32'32"	25°21'21"	0°09'09"	16°31'31"	7°26'26"	19°52'52"	20°40'40"	8°02'02"	3°15'15"	M28
T 29	20 26 28	5°46'07"	5°13'13"	28°58'58"	4°44'44"	2°49'49"	5°37'37"	25°29'29"	0°07'07"	16°29'29"	7°25'25"	19°44'44"	20°37'37"	8°08'08"	3°16'16"	T 29
W30	20 30 25	6°43'29"	20°00'00"	28°26'26"	4°07'07"	2°45'45"	5°42'42"	25°37'37"	0°05'05"	16°28'28"	7°25'25"	19°39'39"	20°34'34"	8°15'15"	3°16'16"	W30
T 31	20 34 21	7°40'52"	4°14'21"	27°59'59"	3°13'13"	2°34'34"	5°47'47"	25°44'44"	0°03'03"	16°26'26"	7°25'25"	19°36'36"	20°31'31"	8°12'12"	3°17'17"	T 31

Delta T = 11.69 sec

AUGUST 1828

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	20 38 18	8♂13'17	18♂13	27°R37	2°R54	2°R38	5♂.52	25♂52	29°R59	16°R25	7°R24	19°D36	20♂28	8♂28	3♂17	F 1
S 2	20 42 15	9°35'43	1♂39	27♂20	2♂18	2♂36	5°57	26° 0	29♂57	16♂23	7♂23	19♂36	20°25	8°35	3°17	S 2
S 3	20 46 11	10°33'10	14°40	27° 9	1°44	2°35	6° 2	26° 7	29°55	16°22	7°23	19°R36	20°21	8°42	3°17	S 3
M 4	20 50 8	11°30'38	27°20	27°D 4	1°11	2°D35	6° 8	26°15	29°53	16°20	7°22	19°35	20°18	8°49	3°18	M 4
T 5	20 54 4	12°28'08	9♂43	27° 6	0°39	2°35	6°14	26°23	29°50	16°19	7°22	19°32	20°15	8°55	3°18	T 5
W 6	20 58 1	13°25'39	21°55	27°15	0° 9	2°36	6°19	26°30	29°48	16°17	7°21	19°26	20°12	9° 2	3°18	W 6
T 7	21 1 57	14°23'12	3♂57	27°30	29♂41	2°39	6°25	26°38	29°46	16°16	7°21	19°18	20° 9	9° 9	3°R18	T 7
F 8	21 5 54	15°20'45	15°54	27°52	29°14	2°42	6°31	26°45	29°43	16°15	7°20	19° 7	20° 5	9°15	3°18	F 8
S 9	21 9 50	16°18'20	27°47	28°21	28°50	2°45	6°38	26°53	29°41	16°13	7°19	18°56	20° 2	9°22	3°18	S 9
S 10	21 13 47	17°15'56	9♂38	28°57	28°28	2°50	6°44	27° 0	29°39	16°12	7°19	18°44	19°59	9°29	3°18	S 10
M11	21 17 44	18°13'33	21°30	29°40	28° 8	2°55	6°51	27° 8	29°37	16°11	7°18	18°33	19°56	9°36	3°17	M11
T 12	21 21 40	19°11'12	3♂23	0♂29	27°50	3° 2	6°57	27°15	29°34	16° 9	7°17	18°24	19°53	9°42	3°17	T 12
W13	21 25 37	20° 8'52	15°20	1°25	27°35	3° 9	7° 4	27°22	29°32	16° 8	7°16	18°16	19°50	9°49	3°17	W13
T 14	21 29 33	21° 6'32	27°22	2°28	27°22	3°17	7°11	27°30	29°30	16° 7	7°16	18°12	19°46	9°56	3°16	T 14
F 15	21 33 30	22° 4'14	9♂31	3°37	27°11	3°25	7°18	27°37	29°28	16° 6	7°15	18°10	19°43	10° 2	3°16	F 15
S 16	21 37 26	23° 1'57	21°52	4°51	27° 3	3°35	7°26	27°44	29°26	16° 4	7°14	18°D 9	19°40	10° 9	3°16	S 16
S 17	21 41 23	23°59'42	4♂28	6°12	26°57	3°45	7°33	27°52	29°24	16° 3	7°13	18°10	19°37	10°16	3°15	S 17
M18	21 45 19	24°57'27	17°23	7°37	26°53	3°56	7°40	27°59	29°22	16° 2	7°13	18°11	19°34	10°23	3°14	M18
T 19	21 49 16	25°55'14	0♂40	9° 8	26°D52	4° 8	7°48	28° 6	29°19	16° 1	7°12	18°R11	19°30	10°29	3°14	T 19
W20	21 53 13	26°53'01	14°23	10°43	26°53	4°20	7°56	28°13	29°17	16° 0	7°11	18°10	19°27	10°36	3°13	W20
T 21	21 57 9	27°50'50	28°32	12°22	26°57	4°33	8° 4	28°21	29°15	15°59	7°10	18° 6	19°24	10°43	3°12	T 21
F 22	22 1 6	28°48'40	13♂ 7	14° 5	27° 2	4°47	8°12	28°28	29°13	15°58	7° 9	18° 1	19°21	10°49	3°11	F 22
S 23	22 5 2	29°46'31	28° 3	15°51	27°10	5° 2	8°20	28°35	29°11	15°56	7° 8	17°54	19°18	10°56	3°11	S 23
S 24	22 8 59	0♂44'24	13≈13	17°40	27°20	5°17	8°28	28°42	29°10	15°55	7° 7	17°47	19°15	11° 3	3°10	S 24
M25	22 12 55	1°42'18	28°27	19°32	27°33	5°33	8°36	28°49	29° 8	15°54	7° 6	17°41	19°11	11°10	3° 9	M25
T 26	22 16 52	2°40'14	13♂34	21°25	27°47	5°49	8°45	28°56	29° 6	15°53	7° 6	17°36	19° 8	11°16	3° 8	T 26
W27	22 20 48	3°38'11	28°24	23°20	28° 3	6° 7	8°53	29° 2	29° 4	15°52	7° 5	17°32	19° 5	11°23	3° 7	W27
T 28	22 24 45	4°36'10	12♂52	25°16	28°21	6°24	9° 2	29° 9	29° 2	15°52	7° 4	17°D31	19° 2	11°30	3° 5	T 28
F 29	22 28 42	5°34'10	26°52	27°13	28°41	6°43	9°11	29°16	29° 0	15°51	7° 3	17°31	18°59	11°36	3° 4	F 29
S 30	22 32 38	6°32'13	10♂25	29°10	29° 3	7° 2	9°20	29°23	28°59	15°50	7° 2	17°32	18°56	11°43	3° 3	S 30
S 31	22 36 35	7♂30'17	23♂31	1♂ 7	29♂26	7♂21	9♂29	29♂30	28♂57	15♂49	7♂ 1	17♂34	18♂52	11♂50	3♂ 2	S 31

ASTRODIENST EPHEMERIS for the year 1828

geocentric

SEPTEMBER 1828

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	22 40 31	8 ^h 28'24"	6 ^h 11'14"	3 ^h 11'5"	29 ^h 52'	7 ^h 34'2"	9 ^h 13'8"	29 ^h 36'	28 ^h R55	15 ^h R48	7 ^h R 0	17 ^h R34	18 ^h 49'	11 ^h 15'7"	3 ^h R 0	M 1
T 2	22 44 28	9 ^h 26'33"	18 ^h 39'	5 ^h 2	0 ^h 19'	8 ^h 2	9 ^h 47'	29 ^h 43'	28 ^h 35'4"	15 ^h 34'7"	6 ^h Y59	17 ^h 34'	18 ^h 46'	12 ^h 3	2 ^h 35'9"	T 2
W 3	22 48 24	10 ^h 24'43"	0 ^h 54'9"	6 ^h 59'	0 ^h 47'	8 ^h 24'	9 ^h 57'	29 ^h 49'	28 ^h 52'	15 ^h 46'	6 ^h 58'	17 ^h 32'	18 ^h 43'	12 ^h 10'	2 ^h 58'	W 3
T 4	22 52 21	11 ^h 22'56"	12 ^h 49'	8 ^h 55'	1 ^h 17'	8 ^h 45'	10 ^h 6	29 ^h 56'	28 ^h 50'	15 ^h 46'	6 ^h 57'	17 ^h 28'	18 ^h 40'	12 ^h 17'	2 ^h 56'	T 4
F 5	22 56 17	12 ^h 21'10"	24 ^h 42'	10 ^h 50'	1 ^h 49'	9 ^h 8	10 ^h 16'	0 ^h 12'	28 ^h 49'	15 ^h 45'	6 ^h 56'	17 ^h 23'	18 ^h 36'	12 ^h 23'	2 ^h 54'	F 5
S 6	23 0 14	13 ^h 19'27"	6 ^h 13'4"	12 ^h 45'	2 ^h 22'	9 ^h 31'	10 ^h 25'	0 ^h 9	28 ^h 47'	15 ^h 44'	6 ^h 55'	17 ^h 17'	18 ^h 33'	12 ^h 30'	2 ^h 53'	S 6
S 7	23 4 10	14 ^h 17'45"	18 ^h 25'	14 ^h 38'	2 ^h 56'	9 ^h 54'	10 ^h 35'	0 ^h 15'	28 ^h 46'	15 ^h 44'	6 ^h 53'	17 ^h 11'	18 ^h 30'	12 ^h 37'	2 ^h 51'	S 7
M 8	23 8 7	15 ^h 16'06"	0 ^h 11'20"	16 ^h 31'	3 ^h 31'	10 ^h 18'	10 ^h 45'	0 ^h 21'	28 ^h 44'	15 ^h 43'	6 ^h 52'	17 ^h 6	18 ^h 27'	12 ^h 44'	2 ^h 50'	M 8
T 9	23 12 4	16 ^h 14'28"	12 ^h 19'	18 ^h 23'	4 ^h 8	10 ^h 43'	10 ^h 55'	0 ^h 28'	28 ^h 43'	15 ^h 42'	6 ^h 51'	17 ^h 1	18 ^h 24'	12 ^h 50'	2 ^h 48'	T 9
W10	23 16 0	17 ^h 12'52"	24 ^h 24'	20 ^h 13'	4 ^h 46'	11 ^h 7	11 ^h 5	0 ^h 34'	28 ^h 42'	15 ^h 42'	6 ^h 50'	16 ^h 57'	18 ^h 21'	12 ^h 57'	2 ^h 46'	W10
T 11	23 19 57	18 ^h 11'18"	6 ^h 13'7"	22 ^h 3	5 ^h 25'	11 ^h 33'	11 ^h 15'	0 ^h 40'	28 ^h 40'	15 ^h 41'	6 ^h 49'	16 ^h 55'	18 ^h 17'	13 ^h 4	2 ^h 44'	T 11
F 12	23 23 53	19 ^h 9'45"	19 ^h 0	23 ^h 51'	6 ^h 6	11 ^h 59'	11 ^h 25'	0 ^h 46'	28 ^h 39'	15 ^h 41'	6 ^h 48'	16 ^h D55	18 ^h 14'	13 ^h 10'	2 ^h 42'	F 12
S 13	23 27 50	20 ^h 8'15"	1 ^h 13'3"	25 ^h 39'	6 ^h 47'	12 ^h 25'	11 ^h 36'	0 ^h 52'	28 ^h 38'	15 ^h 40'	6 ^h 47'	16 ^h 56'	18 ^h 11'	13 ^h 17'	2 ^h 40'	S 13
S 14	23 31 46	21 ^h 6'46"	14 ^h 21'	27 ^h 25'	7 ^h 30'	12 ^h 52'	11 ^h 46'	0 ^h 58'	28 ^h 37'	15 ^h 40'	6 ^h 46'	16 ^h 57'	18 ^h 8	13 ^h 24'	2 ^h 38'	S 14
M15	23 35 43	22 ^h 5'19"	27 ^h 23'	29 ^h 11'	8 ^h 13'	13 ^h 19'	11 ^h 57'	1 ^h 4	28 ^h 36'	15 ^h 39'	6 ^h 45'	16 ^h 59'	18 ^h 5	13 ^h 31'	2 ^h 36'	M15
T 16	23 39 39	23 ^h 3'54"	10 ^h 14'4"	0 ^h 15'5"	8 ^h 58'	13 ^h 47'	12 ^h 7	1 ^h 10'	28 ^h 35'	15 ^h 39'	6 ^h 44'	17 ^h 0	18 ^h 2	13 ^h 37'	2 ^h 34'	T 16
W17	23 43 36	24 ^h 2'30"	24 ^h 23'	2 ^h 38'	9 ^h 43'	14 ^h 15'	12 ^h 18'	1 ^h 15'	28 ^h 34'	15 ^h 39'	6 ^h 42'	17 ^h R 0	17 ^h 58'	13 ^h 44'	2 ^h 32'	W17
T 18	23 47 33	25 ^h 1'08"	8 ^h 33'3"	4 ^h 20'	10 ^h 29'	14 ^h 43'	12 ^h 29'	1 ^h 21'	28 ^h 33'	15 ^h 38'	6 ^h 41'	17 ^h 0	17 ^h 55'	13 ^h 51'	2 ^h 30'	T 18
F 19	23 51 29	25 ^h 59'47"	22 ^h 42'	6 ^h 2	11 ^h 16'	15 ^h 12'	12 ^h 40'	1 ^h 27'	28 ^h 32'	15 ^h 38'	6 ^h 40'	16 ^h 58'	17 ^h 52'	13 ^h 57'	2 ^h 28'	F 19
S 20	23 55 26	26 ^h 58'29"	7 ^h 19'19"	7 ^h 42'	12 ^h 4	15 ^h 41'	12 ^h 51'	1 ^h 32'	28 ^h 31'	15 ^h 38'	6 ^h 39'	16 ^h 56'	17 ^h 49'	14 ^h 4	2 ^h 26'	S 20
S 21	23 59 22	27 ^h 57'12"	22 ^h 7	9 ^h 21'	12 ^h 53'	16 ^h 11'	13 ^h 2	1 ^h 38'	28 ^h 30'	15 ^h 38'	6 ^h 38'	16 ^h 54'	17 ^h 46'	14 ^h 11'	2 ^h 23'	S 21
M22	0 3 19	28 ^h 55'56"	7 ^h 11'0"	10 ^h 59'	13 ^h 43'	16 ^h 41'	13 ^h 13'	1 ^h 43'	28 ^h 29'	15 ^h 37'	6 ^h 37'	16 ^h 51'	17 ^h 42'	14 ^h 17'	2 ^h 21'	M22
T 23	0 7 15	29 ^h 54'43"	21 ^h 51'	12 ^h 37'	14 ^h 33'	17 ^h 11'	13 ^h 24'	1 ^h 48'	28 ^h 28'	15 ^h 37'	6 ^h 35'	16 ^h 50'	17 ^h 39'	14 ^h 24'	2 ^h 19'	T 23
W24	0 11 12	0 ^h 15'31"	6 ^h Y31	14 ^h 13'	15 ^h 24'	17 ^h 42'	13 ^h 35'	1 ^h 53'	28 ^h 28'	15 ^h 37'	6 ^h 34'	16 ^h 49'	17 ^h 36'	14 ^h 31'	2 ^h 16'	W24
T 25	0 15 8	1 ^h 52'22"	20 ^h 54'	15 ^h 48'	16 ^h 16'	18 ^h 13'	13 ^h 46'	1 ^h 59'	28 ^h 27'	15 ^h 37'	6 ^h 33'	16 ^h D48	17 ^h 33'	14 ^h 38'	2 ^h 14'	T 25
F 26	0 19 5	2 ^h 51'14"	4 ^h 35'5"	17 ^h 23'	17 ^h 8	18 ^h 44'	13 ^h 58'	2 ^h 4	28 ^h 26'	15 ^h 37'	6 ^h 32'	16 ^h 49'	17 ^h 30'	14 ^h 44'	2 ^h 12'	F 26
S 27	0 23 2	3 ^h 50'09"	18 ^h 31'	18 ^h 57'	18 ^h 1	19 ^h 16'	14 ^h 9	2 ^h 9	28 ^h 26'	15 ^h D37	6 ^h 31'	16 ^h 50'	17 ^h 27'	14 ^h 51'	2 ^h 9	S 27
S 28	0 26 58	4 ^h 49'07"	1 ^h 11'42"	20 ^h 29'	18 ^h 55'	19 ^h 47'	14 ^h 21'	2 ^h 14'	28 ^h 25'	15 ^h 37'	6 ^h 30'	16 ^h 51'	17 ^h 23'	14 ^h 58'	2 ^h 7	S 28
M29	0 30 55	5 ^h 48'06"	14 ^h 30'	22 ^h 1	19 ^h 50'	20 ^h 20'	14 ^h 32'	2 ^h 18'	28 ^h 25'	15 ^h 37'	6 ^h 28'	16 ^h 52'	17 ^h 20'	15 ^h 4	2 ^h 4	M29
T 30	0 34 51	6 ^h 14'08"	26 ^h 11'59"	23 ^h 13'32"	20 ^h 14'5"	20 ^h 35'2"	14 ^h 14'4"	2 ^h 12'3"	28 ^h 24'	15 ^h 37'	6 ^h Y27	16 ^h 53'	17 ^h 17'	15 ^h 11'	2 ^h 30'	T 30

Delta T = 11.57 sec

OCTOBER 1828

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	0 38 48	7 ^h 14'12"	9 ^h 51'1"	25 ^h 13'3"	21 ^h 14'0"	21 ^h 35'25"	14 ^h 14'56"	2 ^h 12'28"	28 ^h R24	15 ^h 33'7"	6 ^h R26	16 ^h R53	17 ^h 14'	15 ^h 18'	1 ^h R59	W 1
T 2	0 42 44	8 ^h 45'19"	21 ^h 12'	26 ^h 32'	22 ^h 37'	21 ^h 58'	15 ^h 8	2 ^h 33'	28 ^h 24'	15 ^h 37'	6 ^h Y25	16 ^h 52'	17 ^h 11'	15 ^h 25'	1 ^h 35'9"	T 2
F 3	0 46 41	9 ^h 44'27"	3 ^h 12'5"	28 ^h 1	23 ^h 33'	22 ^h 31'	15 ^h 20'	2 ^h 37'	28 ^h 23'	15 ^h 37'	6 ^h 24'	16 ^h 52'	17 ^h 7	15 ^h 31'	1 ^h 54'	F 3
S 4	0 50 37	10 ^h 43'38"	14 ^h 57'	29 ^h 28'	24 ^h 31'	23 ^h 5	15 ^h 31'	2 ^h 42'	28 ^h 23'	15 ^h 38'	6 ^h 23'	16 ^h 51'	17 ^h 4	15 ^h 38'	1 ^h 51'	S 4
S 5	0 54 34	11 ^h 42'51"	26 ^h 49'	0 ^h 15'5"	25 ^h 28'	23 ^h 39'	15 ^h 43'	2 ^h 46'	28 ^h 23'	15 ^h 38'	6 ^h 21'	16 ^h 50'	17 ^h 1	15 ^h 45'	1 ^h 48'	S 5
M 6	0 58 30	12 ^h 42'07"	8 ^h 11'47"	2 ^h 21'	26 ^h 27'	24 ^h 13'	15 ^h 56'	2 ^h 50'	28 ^h 23'	15 ^h 38'	6 ^h 20'	16 ^h 50'	16 ^h 58'	15 ^h 51'	1 ^h 46'	M 6
T 7	1 2 27	13 ^h 41'25"	20 ^h 53'	3 ^h 46'	27 ^h 25'	24 ^h 48'	16 ^h 8	2 ^h 54'	28 ^h 23'	15 ^h 38'	6 ^h 19'	16 ^h 49'	16 ^h 55'	15 ^h 58'	1 ^h 43'	T 7
W 8	1 6 24	14 ^h 40'44"	3 ^h 12'9"	5 ^h 10'	28 ^h 25'	25 ^h 22'	16 ^h 20'	2 ^h 58'	28 ^h D23	15 ^h 39'	6 ^h 18'	16 ^h 49'	16 ^h 52'	16 ^h 5	1 ^h 40'	W 8
T 9	1 10 20	15 ^h 40'06"	15 ^h 37'	6 ^h 33'	29 ^h 24'	25 ^h 57'	16 ^h 32'	3 ^h 2	28 ^h 23'	15 ^h 39'	6 ^h 17'	16 ^h D49	16 ^h 48'	16 ^h 11'	1 ^h 37'	T 9
F 10	1 14 17	16 ^h 39'30"	28 ^h 18'	7 ^h 55'	0 ^h 11'24"	26 ^h 32'	16 ^h 44'	3 ^h 6	28 ^h 23'	15 ^h 39'	6 ^h 15'	16 ^h R49	16 ^h 45'	16 ^h 18'	1 ^h 35'	F 10
S 11	1 18 13	17 ^h 38'56"	11 ^h 11'12"	9 ^h 16'	1 ^h 25'	27 ^h 8	16 ^h 57'	3 ^h 10'	28 ^h 23'	15 ^h 40'	6 ^h 14'	16 ^h 49'	16 ^h 42'	16 ^h 25'	1 ^h 32'	S 11
S 12	1 22 10	18 ^h 38'24"	24 ^h 20'	10 ^h 36'	2 ^h 26'	27 ^h 43'	17 ^h 9	3 ^h 14'	28 ^h 23'	15 ^h 40'	6 ^h 13'	16 ^h 49'	16 ^h 39'	16 ^h 32'	1 ^h 29'	S 12
M13	1 26 6	19 ^h 37'54"	7 ^h 11'42"	11 ^h 55'	3 ^h 27'	28 ^h 19'	17 ^h 21'	3 ^h 17'	28 ^h 23'	15 ^h 41'	6 ^h 12'	16 ^h 49'	16 ^h 36'	16 ^h 38'	1 ^h 26'	M13
T 14	1 30 3	20 ^h 37'26"	21 ^h 16'	13 ^h 12'	4 ^h 29'	28 ^h 55'	17 ^h 34'	3 ^h 21'	28 ^h 23'	15 ^h 41'	6 ^h 11'	16 ^h 48'	16 ^h 33'	16 ^h 45'	1 ^h 23'	T 14
W15	1 33 59	21 ^h 37'00"	5 ^h 33'3"	14 ^h 29'	5 ^h 31'	29 ^h 32'	17 ^h 46'	3 ^h 24'	28 ^h 24'	15 ^h 42'	6 ^h 10'	16 ^h 48'	16 ^h 29'	16 ^h 52'	1 ^h 20'	W15
T 16	1 37 56	22 ^h 36'35"	19 ^h 2	15 ^h 43'	6 ^h 33'	0 ^h 11'8"	17 ^h 59'	3 ^h 28'	28 ^h 24'	15 ^h 43'	6 ^h 9	16 ^h D48	16 ^h 26'	16 ^h 58'	1 ^h 17'	T 16

ASTRODIENST EPHEMERIS for the year 1828

geocentric

NOVEMBER 1828

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	2 41 1	8♂34°13	22♂55	29♂48	23♂53	10♂15	21♂25	4♂7	28♂37	15♂57	5°R52	16♂39	15♂35	18♂46	0°R31	S 1
S 2	2 44 57	9°34'21	4♂48	0♂1	25°1	10°54	21°38	4°9	28°38	15°58	5°Y51	16°40	15°32	18°52	0♂28	S 2
M 3	2 48 54	10°34'32	16°47	0°R6	26°8	11°33	21°51	4°10	28°40	15°59	5°50	16°42	15°29	18°59	0°25	M 3
T 4	2 52 51	11°34'45	28°57	0°3	27°16	12°13	22°4	4°12	28°41	16°0	5°49	16°43	15°26	19°6	0°22	T 4
W 5	2 56 47	12°34'59	11♂22	29♂50	28°24	12°52	22°18	4°13	28°42	16°1	5°48	16°R44	15°23	19°12	0°19	W 5
T 6	3 0 44	13°35'16	24°3	29°28	29°32	13°32	22°31	4°14	28°44	16°3	5°47	16°44	15°19	19°19	0°16	T 6
F 7	3 4 40	14°35'34	7♂3	28°56	0♂40	14°12	22°44	4°15	28°45	16°4	5°46	16°43	15°16	19°26	0°13	F 7
S 8	3 8 37	15°35'55	20°21	28°14	1°49	14°52	22°57	4°16	28°47	16°5	5°45	16°40	15°13	19°33	0°11	S 8
S 9	3 12 33	16°36'17	3♂55	27°22	2°57	15°32	23°11	4°17	28°48	16°7	5°45	16°36	15°10	19°39	0°8	S 9
M10	3 16 30	17°36'40	17°44	26°21	4°6	16°12	23°24	4°17	28°50	16°8	5°44	16°31	15°7	19°46	0°5	M10
T 11	3 20 26	18°37'06	1♂44	25°13	5°15	16°52	23°37	4°18	28°52	16°9	5°43	16°26	15°4	19°53	0°2	T 11
W12	3 24 23	19°37'32	15°51	23°58	6°24	17°32	23°51	4°18	28°53	16°11	5°42	16°21	15°0	19°59	29°Y59	W12
T 13	3 28 20	20°38'00	0♂1	22°39	7°34	18°13	24°4	4°19	28°55	16°12	5°41	16°18	14°57	20°6	29°57	T 13
F 14	3 32 16	21°38'30	14°12	21°18	8°43	18°53	24°17	4°19	28°57	16°14	5°41	16°17	14°54	20°13	29°54	F 14
S 15	3 36 13	22°39'00	28°22	19°58	9°53	19°34	24°31	4°R19	28°59	16°15	5°40	16°D16	14°51	20°19	29°51	S 15
S 16	3 40 9	23°39'32	12♂28	18°41	11°3	20°15	24°44	4°19	29°1	16°17	5°39	16°17	14°48	20°26	29°49	S 16
M17	3 44 6	24°40'05	26°30	17°31	12°13	20°55	24°57	4°19	29°3	16°18	5°38	16°19	14°44	20°33	29°46	M17
T 18	3 48 2	25°40'39	10°Y26	16°29	13°23	21°36	25°10	4°19	29°5	16°20	5°38	16°R20	14°41	20°39	29°44	T 18
W19	3 51 59	26°41'15	24°14	15°36	14°33	22°17	25°24	4°18	29°7	16°21	5°37	16°20	14°38	20°46	29°41	W19
T 20	3 55 55	27°41'51	7♂52	14°55	15°44	22°58	25°37	4°18	29°9	16°23	5°36	16°18	14°35	20°53	29°39	T 20
F 21	3 59 52	28°42'30	21°20	14°25	16°54	23°39	25°50	4°17	29°11	16°25	5°36	16°14	14°32	21°0	29°36	F 21
S 22	4 3 48	29°43'09	4♂34	14°7	18°5	24°20	26°4	4°17	29°13	16°26	5°35	16°8	14°29	21°6	29°34	S 22
S 23	4 7 45	0♂43'50	17°32	14°D0	19°16	25°1	26°17	4°16	29°15	16°28	5°34	16°0	14°25	21°13	29°31	S 23
M24	4 11 42	1°44'33	0♂15	14°4	20°27	25°43	26°30	4°15	29°17	16°30	5°34	15°51	14°22	21°20	29°29	M24
T 25	4 15 38	2°45'17	12°43	14°18	21°38	26°24	26°44	4°14	29°20	16°32	5°33	15°43	14°19	21°26	29°26	T 25
W26	4 19 35	3°46'02	24°56	14°42	22°49	27°5	26°57	4°13	29°22	16°33	5°33	15°35	14°16	21°33	29°24	W26
T 27	4 23 31	4°46'49	6♂58	15°14	24°0	27°47	27°10	4°12	29°24	16°35	5°32	15°29	14°13	21°40	29°22	T 27
F 28	4 27 28	5°47'37	18°52	15°54	25°12	28°28	27°24	4°10	29°27	16°37	5°32	15°25	14°10	21°46	29°20	F 28
S 29	4 31 24	6°48'27	0♂42	16°40	26°23	29°10	27°37	4°9	29°29	16°39	5°31	15°23	14°6	21°53	29°17	S 29
S 30	4 35 21	7♂49'18	12♂33	17♂33	27♂35	29♂51	27♂50	4♂7	29♂32	16♂41	5°Y31	15°D23	14♂3	22♂0	29°Y15	S 30

Delta T = 11.45 sec

DECEMBER 1828

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	4 39 18	8♂50°10	24♂31	18♂31	28♂47	0♂33	28♂3	4°R6	29♂34	16♂43	5°R30	15♂24	14♂0	22♂7	29°R13	M 1
T 2	4 43 14	9°51'04	6♂41	19°33	29°59	1°15	28°17	4♂4	29°37	16°44	5°Y30	15°25	13°57	22°13	29°Y11	T 2
W 3	4 47 11	10°51'59	19°8	20°39	1♂11	1°56	28°30	4°2	29°39	16°46	5°30	15°R25	13°54	22°20	29°9	W 3
T 4	4 51 7	11°52'56	1♂56	21°49	2°23	2°38	28°43	4°0	29°42	16°48	5°29	15°24	13°50	22°27	29°7	T 4
F 5	4 55 4	12°53'53	15°7	23°2	3°35	3°20	28°56	3°58	29°45	16°50	5°29	15°20	13°47	22°33	29°5	F 5
S 6	4 59 0	13°54'52	28°43	24°17	4°47	4°2	29°9	3°56	29°47	16°52	5°29	15°14	13°44	22°40	29°3	S 6
S 7	5 2 57	14°55'52	12♂41	25°35	5°59	4°44	29°23	3°53	29°50	16°54	5°28	15°5	13°41	22°47	29°1	S 7
M 8	5 6 53	15°56'53	26°58	26°54	7°12	5°26	29°36	3°51	29°53	16°56	5°28	14°55	13°38	22°53	29°0	M 8
T 9	5 10 50	16°57'55	11♂27	28°15	8°24	6°8	29°49	3°48	29°55	16°58	5°28	14°45	13°35	23°0	28°58	T 9
W10	5 14 47	17°58'57	26°3	29°38	9°37	6°50	0♂2	3°46	29°58	17°0	5°27	14°35	13°31	23°7	28°56	W10
T 11	5 18 43	19°0'00	10♂37	1♂2	10°50	7°32	0°15	3°43	0♂1	17°2	5°27	14°28	13°28	23°13	28°55	T 11
F 12	5 22 40	20°1'04	25°3	2°26	12°2	8°14	0°28	3°40	0°4	17°4	5°27	14°22	13°25	23°20	28°53	F 12
S 13	5 26 36	21°2'07	9♂19	3°52	13°15	8°56	0°41	3°37	0°7	17°7	5°27	14°20	13°22	23°27	28°51	S 13
S 14	5 30 33	22°3'12	23°22	5°19	14°28	9°38	0°54	3°34	0°10	17°9	5°27	14°D19	13°19	23°34	28°50	S 14
M15	5 34 29	23°4'16	7°Y12	6°46	15°41	10°20	1°7	3°31	0°13	17°11	5°27	14°R20	13°16	23°40	28°48	M15
T 16	5 38 26	24°5'21	20°49	8°14	16°54	11°2	1°19	3°28	0°16	17°13	5°26	14°20	13°12	23°47	28°47	T 16
W17	5 42 22	25°6'26	4♂13	9°42	18°7	11°45	1°32	3°25	0°19	17°15	5°26	14°18	13°9	23°54	28°46	W17
T 18	5 46 19	26°7'32	17°27	11°11	19°20	12°27	1°45	3°22	0°22	17°17	5°26	14°14	13°6	24°0	28°45	T 18
F 19	5 50 16	27°8'37	0♂31	12°41	20°33	13°9	1°58	3°18	0°25	17°19	5°26	14°7	13°3	24°7	28°43	F 19
S 20	5 54 12	28°9'44	13°23	14°10	21°46	13°51	2°10	3°15	0°28	17°21	5°D26	13°57	13°0	24°14	28°42	S 20
S 21	5 58 9	29°10'50	26°5	15°41	22°59	14°34	2°23	3°11	0°31	17°24	5°26	13°44	12°56	24°20	28°41	S 21
M22	6 2 5	0♂11'57	8♂35	17°11	24°13	15°16	2°36	3°7	0°34	17°26	5°26	13°30	12°53	24°27	28°40	M22
T 23	6 6 2	1°13'05	20°53	18°42	25°26	15°58	2°48	3°4	0°37	17°28	5°26	13°16	12°50	24°34	28°39	T 23
W24	6 9 58	2°14'13	3♂1	20°13	26°39	16°40	3°1	3°0	0°41	17°30	5°27	13°3	12°47	24°40	28°38	W24
T 25	6 13 55	3°15'21	15°0	21°45	27°53	17°23	3°13	2°56	0°44	17°32	5°27	12°52	12°44	24°47	28°37	T 25
F 26	6 17 51	4°16'29	26°52	23°17	29°6	18°5	3°26	2°52	0°47	17°35	5°27	12°44	12°41	24°54	28°36	F 26
S 27	6 21 48	5°17'38	8♂40	24°49	0♂20	18°47	3°38	2°48	0°50	17°37	5°27	12°39	12°37	25°1	28°36	S 27
S 28	6 25 45	6°18'48	20°29	26°21	1°34	19°30	3°50	2°44	0°53	17°39	5°27	12°36	12°34	25°7	28°35	S 28
M29	6 29 41	7°19'58	2♂24	27°54	2°47	20°12	4°2	2°40	0°57	17°41	5°27	12°36	12°31	25°14	28°34	M29
T 30	6 33 38	8°21'08	14°31	29°27	4°1	20°55	4°15	2°36	1°0	17°44	5°28	12°35	12°28	25°21	28°34	T 30
W31	6 37 34	9♂22'18	26♂55	1♂0	5♂15	21♂37	4♂27	2♂31	1♂3	17♂46	5°Y28	12♂35	12♂25	25♂27	28°Y33	W31

Delta T = 11.40 sec