

SWISS EPHEMERIS for the year 1087

JANUARY 1087 JC

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	7 4 6	16°30'37	28°48	0°58	1°1	13°10	25°52	0°4	15°40	7°51	26°25	21°59	23°12	13°43	7°29	
S 2	7 8 3	17°41'42	10°48	2°35	2°8	13°48	25°55	0°5	15°42	7°50	26°26	21°56	23°9	13°50	7°32	
S 3	7 12 0	18°42'47	22°59	4°11	3°16	14°25	25°59	0°6	15°44	7°48	26°26	21°52	23°6	13°56	7°34	
M 4	7 15 56	19°43'51	5°25	5°45	4°24	15°3	26°3	0°7	15°46	7°46	26°27	21°47	23°3	14°3	7°37	
T 5	7 19 53	20°44'55	18°10	7°17	5°31	15°40	26°7	0°8	15°49	7°45	26°28	21°42	22°59	14°10	7°40	
W 6	7 23 49	21°45'57	1°13	8°47	6°40	16°18	26°12	0°9	15°51	7°43	26°28	21°36	22°56	14°16	7°43	
T 7	7 27 46	22°47'00	14°35	10°13	7°48	16°55	26°16	0°10	15°53	7°41	26°29	21°32	22°53	14°23	7°46	
F 8	7 31 42	23°48'01	28°14	11°35	8°56	17°32	26°21	0°12	15°56	7°40	26°30	21°29	22°50	14°30	7°49	
S 9	7 35 39	24°49'01	12°8	12°53	10°5	18°10	26°26	0°13	15°58	7°38	26°31	21°27	22°47	14°36	7°52	
S 10	7 39 35	25°50'00	26°12	14°6	11°13	18°47	26°31	0°15	16°1	7°37	26°31	21°27	22°44	14°43	7°55	
M11	7 43 32	26°50'58	10°23	15°13	12°22	19°25	26°36	0°16	16°3	7°35	26°32	21°28	22°40	14°50	7°58	
T 12	7 47 29	27°51'54	24°38	16°13	13°31	20°2	26°42	0°18	16°6	7°33	26°33	21°29	22°37	14°57	8°1	
W13	7 51 25	28°52'49	8°53	17°6	14°40	20°39	26°47	0°20	16°8	7°32	26°34	21°30	22°34	15°3	8°4	
T 14	7 55 22	29°53'43	23°6	17°50	15°49	21°16	26°53	0°22	16°11	7°30	26°35	21°31	22°31	15°10	8°7	
F 15	7 59 18	0°54'35	7°15	18°25	16°59	21°54	26°59	0°24	16°13	7°29	26°36	21°31	22°28	15°17	8°10	
S 16	8 3 15	1°55'26	21°17	18°51	18°8	22°31	27°5	0°27	16°16	7°27	26°37	21°30	22°24	15°23	8°13	
S 17	8 7 11	2°56'15	5°11	19°6	19°18	23°8	27°12	0°29	16°19	7°26	26°38	21°29	22°21	15°30	8°17	
M18	8 11 8	3°57'03	18°56	19°R11	20°27	23°45	27°18	0°31	16°21	7°24	26°39	21°26	22°18	15°37	8°20	
T 19	8 15 4	4°57'49	2°30	19°4	21°37	24°22	27°25	0°34	16°24	7°23	26°40	21°24	22°15	15°43	8°23	
W20	8 19 1	5°58'33	15°51	18°47	22°47	25°0	27°31	0°37	16°27	7°21	26°41	21°21	22°12	15°50	8°26	
T 21	8 22 58	6°59'17	28°58	18°19	23°57	25°37	27°38	0°39	16°30	7°20	26°42	21°20	22°9	15°57	8°30	
F 22	8 26 54	7°59'58	11°50	17°41	25°7	26°14	27°46	0°42	16°33	7°18	26°43	21°19	22°5	16°3	8°33	
S 23	8 30 51	9°0'39	24°27	16°55	26°17	26°51	27°53	0°45	16°35	7°17	26°44	21°19	22°2	16°10	8°37	
S 24	8 34 47	10°1'18	6°50	16°0	27°27	27°28	28°0	0°48	16°38	7°16	26°45	21°19	21°59	16°17	8°40	
M25	8 38 44	11°1'55	19°0	14°59	28°38	28°5	28°8	0°51	16°41	7°14	26°46	21°20	21°56	16°24	8°43	
T 26	8 42 40	12°2'32	1°1	13°54	29°48	28°42	28°15	0°55	16°44	7°13	26°47	21°21	21°53	16°30	8°47	
W27	8 46 37	13°3'06	12°55	12°46	0°59	29°18	28°23	0°58	16°47	7°12	26°48	21°22	21°49	16°37	8°50	
T 28	8 50 33	14°3'40	24°46	11°37	2°9	29°55	28°31	1°2	16°50	7°10	26°49	21°23	21°46	16°44	8°54	
F 29	8 54 30	15°4'12	6°38	10°29	3°20	0°32	28°40	1°5	16°53	7°9	26°50	21°23	21°43	16°50	8°57	
S 30	8 58 27	16°4'43	18°37	9°24	4°31	1°9	28°48	1°9	16°56	7°8	26°51	21°23	21°40	16°57	9°1	
S 31	9 2 23	17°5'13	0°47	8°22	5°42	1°46	28°56	1°12	16°59	7°7	26°52	21°23	21°37	17°4	9°5	

Delta T = 19m06s Julian Calendar 1 Jan. 1087 == Greg. Calendar 7 Jan. 1087

FEBRUARY 1087 JC

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	9 6 20	18°5'41	13°12	7°R26	6°53	2°22	29°5	1°16	17°2	7°R5	26°54	21°R23	21°34	17°10	9°8	
T 2	9 10 16	19°6'08	25°57	6°36	8°4	2°59	29°14	1°20	17°5	7°S4	26°55	21°R22	21°30	17°17	9°12	
W 3	9 14 13	20°6'34	9°3	5°52	9°15	3°36	29°22	1°24	17°9	7°3	26°56	21°22	21°27	17°24	9°15	
T 4	9 18 9	21°6'58	22°33	5°15	10°26	4°12	29°31	1°28	17°12	7°2	26°57	21°D22	21°24	17°31	9°19	
F 5	9 22 6	22°7'20	6°27	4°46	11°37	4°49	29°40	1°33	17°15	7°1	26°58	21°22	21°21	17°37	9°23	
S 6	9 26 2	23°7'41	20°40	4°24	12°48	5°26	29°50	1°37	17°18	7°0	27°0	21°R22	21°18	17°44	9°26	
S 7	9 29 59	24°7'59	5°11	4°10	13°59	6°2	29°59	1°41	17°21	6°59	27°1	21°22	21°15	17°51	9°30	
M 8	9 33 56	25°8'16	19°51	4°2	15°11	6°38	0°9	1°46	17°25	6°58	27°2	21°22	21°11	17°57	9°34	
T 9	9 37 52	26°8'31	4°Y34	4°D2	16°22	7°15	0°18	1°50	17°28	6°57	27°3	21°21	21°8	18°4	9°37	
W10	9 41 49	27°8'44	19°15	4°7	17°34	7°51	0°28	1°55	17°31	6°56	27°5	21°21	21°5	18°11	9°41	
T 11	9 45 45	28°8'55	3°B46	4°19	18°45	8°27	0°38	2°0	17°34	6°55	27°6	21°20	21°2	18°17	9°45	
F 12	9 49 42	29°9'04	18°3	4°37	19°57	9°4	0°48	2°5	17°38	6°54	27°7	21°20	20°59	18°24	9°49	
S 13	9 53 38	0°X9'10	2°II5	5°0	21°8	9°40	0°58	2°10	17°41	6°53	27°9	21°D20	20°55	18°31	9°52	
S 14	9 57 35	1°9'15	15°50	5°27	22°20	10°16	1°8	2°15	17°44	6°52	27°10	21°20	20°52	18°38	9°56	
M15	10 1 31	2°9'17	29°17	6°0	23°32	10°52	1°18	2°20	17°48	6°51	27°11	21°21	20°49	18°44	10°0	
T 16	10 5 28	3°9'17	12°D29	6°37	24°43	11°28	1°29	2°25	17°51	6°50	27°13	21°22	20°46	18°51	10°4	
W17	10 9 25	4°9'15	25°26	7°18	25°55	12°4	1°39	2°30	17°54	6°50	27°14	21°23	20°43	18°58	10°7	
T 18	10 13 21	5°9'10	8°9	8°3	27°7	12°40	1°50	2°35	17°58	6°49	27°15	21°24	20°40	19°4	10°11	
F 19	10 17 18	6°9'04	20°41	8°52	28°19	13°16	2°1	2°41	18°1	6°48	27°17	21°R24	20°36	19°11	10°15	
S 20	10 21 14	7°8'55	3°II1	9°43	29°31	13°51	2°11	2°46	18°4	6°48	27°18	21°24	20°33	19°18	10°19	
S 21	10 25 11	8°8'45	15°13	10°38	0°43	14°27	2°22	2°52	18°8	6°47	27°20	21°22	20°30	19°24	10°22	
M22	10 29 7	9°8'32	27°16	11°36	1°55	15°3	2°33	2°57	18°11	6°46	27°21	21°20	20°27	19°31	10°26	
T 23	10 33 4	10°8'18	9°13	12°37	3°7	15°39	2°44	3°3	18°15	6°46	27°22	21°18	20°24	19°38	10°30	
W24	10 37 0	11°8'01	21°6	13°40	4°19	16°14	2°56	3°9	18°18	6°45	27°24	21°14	20°21	19°45	10°34	
T 25	10 40 57	12°7'43	2°III57	14°45	5°31	16°50	3°7	3°14	18°21	6°45	27°25	21°11	20°17	19°51	10°38	
F 26	10 44 54	13°7'23	14°50	15°53	6°43	17°25	3°18	3°20	18°25	6°44	27°27	21°8	20°14	19°58	10°41	
S 27	10 48 50	14°7'01	26°48	17°3	7°55	18°0	3°30	3°26	18°28	6°44	27°28	21°6	20°11	20°5	10°45	
S 28	10 52 47	15°X6'37	8°X55	18°15	9°7	18°36	3°B41	3°B32	18°X32	6°S43	27°X29	21°9	20°8	20°11	10°X49	

Delta T = 19m06s Julian Calendar created from Swiss Ephemeris, Copyright Astrodiest AG [10.1.2003]

SWISS EPHEMERIS for the year 1087

MARCH 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
M 1	10 56 43	16♌ 6'12	21♌ 17	19♌ 29	10♌ 19	19♌ 11	3♃ 53	3♃ 38	18♌ 35	6♁ 43	27♌ 31	21♏ 5	20♏ 5	20♌ 18	10♌ 53								
T 2	11 0 40	17° 5'45	3♃ 56	20°45	11°32	19°46	4° 5	3°44	18°39	6♁ 42	27°32	21° 5	20° 1	20°25	10°56								
W 3	11 4 36	18° 5'16	16°58	22° 3	12°44	20°21	4°17	3°51	18°42	6°42	27°34	21° 7	19°58	20°31	11° 0								
T 4	11 8 33	19° 4'45	0♌ 26	23°23	13°56	20°56	4°28	3°57	18°45	6°42	27°35	21° 9	19°55	20°38	11° 4								
F 5	11 12 29	20° 4'12	14°20	24°44	15° 9	21°31	4°40	4° 3	18°49	6°42	27°37	21°R10	19°52	20°45	11° 8								
S 6	11 16 26	21° 3'38	28°41	26° 7	16°21	22° 6	4°52	4° 9	18°52	6°41	27°38	21°10	19°49	20°52	11°11								
S 7	11 20 23	22° 3'01	13♌ 24	27°32	17°33	22°41	5° 5	4°16	18°56	6°41	27°40	21° 8	19°46	20°58	11°15								
M 8	11 24 19	23° 2'23	28°24	28°58	18°46	23°15	5°17	4°22	18°59	6°41	27°41	21° 5	19°42	21° 5	11°19								
T 9	11 28 16	24° 1'42	13♌ 32	0♌ 25	19°58	23°50	5°29	4°29	19° 3	6°41	27°43	21° 1	19°39	21°12	11°23								
W10	11 32 12	25° 0'59	28°37	1°55	21°11	24°24	5°41	4°35	19° 6	6°41	27°44	20°56	19°36	21°18	11°26								
T11	11 36 9	26° 0'14	13♌ 31	3°25	22°23	24°59	5°54	4°42	19° 9	6°41	27°45	20°51	19°33	21°25	11°30								
F12	11 40 5	26°59'26	28° 6	4°57	23°35	25°33	6° 6	4°49	19°13	6°D41	27°47	20°47	19°30	21°32	11°34								
S13	11 44 2	27°58'36	12♌ 18	6°31	24°48	26° 7	6°19	4°55	19°16	6°41	27°48	20°44	19°26	21°39	11°37								
S14	11 47 58	28°57'44	26° 5	8° 6	26° 0	26°41	6°32	5° 2	19°20	6°41	27°50	20°D43	19°23	21°45	11°41								
M15	11 51 55	29°56'50	9♁ 28	9°43	27°13	27°15	6°44	5° 9	19°23	6°41	27°51	20°43	19°20	21°52	11°45								
T16	11 55 51	0♌ 55'53	22°29	11°21	28°25	27°49	6°57	5°16	19°26	6°41	27°53	20°45	19°17	21°59	11°48								
W17	11 59 48	1°54'53	5♏ 12	13° 0	29°38	28°23	7°10	5°23	19°30	6°41	27°54	20°46	19°14	22° 5	11°52								
T18	12 3 45	2°53'52	17°39	14°41	0♌ 51	28°56	7°23	5°30	19°33	6°41	27°56	20°R47	19°11	22°12	11°56								
F19	12 7 41	3°52'48	29°55	16°24	2° 3	29°30	7°36	5°37	19°37	6°42	27°57	20°47	19° 7	22°19	11°59								
S20	12 11 38	4°51'42	12♌ 2	18° 7	3°16	0♃ 3	7°48	5°44	19°40	6°42	27°59	20°44	19° 4	22°25	12° 3								
S21	12 15 34	5°50'33	24° 2	19°53	4°28	0°36	8° 2	5°51	19°43	6°42	28° 0	20°40	19° 1	22°32	12° 6								
M22	12 19 31	6°49'23	5♁ 58	21°40	5°41	1°10	8°15	5°58	19°47	6°42	28° 2	20°33	18°58	22°39	12°10								
T23	12 23 27	7°48'10	17°52	23°28	6°54	1°43	8°28	6° 5	19°50	6°43	28° 3	20°25	18°55	22°46	12°13								
W24	12 27 24	8°46'56	29°43	25°18	8° 6	2°16	8°41	6°12	19°53	6°43	28° 4	20°16	18°52	22°52	12°17								
T25	12 31 20	9°45'39	11♌ 36	27° 9	9°19	2°49	8°54	6°20	19°56	6°43	28° 6	20° 6	18°48	22°59	12°20								
F26	12 35 17	10°44'21	23°31	29° 2	10°32	3°21	9° 7	6°27	20° 0	6°44	28° 7	19°58	18°45	23° 6	12°24								
S27	12 39 14	11°43'01	5♌ 31	0♌ 57	11°44	3°54	9°21	6°34	20° 3	6°44	28° 9	19°50	18°42	23°12	12°27								
S28	12 43 10	12°41'39	17°39	2°53	12°57	4°26	9°34	6°41	20° 6	6°45	28°10	19°45	18°39	23°19	12°30								
M29	12 47 7	13°40'16	29°59	4°50	14°10	4°58	9°47	6°49	20° 9	6°45	28°12	19°42	18°36	23°26	12°34								
T30	12 51 3	14°38'51	12♃ 35	6°49	15°22	5°31	10° 1	6°56	20°13	6°46	28°13	19°D41	18°32	23°33	12°37								
W31	12 55 0	15°37'24	25♃ 30	8♌ 50	16♌ 35	6♃ 3	10♃ 14	7♃ 4	20♌ 16	6♁ 47	28♌ 14	19♏ 41	18♏ 29	23♌ 39	12♌ 40								

Delta T = 19m06s Julian Calendar 1 March 1087 == Greg. Calendar 7 March 1087

APRIL 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
T 1	12 58 56	16♌ 35'55	8♌ 50	10♌ 52	17♌ 48	6♃ 34	10♃ 28	7♃ 11	20♌ 19	6♁ 47	28♌ 16	19♏ 42	18♏ 26	23♌ 46	12♌ 44								
F 2	13 2 53	17°34'25	22°37	12°55	19° 1	7° 6	10°41	7°19	20°22	6°48	28°17	19°R42	18°23	23°53	12°47								
S 3	13 6 49	18°32'53	6♌ 52	15° 0	20°13	7°38	10°55	7°26	20°25	6°49	28°19	19°41	18°20	23°59	12°50								
S 4	13 10 46	19°31'19	21°34	17° 5	21°26	8° 9	11° 9	7°34	20°28	6°49	28°20	19°38	18°17	24° 6	12°53								
M 5	13 14 42	20°29'44	6♌ 36	19°12	22°39	8°40	11°22	7°41	20°32	6°50	28°21	19°32	18°13	24°13	12°57								
T 6	13 18 39	21°28'07	21°52	21°19	23°52	9°11	11°36	7°49	20°35	6°51	28°23	19°24	18°10	24°20	13° 0								
W 7	13 22 36	22°26'28	7♃ 11	23°28	25° 5	9°42	11°50	7°56	20°38	6°52	28°24	19°14	18° 7	24°26	13° 3								
T 8	13 26 32	23°24'47	22°20	25°36	26°18	10°12	12° 3	8° 4	20°41	6°53	28°25	19° 5	18° 4	24°33	13° 6								
F 9	13 30 29	24°23'04	7♌ 11	27°45	27°30	10°43	12°17	8°12	20°44	6°54	28°27	18°57	18° 1	24°40	13° 9								
S10	13 34 25	25°21'19	21°36	29°54	28°43	11°13	12°31	8°19	20°47	6°54	28°28	18°51	17°57	24°46	13°12								
S11	13 38 22	26°19'32	5♁ 32	2♃ 3	29°56	11°43	12°45	8°27	20°50	6°55	28°29	18°47	17°54	24°53	13°15								
M12	13 42 18	27°17'43	18°59	4°11	1♌ 9	12°13	12°59	8°35	20°53	6°56	28°31	18°45	17°51	25° 0	13°18								
T13	13 46 15	28°15'52	2♏ 0	6°18	2°22	12°42	13°13	8°42	20°55	6°57	28°32	18°D45	17°48	25° 7	13°21								
W14	13 50 11	29°13'59	14°39	8°24	3°35	13°12	13°27	8°50	20°58	6°58	28°33	18°R45	17°45	25°13	13°24								
T15	13 54 8	0♌ 12'04	27° 0	10°29	4°48	13°41	13°40	8°58	21° 1	7° 0	28°35	18°45	17°42	25°20	13°27								
F16	13 58 5	1°10'07	9♌ 8	12°32	6° 0	14°10	13°54	9° 5	21° 4	7° 1	28°36	18°43	17°38	25°27	13°29								
S17	14 2 1	2° 8'08	21° 7	14°32	7°13	14°39	14° 8	9°13	21° 7	7° 2	28°37	18°39	17°35	25°33	13°32								
S18	14 5 58	3° 6'07	3♌ 1	16°31	8°26	15° 7	14°22	9°21	21°10	7° 3	28°38	18°32	17°32	25°40	13°35								
M19	14 9 54	4° 4'04	14°53	18°27	9°39	15°35	14°36	9°29	21°12	7° 4	28°40	18°22	17°29	25°47	13°38								
T20	14 13 51	5° 2'00	26°44	20°20	10°52	16° 3	14°50	9°36	21°15	7° 5	28°41	18°10	17°26	25°54	13°40								
W21	14 17 47	5°59'54	8♌ 37	22°11	12° 5	16°31	15° 4	9°44	21°18	7° 7	28°42	17°57	17°23	26° 0	13°43								
T22	14 21 44	6°57'46	20°33	23°58	13°18	16°59	15°18	9°52	21°20	7° 8	28°43	17°43	17°19	26° 7	13°45								
F23	14 25 40	7°55'37	2♌ 34	25°43	14°31	17°26	15°32	10° 0	21°23	7° 9	28°44	17°31	17°16	26°14	13°48								
S24	14 29 37	8°53'27	14°40	27°24	15°44	17°53	15°47	10° 7	21°25	7°11	28°46	17°19	17°13	26°20	13°50								
S25	14 33 34	9°51'15	26°54	29° 2	16°57	18°19	16° 1	10°15	21°28	7°12	28°47	17°11	17°10	26°27	13°53								
M26	14 37 30	10°49'02	9♌ 19	0♌ 36	18°10	18°46	16°15	10°23	21°31	7°13	28°48	17° 5	17° 7	26°34	13°55								
T27	14 41 27	11°46'48	21°57	2° 7	19°22	19°12	16°29	10°31	21°33	7°15	28°49	17° 2	17° 3	26°41	13°58								
W28	14 45 23	12°44'32	4♌ 51	3°34	20°35	19°38	16°43	10°39	21°35	7°16	28°50	17° 1	17° 0	26°47	14° 0								
T29	14 49 20	13°42'16	18° 6	4°58	21°48	20° 3	16°57	10°46	21°38	7°18	28°51	17° 1	16°57	26°54	14° 2								
F30	14 53 16	14♃ 39'58	1♌ 45	6♌ 18	23♌ 1	20♃ 28	17♃ 11	10♃ 54	21♌ 40	7♁ 19	28♌ 52	17♏ 1	16♏ 54	27♌ 1	14♌ 5								

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SWISS EPHEMERIS for the year 1087

MAY 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	14 57 13	15♌37'39	15♋49	7♋35	24♊14	20♌53	17♌25	11♌ 2	21♋43	7♌21	28♋54	16°R59	16♌51	27♌ 7	14♋ 7
S 2	15 1 9	16°35'19	0♊19	8°47	25°27	21°17	17°39	11°10	21°45	7°22	28°55	16♌55	16°48	27°14	14° 9
M 3	15 5 6	17°32'58	15°11	9°56	26°40	21°42	17°53	11°17	21°47	7°24	28°56	16°48	16°44	27°21	14°11
T 4	15 9 3	18°30'36	0♌18	11° 2	27°54	22° 5	18° 7	11°25	21°49	7°25	28°57	16°39	16°41	27°28	14°13
W 5	15 12 59	19°28'13	15°33	12° 3	29° 7	22°29	18°21	11°33	21°52	7°27	28°58	16°28	16°38	27°34	14°15
T 6	15 16 56	20°25'49	0♈12	13° 0	0♌20	22°52	18°36	11°41	21°54	7°28	28°59	16°17	16°35	27°41	14°17
F 7	15 20 52	21°23'23	15°37	13°53	1°33	23°14	18°50	11°48	21°56	7°30	29° 0	16° 7	16°32	27°48	14°19
S 8	15 24 49	22°20'57	0♌ 8	14°43	2°46	23°36	19° 4	11°56	21°58	7°32	29° 1	15°59	16°29	27°54	14°21
S 9	15 28 45	23°18'29	14°11	15°27	3°59	23°58	19°18	12° 4	22° 0	7°33	29° 2	15°54	16°25	28° 1	14°23
M10	15 32 42	24°15'59	27°44	16° 8	5°12	24°20	19°32	12°11	22° 2	7°35	29° 2	15°51	16°22	28° 8	14°25
T 11	15 36 38	25°13'28	10♌50	16°45	6°25	24°41	19°46	12°19	22° 4	7°37	29° 3	15°50	16°19	28°15	14°26
W12	15 40 35	26°10'56	23°31	17°17	7°38	25° 1	20° 0	12°27	22° 6	7°39	29° 4	15°50	16°16	28°21	14°28
T 13	15 44 32	27° 8'22	5♈53	17°44	8°51	25°21	20°14	12°34	22° 8	7°40	29° 5	15°50	16°13	28°28	14°30
F 14	15 48 28	28° 5'47	17°59	18° 7	10° 4	25°41	20°28	12°42	22°10	7°42	29° 6	15°49	16° 9	28°35	14°31
S 15	15 52 25	29° 3'11	29°57	18°25	11°17	26° 0	20°42	12°50	22°12	7°44	29° 7	15°45	16° 6	28°41	14°33
S 16	15 56 21	0♈ 0'34	11♌49	18°39	12°30	26°19	20°56	12°57	22°13	7°46	29° 8	15°39	16° 3	28°48	14°34
M17	16 0 18	0°57'55	23°39	18°48	13°44	26°37	21°10	13° 5	22°15	7°48	29° 8	15°30	16° 0	28°55	14°36
T 18	16 4 14	1°55'16	5♈32	18°R53	14°57	26°54	21°24	13°12	22°17	7°50	29° 9	15°19	15°57	29° 2	14°37
W19	16 8 11	2°52'35	17°28	18°53	16°10	27°12	21°38	13°20	22°18	7°51	29°10	15° 7	15°54	29° 8	14°39
T 20	16 12 7	3°49'54	29°31	18°48	17°23	27°28	21°52	13°27	22°20	7°53	29°11	14°54	15°50	29°15	14°40
F 21	16 16 4	4°47'12	11♌40	18°39	18°36	27°45	22° 6	13°35	22°21	7°55	29°12	14°42	15°47	29°22	14°41
S 22	16 20 1	5°44'29	23°58	18°26	19°49	28° 0	22°20	13°42	22°23	7°57	29°12	14°32	15°44	29°28	14°42
S 23	16 23 57	6°41'46	6♌24	18° 9	21° 2	28°15	22°33	13°50	22°24	7°59	29°13	14°24	15°41	29°35	14°43
M24	16 27 54	7°39'02	19° 1	17°49	22°16	28°30	22°47	13°57	22°26	8° 1	29°14	14°19	15°38	29°42	14°44
T 25	16 31 50	8°36'17	1♌49	17°25	23°29	28°44	23° 1	14° 4	22°27	8° 3	29°14	14°16	15°35	29°49	14°46
W26	16 35 47	9°33'32	14°52	16°58	24°42	28°57	23°15	14°12	22°29	8° 5	29°15	14°D15	15°31	29°55	14°46
T 27	16 39 43	10°30'47	28°10	16°28	25°55	29°10	23°29	14°19	22°30	8° 7	29°15	14°16	15°28	0♈ 2	14°47
F 28	16 43 40	11°28'02	11♋47	15°57	27° 9	29°22	23°42	14°26	22°31	8° 9	29°16	14°R16	15°25	0° 9	14°48
S 29	16 47 36	12°25'16	25°44	15°24	28°22	29°33	23°56	14°33	22°32	8°11	29°17	14°15	15°22	0°15	14°49
S 30	16 51 33	13°22'30	10♊ 1	14°50	29°35	29°44	24°10	14°41	22°33	8°13	29°17	14°13	15°19	0°22	14°50
M31	16 55 30	14♈19'43	24♊36	14♈15	0♈48	29♌54	24♌23	14♌48	22♋34	8♌15	29♋18	14♌ 8	15♌15	0♈29	14♋51

Delta T = 19m05s Julian Calendar 1 May 1087 == Greg. Calendar 7 May 1087

JUNE 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	16 59 26	15♈16'57	9♌24	13°R41	2♈ 2	0♌ 4	24♌37	14♌55	22♋36	8♌17	29♋18	14°R 1	15♌12	0♈36	14♋51
W 2	17 3 23	16°14'10	24°20	13♈ 8	3°15	0°13	24°50	15° 2	22°37	8°19	29°19	13♌53	15° 9	0°42	14°52
T 3	17 7 19	17°11'23	9♈13	12°36	4°28	0°21	25° 4	15° 9	22°38	8°22	29°19	13°44	15° 6	0°49	14°52
F 4	17 11 16	18° 8'36	23°56	12° 6	5°42	0°28	25°17	15°16	22°38	8°24	29°20	13°36	15° 3	0°56	14°53
S 5	17 15 12	19° 5'49	8♌21	11°38	6°55	0°35	25°31	15°23	22°39	8°26	29°20	13°30	15° 0	1° 2	14°53
S 6	17 19 9	20° 3'01	22°21	11°14	8° 8	0°41	25°44	15°30	22°40	8°28	29°20	13°26	14°56	1° 9	14°54
M 7	17 23 5	21° 0'13	5♈56	10°52	9°22	0°46	25°58	15°37	22°41	8°30	29°21	13°24	14°53	1°16	14°54
T 8	17 27 2	21°57'24	19° 4	10°34	10°35	0°51	26°11	15°43	22°42	8°32	29°21	13°D24	14°50	1°23	14°54
W 9	17 30 59	22°54'35	1♈48	10°21	11°49	0°54	26°24	15°50	22°42	8°34	29°22	13°25	14°47	1°29	14°54
T 10	17 34 55	23°51'45	14°13	10°11	13° 2	0°57	26°37	15°57	22°43	8°37	29°22	13°26	14°44	1°36	14°55
F 11	17 38 52	24°48'55	26°22	10° 6	14°16	1° 0	26°51	16° 4	22°43	8°39	29°22	13°R26	14°41	1°43	14°55
S 12	17 42 48	25°46'04	8♌20	10°D 6	15°29	1° 1	27° 4	16°10	22°44	8°41	29°22	13°25	14°37	1°50	14°R55
S 13	17 46 45	26°43'13	20°14	10°11	16°42	1° 2	27°17	16°17	22°44	8°43	29°23	13°23	14°34	1°56	14°55
M14	17 50 41	27°40'22	2♈ 6	10°20	17°56	1°R 2	27°30	16°23	22°45	8°45	29°23	13°18	14°31	2° 3	14°55
T 15	17 54 38	28°37'31	14° 1	10°35	19° 9	1° 1	27°43	16°30	22°45	8°47	29°23	13°12	14°28	2°10	14°55
W16	17 58 34	29°34'40	26° 2	10°55	20°23	1° 0	27°56	16°36	22°46	8°50	29°23	13° 4	14°25	2°16	14°54
T 17	18 2 31	0♌31'49	8♌12	11°19	21°36	0°58	28° 9	16°43	22°46	8°52	29°23	12°57	14°21	2°23	14°54
F 18	18 6 28	1°28'57	20°32	11°49	22°50	0°55	28°22	16°49	22°46	8°54	29°24	12°49	14°18	2°30	14°54
S 19	18 10 24	2°26'06	3♌ 3	12°24	24° 4	0°51	28°34	16°55	22°46	8°56	29°24	12°43	14°15	2°37	14°54
S 20	18 14 21	3°23'15	15°46	13° 3	25°17	0°47	28°47	17° 1	22°46	8°59	29°24	12°39	14°12	2°43	14°53
M21	18 18 17	4°20'24	28°41	13°48	26°31	0°41	29° 0	17° 8	22°47	9° 1	29°24	12°36	14° 9	2°50	14°53
T 22	18 22 14	5°17'34	11♌49	14°37	27°44	0°35	29°12	17°14	22°R47	9° 3	29°24	12°D35	14° 6	2°57	14°52
W23	18 26 10	6°14'44	25° 8	15°32	28°58	0°29	29°25	17°20	22°47	9° 5	29°24	12°36	14° 2	3° 3	14°52
T 24	18 30 7	7°11'54	8♋40	16°31	0♌12	0°21	29°37	17°26	22°47	9° 7	29°R24	12°37	13°59	3°10	14°51
F 25	18 34 3	8° 9'05	22°26	17°35	1°25	0°13	29°50	17°32	22°46	9°10	29°24	12°38	13°56	3°17	14°50
S 26	18 38 0	9° 6'17	6♊24	18°43	2°39	0° 5	0♈ 2	17°37	22°46	9°12	29°24	12°R39	13°53	3°24	14°50
S 27	18 41 57	10° 3'29	20°34	19°56	3°53	29♌55	0°15	17°43	22°46	9°14	29°24	12°39	13°50	3°30	14°49
M28	18 45 53	11° 0'42	4♌54	21°14	5° 6	29°45	0°27	17°49	22°46	9°16	29°24	12°37	13°46	3°37	14°48
T 29	18 49 50	11°57'56	19°22	22°36	6°20	29°34	0°39	17°55	22°46	9°19	29°24	12°34	13°43	3°44	14°47
W30	18 53 46	12°55'11	3♈53	24♈ 2	7♌34	29♌23	0♈15	18♌ 0	22♋45	9♌21	29♋24	12♌30	13♌40	3♈51	14♋46

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SWISS EPHEMERIS for the year 1087

JULY 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍
T 1	18 57 43	13 ⁵² 27'27	18 ^{II} 21	25 ^{II} 32	8 ⁵ 48	29 ^R 11	1 ^{II} 3	18 ⁸ 6	22 ^R 45	9 ⁵ 23	29 ^R 23	12 ^R 26	13 ^Ω 37	3 ^{III} 57	14 ^R 45		
F 2	19 1 39	14 ⁵⁰ 49'43	22 ⁵ 40	27 [°] 7	10 [°] 1	28 ³ 58	1 [°] 15	18 [°] 11	22 ³ 44	9 [°] 25	29 ³ 23	12 ^Ω 22	13 [°] 34	4 [°] 4	14 ³ 44		
S 3	19 5 36	15 ⁴⁷ 00	16 [°] 45	28 [°] 45	11 [°] 15	28 [°] 45	1 [°] 27	18 [°] 16	22 [°] 44	9 [°] 28	29 [°] 23	12 [°] 19	13 [°] 31	4 [°] 11	14 [°] 43		
S 4	19 9 33	16 ⁴⁴ 17	0 ^Ω 32	0 ⁵ 27	12 [°] 29	28 [°] 32	1 [°] 39	18 [°] 22	22 [°] 43	9 [°] 30	29 [°] 23	12 [°] 18	13 [°] 27	4 [°] 17	14 [°] 42		
M 5	19 13 29	17 ⁴¹ 35	13 [°] 58	2 [°] 13	13 [°] 43	28 [°] 18	1 [°] 50	18 [°] 27	22 [°] 43	9 [°] 32	29 [°] 23	12 [°] D17	13 [°] 24	4 [°] 24	14 [°] 41		
T 6	19 17 26	18 ³⁸ 54	27 [°] 2	4 [°] 2	14 [°] 57	28 [°] 4	2 [°] 2	18 [°] 32	22 [°] 42	9 [°] 34	29 [°] 22	12 [°] 18	13 [°] 21	4 [°] 31	14 [°] 40		
W 7	19 21 22	19 ³⁶ 13	9 ^{III} 46	5 [°] 54	16 [°] 11	27 [°] 49	2 [°] 14	18 [°] 37	22 [°] 41	9 [°] 36	29 [°] 22	12 [°] 19	13 [°] 18	4 [°] 38	14 [°] 38		
T 8	19 25 19	20 ³³ 32	22 [°] 12	7 [°] 49	17 [°] 25	27 [°] 34	2 [°] 25	18 [°] 42	22 [°] 41	9 [°] 39	29 [°] 22	12 [°] 21	13 [°] 15	4 [°] 44	14 [°] 37		
F 9	19 29 15	21 ³⁰ 52	4 ^Ω 22	9 [°] 46	18 [°] 39	27 [°] 19	2 [°] 36	18 [°] 47	22 [°] 40	9 [°] 41	29 [°] 22	12 [°] 22	13 [°] 12	4 [°] 51	14 [°] 36		
S 10	19 33 12	22 ²⁸ 13	16 [°] 23	11 [°] 45	19 [°] 52	27 [°] 3	2 [°] 48	18 [°] 52	22 [°] 39	9 [°] 43	29 [°] 21	12 [°] 23	13 [°] 8	4 [°] 58	14 [°] 34		
S 11	19 37 8	23 ²⁵ 34	28 [°] 17	13 [°] 47	21 [°] 6	26 [°] 47	2 [°] 59	18 [°] 57	22 [°] 38	9 [°] 45	29 [°] 21	12 [°] R23	13 [°] 5	5 [°] 4	14 [°] 33		
M12	19 41 5	24 ²² 56	10 ^{III} 11	15 [°] 49	22 [°] 20	26 [°] 31	3 [°] 10	19 [°] 1	22 [°] 37	9 [°] 47	29 [°] 20	12 [°] 22	13 [°] 2	5 [°] 11	14 [°] 31		
T 13	19 45 2	25 ²⁰ 19	22 [°] 7	17 [°] 53	23 [°] 34	26 [°] 15	3 [°] 21	19 [°] 6	22 [°] 36	9 [°] 49	29 [°] 20	12 [°] 21	12 [°] 59	5 [°] 18	14 [°] 30		
W14	19 48 58	26 ¹⁷ 42	4 ³ 12	19 [°] 57	24 [°] 48	25 [°] 59	3 [°] 32	19 [°] 11	22 [°] 35	9 [°] 52	29 [°] 20	12 [°] 19	12 [°] 56	5 [°] 25	14 [°] 28		
T 15	19 52 55	27 ¹⁵ 06	16 [°] 27	22 [°] 2	26 [°] 2	25 [°] 43	3 [°] 43	19 [°] 15	22 [°] 34	9 [°] 54	29 [°] 19	12 [°] 16	12 [°] 52	5 [°] 31	14 [°] 27		
F 16	19 56 51	28 ¹² 31	28 [°] 55	24 [°] 7	27 [°] 16	25 [°] 27	3 [°] 54	19 [°] 19	22 [°] 33	9 [°] 56	29 [°] 19	12 [°] 14	12 [°] 49	5 [°] 38	14 [°] 25		
S 17	20 0 48	29 [°] 5'7	11 ³ 40	26 [°] 12	28 [°] 30	25 [°] 11	4 [°] 4	19 [°] 24	22 [°] 32	9 [°] 58	29 [°] 18	12 [°] 13	12 [°] 46	5 [°] 45	14 [°] 23		
S 18	20 4 44	0 ^Ω 7'24	24 [°] 40	28 [°] 17	29 [°] 45	24 [°] 56	4 [°] 15	19 [°] 28	22 [°] 31	10 [°] 0	29 [°] 18	12 [°] 12	12 [°] 43	5 [°] 52	14 [°] 21		
M19	20 8 41	1 [°] 4'51	7 ³ 56	0 ^Ω 21	0 ^Ω 59	24 [°] 40	4 [°] 25	19 [°] 32	22 [°] 30	10 [°] 2	29 [°] 17	12 [°] D11	12 [°] 40	5 [°] 58	14 [°] 19		
T 20	20 12 37	2 [°] 2'20	21 [°] 28	2 [°] 24	2 [°] 13	24 [°] 25	4 [°] 36	19 [°] 36	22 [°] 29	10 [°] 4	29 [°] 17	12 [°] 11	12 [°] 37	6 [°] 5	14 [°] 18		
W21	20 16 34	2 [°] 59'50	5 ³ 12	4 [°] 27	3 [°] 27	24 [°] 9	4 [°] 46	19 [°] 40	22 [°] 27	10 [°] 7	29 [°] 16	12 [°] 12	12 [°] 33	6 [°] 12	14 [°] 16		
T 22	20 20 31	3 [°] 57'22	19 [°] 8	6 [°] 28	4 [°] 41	23 [°] 55	4 [°] 56	19 [°] 44	22 [°] 26	10 [°] 9	29 [°] 16	12 [°] 12	12 [°] 30	6 [°] 18	14 [°] 14		
F 23	20 24 27	4 [°] 54'55	3 ³ 12	8 [°] 28	5 [°] 55	23 [°] 40	5 [°] 6	19 [°] 48	22 [°] 25	10 [°] 11	29 [°] 15	12 [°] 13	12 [°] 27	6 [°] 25	14 [°] 12		
S 24	20 28 24	5 [°] 52'29	17 [°] 22	10 [°] 27	7 [°] 9	23 [°] 26	5 [°] 16	19 [°] 51	22 [°] 23	10 [°] 13	29 [°] 14	12 [°] 14	12 [°] 24	6 [°] 32	14 [°] 10		
S 25	20 32 20	6 [°] 50'05	1 ³ 36	12 [°] 25	8 [°] 23	23 [°] 12	5 [°] 26	19 [°] 55	22 [°] 22	10 [°] 15	29 [°] 14	12 [°] R14	12 [°] 21	6 [°] 39	14 [°] 8		
M26	20 36 17	7 [°] 47'42	15 [°] 50	14 [°] 21	9 [°] 38	22 [°] 59	5 [°] 36	19 [°] 58	22 [°] 20	10 [°] 17	29 [°] 13	12 [°] 14	12 [°] 18	6 [°] 45	14 [°] 6		
T 27	20 40 13	8 [°] 45'21	0 ^{II} 3	16 [°] 16	10 [°] 52	22 [°] 46	5 [°] 46	20 [°] 2	22 [°] 19	10 [°] 19	29 [°] 12	12 [°] 14	12 [°] 14	6 [°] 52	14 [°] 3		
W28	20 44 10	9 [°] 43'02	14 [°] 11	18 [°] 10	12 [°] 6	22 [°] 33	5 [°] 55	20 [°] 5	22 [°] 17	10 [°] 21	29 [°] 12	12 [°] 13	12 [°] 11	6 [°] 59	14 [°] 1		
T 29	20 48 6	10 [°] 40'44	28 [°] 12	20 [°] 2	13 [°] 20	22 [°] 22	6 [°] 4	20 [°] 8	22 [°] 16	10 [°] 23	29 [°] 11	12 [°] 13	12 [°] 8	7 [°] 6	13 [°] 59		
F 30	20 52 3	11 [°] 38'28	12 ³ 3	21 [°] 53	14 [°] 35	22 [°] 10	6 [°] 14	20 [°] 12	22 [°] 14	10 [°] 25	29 [°] 10	12 [°] 13	12 [°] 5	7 [°] 12	13 [°] 57		
S 31	20 56 0	12 ^Ω 36'14	25 ⁵ 42	23 ^Ω 42	15 ^Ω 49	22 ³ 0	6 ^{II} 23	20 ³ 15	22 ³ 12	10 ⁵ 27	29 ³ 10	12 [°] D13	12 ^Ω 2	7 ^{III} 19	13 ³ 54		

Delta T = 19m04s Julian Calendar 1 July 1087 == Greg. Calendar 7 July 1087

AUGUST 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍
S 1	20 59 56	13 ^Ω 34'01	9 ^Ω 7	25 ^Ω 30	17 ^Ω 3	21 ^R 50	6 ^{II} 32	20 ³ 17	22 ^R 11	10 ⁵ 29	29 ^R 9	12 ^R 13	11 ^Ω 58	7 ^{III} 26	13 ^R 52		
M 2	21 3 53	14 [°] 31'49	22 [°] 17	27 [°] 17	18 [°] 17	21 ³ 41	6 [°] 41	20 [°] 20	22 ³ 9	10 [°] 31	29 ³ 8	12 ^Ω 13	11 [°] 55	7 [°] 32	13 ³ 50		
T 3	21 7 49	15 [°] 29'39	5 ^{III} 9	29 [°] 2	19 [°] 32	21 [°] 32	6 [°] 50	20 [°] 23	22 [°] 7	10 [°] 33	29 [°] 7	12 [°] 13	11 [°] 52	7 [°] 39	13 [°] 47		
W 4	21 11 46	16 [°] 27'30	17 [°] 46	0 ^{III} 46	20 [°] 46	21 [°] 24	6 [°] 58	20 [°] 26	22 [°] 5	10 [°] 34	29 [°] 7	12 [°] 13	11 [°] 49	7 [°] 46	13 [°] 45		
T 5	21 15 42	17 [°] 25'23	0 ⁵ 8	2 [°] 28	22 [°] 0	21 [°] 17	7 [°] 7	20 [°] 28	22 [°] 4	10 [°] 36	29 [°] 6	12 [°] 12	11 [°] 46	7 [°] 53	13 [°] 42		
F 6	21 19 39	18 [°] 23'17	12 [°] 18	4 [°] 10	23 [°] 15	21 [°] 11	7 [°] 15	20 [°] 31	22 [°] 2	10 [°] 38	29 [°] 5	12 [°] 11	11 [°] 43	7 [°] 59	13 [°] 40		
S 7	21 23 35	19 [°] 21'12	24 [°] 18	5 [°] 49	24 [°] 29	21 [°] 5	7 [°] 24	20 [°] 33	22 [°] 0	10 [°] 40	29 [°] 4	12 [°] 10	11 [°] 39	8 [°] 6	13 [°] 38		
S 8	21 27 32	20 [°] 19'09	6 ^{III} 12	7 [°] 28	25 [°] 44	21 [°] 1	7 [°] 32	20 [°] 35	21 [°] 58	10 [°] 42	29 [°] 3	12 [°] 10	11 [°] 36	8 [°] 13	13 [°] 35		
M 9	21 31 28	21 [°] 17'07	18 [°] 5	9 [°] 5	26 [°] 58	20 [°] 57	7 [°] 40	20 [°] 37	21 [°] 56	10 [°] 44	29 [°] 2	12 [°] D10	11 [°] 33	8 [°] 19	13 [°] 32		
T 10	21 35 25	22 [°] 15'06	0 ³ 2	10 [°] 41	28 [°] 12	20 [°] 54	7 [°] 48	20 [°] 39	21 [°] 54	10 [°] 45	29 [°] 1	12 [°] 10	11 [°] 30	8 [°] 26	13 [°] 30		
W11	21 39 22	23 [°] 13'07	12 [°] 6	12 [°] 15	29 [°] 27	20 [°] 51	7 [°] 55	20 [°] 41	21 [°] 52	10 [°] 47	29 [°] 1	12 [°] 10	11 [°] 27	8 [°] 33	13 [°] 27		
T 12	21 43 18	24 [°] 11'09	24 [°] 22	13 [°] 49	0 ^{III} 41	20 [°] 50	8 [°] 3	20 [°] 43	21 [°] 50	10 [°] 49	29 [°] 0	12 [°] 11	11 [°] 24	8 [°] 40	13 [°] 25		
F 13	21 47 15	25 [°] 9'13	6 ³ 54	15 [°] 21	1 [°] 56	20 ^D 49	8 [°] 10	20 [°] 45	21 [°] 48	10 [°] 51	28 [°] 59	12 [°] 12	11 [°] 20	8 [°] 46	13 [°] 22		
S 14	21 51 11	26 [°] 7'19	19 [°] 45	16 [°] 51	3 [°] 10	20 [°] 49	8 [°] 18	20 [°] 46	21 [°] 46	10 [°] 52	28 [°] 58	12 [°] 13	11 [°] 17	8 [°] 53	13 [°] 19		
S 15	21 55 8	27 [°] 5'25	2 ³ 58	18 [°] 21	4 [°] 24	20 [°] 50	8 [°] 25	20 [°] 48	21 [°] 44	10 [°] 54	28 [°] 57	12 [°] 14	11 [°] 14	9 [°] 0	13 [°] 17		
M16	21 59 4	28 [°] 3'34	16 [°] 32	19 [°] 49	5 [°] 39	20 [°] 52	8 [°] 32	20 [°] 49	21 [°] 41	10 [°] 56	28 [°] 56	12 [°] R14	11 [°] 11	9 [°] 7	13 [°] 14		
T 17	22 3 1	29 [°] 1'44	0 ³														

SWISS EPHEMERIS for the year 1087

SEPTEMBER 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍
W 1	23 2 9	13♐38'23	26♍6	9♌55	25♍31	23♎5	10♏3	20°R57	21°R 5	11♑19	28°R39	11°R58	10♒20	10♓54	12°R29		
T 2	23 6 6	14°37'06	8♌21	10°54	26°46	23°19	10° 7	20♎56	21°R 2	11°20	28°R38	11♑52	10°17	11° 1	12°R26		
F 3	23 10 2	15°35'51	20°26	11°50	28° 0	23°34	10°11	20°56	21° 0	11°21	28°37	11°46	10°14	11° 8	12°24		
S 4	23 13 59	16°34'38	2♌24	12°44	29°15	23°50	10°15	20°55	20°58	11°22	28°35	11°40	10°10	11°14	12°21		
S 5	23 17 55	17°33'27	14°17	13°34	0♌29	24° 6	10°19	20°54	20°55	11°23	28°34	11°35	10° 7	11°21	12°18		
M 6	23 21 52	18°32'18	26° 8	14°21	1°44	24°23	10°22	20°53	20°53	11°25	28°33	11°31	10° 4	11°28	12°15		
T 7	23 25 49	19°31'10	8♌2	15° 5	2°59	24°41	10°26	20°52	20°50	11°26	28°32	11°28	10° 1	11°34	12°12		
W 8	23 29 45	20°30'05	20° 3	15°45	4°13	24°59	10°29	20°51	20°48	11°27	28°31	11°D27	9°58	11°41	12°10		
T 9	23 33 42	21°29'01	2♎16	16°20	5°28	25°18	10°32	20°50	20°45	11°28	28°30	11°28	9°55	11°48	12° 7		
F 10	23 37 38	22°27'59	14°45	16°51	6°42	25°38	10°34	20°49	20°43	11°29	28°28	11°29	9°51	11°55	12° 4		
S 11	23 41 35	23°26'59	27°36	17°16	7°57	25°58	10°37	20°47	20°41	11°30	28°27	11°31	9°48	12° 1	12° 1		
S 12	23 45 31	24°26'00	10♌52	17°36	9°12	26°18	10°39	20°46	20°38	11°31	28°26	11°R32	9°45	12° 8	11°58		
M13	23 49 28	25°25'04	24°34	17°51	10°26	26°39	10°42	20°44	20°36	11°31	28°25	11°31	9°42	12°15	11°56		
T 14	23 53 24	26°24'09	8♌42	17°59	11°41	27° 1	10°44	20°42	20°33	11°32	28°24	11°28	9°39	12°22	11°53		
W15	23 57 21	27°23'17	23°14	18°R 0	12°55	27°23	10°45	20°41	20°31	11°33	28°23	11°23	9°35	12°28	11°50		
T 16	0 1 18	28°22'26	8♎3	17°54	14°10	27°46	10°47	20°39	20°29	11°34	28°21	11°17	9°32	12°35	11°48		
F 17	0 5 14	29°21'37	23° 2	17°41	15°24	28° 9	10°48	20°37	20°26	11°35	28°20	11°10	9°29	12°42	11°45		
S 18	0 9 11	0♌20'51	8♎0	17°19	16°39	28°32	10°50	20°34	20°24	11°35	28°19	11° 2	9°26	12°48	11°42		
S 19	0 13 7	1°20'07	22°49	16°50	17°53	28°56	10°51	20°32	20°21	11°36	28°18	10°56	9°23	12°55	11°40		
M20	0 17 4	2°19'26	7♏23	16°13	19° 8	29°21	10°52	20°30	20°19	11°37	28°17	10°51	9°20	13° 2	11°37		
T 21	0 21 0	3°18'47	21°37	15°27	20°23	29°46	10°52	20°27	20°17	11°37	28°16	10°49	9°16	13° 9	11°34		
W22	0 24 57	4°18'10	5♏29	14°34	21°37	0♌11	10°53	20°25	20°14	11°38	28°14	10°D48	9°13	13°15	11°32		
T 23	0 28 53	5°17'36	19° 0	13°35	22°52	0°37	10°53	20°22	20°12	11°39	28°13	10°49	9°10	13°22	11°29		
F 24	0 32 50	6°17'04	2♏12	12°29	24° 6	1° 3	10°R53	20°19	20°10	11°39	28°12	10°50	9° 7	13°29	11°27		
S 25	0 36 46	7°16'34	15° 8	11°20	25°21	1°29	10°53	20°17	20° 8	11°40	28°11	10°R50	9° 4	13°35	11°24		
S 26	0 40 43	8°16'07	27°50	10° 7	26°35	1°56	10°52	20°14	20° 5	11°40	28°10	10°48	9° 1	13°42	11°22		
M27	0 44 40	9°15'42	10♐20	8°54	27°50	2°24	10°52	20°11	20° 3	11°41	28° 9	10°44	8°57	13°49	11°20		
T 28	0 48 36	10°15'19	22°41	7°42	29° 5	2°51	10°51	20° 8	20° 1	11°41	28° 7	10°38	8°54	13°56	11°17		
W29	0 52 33	11°14'58	4♌53	6°33	0♏19	3°19	10°50	20° 4	19°59	11°41	28° 6	10°28	8°51	14° 2	11°15		
T 30	0 56 29	12°14'39	16♌58	5♏30	1♏34	3♌48	10♏49	20♎1	19°R56	11♑42	28°R 5	10♒17	8♒48	14♓9	11°R12		

Delta T = 19m03s Julian Calendar 1 Sept. 1087 == Greg. Calendar 7 Sept. 1087

OCTOBER 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍
F 1	1 0 26	13♌14'22	28♌57	4°R34	2♏48	4♌16	10°R47	19°R58	19°R54	11♑42	28°R 4	10°R 5	8♒45	14♓16	11°R10		
S 2	1 4 22	14°14'08	10♏52	3♌47	4° 3	4°46	10♏46	19♎54	19°R52	11°42	28°R 3	9♒52	8°41	14°23	11°R 8		
S 3	1 8 19	15°13'55	22°43	3°11	5°17	5°15	10°44	19°51	19°50	11°42	28° 2	9°41	8°38	14°29	11° 6		
M 4	1 12 15	16°13'44	4♌33	2°45	6°32	5°45	10°42	19°47	19°48	11°43	28° 1	9°31	8°35	14°36	11° 4		
T 5	1 16 12	17°13'35	16°26	2°30	7°46	6°15	10°40	19°43	19°46	11°43	28° 0	9°24	8°32	14°43	11° 1		
W 6	1 20 9	18°13'28	28°24	2°D27	9° 1	6°45	10°37	19°40	19°44	11°43	27°59	9°20	8°29	14°49	10°59		
T 7	1 24 5	19°13'22	10♎33	2°35	10°16	7°16	10°35	19°36	19°42	11°43	27°57	9°18	8°26	14°56	10°57		
F 8	1 28 2	20°13'19	22°58	2°54	11°30	7°47	10°32	19°32	19°40	11°43	27°56	9°D18	8°22	15° 3	10°55		
S 9	1 31 58	21°13'17	5♌42	3°22	12°45	8°18	10°29	19°28	19°38	11°R43	27°55	9°R18	8°19	15°10	10°53		
S 10	1 35 55	22°13'16	18°52	4° 0	13°59	8°50	10°26	19°24	19°36	11°43	27°54	9°18	8°16	15°16	10°51		
M11	1 39 51	23°13'17	2♌31	4°46	15°14	9°22	10°22	19°20	19°34	11°43	27°53	9°16	8°13	15°23	10°49		
T 12	1 43 48	24°13'20	16°39	5°40	16°28	9°54	10°19	19°16	19°32	11°43	27°52	9°11	8°10	15°30	10°47		
W13	1 47 44	25°13'25	1°R16	6°40	17°43	10°26	10°15	19°11	19°30	11°43	27°51	9° 4	8° 6	15°36	10°46		
T 14	1 51 41	26°13'31	16°16	7°46	18°57	10°58	10°11	19° 7	19°28	11°43	27°50	8°55	8° 3	15°43	10°44		
F 15	1 55 38	27°13'39	1♌31	8°57	20°11	11°31	10° 7	19° 3	19°27	11°43	27°49	8°44	8° 0	15°50	10°42		
S 16	1 59 34	28°13'49	16°50	10°13	21°26	12° 4	10° 3	18°58	19°25	11°42	27°48	8°33	7°57	15°57	10°40		
S 17	2 3 31	29°14'01	2♏1	11°32	22°40	12°37	9°58	18°54	19°23	11°42	27°47	8°23	7°54	16° 3	10°39		
M18	2 7 27	0♏14'15	16°53	12°55	23°55	13°11	9°54	18°50	19°22	11°42	27°46	8°15	7°51	16°10	10°37		
T 19	2 11 24	1°14'31	1♑22	14°20	25° 9	13°45	9°49	18°45	19°20	11°42	27°45	8°10	7°47	16°17	10°36		
W20	2 15 20	2°14'49	15°23	15°47	26°24	14°18	9°44	18°40	19°18	11°41	27°44	8° 7	7°44	16°24	10°34		
T 21	2 19 17	3°15'10	28°57	17°16	27°38	14°52	9°39	18°36	19°17	11°41	27°43	8° 6	7°41	16°30	10°33		
F 22	2 23 13	4°15'32	12♌7	18°47	28°52	15°27	9°33	18°31	19°15	11°40	27°42	8° 6	7°38	16°37	10°31		
S 23	2 27 10	5°15'56	24°55	20°18	0♌7	16° 1	9°28	18°26	19°14	11°40	27°42	8° 6	7°35	16°44	10°30		
S 24	2 31 7	6°16'22	7♏26	21°51	1°21	16°36	9°22	18°22	19°12	11°40	27°41	8° 3	7°32	16°50	10°29		
M25	2 35 3	7°16'50	19°45	23°25	2°36	17°11	9°16	18°17	19°11	11°39	27°40	7°58	7°28	16°57	10°28		
T 26	2 39 0	8°17'20	1♌53	24°59	3°50	17°46	9°10	18°12	19°10	11°38	27°39	7°50	7°25	17° 4	10°26		
W27	2 42 56	9°17'52	13°55	26°33	5° 4	18°21	9° 4	18° 7	19° 8	11°38	27°38	7°39	7°22	17°11	10°25		
T 28	2 46 53	10°18'25	25°53	28° 8	6°19	18°56	8°58	18° 2	19° 7	11°37	27°37	7°25	7°19	17°17	10°24		
F 29	2 50 49	11°19'01	7♏47	29°43	7°33	19°32	8°52	17°58	19° 6	11°37	27°36	7°10	7°16	17°24	10°23		
S 30	2 54 46	12°19'37	19°39	1♏19	8°48	20° 7	8°45	17°53	19° 5	11°36	27°36	6°55	7°12	17°31	10°22		
S 31	2 58 42	13♏20'15	1♌30	2♏54	10♌2	20♌43	8♏38	17♎48	19°R 4	11♑35	27°R35	6♒41	7♒9	17♓37	10°R21		

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SWISS EPHEMERIS for the year 1087

NOVEMBER 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍	♎	♏	♐
M 1	3 2 39	14♌20'55	13♌27'23	4♌29	11♌16	21♌19	8°R32	17°R43	19°R 2	11°R35	27°R34	6°R29	7♌ 6	17♌44	10°R20					
T 2	3 6 35	15°21'36	25°18	6° 5	12°31	21°55	8♌25	17♌38	19°R 1	11°R34	27°R33	6♌20	7° 3	17°51	10°R20					
W 3	3 10 32	16°22'19	7♌19	7°40	13°45	22°31	8°18	17°33	19° 0	11°33	27°33	6°14	7° 0	17°58	10°19					
T 4	3 14 29	17°23'02	19°28	9°15	14°59	23° 8	8°11	17°28	18°59	11°32	27°32	6°11	6°57	18° 4	10°18					
F 5	3 18 25	18°23'47	1♌51	10°51	16°14	23°44	8° 3	17°23	18°59	11°31	27°31	6°D10	6°53	18°11	10°18					
S 6	3 22 22	19°24'33	14°31	12°26	17°28	24°21	7°56	17°18	18°58	11°30	27°31	6°R10	6°50	18°18	10°17					
S 7	3 26 18	20°25'20	27°33	14° 1	18°42	24°58	7°49	17°13	18°57	11°30	27°30	6°10	6°47	18°25	10°17					
M 8	3 30 15	21°26'07	11♌ 2	15°36	19°56	25°35	7°41	17° 8	18°56	11°29	27°29	6° 8	6°44	18°31	10°16					
T 9	3 34 11	22°26'56	25° 0	17°10	21°11	26°12	7°33	17° 4	18°55	11°28	27°29	6° 4	6°41	18°38	10°16					
W10	3 38 8	23°27'46	9♌26	18°45	22°25	26°49	7°26	16°59	18°55	11°27	27°28	5°58	6°38	18°45	10°15					
T11	3 42 4	24°28'37	24°20	20°20	23°39	27°26	7°18	16°54	18°54	11°26	27°28	5°49	6°34	18°51	10°15					
F12	3 46 1	25°29'28	9♌32	21°54	24°53	28° 4	7°10	16°49	18°54	11°25	27°27	5°39	6°31	18°58	10°15					
S13	3 49 58	26°30'21	24°53	23°29	26° 7	28°41	7° 2	16°44	18°53	11°23	27°27	5°28	6°28	19° 5	10°15					
S14	3 53 54	27°31'15	10♌12	25° 3	27°21	29°19	6°54	16°39	18°53	11°22	27°26	5°19	6°25	19°12	10°15					
M15	3 57 51	28°32'10	25°17	26°37	28°35	29°56	6°46	16°35	18°52	11°21	27°26	5°11	6°22	19°18	10°D14					
T16	4 1 47	29°33'07	10♌ 0	28°11	29°49	0♌34	6°38	16°30	18°52	11°20	27°25	5° 6	6°18	19°25	10°14					
W17	4 5 44	0♌34'05	24°14	29°46	1♌ 4	1°12	6°30	16°25	18°52	11°19	27°25	5° 3	6°15	19°32	10°15					
T18	4 9 40	1°35'04	7♌59	1♌20	2°18	1°50	6°22	16°20	18°51	11°18	27°24	5°D 3	6°12	19°38	10°15					
F19	4 13 37	2°36'04	21°15	2°54	3°32	2°28	6°14	16°16	18°51	11°16	27°24	5° 4	6° 9	19°45	10°15					
S20	4 17 34	3°37'05	4♌ 7	4°29	4°46	3° 6	6° 6	16°11	18°51	11°15	27°23	5°R 4	6° 6	19°52	10°15					
S21	4 21 30	4°38'07	16°38	6° 3	6° 0	3°44	5°57	16° 7	18°51	11°14	27°23	5° 3	6° 3	19°59	10°15					
M22	4 25 27	5°39'11	28°53	7°37	7°14	4°22	5°49	16° 2	18°51	11°13	27°23	5° 0	5°59	20° 5	10°16					
T23	4 29 23	6°40'15	10♌57	9°12	8°28	5° 1	5°41	15°58	18°D51	11°11	27°22	4°55	5°56	20°12	10°16					
W24	4 33 20	7°41'21	22°53	10°46	9°41	5°39	5°33	15°53	18°51	11°10	27°22	4°47	5°53	20°19	10°17					
T25	4 37 16	8°42'27	4♌46	12°21	10°55	6°18	5°25	15°49	18°51	11° 9	27°22	4°37	5°50	20°25	10°17					
F26	4 41 13	9°43'34	16°37	13°56	12° 9	6°56	5°17	15°45	18°51	11° 7	27°22	4°26	5°47	20°32	10°18					
S27	4 45 9	10°44'43	28°29	15°31	13°23	7°35	5° 8	15°40	18°51	11° 6	27°21	4°14	5°44	20°39	10°18					
S28	4 49 6	11°45'51	10♌24	17° 6	14°37	8°14	5° 0	15°36	18°52	11° 4	27°21	4° 4	5°40	20°46	10°19					
M29	4 53 3	12°47'01	22°22	18°41	15°51	8°52	4°52	15°32	18°52	11° 3	27°21	3°55	5°37	20°52	10°20					
T30	4 56 59	13♌48'11	4♌25	20♌16	17♌ 4	9♌31	4♌44	15♌28	18♌52	11♌ 2	27♌21	3♌48	5♌34	20♌59	10♌21					

Delta T = 19m02s Julian Calendar 1 Nov. 1087 == Greg. Calendar 7 Nov. 1087

DECEMBER 1087 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♈	♉	♊	♋	♌	♍	♎	♏	♐
W 1	5 0 56	14♌49'21	16♌35	21♌52	18♌18	10♌10	4°R36	15°R24	18°R53	11°R 0	27°R21	3°R44	5♌31	21♌ 6	10♌21					
T 2	5 4 52	15°50'32	28°54	23°28	19°32	10°49	4♌29	15♌20	18°53	10°R59	27°R21	3°D43	5°28	21°13	10°22					
F 3	5 8 49	16°51'43	11♌24	25° 3	20°45	11°28	4°21	15°16	18°54	10°57	27°21	3♌43	5°24	21°19	10°23					
S 4	5 12 45	17°52'54	24° 8	26°39	21°59	12° 7	4°13	15°13	18°54	10°56	27°21	3°44	5°21	21°26	10°24					
S 5	5 16 42	18°54'05	7♌10	28°15	23°13	12°46	4° 5	15° 9	18°55	10°54	27°20	3°45	5°18	21°33	10°26					
M 6	5 20 38	19°55'16	20°33	29°51	24°26	13°25	3°58	15° 5	18°56	10°52	27°D20	3°R46	5°15	21°39	10°27					
T 7	5 24 35	20°56'28	4♌20	1♌27	25°40	14° 5	3°50	15° 2	18°56	10°51	27°20	3°45	5°12	21°46	10°28					
W 8	5 28 32	21°57'39	18°31	3° 3	26°53	14°44	3°43	14°59	18°57	10°49	27°21	3°42	5° 9	21°53	10°29					
T 9	5 32 28	22°58'50	3♌ 5	4°39	28° 7	15°23	3°35	14°55	18°58	10°48	27°21	3°38	5° 5	22° 0	10°31					
F10	5 36 25	24° 0'01	17°57	6°15	29°20	16° 2	3°28	14°52	18°59	10°46	27°21	3°32	5° 2	22° 6	10°32					
S11	5 40 21	25° 1'11	3♌ 1	7°51	0♌33	16°42	3°21	14°49	19° 0	10°45	27°21	3°26	4°59	22°13	10°33					
S12	5 44 18	26° 2'22	18° 8	9°27	1°46	17°21	3°14	14°46	19° 1	10°43	27°21	3°20	4°56	22°20	10°35					
M13	5 48 14	27° 3'33	3♌ 8	11° 2	3° 0	18° 1	3° 7	14°43	19° 2	10°41	27°21	3°16	4°53	22°26	10°36					
T14	5 52 11	28° 4'44	17°51	12°36	4°13	18°40	3° 0	14°40	19° 3	10°40	27°21	3°13	4°50	22°33	10°38					
W15	5 56 7	29° 5'55	2♌11	14°10	5°26	19°20	2°54	14°37	19° 4	10°38	27°21	3°D12	4°46	22°40	10°40					
T16	6 0 4	0♌ 7'07	16° 4	15°43	6°39	19°59	2°47	14°34	19° 5	10°36	27°22	3°13	4°43	22°47	10°41					
F17	6 4 1	1° 8'18	29°30	17°15	7°52	20°39	2°41	14°32	19° 6	10°35	27°22	3°14	4°40	22°53	10°43					
S18	6 7 57	2° 9'29	12♌30	18°46	9° 5	21°18	2°35	14°29	19° 8	10°33	27°22	3°16	4°37	23° 0	10°45					
S19	6 11 54	3°10'40	25° 7	20°15	10°18	21°58	2°29	14°27	19° 9	10°31	27°22	3°17	4°34	23° 7	10°47					
M20	6 15 50	4°11'52	7♌26	21°42	11°30	22°38	2°23	14°25	19°10	10°30	27°23	3°R17	4°30	23°13	10°49					
T21	6 19 47	5°13'03	19°31	23° 6	12°43	23°17	2°17	14°22	19°12	10°28	27°23	3°16	4°27	23°20	10°50					
W22	6 23 43	6°14'14	1♌27	24°28	13°56	23°57	2°11	14°20	19°13	10°26	27°23	3°14	4°24	23°27	10°52					
T23	6 27 40	7°15'25	13°19	25°46	15° 9	24°37	2° 6	14°18	19°15	10°25	27°24	3°10	4°21	23°34	10°55					
F24	6 31 36	8°16'37	25° 9	27° 0	16°21	25°16	2° 1	14°16	19°16	10°23	27°24	3° 6	4°18	23°40	10°57					
S25	6 35 33	9°17'48	7♌ 3	28° 9	17°34	25°56	1°56	14°15	19°18	10°21	27°25	3° 2	4°15	23°47	10°59					
S26	6 39 30	10°18'58	19° 2	29°13	18°46	26°36	1°51	14°13	19°20	10°19	27°25	2°58	4°11	23°54	11° 1					
M27	6 43 26	11°20'08	1♌ 8	0♌10	19°58	27°16	1°46	14°11	19°21	10°18	27°26	2°54	4° 8	24° 0	11° 3					
T28	6 47 23	12°21'18	13°22	1° 1	21°11	27°56	1°41	14°10	19°23	10°16	27°26	2°52	4° 5	24° 7	11° 5					
W29	6 51 19	13°22'27	25°47	1°43	22°23	28°35	1°37	14° 9	19°25	10°14	27°27	2°51	4° 2	24°14	11° 8					
T30	6 55 16	14°23'36	8♌23	2°16	23°35	29°15	1°33	14° 7	19°27	10°13	27°27	2°D51	3°59	24°21	11°10					
F31	6 59 12	15♌24'43	21♌11	2♌40	24♌47	29♌55	1♌29	14♌ 6	19♌29	10♌11	27♌28	2♌51	3♌56	24♌27	11♌13					

Delta T = 19m02s Julian Calendar created from Swiss Ephemeris, Copyright Astrodienst AG [10.1.2003]