

# SWISS EPHEMERIS for the year 1416

## JANUARY 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♃	♄	♅	♆	♇	♁	♂	♆	♁	♃	♄
W 1	7 13 13	18♌49'54	25♋22	4♌25	26♌56	26♌ 4	26♌45	18°R46	23♌ 3	11°R28	20°R10	21°R 7	19♌49	21♌21	14♌38	
T 2	7 17 9	19°51'02	7♌29	5°58	27°20	26°35	26°59	18♌41	23° 6	11♌26	20°R 9	21♌ 3	19°46	21°28	14°44	
F 3	7 21 6	20°52'09	7♌29	7°29	27°41	27° 5	27°13	18°36	23° 9	11°25	20° 8	20°58	19°42	21°35	14°50	
S 4	7 25 3	21°53'15	2♌14	8°58	28° 1	27°35	27°28	18°31	23°12	11°23	20° 7	20°52	19°39	21°41	14°56	
S 5	7 28 59	22°54'20	14°54	10°24	28°18	28° 5	27°42	18°26	23°16	11°21	20° 6	20°47	19°36	21°48	15° 2	
M 6	7 32 56	23°55'25	27°48	11°47	28°34	28°35	27°56	18°21	23°19	11°20	20° 5	20°43	19°33	21°55	15° 8	
T 7	7 36 52	24°56'28	10♌58	13° 5	28°47	29° 5	28°10	18°17	23°22	11°18	20° 4	20°40	19°30	22° 1	15°14	
W 8	7 40 49	25°57'30	24°25	14°19	28°58	29°35	28°24	18°12	23°25	11°16	20° 3	20°D39	19°27	22° 8	15°20	
T 9	7 44 45	26°58'31	8♌11	15°27	29° 7	0♌ 4	28°39	18° 7	23°28	11°15	20° 2	20°40	19°23	22°15	15°25	
F 10	7 48 42	27°59'31	22°17	16°29	29°13	0°33	28°53	18° 2	23°31	11°13	20° 1	20°41	19°20	22°21	15°31	
S 11	7 52 38	29° 0'30	6♌42	17°23	29°17	1° 2	29° 7	17°57	23°34	11°12	20° 0	20°43	19°17	22°28	15°37	
S 12	7 56 35	0♌ 1'27	21°24	18°10	29°R19	1°31	29°21	17°52	23°38	11°10	19°59	20°R43	19°14	22°34	15°42	
M13	8 0 32	1° 2'23	6♌18	18°47	29°18	2° 0	29°36	17°48	23°41	11° 8	19°59	20°42	19°11	22°41	15°48	
T 14	8 4 28	2° 3'19	21°16	19°16	29°14	2°29	29°50	17°43	23°44	11° 7	19°58	20°39	19° 8	22°48	15°53	
W15	8 8 25	3° 4'13	6♌11	19°34	29° 8	2°57	0♌ 4	17°38	23°48	11° 5	19°57	20°34	19° 4	22°54	15°59	
T 16	8 12 21	4° 5'05	20°53	19°R41	29° 0	3°25	0°18	17°33	23°51	11° 4	19°56	20°28	19° 1	23° 1	16° 4	
F 17	8 16 18	5° 5'57	5♌15	19°37	28°49	3°53	0°33	17°29	23°54	11° 2	19°55	20°20	18°58	23° 8	16° 9	
S 18	8 20 14	6° 6'48	19°13	19°22	28°35	4°21	0°47	17°24	23°57	11° 1	19°54	20°13	18°55	23°14	16°14	
S 19	8 24 11	7° 7'38	2♌43	18°56	28°19	4°49	1° 1	17°20	24° 1	10°59	19°54	20° 7	18°52	23°21	16°20	
M20	8 28 7	8° 8'26	15°45	18°20	28° 1	5°17	1°15	17°15	24° 4	10°58	19°53	20° 2	18°48	23°28	16°25	
T 21	8 32 4	9° 9'14	28°23	17°34	27°40	5°44	1°30	17°11	24° 8	10°56	19°52	19°59	18°45	23°34	16°30	
W22	8 36 1	10°10'01	10♌41	16°40	27°17	6°11	1°44	17° 6	24°11	10°55	19°51	19°D59	18°42	23°41	16°35	
T 23	8 39 57	11°10'47	22°42	15°38	26°52	6°38	1°58	17° 2	24°14	10°53	19°51	19°59	18°39	23°48	16°40	
F 24	8 43 54	12°11'32	4♌34	14°32	26°24	7° 4	2°12	16°58	24°18	10°52	19°50	20° 0	18°36	23°54	16°44	
S 25	8 47 50	13°12'15	16°20	13°23	25°55	7°31	2°26	16°54	24°21	10°51	19°49	20°R 1	18°33	24° 1	16°49	
S 26	8 51 47	14°12'58	28° 7	12°12	25°24	7°57	2°40	16°50	24°25	10°49	19°49	20° 1	18°29	24° 8	16°54	
M27	8 55 43	15°13'39	9♌57	11° 2	24°51	8°23	2°54	16°45	24°28	10°48	19°48	19°59	18°26	24°14	16°59	
T 28	8 59 40	16°14'19	21°56	9°55	24°17	8°49	3° 9	16°42	24°31	10°47	19°48	19°54	18°23	24°21	17° 3	
W29	9 3 37	17°14'58	4♌ 5	8°51	23°42	9°14	3°23	16°38	24°35	10°45	19°47	19°47	18°20	24°27	17° 8	
T 30	9 7 33	18°15'35	16°26	7°53	23° 6	9°39	3°37	16°34	24°38	10°44	19°46	19°37	18°17	24°34	17°12	
F 31	9 11 30	19♌16'11	29♌ 0	7♌ 0	22♌29	10♌ 4	3♌51	16♌30	24♌42	10♌43	19♌46	19♌26	18♌14	24♌41	17♌16	

Delta T = 294.02 sec. Julian Calendar 1 Jan. 1416 == Greg. Calendar 10 Jan. 1416

## FEBRUARY 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♃	♄	♅	♆	♇	♁	♂	♆	♁	♃	♄
S 1	9 15 26	20♌16'44	11♌47	6°R15	21°R52	10♌29	4♌ 5	16°R26	24♌45	10°R41	19°R45	19°R14	18♌10	24♌47	17♌21	
S 2	9 19 23	21°17'17	24°47	5♌37	21♌15	10°54	4°19	16♌23	24°49	10♌40	19°R45	19♌ 4	18° 7	24°54	17°25	
M 3	9 23 19	22°17'47	7♌58	5° 7	20°37	11°18	4°33	16°19	24°52	10°39	19°44	18°54	18° 4	25° 1	17°29	
T 4	9 27 16	23°18'16	21°20	4°44	20° 0	11°42	4°47	16°16	24°56	10°38	19°44	18°48	18° 1	25° 7	17°33	
W 5	9 31 12	24°18'43	4♌54	4°29	19°24	12° 5	5° 0	16°12	24°59	10°37	19°43	18°44	17°58	25°14	17°37	
T 6	9 35 9	25°19'07	18°39	4°21	18°48	12°28	5°14	16° 9	25° 2	10°36	19°43	18°42	17°54	25°21	17°41	
F 7	9 39 5	26°19'30	2♌36	4°D20	18°13	12°51	5°28	16° 6	25° 6	10°35	19°43	18°D42	17°51	25°27	17°45	
S 8	9 43 2	27°19'51	16°45	4°25	17°40	13°14	5°42	16° 3	25° 9	10°33	19°42	18°R42	17°48	25°34	17°49	
S 9	9 46 59	28°20'10	1♌ 4	4°37	17° 8	13°36	5°56	16° 0	25°13	10°32	19°42	18°42	17°45	25°41	17°52	
M10	9 50 55	29°20'27	15°32	4°55	16°38	13°59	6° 9	15°57	25°16	10°31	19°42	18°39	17°42	25°47	17°56	
T 11	9 54 52	0♌20'42	0♌ 5	5°18	16° 9	14°20	6°23	15°54	25°20	10°30	19°41	18°34	17°39	25°54	17°59	
W12	9 58 48	1°20'55	14°37	5°46	15°43	14°42	6°37	15°51	25°23	10°29	19°41	18°26	17°35	26° 0	18° 3	
T 13	10 2 45	2°21'05	29° 1	6°20	15°18	15° 3	6°50	15°49	25°27	10°29	19°41	18°15	17°32	26° 7	18° 6	
F 14	10 6 41	3°21'14	13♌12	6°57	14°56	15°24	7° 4	15°46	25°30	10°28	19°41	18° 4	17°29	26°14	18° 9	
S 15	10 10 38	4°21'22	27° 3	7°39	14°36	15°44	7°17	15°44	25°33	10°27	19°40	17°52	17°26	26°20	18°12	
S 16	10 14 34	5°21'27	10♌31	8°24	14°18	16° 4	7°31	15°41	25°37	10°26	19°40	17°41	17°23	26°27	18°16	
M17	10 18 31	6°21'31	23°35	9°13	14° 3	16°24	7°44	15°39	25°40	10°25	19°40	17°32	17°19	26°34	18°19	
T 18	10 22 28	7°21'33	6♌16	10° 6	13°51	16°43	7°57	15°37	25°44	10°24	19°40	17°26	17°16	26°40	18°21	
W19	10 26 24	8°21'33	18°36	11° 1	13°41	17° 2	8°11	15°35	25°47	10°24	19°40	17°22	17°13	26°47	18°24	
T 20	10 30 21	9°21'32	0♌40	11°59	13°33	17°20	8°24	15°33	25°51	10°23	19°40	17°21	17°10	26°54	18°27	
F 21	10 34 17	10°21'29	12°33	13° 0	13°28	17°38	8°37	15°31	25°54	10°22	19°39	17°21	17° 7	27° 0	18°30	
S 22	10 38 14	11°21'24	24°21	14° 4	13°25	17°56	8°50	15°29	25°57	10°22	19°39	17°21	17° 4	27° 7	18°32	
S 23	10 42 10	12°21'18	6♌ 9	15°10	13°D25	18°13	9° 3	15°28	26° 1	10°21	19°39	17°20	17° 0	27°14	18°35	
M24	10 46 7	13°21'10	18° 2	16°18	13°27	18°30	9°16	15°26	26° 4	10°20	19°D39	17°17	16°57	27°20	18°37	
T 25	10 50 3	14°21'00	0♌ 6	17°28	13°32	18°46	9°29	15°25	26° 7	10°20	19°39	17°11	16°54	27°27	18°39	
W26	10 54 0	15°20'49	12°23	18°40	13°39	19° 2	9°42	15°24	26°11	10°19	19°39	17° 2	16°51	27°34	18°42	
T 27	10 57 57	16°20'35	24°57	19°55	13°48	19°18	9°55	15°22	26°14	10°19	19°39	16°51	16°48	27°40	18°44	
F 28	11 1 53	17°20'20	7♌47	21°11	13°59	19°33	10° 8	15°21	26°17	10°18	19°40	16°38	16°45	27°47	18°46	
S 29	11 5 50	18♌20'02	20♌55	22♌29	14♌12	19♌47	10♌21	15♌20	26♌21	10♌18	19♌40	16♌25	16♌41	27♌53	18♌48	

Delta T = 293.90 sec. Julian Calendar created from Swiss Ephemeris, Copyright Astrodiens AG [13.11.2015]

# SWISS EPHEMERIS for the year 1416

## MARCH 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♃	♄	♅	♆	♁	♂	♄	♅	♆	♁
S 1	11 9 46	19X1943	4Y18	23X48	14X28	20M 1	10X33	15R19	26X24	10R17	19II40	16R12	16X38	28X 0	18X49
M 2	11 13 43	20°19'21	17°53	25° 9	14°45	20°15	10°46	15E19	26°27	10E17	19°40	16°X 1	16°35	28° 7	18°51
T 3	11 17 39	21°18'57	18°38	26°32	15° 5	20°27	10°59	15°18	26°30	10°17	19°40	15°53	16°32	28°13	18°53
W 4	11 21 36	22°18'31	15°31	27°57	15°26	20°40	11°11	15°18	26°33	10°16	19°40	15°47	16°29	28°20	18°54
T 5	11 25 32	23°18'03	29°29	29°23	15°49	20°52	11°23	15°17	26°37	10°16	19°41	15°45	16°25	28°27	18°56
F 6	11 29 29	24°17'33	13II31	0X50	16°13	21° 3	11°36	15°17	26°40	10°16	19°41	15°D44	16°22	28°33	18°57
S 7	11 33 26	25°17'00	27°36	2°19	16°40	21°14	11°48	15°17	26°43	10°16	19°41	15°R44	16°19	28°40	18°59
S 8	11 37 22	26°16'24	11E43	3°49	17° 8	21°24	12° 0	15°D17	26°46	10°15	19°41	15°44	16°16	28°47	19° 0
M 9	11 41 19	27°15'47	25°51	5°21	17°37	21°33	12°12	15°17	26°49	10°15	19°42	15°41	16°13	28°53	19° 1
T 10	11 45 15	28°15'07	9R59	6°54	18° 8	21°42	12°24	15°17	26°52	10°15	19°42	15°36	16°10	29° 0	19° 2
W11	11 49 12	29°14'24	24° 4	8°28	18°41	21°51	12°36	15°17	26°55	10°15	19°42	15°28	16° 6	29° 7	19° 3
T 12	11 53 8	0Y13'39	8M 2	10° 4	19°15	21°59	12°48	15°17	26°58	10°15	19°43	15°18	16° 3	29°13	19° 3
F 13	11 57 5	1°12'52	21°49	11°42	19°50	22° 6	13° 0	15°18	27° 1	10°D15	19°43	15° 6	16° 0	29°20	19° 4
S 14	12 1 1	2°12'03	5X21	13°20	20°26	22°12	13°12	15°18	27° 4	10°15	19°43	14°54	15°57	29°27	19° 5
S 15	12 4 58	3°11'12	18°35	15° 0	21° 4	22°18	13°23	15°19	27° 7	10°15	19°44	14°43	15°54	29°33	19° 5
M16	12 8 54	4°10'19	1M29	16°42	21°43	22°23	13°35	15°20	27°10	10°15	19°44	14°34	15°51	29°40	19° 6
T 17	12 12 51	5° 9'24	14° 5	18°25	22°23	22°28	13°46	15°21	27°13	10°15	19°45	14°28	15°47	29°46	19° 6
W18	12 16 48	6° 8'27	26°23	20° 9	23° 4	22°32	13°57	15°22	27°16	10°16	19°45	14°24	15°44	29°53	19° 6
T 19	12 20 44	7° 7'29	8X27	21°55	23°46	22°35	14° 9	15°23	27°19	10°16	19°46	14°22	15°41	29°59	19° 6
F 20	12 24 41	8° 6'28	20°21	23°42	24°29	22°37	14°20	15°24	27°22	10°16	19°46	14°D22	15°38	0X 6	19°R 6
S 21	12 28 37	9° 5'26	2X10	25°31	25°13	22°39	14°31	15°26	27°25	10°16	19°47	14°23	15°35	0°13	19° 6
S 22	12 32 34	10° 4'22	13°59	27°21	25°59	22°40	14°42	15°27	27°27	10°17	19°48	14°R23	15°31	0°20	19° 6
M23	12 36 30	11° 3'16	25°54	29°13	26°45	22°R41	14°53	15°29	27°30	10°17	19°48	14°22	15°28	0°26	19° 6
T 24	12 40 27	12° 2'08	8X 0	1Y 6	27°31	22°40	15° 4	15°30	27°33	10°17	19°49	14°18	15°25	0°33	19° 6
W25	12 44 23	13° 0'59	20°22	3° 1	28°19	22°39	15°14	15°32	27°35	10°18	19°49	14°13	15°22	0°40	19° 5
T 26	12 48 20	13°59'47	3X 2	4°57	29° 7	22°37	15°25	15°34	27°38	10°18	19°50	14° 5	15°19	0°46	19° 5
F 27	12 52 17	14°58'34	16° 3	6°55	29°57	22°34	15°35	15°36	27°41	10°19	19°51	13°56	15°16	0°53	19° 4
S 28	12 56 13	15°57'19	29°26	8°54	0X47	22°31	15°46	15°38	27°43	10°19	19°52	13°46	15°12	1° 0	19° 4
S 29	13 0 10	16°56'02	13Y 9	10°54	1°37	22°26	15°56	15°40	27°46	10°20	19°52	13°36	15° 9	1° 6	19° 3
M30	13 4 6	17°54'43	27° 8	12°56	2°29	22°21	16° 6	15°43	27°48	10°20	19°53	13°28	15° 6	1°13	19° 2
T 31	13 8 3	18Y53'22	11X19	14Y59	3X20	22M16	16X16	15E45	27X51	10E21	19II54	13X22	15X 3	1X20	19X 1

Delta T = 293.80 sec.

Julian Calendar 1 March 1416 == Greg. Calendar 10 March 1416

## APRIL 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♃	♄	♅	♆	♁	♂	♄	♅	♆	♁
W 1	13 11 59	19Y51'59	25X38	17Y 3	4X13	22R 9	16X26	15E48	27X53	10E21	19II55	13R18	15X 0	1X26	19R 0
T 2	13 15 56	20°50'34	9II58	19° 9	5° 6	22M 2	16°36	15°50	27°56	10°22	19°55	13°D17	14°56	1°33	18°59
F 3	13 19 52	21°49'07	24°18	21°15	6° 0	21°54	16°46	15°53	27°58	10°23	19°56	13X17	14°53	1°40	18°57
S 4	13 23 49	22°47'38	8E33	23°22	6°54	21°45	16°55	15°56	28° 0	10°24	19°57	13°18	14°50	1°46	18°56
S 5	13 27 46	23°46'06	22°41	25°30	7°49	21°35	17° 5	15°59	28° 3	10°24	19°58	13R19	14°47	1°53	18°55
M 6	13 31 42	24°44'33	6R43	27°38	8°44	21°25	17°14	16° 2	28° 5	10°25	19°59	13°18	14°44	1°59	18°53
T 7	13 35 39	25°42'56	20°35	29°46	9°40	21°14	17°23	16° 5	28° 7	10°26	20° 0	13°15	14°41	2° 6	18°52
W 8	13 39 35	26°41'18	4M19	1X54	10°36	21° 2	17°32	16° 8	28° 9	10°27	20° 1	13°11	14°37	2°13	18°50
T 9	13 43 32	27°39'38	17°51	4° 2	11°33	20°50	17°41	16°11	28°12	10°28	20° 2	13° 5	14°34	2°19	18°48
F 10	13 47 28	28°37'55	1X12	6° 9	12°30	20°36	17°50	16°15	28°14	10°29	20° 2	12°57	14°31	2°26	18°46
S 11	13 51 25	29°36'11	14°19	8°16	13°28	20°23	17°59	16°18	28°16	10°30	20° 3	12°50	14°28	2°33	18°45
S 12	13 55 21	0X34'24	27°12	10°21	14°26	20° 8	18° 7	16°22	28°18	10°30	20° 4	12°43	14°25	2°39	18°43
M13	13 59 18	1°32'36	9M51	12°24	15°24	19°53	18°16	16°25	28°20	10°31	20° 5	12°37	14°22	2°46	18°40
T 14	14 3 15	2°30'47	22°15	14°25	16°23	19°37	18°24	16°29	28°22	10°33	20° 6	12°33	14°18	2°53	18°38
W15	14 7 11	3°28'55	4X26	16°25	17°22	19°21	18°32	16°33	28°24	10°34	20° 7	12°31	14°15	2°59	18°36
T 16	14 11 8	4°27'02	16°26	18°22	18°22	19° 4	18°40	16°37	28°25	10°35	20° 9	12°D31	14°12	3° 6	18°34
F 17	14 15 4	5°25'08	28°18	20°16	19°22	18°46	18°48	16°41	28°27	10°36	20°10	12°32	14° 9	3°13	18°31
S 18	14 19 1	6°23'12	10X 7	22° 8	20°22	18°28	18°56	16°45	28°29	10°37	20°11	12°34	14° 6	3°19	18°29
S 19	14 22 57	7°21'14	21°57	23°56	21°22	18°10	19° 4	16°49	28°31	10°38	20°12	12°35	14° 2	3°26	18°26
M20	14 26 54	8°19'16	3X52	25°41	22°23	17°50	19°11	16°54	28°32	10°39	20°13	12°R36	13°59	3°33	18°24
T 21	14 30 50	9°17'15	15°58	27°23	23°25	17°31	19°18	16°58	28°34	10°41	20°14	12°36	13°56	3°39	18°21
W22	14 34 47	10°15'14	28°20	29° 2	24°26	17°11	19°26	17° 3	28°36	10°42	20°15	12°35	13°53	3°46	18°19
T 23	14 38 44	11°13'11	11X 1	0II37	25°28	16°51	19°33	17° 7	28°37	10°43	20°16	12°32	13°50	3°53	18°16
F 24	14 42 40	12°11'06	24° 5	2° 8	26°30	16°30	19°40	17°12	28°39	10°44	20°17	12°28	13°47	3°59	18°13
S 25	14 46 37	13° 9'01	7Y34	3°36	27°32	16°10	19°46	17°16	28°40	10°46	20°19	12°24	13°43	4° 6	18°10
S 26	14 50 33	14° 6'54	21°27	5° 0	28°35	15°49	19°53	17°21	28°42	10°47	20°20	12°19	13°40	4°13	18° 7
M27	14 54 30	15° 4'45	5X41	6°20	29°38	15°27	19°59	17°26	28°43	10°49	20°21	12°16	13°37	4°19	18° 4
T 28	14 58 26	16° 2'35	20°13	7°36	0Y41	15° 6	20° 6	17°31	28°44	10°50	20°22	12°13	13°34	4°26	18° 1
W29	15 2 23	17° 0'24	4II55	8°49	1°44	14°45	20°12	17°36	28°46	10°51	20°23	12°12	13°31	4°32	17°58
T 30	15 6 19	17X58'12	19II41	9II57	2Y48	14M23	20X18	17E41	28X47	10E53	20II25	12°D12	13X28	4X39	17X54

Delta T = 293.68 sec.

Julian Calendar

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# SWISS EPHEMERIS for the year 1416

## MAY 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♃	♄	♅	♁	♂	♃	♅	♁	♂	♃
F 1	15 10 16	18♂55'57	4♁24	11♃1	3♃51	14°R 2	20♂24	17♁46	28♂48	10♁54	20♃26	12♂13	13♂24	4♁46	17°R51
S 2	15 14 13	19°53'41	18°58	12° 2	4°55	13♂40	20°29	17°52	28°49	10°56	20°27	12°14	13°21	4°52	17♂48
S 3	15 18 9	20°51'24	3♁20	12°58	5°59	13°19	20°35	17°57	28°50	10°58	20°28	12°15	13°18	4°59	17°44
M 4	15 22 6	21°49'05	17°25	13°50	7° 4	12°58	20°40	18° 2	28°52	10°59	20°30	12°R16	13°15	5° 6	17°41
T 5	15 26 2	22°46'44	1♃14	14°37	8° 8	12°37	20°45	18° 8	28°53	11° 1	20°31	12°16	13°12	5°12	17°37
W 6	15 29 59	23°44'21	14°46	15°21	9°13	12°16	20°50	18°13	28°53	11° 2	20°32	12°15	13° 8	5°19	17°34
T 7	15 33 55	24°41'57	28° 2	15°59	10°18	11°56	20°55	18°19	28°54	11° 4	20°34	12°13	13° 5	5°26	17°30
F 8	15 37 52	25°39'32	11♁ 2	16°34	11°23	11°36	21° 0	18°25	28°55	11° 6	20°35	12°11	13° 2	5°32	17°27
S 9	15 41 48	26°37'05	23°48	17° 3	12°28	11°16	21° 4	18°30	28°56	11° 7	20°36	12° 9	12°59	5°39	17°23
S 10	15 45 45	27°34'36	6♂21	17°28	13°34	10°56	21° 9	18°36	28°57	11° 9	20°38	12° 7	12°56	5°46	17°19
M11	15 49 42	28°32'07	18°42	17°49	14°39	10°38	21°13	18°42	28°58	11°11	20°39	12° 5	12°53	5°52	17°16
T 12	15 53 38	29°29'36	0♂52	18° 5	15°45	10°19	21°17	18°48	28°58	11°12	20°40	12° 4	12°49	5°59	17°12
W13	15 57 35	0♂27'05	12°53	18°16	16°51	10° 1	21°20	18°54	28°59	11°14	20°42	12°D 4	12°46	6° 6	17° 8
T 14	16 1 31	1°24'32	24°48	18°22	17°57	9°44	21°24	19° 0	28°59	11°16	20°43	12° 4	12°43	6°12	17° 4
F 15	16 5 28	2°21'59	6♁38	18°R24	19° 3	9°27	21°27	19° 6	29° 0	11°18	20°44	12° 5	12°40	6°19	17° 0
S 16	16 9 24	3°19'24	18°26	18°21	20°10	9°11	21°31	19°12	29° 1	11°20	20°46	12° 6	12°37	6°26	16°56
S 17	16 13 21	4°16'49	0♂17	18°14	21°16	8°55	21°34	19°18	29° 1	11°21	20°47	12° 7	12°34	6°32	16°53
M18	16 17 17	5°14'13	12°13	18° 3	22°23	8°40	21°37	19°25	29° 1	11°23	20°48	12° 7	12°30	6°39	16°49
T 19	16 21 14	6°11'36	24°19	17°47	23°30	8°26	21°39	19°31	29° 2	11°25	20°50	12° 8	12°27	6°46	16°45
W20	16 25 11	7° 8'59	6♂39	17°28	24°36	8°13	21°42	19°37	29° 2	11°27	20°51	12°R 8	12°24	6°52	16°41
T 21	16 29 7	8° 6'21	19°17	17° 6	25°44	8° 0	21°44	19°44	29° 2	11°29	20°53	12° 8	12°21	6°59	16°37
F 22	16 33 4	9° 3'43	2♃18	16°40	26°51	7°48	21°46	19°50	29° 2	11°31	20°54	12° 8	12°18	7° 6	16°33
S 23	16 37 0	10° 1'04	15°44	16°12	27°58	7°36	21°48	19°57	29° 3	11°33	20°55	12° 7	12°14	7°12	16°29
S 24	16 40 57	10°58'24	29°36	15°41	29° 5	7°26	21°50	20° 3	29° 3	11°35	20°57	12° 7	12°11	7°19	16°24
M25	16 44 53	11°55'44	13♂54	15° 9	0♂13	7°16	21°52	20°10	29°R 3	11°37	20°58	12°D 7	12° 8	7°26	16°20
T 26	16 48 50	12°53'04	28°34	14°36	1°21	7° 7	21°53	20°17	29° 3	11°39	21° 0	12° 7	12° 5	7°32	16°16
W27	16 52 46	13°50'23	13♃30	14° 2	2°28	6°59	21°54	20°24	29° 3	11°41	21° 1	12°R 7	12° 2	7°39	16°12
T 28	16 56 43	14°47'41	28°34	13°29	3°36	6°52	21°55	20°30	29° 3	11°43	21° 3	12° 7	11°59	7°46	16° 8
F 29	17 0 40	15°44'59	13♁38	12°56	4°44	6°45	21°56	20°37	29° 2	11°45	21° 4	12° 7	11°55	7°52	16° 4
S 30	17 4 36	16°42'15	28°33	12°24	5°52	6°40	21°57	20°44	29° 2	11°47	21° 6	12° 6	11°52	7°59	16° 0
S 31	17 8 33	17♃39'31	13♁12	11♃53	7♂ 1	6♂35	21♂57	20♁51	29♂2	11♁49	21♃7	12♂6	11♂49	8♁6	15♂56

Delta T = 293.57 sec. Julian Calendar 1 May 1416 == Greg. Calendar 10 May 1416

## JUNE 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♃	♄	♅	♁	♂	♃	♅	♁	♂	♃
M 1	17 12 29	18♃36'47	27♁29	11°R25	8♂ 9	6°R31	21♂57	20♁58	29°R 2	11♁51	21♃8	12°R 5	11♂46	8♁12	15°R52
T 2	17 16 26	19°34'01	11♃24	11♃ 0	9°17	6♂28	21°R57	21° 5	29°R 1	11°53	21°10	12♂ 5	11°43	8°19	15♂48
W 3	17 20 22	20°31'15	24°55	10°38	10°26	6°26	21°57	21°12	29° 1	11°55	21°11	12°D 5	11°39	8°26	15°44
T 4	17 24 19	21°28'28	8♁ 3	10°19	11°34	6°24	21°57	21°19	29° 1	11°57	21°13	12° 5	11°36	8°32	15°40
F 5	17 28 15	22°25'40	20°52	10° 4	12°43	6°D24	21°56	21°26	29° 0	12° 0	21°14	12° 6	11°33	8°39	15°36
S 6	17 32 12	23°22'52	3♂24	9°54	13°52	6°24	21°55	21°33	28°59	12° 2	21°16	12° 7	11°30	8°46	15°32
S 7	17 36 9	24°20'03	15°41	9°47	15° 0	6°25	21°55	21°40	28°59	12° 4	21°17	12° 8	11°27	8°52	15°28
M 8	17 40 5	25°17'13	27°48	9°D45	16° 9	6°27	21°53	21°48	28°58	12° 6	21°18	12° 9	11°24	8°59	15°24
T 9	17 44 2	26°14'24	9♂47	9°48	17°18	6°30	21°52	21°55	28°58	12° 8	21°20	12°R 9	11°20	9° 5	15°20
W10	17 47 58	27°11'34	21°40	9°56	18°27	6°33	21°51	22° 2	28°57	12°10	21°21	12° 9	11°17	9°12	15°16
T 11	17 51 55	28° 8'44	3♁30	10° 8	19°37	6°37	21°49	22°10	28°56	12°12	21°23	12° 8	11°14	9°19	15°12
F 12	17 55 51	29° 5'54	15°19	10°26	20°46	6°42	21°47	22°17	28°55	12°15	21°24	12° 6	11°11	9°25	15° 8
S 13	17 59 48	0♁ 3'03	27° 9	10°48	21°55	6°48	21°45	22°24	28°55	12°17	21°26	12° 4	11° 8	9°32	15° 4
S 14	18 3 44	1° 0'13	9♂ 3	11°15	23° 5	6°55	21°43	22°32	28°54	12°19	21°27	12° 1	11° 5	9°39	15° 0
M15	18 7 41	1°57'23	21° 2	11°46	24°14	7° 2	21°40	22°39	28°53	12°21	21°28	11°58	11° 1	9°45	14°57
T 16	18 11 38	2°54'33	3♂11	12°23	25°24	7°10	21°38	22°47	28°52	12°23	21°30	11°55	10°58	9°52	14°53
W17	18 15 34	3°51'43	15°32	13° 4	26°33	7°19	21°35	22°54	28°51	12°26	21°31	11°53	10°55	9°59	14°49
T 18	18 19 31	4°48'53	28° 9	13°51	27°43	7°28	21°32	23° 2	28°50	12°28	21°33	11°52	10°52	10° 5	14°46
F 19	18 23 27	5°46'04	11♃5	14°41	28°53	7°38	21°29	23° 9	28°49	12°30	21°34	11°D52	10°49	10°12	14°42
S 20	18 27 24	6°43'15	24°24	15°37	0♂ 3	7°49	21°25	23°17	28°47	12°32	21°36	11°53	10°45	10°19	14°38
S 21	18 31 20	7°40'26	8♂ 9	16°36	1°13	8° 1	21°22	23°24	28°46	12°34	21°37	11°55	10°42	10°25	14°35
M22	18 35 17	8°37'39	22°19	17°41	2°23	8°13	21°18	23°32	28°45	12°37	21°38	11°56	10°39	10°32	14°31
T 23	18 39 13	9°34'51	6♃54	18°49	3°33	8°26	21°14	23°39	28°44	12°39	21°40	11°R57	10°36	10°39	14°28
W24	18 43 10	10°32'04	21°49	20° 3	4°43	8°40	21°10	23°47	28°42	12°41	21°41	11°57	10°33	10°45	14°24
T 25	18 47 7	11°29'17	6♁58	21°20	5°53	8°54	21° 6	23°55	28°41	12°43	21°42	11°55	10°30	10°52	14°21
F 26	18 51 3	12°26'31	22°11	22°42	7° 4	9° 9	21° 1	24° 2	28°40	12°46	21°44	11°52	10°26	10°59	14°18
S 27	18 55 0	13°23'45	7♁19	24° 7	8°14	9°24	20°57	24°10	28°38	12°48	21°45	11°48	10°23	11° 5	14°14
S 28	18 58 56	14°20'59	22°12	25°37	9°25	9°40	20°52	24°18	28°37	12°50	21°47	11°43	10°20	11°12	14°11
M29	19 2 53	15°18'13	6♃43	27°11	10°35	9°57	20°47	24°25	28°35	12°52	21°48	11°39	10°17	11°19	14° 8
T 30	19 6 49	16°15'28	20♃47	28♂48	11♃46	10♂14	20♂42	24♁33	28♂34	12♁54	21♃49	11♂36	10♂14	11♂25	14♂ 5

Delta T = 293.46 sec. Julian Calendar created from Swiss Ephemeris, Copyright Astrodiens AG [13.11.2015]

SWISS EPHEMERIS for the year 1416

JULY 1416 JC

00:00 UT

Table with 16 columns (Day, Sid.t, and zodiac signs ♉, ♊, ♈, ♋, ♌, ♍, ♎, ♏, ♐, ♑, ♒, ♓, ♈, ♉, ♊) and 31 rows of astronomical data for July 1416.

Delta T = 293.35 sec. Julian Calendar 1 July 1416 == Greg. Calendar 10 July 1416

AUGUST 1416 JC

00:00 UT

Table with 16 columns (Day, Sid.t, and zodiac signs ♈, ♉, ♊, ♋, ♌, ♍, ♎, ♏, ♐, ♑, ♒, ♓, ♈, ♉, ♊) and 31 rows of astronomical data for August 1416.

Delta T = 293.23 sec. Julian Calendar created from Swiss Ephemeris, Copyright AstroDienst AG [13.11.2015]

SWISS EPHEMERIS for the year 1416

SEPTEMBER 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♃	♄	♅	♆	♇	♁	♂	♁	♃	♄
T 1	23 15 12	16 <sup>h</sup> 56'01	5 <sup>h</sup> 342	13 <sup>h</sup> 19	27 <sup>h</sup> 52	11 <sup>h</sup> 53	13 <sup>h</sup> 24	2 <sup>h</sup> 16	26 <sup>h</sup> R16	14 <sup>h</sup> 53	22 <sup>h</sup> 45	6 <sup>h</sup> R48	6 <sup>h</sup> 54	18 <sup>h</sup> 26	13 <sup>h</sup> 28
W 2	23 19 9	17 <sup>h</sup> 54'38	17 <sup>h</sup> 32	14 <sup>h</sup> 9	29 <sup>h</sup> 6	12 <sup>h</sup> 32	13 <sup>h</sup> 19	2 <sup>h</sup> 22	26 <sup>h</sup> 14	14 <sup>h</sup> 54	22 <sup>h</sup> 45	6 <sup>h</sup> 54	6 <sup>h</sup> 50	18 <sup>h</sup> 33	13 <sup>h</sup> 30
T 3	23 23 5	18 <sup>h</sup> 53'17	29 <sup>h</sup> 24	14 <sup>h</sup> 56	0 <sup>h</sup> 20	13 <sup>h</sup> 10	13 <sup>h</sup> 14	2 <sup>h</sup> 29	26 <sup>h</sup> 12	14 <sup>h</sup> 55	22 <sup>h</sup> 45	6 <sup>h</sup> 39	6 <sup>h</sup> 47	18 <sup>h</sup> 39	13 <sup>h</sup> 32
F 4	23 27 2	19 <sup>h</sup> 51'57	11 <sup>h</sup> 24	15 <sup>h</sup> 39	1 <sup>h</sup> 34	13 <sup>h</sup> 49	13 <sup>h</sup> 9	2 <sup>h</sup> 35	26 <sup>h</sup> 10	14 <sup>h</sup> 56	22 <sup>h</sup> 46	6 <sup>h</sup> 30	6 <sup>h</sup> 44	18 <sup>h</sup> 46	13 <sup>h</sup> 35
S 5	23 30 59	20 <sup>h</sup> 50'40	23 <sup>h</sup> 34	16 <sup>h</sup> 19	2 <sup>h</sup> 49	14 <sup>h</sup> 29	13 <sup>h</sup> 4	2 <sup>h</sup> 41	26 <sup>h</sup> 8	14 <sup>h</sup> 57	22 <sup>h</sup> 46	6 <sup>h</sup> 19	6 <sup>h</sup> 41	18 <sup>h</sup> 53	13 <sup>h</sup> 37
S 6	23 34 55	21 <sup>h</sup> 49'24	5 <sup>h</sup> 56	16 <sup>h</sup> 54	4 <sup>h</sup> 3	15 <sup>h</sup> 8	13 <sup>h</sup> 0	2 <sup>h</sup> 47	26 <sup>h</sup> 6	14 <sup>h</sup> 58	22 <sup>h</sup> 46	6 <sup>h</sup> 7	6 <sup>h</sup> 38	18 <sup>h</sup> 59	13 <sup>h</sup> 39
M 7	23 38 52	22 <sup>h</sup> 48'10	18 <sup>h</sup> 31	17 <sup>h</sup> 24	5 <sup>h</sup> 17	15 <sup>h</sup> 48	12 <sup>h</sup> 55	2 <sup>h</sup> 53	26 <sup>h</sup> 4	15 <sup>h</sup> 0	22 <sup>h</sup> 46	5 <sup>h</sup> 54	6 <sup>h</sup> 34	19 <sup>h</sup> 6	13 <sup>h</sup> 42
T 8	23 42 48	23 <sup>h</sup> 46'58	1 <sup>h</sup> 20	17 <sup>h</sup> 50	6 <sup>h</sup> 31	16 <sup>h</sup> 27	12 <sup>h</sup> 51	2 <sup>h</sup> 58	26 <sup>h</sup> 2	15 <sup>h</sup> 1	22 <sup>h</sup> 46	5 <sup>h</sup> 42	6 <sup>h</sup> 31	19 <sup>h</sup> 13	13 <sup>h</sup> 45
W 9	23 46 45	24 <sup>h</sup> 45'49	14 <sup>h</sup> 21	18 <sup>h</sup> 10	7 <sup>h</sup> 46	17 <sup>h</sup> 7	12 <sup>h</sup> 47	3 <sup>h</sup> 4	26 <sup>h</sup> 0	15 <sup>h</sup> 2	22 <sup>h</sup> 47	5 <sup>h</sup> 32	6 <sup>h</sup> 28	19 <sup>h</sup> 19	13 <sup>h</sup> 47
T 10	23 50 41	25 <sup>h</sup> 44'41	27 <sup>h</sup> 33	18 <sup>h</sup> 24	9 <sup>h</sup> 0	17 <sup>h</sup> 47	12 <sup>h</sup> 43	3 <sup>h</sup> 10	25 <sup>h</sup> 58	15 <sup>h</sup> 3	22 <sup>h</sup> 47	5 <sup>h</sup> 24	6 <sup>h</sup> 25	19 <sup>h</sup> 26	13 <sup>h</sup> 50
F 11	23 54 38	26 <sup>h</sup> 43'35	10 <sup>h</sup> 57	18 <sup>h</sup> 33	10 <sup>h</sup> 15	18 <sup>h</sup> 27	12 <sup>h</sup> 39	3 <sup>h</sup> 16	25 <sup>h</sup> 56	15 <sup>h</sup> 4	22 <sup>h</sup> 47	5 <sup>h</sup> 19	6 <sup>h</sup> 22	19 <sup>h</sup> 33	13 <sup>h</sup> 53
S 12	23 58 34	27 <sup>h</sup> 42'32	24 <sup>h</sup> 30	18 <sup>h</sup> R35	11 <sup>h</sup> 29	19 <sup>h</sup> 7	12 <sup>h</sup> 36	3 <sup>h</sup> 21	25 <sup>h</sup> 54	15 <sup>h</sup> 4	22 <sup>h</sup> 47	5 <sup>h</sup> 17	6 <sup>h</sup> 19	19 <sup>h</sup> 39	13 <sup>h</sup> 56
S 13	0 2 31	28 <sup>h</sup> 41'32	8 <sup>h</sup> 11	18 <sup>h</sup> 30	12 <sup>h</sup> 44	19 <sup>h</sup> 48	12 <sup>h</sup> 33	3 <sup>h</sup> 27	25 <sup>h</sup> 52	15 <sup>h</sup> 5	22 <sup>h</sup> 47	5 <sup>h</sup> D16	6 <sup>h</sup> 15	19 <sup>h</sup> 46	13 <sup>h</sup> 59
M14	0 6 28	29 <sup>h</sup> 40'38	22 <sup>h</sup> 5	18 <sup>h</sup> 17	13 <sup>h</sup> 58	20 <sup>h</sup> 28	12 <sup>h</sup> 29	3 <sup>h</sup> 32	25 <sup>h</sup> 50	15 <sup>h</sup> 6	22 <sup>h</sup> R47	5 <sup>h</sup> 17	6 <sup>h</sup> 12	19 <sup>h</sup> 53	14 <sup>h</sup> 2
T 15	0 10 24	0 <sup>h</sup> 39'37	6 <sup>h</sup> 8	17 <sup>h</sup> 58	15 <sup>h</sup> 13	21 <sup>h</sup> 9	12 <sup>h</sup> 27	3 <sup>h</sup> 38	25 <sup>h</sup> 48	15 <sup>h</sup> 7	22 <sup>h</sup> 47	5 <sup>h</sup> R17	6 <sup>h</sup> 9	19 <sup>h</sup> 59	14 <sup>h</sup> 6
W16	0 14 21	1 <sup>h</sup> 38'44	20 <sup>h</sup> 20	17 <sup>h</sup> 30	16 <sup>h</sup> 28	21 <sup>h</sup> 50	12 <sup>h</sup> 24	3 <sup>h</sup> 43	25 <sup>h</sup> 46	15 <sup>h</sup> 8	22 <sup>h</sup> 47	5 <sup>h</sup> 15	6 <sup>h</sup> 6	20 <sup>h</sup> 6	14 <sup>h</sup> 9
T 17	0 18 17	2 <sup>h</sup> 37'52	4 <sup>h</sup> 40	16 <sup>h</sup> 55	17 <sup>h</sup> 42	22 <sup>h</sup> 31	12 <sup>h</sup> 21	3 <sup>h</sup> 48	25 <sup>h</sup> 44	15 <sup>h</sup> 9	22 <sup>h</sup> 47	5 <sup>h</sup> 11	6 <sup>h</sup> 3	20 <sup>h</sup> 13	14 <sup>h</sup> 12
F 18	0 22 14	3 <sup>h</sup> 37'03	19 <sup>h</sup> 4	16 <sup>h</sup> 11	18 <sup>h</sup> 57	23 <sup>h</sup> 12	12 <sup>h</sup> 19	3 <sup>h</sup> 53	25 <sup>h</sup> 43	15 <sup>h</sup> 9	22 <sup>h</sup> 47	5 <sup>h</sup> 5	6 <sup>h</sup> 0	20 <sup>h</sup> 19	14 <sup>h</sup> 16
S 19	0 26 10	4 <sup>h</sup> 36'16	3 <sup>h</sup> 29	15 <sup>h</sup> 21	20 <sup>h</sup> 12	23 <sup>h</sup> 53	12 <sup>h</sup> 17	3 <sup>h</sup> 58	25 <sup>h</sup> 41	15 <sup>h</sup> 10	22 <sup>h</sup> 47	4 <sup>h</sup> 57	5 <sup>h</sup> 56	20 <sup>h</sup> 26	14 <sup>h</sup> 19
S 20	0 30 7	5 <sup>h</sup> 35'32	17 <sup>h</sup> 48	14 <sup>h</sup> 24	21 <sup>h</sup> 26	24 <sup>h</sup> 34	12 <sup>h</sup> 15	4 <sup>h</sup> 3	25 <sup>h</sup> 39	15 <sup>h</sup> 11	22 <sup>h</sup> 46	4 <sup>h</sup> 47	5 <sup>h</sup> 53	20 <sup>h</sup> 33	14 <sup>h</sup> 23
M21	0 34 3	6 <sup>h</sup> 34'49	1 <sup>h</sup> 55	13 <sup>h</sup> 21	22 <sup>h</sup> 41	25 <sup>h</sup> 16	12 <sup>h</sup> 13	4 <sup>h</sup> 8	25 <sup>h</sup> 38	15 <sup>h</sup> 11	22 <sup>h</sup> 46	4 <sup>h</sup> 38	5 <sup>h</sup> 50	20 <sup>h</sup> 39	14 <sup>h</sup> 27
T 22	0 38 0	7 <sup>h</sup> 34'09	15 <sup>h</sup> 46	12 <sup>h</sup> 13	23 <sup>h</sup> 56	25 <sup>h</sup> 58	12 <sup>h</sup> 11	4 <sup>h</sup> 13	25 <sup>h</sup> 36	15 <sup>h</sup> 12	22 <sup>h</sup> 46	4 <sup>h</sup> 29	5 <sup>h</sup> 47	20 <sup>h</sup> 46	14 <sup>h</sup> 30
W23	0 41 56	8 <sup>h</sup> 33'31	29 <sup>h</sup> 16	11 <sup>h</sup> 3	25 <sup>h</sup> 11	26 <sup>h</sup> 39	12 <sup>h</sup> 10	4 <sup>h</sup> 18	25 <sup>h</sup> 35	15 <sup>h</sup> 13	22 <sup>h</sup> 46	4 <sup>h</sup> 22	5 <sup>h</sup> 44	20 <sup>h</sup> 53	14 <sup>h</sup> 34
T 24	0 45 53	9 <sup>h</sup> 32'54	12 <sup>h</sup> 25	9 <sup>h</sup> 51	26 <sup>h</sup> 26	27 <sup>h</sup> 21	12 <sup>h</sup> 9	4 <sup>h</sup> 23	25 <sup>h</sup> 33	15 <sup>h</sup> 13	22 <sup>h</sup> 46	4 <sup>h</sup> 17	5 <sup>h</sup> 40	20 <sup>h</sup> 59	14 <sup>h</sup> 38
F 25	0 49 50	10 <sup>h</sup> 32'20	25 <sup>h</sup> 11	8 <sup>h</sup> 40	27 <sup>h</sup> 41	28 <sup>h</sup> 3	12 <sup>h</sup> 8	4 <sup>h</sup> 27	25 <sup>h</sup> 32	15 <sup>h</sup> 14	22 <sup>h</sup> 45	4 <sup>h</sup> 15	5 <sup>h</sup> 37	21 <sup>h</sup> 6	14 <sup>h</sup> 42
S 26	0 53 46	11 <sup>h</sup> 31'48	7 <sup>h</sup> 37	7 <sup>h</sup> 31	28 <sup>h</sup> 56	28 <sup>h</sup> 45	12 <sup>h</sup> 7	4 <sup>h</sup> 32	25 <sup>h</sup> 30	15 <sup>h</sup> 14	22 <sup>h</sup> 45	4 <sup>h</sup> D14	5 <sup>h</sup> 34	21 <sup>h</sup> 13	14 <sup>h</sup> 46
S 27	0 57 43	12 <sup>h</sup> 31'17	19 <sup>h</sup> 48	6 <sup>h</sup> 28	0 <sup>h</sup> 11	29 <sup>h</sup> 27	12 <sup>h</sup> 6	4 <sup>h</sup> 36	25 <sup>h</sup> 29	15 <sup>h</sup> 15	22 <sup>h</sup> 45	4 <sup>h</sup> 15	5 <sup>h</sup> 31	21 <sup>h</sup> 20	14 <sup>h</sup> 50
M28	1 1 39	13 <sup>h</sup> 30'48	1 <sup>h</sup> 36	5 <sup>h</sup> 31	1 <sup>h</sup> 25	0 <sup>h</sup> 10	12 <sup>h</sup> 6	4 <sup>h</sup> 41	25 <sup>h</sup> 27	15 <sup>h</sup> 15	22 <sup>h</sup> 45	4 <sup>h</sup> 17	5 <sup>h</sup> 28	21 <sup>h</sup> 26	14 <sup>h</sup> 55
T 29	1 5 36	14 <sup>h</sup> 30'21	13 <sup>h</sup> 38	4 <sup>h</sup> 42	2 <sup>h</sup> 40	0 <sup>h</sup> 52	12 <sup>h</sup> D 6	4 <sup>h</sup> 45	25 <sup>h</sup> 26	15 <sup>h</sup> 15	22 <sup>h</sup> 44	4 <sup>h</sup> R17	5 <sup>h</sup> 25	21 <sup>h</sup> 33	14 <sup>h</sup> 59
W30	1 9 32	15 <sup>h</sup> 29'56	25 <sup>h</sup> 28	4 <sup>h</sup> 2	3 <sup>h</sup> 55	1 <sup>h</sup> 35	12 <sup>h</sup> 6	4 <sup>h</sup> 49	25 <sup>h</sup> 25	15 <sup>h</sup> 16	22 <sup>h</sup> 44	4 <sup>h</sup> 17	5 <sup>h</sup> 21	21 <sup>h</sup> 34	15 <sup>h</sup> 3

Delta T = 293.12 sec. Julian Calendar 1 Sept. 1416 == Greg. Calendar 10 Sept. 1416

OCTOBER 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♃	♄	♅	♆	♇	♁	♂	♁	♃	♄
T 1	1 13 29	16 <sup>h</sup> 29'32	7 <sup>h</sup> 22	3 <sup>h</sup> R34	5 <sup>h</sup> 11	2 <sup>h</sup> 17	12 <sup>h</sup> 6	4 <sup>h</sup> 53	25 <sup>h</sup> R23	15 <sup>h</sup> 16	22 <sup>h</sup> R44	4 <sup>h</sup> R14	5 <sup>h</sup> 18	21 <sup>h</sup> 46	15 <sup>h</sup> 7
F 2	1 17 25	17 <sup>h</sup> 29'11	19 <sup>h</sup> 25	3 <sup>h</sup> 16	6 <sup>h</sup> 26	3 <sup>h</sup> 0	12 <sup>h</sup> 7	4 <sup>h</sup> 57	25 <sup>h</sup> 22	15 <sup>h</sup> 16	22 <sup>h</sup> 43	4 <sup>h</sup> 10	5 <sup>h</sup> 15	21 <sup>h</sup> 53	15 <sup>h</sup> 12
S 3	1 21 22	18 <sup>h</sup> 28'51	1 <sup>h</sup> 39	3 <sup>h</sup> D 9	7 <sup>h</sup> 41	3 <sup>h</sup> 43	12 <sup>h</sup> 7	5 <sup>h</sup> 1	25 <sup>h</sup> 21	15 <sup>h</sup> 17	22 <sup>h</sup> 43	4 <sup>h</sup> 3	5 <sup>h</sup> 12	22 <sup>h</sup> 0	15 <sup>h</sup> 16
S 4	1 25 19	19 <sup>h</sup> 28'32	14 <sup>h</sup> 9	3 <sup>h</sup> 14	8 <sup>h</sup> 56	4 <sup>h</sup> 26	12 <sup>h</sup> 8	5 <sup>h</sup> 5	25 <sup>h</sup> 20	15 <sup>h</sup> 17	22 <sup>h</sup> 42	3 <sup>h</sup> 56	5 <sup>h</sup> 9	22 <sup>h</sup> 6	15 <sup>h</sup> 21
M 5	1 29 15	20 <sup>h</sup> 28'16	26 <sup>h</sup> 57	3 <sup>h</sup> 29	10 <sup>h</sup> 11	5 <sup>h</sup> 9	12 <sup>h</sup> 9	5 <sup>h</sup> 9	25 <sup>h</sup> 19	15 <sup>h</sup> 17	22 <sup>h</sup> 42	3 <sup>h</sup> 48	5 <sup>h</sup> 5	22 <sup>h</sup> 13	15 <sup>h</sup> 26
T 6	1 33 12	21 <sup>h</sup> 28'02	10 <sup>h</sup> 1	3 <sup>h</sup> 55	11 <sup>h</sup> 26	5 <sup>h</sup> 52	12 <sup>h</sup> 10	5 <sup>h</sup> 12	25 <sup>h</sup> 18	15 <sup>h</sup> 17	22 <sup>h</sup> 41	3 <sup>h</sup> 40	5 <sup>h</sup> 2	22 <sup>h</sup> 20	15 <sup>h</sup> 30
W 7	1 37 8	22 <sup>h</sup> 27'49	23 <sup>h</sup> 23	4 <sup>h</sup> 30	12 <sup>h</sup> 41	6 <sup>h</sup> 35	12 <sup>h</sup> 12	5 <sup>h</sup> 16	25 <sup>h</sup> 17	15 <sup>h</sup> 17	22 <sup>h</sup> 41	3 <sup>h</sup> 34	4 <sup>h</sup> 59	22 <sup>h</sup> 26	15 <sup>h</sup> 35
T 8	1 41 5	23 <sup>h</sup> 27'39	7 <sup>h</sup> 0	5 <sup>h</sup> 14	13 <sup>h</sup> 56	7 <sup>h</sup> 18	12 <sup>h</sup> 13	5 <sup>h</sup> 19	25 <sup>h</sup> 16	15 <sup>h</sup> 17	22 <sup>h</sup> 40	3 <sup>h</sup> 29	4 <sup>h</sup> 56	22 <sup>h</sup> 33	15 <sup>h</sup> 40
F 9	1 45 1	24 <sup>h</sup> 27'30	20 <sup>h</sup> 48	6 <sup>h</sup> 5	15 <sup>h</sup> 11	8 <sup>h</sup> 2	12 <sup>h</sup> 15	5 <sup>h</sup> 22	25 <sup>h</sup> 15	15 <sup>h</sup> 17	22 <sup>h</sup> 40	3 <sup>h</sup> 27	4 <sup>h</sup> 53	22 <sup>h</sup> 40	15 <sup>h</sup> 45
S 10	1 48 58	25 <sup>h</sup> 27'24	4 <sup>h</sup> 46	7 <sup>h</sup> 4	16 <sup>h</sup> 27	8 <sup>h</sup> 45	12 <sup>h</sup> 17	5 <sup>h</sup> 26	25 <sup>h</sup> 14	15 <sup>h</sup> R17	22 <sup>h</sup> 39	3 <sup>h</sup> D26	4 <sup>h</sup> 50	22 <sup>h</sup> 46	15 <sup>h</sup> 50
S 11	1 52 54	26 <sup>h</sup> 27'20	18 <sup>h</sup> 50	8 <sup>h</sup> 9	17 <sup>h</sup> 42	9 <sup>h</sup> 29	12 <sup>h</sup> 20	5 <sup>h</sup> 29	25 <sup>h</sup> 14	15 <sup>h</sup> 17	22 <sup>h</sup> 39	3 <sup>h</sup> 27	4 <sup>h</sup> 46	22 <sup>h</sup> 53	15 <sup>h</sup> 55
M12	1 56 51	27 <sup>h</sup> 27'18	2 <sup>h</sup> 59	9 <sup>h</sup> 20	18 <sup>h</sup> 57	10 <sup>h</sup> 12	12 <sup>h</sup> 22	5 <sup>h</sup> 32	25 <sup>h</sup> 13	15 <sup>h</sup> 17	22 <sup>h</sup> 38	3 <sup>h</sup> 28	4 <sup>h</sup> 43	23 <sup>h</sup> 0	16 <sup>h</sup> 0
T 13	2 0 48	28 <sup>h</sup> 27'18	17 <sup>h</sup> 8	10 <sup>h</sup> 35	20 <sup>h</sup> 12	10 <sup>h</sup> 56	12 <sup>h</sup> 25	5 <sup>h</sup> 35	25 <sup>h</sup> 12	15 <sup>h</sup> 17	22 <sup>h</sup> 38	3 <sup>h</sup> 30	4 <sup>h</sup> 40	23 <sup>h</sup> 7	16 <sup>h</sup> 5
W14	2 4 44	29 <sup>h</sup> 27'21	1 <sup>h</sup> 18	11 <sup>h</sup> 54	21 <sup>h</sup> 28	11 <sup>h</sup> 40	12 <sup>h</sup> 27	5 <sup>h</sup> 38	25 <sup>h</sup> 11	15 <sup>h</sup> 17	22 <sup>h</sup> 37	3 <sup>h</sup> R30	4 <sup>h</sup> 37	23 <sup>h</sup> 13	16 <sup>h</sup> 10
T 15	2 8 41	0 <sup>h</sup> 27'25	15 <sup>h</sup> 27	13 <sup>h</sup> 17	22 <sup>h</sup> 43	12 <sup>h</sup> 23	12 <sup>h</sup> 30	5 <sup>h</sup> 40	25 <sup>h</sup> 11	15 <sup>h</sup> 17	22 <sup>h</sup> 36	3 <sup>h</sup> 29	4 <sup>h</sup> 34	23 <sup>h</sup> 20	16 <sup>h</sup> 15
F 16	2 12 37	1 <sup>h</sup> 27'32	29 <sup>h</sup> 31	14 <sup>h</sup> 42	23 <sup>h</sup> 58	13 <sup>h</sup> 7	12 <sup>h</sup> 34	5 <sup>h</sup> 43	25 <sup>h</sup> 10	15 <sup>h</sup> 17	22 <sup>h</sup> 36	3 <sup>h</sup> 27	4 <sup>h</sup> 31	23 <sup>h</sup> 27	16 <sup>h</sup> 20
S 17	2 16 34	2 <sup>h</sup> 27'41	13 <sup>h</sup> 30	16 <sup>h</sup> 10	25 <sup>h</sup> 14	13 <sup>h</sup> 51	12 <sup>h</sup> 37	5 <sup>h</sup> 46	25 <sup>h</sup> 10	15 <sup>h</sup> 16	22 <sup>h</sup> 35	3 <sup>h</sup> 23	4 <sup>h</sup> 27	23 <sup>h</sup> 33	16 <sup>h</sup> 26
S 18	2 20 30	3 <sup>h</sup> 27'52	27 <sup>h</sup> 21	17 <sup>h</sup> 40	26 <sup>h</sup> 29	14 <sup>h</sup> 35	12 <sup>h</sup> 41								

SWISS EPHEMERIS for the year 1416

NOVEMBER 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♁	♂	♀	♁
S 1	3 15 42	17°13'32"5	21°18'58"	9°11'53"	14°14'4	24°23'58"	13°38'50"	6°12'10"	25°38'8"	15°15'9"	22°12'22"	3°15'6"	3°17'40"	25°23'14"	17°27'50"
M 2	3 19 39	18°34'00"	4°19'49"	11°29'	15°20'	25°43'	13°57'	6°11'	25°9'	15°8'	22°12'21"	3°15'4"	3°17'20"	25°20'	17°56'
T 3	3 23 35	19°34'35"	18°2'	13°5'	16°35'	26°28'	14°3'	6°12'	25°9'	15°7'	22°20'	3°2'	3°33'	25°27'	18°2'
W 4	3 27 32	20°35'12"	18°37'	14°41'	17°51'	27°13'	14°10'	6°12'	25°9'	15°7'	22°20'	3°1'	3°30'	25°34'	18°8'
T 5	3 31 28	21°35'51"	15°33'	16°16'	19°6'	27°58'	14°16'	6°13'	25°10'	15°6'	22°19'	3°0'	3°27'	25°40'	18°14'
F 6	3 35 25	22°36'31"	29°47'	17°52'	20°22'	28°43'	14°23'	6°13'	25°10'	15°5'	22°18'	2°D59	3°24'	25°47'	18°20'
S 7	3 39 21	23°37'12"	14°11'13"	19°27'	21°37'	29°28'	14°30'	6°13'	25°11'	15°4'	22°16'	2°59'	3°21'	25°54'	18°27'
S 8	3 43 18	24°37'55"	28°46'	21°2'	22°53'	0°30'13"	14°38'	6°R14	25°12'	15°3'	22°15'	3°0'	3°17'	26°1'	18°33'
M 9	3 47 15	25°38'39"	13°28'21"	22°37'	24°8'	0°58'	14°45'	6°14'	25°12'	15°2'	22°14'	3°1'	3°14'	26°7'	18°39'
T 10	3 51 11	26°39'25"	27°51'	24°12'	25°24'	1°44'	14°53'	6°13'	25°13'	15°1'	22°13'	3°1'	3°11'	26°14'	18°45'
W 11	3 55 8	27°40'12"	12°28'13"	25°46'	26°39'	2°29'	15°0'	6°13'	25°14'	15°0'	22°12'	3°2'	3°8'	26°21'	18°51'
T 12	3 59 4	28°41'01"	26°23'	27°21'	27°55'	3°14'	15°8'	6°13'	25°15'	14°59'	22°11'	3°R 2	3°5'	26°27'	18°58'
F 13	4 3 1	29°41'52"	10°19'20"	28°55'	29°10'	3°59'	15°16'	6°12'	25°15'	14°58'	22°10'	3°2'	3°2'	26°34'	19°4'
S 14	4 6 57	0°42'44"	24°2'	0°30'	0°26'	4°45'	15°24'	6°12'	25°16'	14°57'	22°9'	3°2'	2°58'	26°41'	19°10'
S 15	4 10 54	1°43'37"	7°31'	2°4'	1°41'	5°30'	15°33'	6°11'	25°17'	14°56'	22°8'	3°1'	2°55'	26°47'	19°16'
M 16	4 14 50	2°44'32"	20°44'	3°38'	2°57'	6°15'	15°41'	6°10'	25°18'	14°55'	22°7'	3°D 1	2°52'	26°54'	19°23'
T 17	4 18 47	3°45'28"	3°14'45"	5°12'	4°12'	7°1'	15°50'	6°9'	25°19'	14°53'	22°6'	3°1'	2°49'	27°1'	19°29'
W 18	4 22 44	4°46'25"	16°32'	6°47'	5°28'	7°46'	15°59'	6°8'	25°21'	14°52'	22°5'	3°1'	2°46'	27°7'	19°36'
T 19	4 26 40	5°47'23"	29°6'	8°21'	6°43'	8°31'	16°7'	6°7'	25°22'	14°51'	22°3'	3°R 1	2°43'	27°14'	19°42'
F 20	4 30 37	6°48'23"	11°12'29"	9°55'	7°59'	9°17'	16°16'	6°6'	25°23'	14°50'	22°2'	3°1'	2°39'	27°21'	19°48'
S 21	4 34 33	7°49'23"	23°41'	11°29'	9°14'	10°2'	16°26'	6°5'	25°24'	14°49'	22°1'	3°1'	2°36'	27°28'	19°55'
S 22	4 38 30	8°50'24"	5°33'43"	13°3'	10°30'	10°48'	16°35'	6°3'	25°26'	14°47'	22°0'	3°1'	2°33'	27°34'	20°1'
M 23	4 42 26	9°51'26"	17°39'	14°38'	11°45'	11°33'	16°44'	6°2'	25°27'	14°46'	21°59'	3°0'	2°30'	27°41'	20°8'
T 24	4 46 23	10°52'29"	29°30'	16°12'	13°1'	12°19'	16°54'	6°0'	25°28'	14°45'	21°58'	2°59'	2°27'	27°48'	20°14'
W 25	4 50 19	11°53'32"	11°20'	17°47'	14°16'	13°4'	17°4'	5°58'	25°30'	14°43'	21°56'	2°57'	2°23'	27°54'	20°21'
T 26	4 54 16	12°54'36"	23°13'	19°21'	15°32'	13°50'	17°13'	5°56'	25°31'	14°42'	21°55'	2°56'	2°20'	28°1'	20°27'
F 27	4 58 13	13°55'40"	5°11'12"	20°56'	16°47'	14°36'	17°23'	5°54'	25°33'	14°41'	21°54'	2°56'	2°17'	28°8'	20°33'
S 28	5 2 9	14°56'45"	17°22'	22°30'	18°3'	15°21'	17°33'	5°52'	25°34'	14°39'	21°53'	2°D56	2°14'	28°14'	20°40'
S 29	5 6 6	15°57'50"	29°48'	24°5'	19°18'	16°7'	17°43'	5°50'	25°36'	14°38'	21°52'	2°56'	2°11'	28°21'	20°46'
M 30	5 10 2	16°58'55"	12°19'34"	25°40'	20°34'	16°52'	17°54"	5°48'	25°38'	14°36'	21°51'	2°57'	2°8'	28°28'	20°53'

Delta T = 292.89 sec. Julian Calendar 1 Nov. 1416 == Greg. Calendar 10 Nov. 1416

DECEMBER 1416 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♁	♂	♀	♁
T 1	5 13 59	18°12'01"	25°45'	27°15'	21°49'	17°38'	18°4'	5°R45	25°40'	14°R35	21°R49	2°15'58"	2°17'4	28°335"	20°15'59"
W 2	5 17 55	19°1'07"	9°18'21"	28°50'	23°5'	18°24'	18°15'	5°L43	25°41'	14°333"	21°48'	2°59'	2°1	28°41"	21°6'
T 3	5 21 52	20°2'14"	23°23'	0°325"	24°20'	19°9'	18°25'	5°40'	25°43'	14°32'	21°47'	3°0'	1°58'	28°48"	21°12'
F 4	5 25 48	21°3'21"	7°11'50"	2°0'	25°35'	19°55'	18°36'	5°37'	25°45'	14°30'	21°46'	3°R 0	1°55'	28°55"	21°19'
S 5	5 29 45	22°4'28"	22°37'	3°35'	26°51'	20°40'	18°47'	5°35'	25°47'	14°29'	21°45'	3°0'	1°52'	29°1'	21°25'
S 6	5 33 42	23°5'36"	7°13'36"	5°10'	28°6'	21°26'	18°58'	5°32'	25°49'	14°27'	21°43'	2°58'	1°49'	29°8'	21°32'
M 7	5 37 38	24°6'44"	22°39'	6°44'	29°22'	22°12'	19°9'	5°29'	25°51'	14°26'	21°42'	2°55'	1°45'	29°15'	21°38'
T 8	5 41 35	25°7'53"	7°13'36"	8°19'	0°337"	22°57'	19°20'	5°26'	25°53'	14°24'	21°41'	2°52'	1°42'	29°22'	21°45'
W 9	5 45 31	26°9'02"	22°20'	9°53'	1°53'	23°43'	19°31'	5°23'	25°55'	14°22'	21°40'	2°49'	1°39'	29°28'	21°51'
T 10	5 49 28	27°10'11"	6°17'45"	11°27'	3°8'	24°28'	19°43'	5°19'	25°57'	14°21'	21°39'	2°47'	1°36'	29°35'	21°58'
F 11	5 53 24	28°11'22"	20°48'	13°0'	4°24'	25°14'	19°54'	5°16'	25°59'	14°19'	21°37'	2°45'	1°33'	29°42'	22°4'
S 12	5 57 21	29°12'32"	4°28'	14°33'	5°39'	25°59'	20°6'	5°12'	26°2'	14°18'	21°36'	2°D45	1°29'	29°48'	22°11'
S 13	6 1 17	0°13'143"	17°46'	16°5'	6°54'	26°45'	20°17'	5°9'	26°4'	14°16'	21°35'	2°46'	1°26'	29°55'	22°17'
M 14	6 5 14	1°14'55"	0°14'44"	17°36'	8°10'	27°31'	20°29'	5°5'	26°6'	14°14'	21°34'	2°48'	1°23'	0°2	22°24"
T 15	6 9 11	2°16'07"	13°26'	19°5'	9°25'	28°16'	20°41'	5°2'	26°8'	14°13'	21°33'	2°50'	1°20'	0°8'	22°30"
W 16	6 13 7	3°17'19"	25°54'	20°33'	10°41'	29°2'	20°53'	4°58'	26°11'	14°11'	21°32'	2°51'	1°17'	0°15'	22°36"
T 17	6 17 4	4°18'31"	8°11'10"	22°0'	11°56'	29°47'	21°5'	4°54'	26°13'	14°9'	21°30'	2°R51	1°14'	0°22'	22°43"
F 18	6 21 0	5°19'43"	20°18'	23°23'	13°12'	0°11'33"	21°17'	4°50'	26°16'	14°8'	21°29'	2°49'	1°10'	0°29'	22°49"
S 19	6 24 57	6°20'56"	2°320"	24°45'	14°27'	1°18'	21°29'	4°46'	26°18'	14°6'	21°28'	2°46'	1°7'	0°35'	22°56"
S 20	6 28 53	7°22'08"	14°16'	26°3'	15°42'	2°4'	21°41'	4°42'	26°21'	14°4'	21°27'	2°41'	1°4'	0°42'	23°2'
M 21	6 32 50	8°23'20"	26°8'	27°17'	16°58'	2°49'	21°54'	4°38'	26°23'	14°3'	21°26'	2°35'	1°1'	0°49'	23°8"
T 22	6 36 46	9°24'32"	7°59'59"	28°26'	18°13'	3°35'	22°6'	4°34'	26°26'	14°1'	21°25'	2°27'	0°58'	0°55'	23°15"
W 23	6 40 43	10°25'43"	19°50'	29°31'	19°29'	4°20'	22°19'	4°30'	26°28'	13°59'	21°23'	2°20'	0°55'	1°2'	23°21"
T 24	6 44 40	11°26'54"	1°14'43"	0°30'30"	20°44'	5°6'	22°31'	4°25'	26°31'	13°58'	21°22'	2°13'	0°51'	1°9'	23°27"
F 25	6 48 36	12°28'04"	13°42'	1°22'	21°59'	5°51'	22°44'	4°21'	26°34'	13°56'	21°21'	2°8'	0°48'	1°15'	23°33"
S 26	6 52 33	13°29'14"	25°50'	2°6'	23°15'	6°37'	22°57'	4°17'	26°36'	13°54'	21°20'	2°4'	0°45'	1°22'	23°40"
S 27	6 56 29	14°30'23"	8°11'12"	2°42'	24°30'	7°22'	23°10'	4°12'	26°39'	13°52'	21°19'	2°2'	0°42'	1°29'	23°46"
M 28	7 0 26	15°31'32"	20°51'	3°8'	25°45'	8°8'	23°23'	4°8'	26°42'	13°51'	21°18'	2°D 2	0°39'	1°36'	23°52"
T 29	7 4 22	16°32'39"	3°52'52"	3°24'	27°1'	8°53'	23°35'	4°3'	26°45'	13°49'	21°17'	2°3'	0°35'	1°42'	23°58"
W 30	7 8 19	17°33'46"	17°19'	3°R29	28°16'	9°38'	23°48'	3°59'	26°48'	13°47'	21°16'	2°4'	0°32'	1°49'	24°4"
T 31	7 12 15	18°34'52"	1°11'14"	3°23'	29°31'	10°11'24"	24°4'2	3°L54	26°51'	13°46'	21°15'	2°R 5	0°29'	1°56'	24°110"

Delta T = 292.78 sec. Julian Calendar created from Swiss Ephemeris, Copyright Astrodienst AG [13.11.2015]