



# Astrodienst Ephemeris Tables for the year 1830

tropical geocentric zodiac

contains Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, True Node, Moon's Node, Lilith, Chiron

Programming  
Dieter Koch and Alois Treindl  
based on Swiss Ephemeris  
Code D5EPX

ASTRODIENST EPHEMERIS for the year 1830  
geocentric

JANUARY 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	6 40 33	10 <sup>3</sup> 8'37	25 <sup>3</sup> 38	14 <sup>3</sup> 15	27 <sup>3</sup> 16	22 <sup>3</sup> 57	29 <sup>3</sup> 32	17 <sup>3</sup> 13	4 <sup>3</sup> 57	19 <sup>3</sup> 55	6 <sup>3</sup> 32	22 <sup>3</sup> D 8	23 <sup>3</sup> 2	6 <sup>3</sup> 4	2 <sup>3</sup> R44	F 1
S 2	6 44 30	11 <sup>3</sup> 9'47	9 <sup>3</sup> 44	15 <sup>3</sup> 53	28 <sup>3</sup> 14	23 <sup>3</sup> 37	29 <sup>3</sup> 46	17 <sup>3</sup> 9	5 <sup>3</sup> 0	19 <sup>3</sup> 57	6 <sup>3</sup> 32	22 <sup>3</sup> R 9	22 <sup>3</sup> 59	6 <sup>3</sup> 10	2 <sup>3</sup> 43	S 2
S 3	6 48 26	12 <sup>3</sup> 10'57	23 <sup>3</sup> 48	17 <sup>3</sup> 32	29 <sup>3</sup> 12	24 <sup>3</sup> 17	29 <sup>3</sup> 59	17 <sup>3</sup> 6	5 <sup>3</sup> 4	19 <sup>3</sup> 59	6 <sup>3</sup> 32	22 <sup>3</sup> 8	22 <sup>3</sup> 55	6 <sup>3</sup> 17	2 <sup>3</sup> 43	S 3
M 4	6 52 23	13 <sup>3</sup> 12'07	7 <sup>3</sup> 50	19 <sup>3</sup> 10	0 <sup>3</sup> 9	24 <sup>3</sup> 56	0 <sup>3</sup> 13	17 <sup>3</sup> 2	5 <sup>3</sup> 7	20 <sup>3</sup> 1	6 <sup>3</sup> 33	22 <sup>3</sup> 6	22 <sup>3</sup> 52	6 <sup>3</sup> 24	2 <sup>3</sup> 42	M 4
T 5	6 56 19	14 <sup>3</sup> 13'16	21 <sup>3</sup> 50	20 <sup>3</sup> 49	1 <sup>3</sup> 6	25 <sup>3</sup> 36	0 <sup>3</sup> 27	16 <sup>3</sup> 58	5 <sup>3</sup> 10	20 <sup>3</sup> 4	6 <sup>3</sup> 33	22 <sup>3</sup> 1	22 <sup>3</sup> 49	6 <sup>3</sup> 30	2 <sup>3</sup> 42	T 5
W 6	7 0 16	15 <sup>3</sup> 14'25	5 <sup>3</sup> 44	22 <sup>3</sup> 29	2 <sup>3</sup> 2	26 <sup>3</sup> 16	0 <sup>3</sup> 40	16 <sup>3</sup> 55	5 <sup>3</sup> 14	20 <sup>3</sup> 6	6 <sup>3</sup> 33	21 <sup>3</sup> 53	22 <sup>3</sup> 46	6 <sup>3</sup> 37	2 <sup>3</sup> 41	W 6
T 7	7 4 12	16 <sup>3</sup> 15'34	19 <sup>3</sup> 30	24 <sup>3</sup> 8	2 <sup>3</sup> 57	26 <sup>3</sup> 55	0 <sup>3</sup> 54	16 <sup>3</sup> 51	5 <sup>3</sup> 17	20 <sup>3</sup> 8	6 <sup>3</sup> 34	21 <sup>3</sup> 43	22 <sup>3</sup> 43	6 <sup>3</sup> 44	2 <sup>3</sup> 41	T 7
F 8	7 8 9	17 <sup>3</sup> 16'42	3 <sup>3</sup> 5	25 <sup>3</sup> 48	3 <sup>3</sup> 52	27 <sup>3</sup> 35	1 <sup>3</sup> 7	16 <sup>3</sup> 47	5 <sup>3</sup> 20	20 <sup>3</sup> 10	6 <sup>3</sup> 34	21 <sup>3</sup> 32	22 <sup>3</sup> 39	6 <sup>3</sup> 50	2 <sup>3</sup> 41	F 8
S 9	7 12 6	18 <sup>3</sup> 17'50	16 <sup>3</sup> 26	27 <sup>3</sup> 28	4 <sup>3</sup> 46	28 <sup>3</sup> 15	1 <sup>3</sup> 21	16 <sup>3</sup> 43	5 <sup>3</sup> 24	20 <sup>3</sup> 13	6 <sup>3</sup> 35	21 <sup>3</sup> 20	22 <sup>3</sup> 36	6 <sup>3</sup> 57	2 <sup>3</sup> 40	S 9
S 10	7 16 2	19 <sup>3</sup> 18'57	29 <sup>3</sup> 31	29 <sup>3</sup> 8	5 <sup>3</sup> 40	28 <sup>3</sup> 54	1 <sup>3</sup> 34	16 <sup>3</sup> 39	5 <sup>3</sup> 27	20 <sup>3</sup> 15	6 <sup>3</sup> 35	21 <sup>3</sup> 10	22 <sup>3</sup> 33	7 <sup>3</sup> 3	2 <sup>3</sup> 40	S 10
M 11	7 19 59	20 <sup>3</sup> 20'04	12 <sup>3</sup> 18	0 <sup>3</sup> 48	6 <sup>3</sup> 33	29 <sup>3</sup> 34	1 <sup>3</sup> 48	16 <sup>3</sup> 35	5 <sup>3</sup> 31	20 <sup>3</sup> 17	6 <sup>3</sup> 35	21 <sup>3</sup> 1	22 <sup>3</sup> 30	7 <sup>3</sup> 10	2 <sup>3</sup> 40	M 11
T 12	7 23 55	21 <sup>3</sup> 21'11	24 <sup>3</sup> 48	2 <sup>3</sup> 28	7 <sup>3</sup> 25	0 <sup>3</sup> 14	2 <sup>3</sup> 1	16 <sup>3</sup> 31	5 <sup>3</sup> 34	20 <sup>3</sup> 19	6 <sup>3</sup> 36	20 <sup>3</sup> 55	22 <sup>3</sup> 27	7 <sup>3</sup> 17	2 <sup>3</sup> D40	T 12
W 13	7 27 52	22 <sup>3</sup> 22'18	7 <sup>3</sup> 2	4 <sup>3</sup> 8	8 <sup>3</sup> 16	0 <sup>3</sup> 54	2 <sup>3</sup> 14	16 <sup>3</sup> 27	5 <sup>3</sup> 37	20 <sup>3</sup> 22	6 <sup>3</sup> 36	20 <sup>3</sup> 52	22 <sup>3</sup> 24	7 <sup>3</sup> 23	2 <sup>3</sup> 40	W 13
T 14	7 31 48	23 <sup>3</sup> 23'24	19 <sup>3</sup> 3	5 <sup>3</sup> 48	9 <sup>3</sup> 6	1 <sup>3</sup> 33	2 <sup>3</sup> 28	16 <sup>3</sup> 22	5 <sup>3</sup> 41	20 <sup>3</sup> 24	6 <sup>3</sup> 37	20 <sup>3</sup> D51	22 <sup>3</sup> 20	7 <sup>3</sup> 30	2 <sup>3</sup> 40	T 14
F 15	7 35 45	24 <sup>3</sup> 24'30	0 <sup>3</sup> 55	7 <sup>3</sup> 27	9 <sup>3</sup> 56	2 <sup>3</sup> 13	2 <sup>3</sup> 41	16 <sup>3</sup> 18	5 <sup>3</sup> 44	20 <sup>3</sup> 26	6 <sup>3</sup> 38	20 <sup>3</sup> 51	22 <sup>3</sup> 17	7 <sup>3</sup> 37	2 <sup>3</sup> 40	F 15
S 16	7 39 41	25 <sup>3</sup> 25'35	12 <sup>3</sup> 43	9 <sup>3</sup> 6	10 <sup>3</sup> 45	2 <sup>3</sup> 53	2 <sup>3</sup> 54	16 <sup>3</sup> 14	5 <sup>3</sup> 48	20 <sup>3</sup> 29	6 <sup>3</sup> 38	20 <sup>3</sup> 52	22 <sup>3</sup> 14	7 <sup>3</sup> 43	2 <sup>3</sup> 40	S 16
S 17	7 43 38	26 <sup>3</sup> 26'41	24 <sup>3</sup> 32	10 <sup>3</sup> 44	11 <sup>3</sup> 33	3 <sup>3</sup> 33	3 <sup>3</sup> 7	16 <sup>3</sup> 9	5 <sup>3</sup> 51	20 <sup>3</sup> 31	6 <sup>3</sup> 39	20 <sup>3</sup> R53	22 <sup>3</sup> 11	7 <sup>3</sup> 50	2 <sup>3</sup> 41	S 17
M 18	7 47 35	27 <sup>3</sup> 27'46	6 <sup>3</sup> 28	12 <sup>3</sup> 21	12 <sup>3</sup> 20	4 <sup>3</sup> 12	3 <sup>3</sup> 21	16 <sup>3</sup> 5	5 <sup>3</sup> 55	20 <sup>3</sup> 33	6 <sup>3</sup> 39	20 <sup>3</sup> 52	22 <sup>3</sup> 8	7 <sup>3</sup> 57	2 <sup>3</sup> 41	M 18
T 19	7 51 31	28 <sup>3</sup> 28'50	18 <sup>3</sup> 35	13 <sup>3</sup> 57	13 <sup>3</sup> 6	4 <sup>3</sup> 52	3 <sup>3</sup> 34	16 <sup>3</sup> 0	5 <sup>3</sup> 58	20 <sup>3</sup> 35	6 <sup>3</sup> 40	20 <sup>3</sup> 50	22 <sup>3</sup> 5	8 <sup>3</sup> 3	2 <sup>3</sup> 41	T 19
W 20	7 55 28	29 <sup>3</sup> 29'55	0 <sup>3</sup> 59	15 <sup>3</sup> 31	13 <sup>3</sup> 51	5 <sup>3</sup> 32	3 <sup>3</sup> 47	15 <sup>3</sup> 56	6 <sup>3</sup> 2	20 <sup>3</sup> 38	6 <sup>3</sup> 41	20 <sup>3</sup> 45	22 <sup>3</sup> 1	8 <sup>3</sup> 10	2 <sup>3</sup> 42	W 20
T 21	7 59 24	0 <sup>3</sup> 30'58	13 <sup>3</sup> 43	17 <sup>3</sup> 3	14 <sup>3</sup> 35	6 <sup>3</sup> 12	4 <sup>3</sup> 0	15 <sup>3</sup> 51	6 <sup>3</sup> 5	20 <sup>3</sup> 40	6 <sup>3</sup> 41	20 <sup>3</sup> 39	21 <sup>3</sup> 58	8 <sup>3</sup> 17	2 <sup>3</sup> 42	T 21
F 22	8 3 21	1 <sup>3</sup> 32'02	26 <sup>3</sup> 50	18 <sup>3</sup> 32	15 <sup>3</sup> 18	6 <sup>3</sup> 52	4 <sup>3</sup> 13	15 <sup>3</sup> 46	6 <sup>3</sup> 9	20 <sup>3</sup> 42	6 <sup>3</sup> 42	20 <sup>3</sup> 31	21 <sup>3</sup> 55	8 <sup>3</sup> 23	2 <sup>3</sup> 43	F 22
S 23	8 7 17	2 <sup>3</sup> 33'04	10 <sup>3</sup> 20	19 <sup>3</sup> 58	16 <sup>3</sup> 0	7 <sup>3</sup> 32	4 <sup>3</sup> 26	15 <sup>3</sup> 42	6 <sup>3</sup> 12	20 <sup>3</sup> 44	6 <sup>3</sup> 43	20 <sup>3</sup> 22	21 <sup>3</sup> 52	8 <sup>3</sup> 30	2 <sup>3</sup> 43	S 23
S 24	8 11 14	3 <sup>3</sup> 34'06	24 <sup>3</sup> 13	21 <sup>3</sup> 21	16 <sup>3</sup> 40	8 <sup>3</sup> 12	4 <sup>3</sup> 39	15 <sup>3</sup> 37	6 <sup>3</sup> 16	20 <sup>3</sup> 47	6 <sup>3</sup> 44	20 <sup>3</sup> 14	21 <sup>3</sup> 49	8 <sup>3</sup> 37	2 <sup>3</sup> 44	S 24
M 25	8 15 10	4 <sup>3</sup> 35'07	8 <sup>3</sup> 23	22 <sup>3</sup> 39	17 <sup>3</sup> 20	8 <sup>3</sup> 51	4 <sup>3</sup> 52	15 <sup>3</sup> 32	6 <sup>3</sup> 19	20 <sup>3</sup> 49	6 <sup>3</sup> 44	20 <sup>3</sup> 7	21 <sup>3</sup> 45	8 <sup>3</sup> 43	2 <sup>3</sup> 45	M 25
T 26	8 19 7	5 <sup>3</sup> 36'07	22 <sup>3</sup> 46	23 <sup>3</sup> 53	17 <sup>3</sup> 58	9 <sup>3</sup> 31	5 <sup>3</sup> 5	15 <sup>3</sup> 27	6 <sup>3</sup> 23	20 <sup>3</sup> 51	6 <sup>3</sup> 45	20 <sup>3</sup> 2	21 <sup>3</sup> 42	8 <sup>3</sup> 50	2 <sup>3</sup> 46	T 26
W 27	8 23 4	6 <sup>3</sup> 37'07	7 <sup>3</sup> 16	25 <sup>3</sup> 0	18 <sup>3</sup> 35	10 <sup>3</sup> 11	5 <sup>3</sup> 17	15 <sup>3</sup> 23	6 <sup>3</sup> 26	20 <sup>3</sup> 53	6 <sup>3</sup> 46	19 <sup>3</sup> 59	21 <sup>3</sup> 39	8 <sup>3</sup> 57	2 <sup>3</sup> 46	W 27
T 28	8 27 0	7 <sup>3</sup> 38'04	21 <sup>3</sup> 47	26 <sup>3</sup> 2	19 <sup>3</sup> 10	10 <sup>3</sup> 51	5 <sup>3</sup> 30	15 <sup>3</sup> 18	6 <sup>3</sup> 30	20 <sup>3</sup> 56	6 <sup>3</sup> 47	19 <sup>3</sup> D58	21 <sup>3</sup> 36	9 <sup>3</sup> 3	2 <sup>3</sup> 47	T 28
F 29	8 30 57	8 <sup>3</sup> 39'01	6 <sup>3</sup> 14	26 <sup>3</sup> 55	19 <sup>3</sup> 45	11 <sup>3</sup> 31	5 <sup>3</sup> 43	15 <sup>3</sup> 13	6 <sup>3</sup> 33	20 <sup>3</sup> 58	6 <sup>3</sup> 48	19 <sup>3</sup> 59	21 <sup>3</sup> 33	9 <sup>3</sup> 10	2 <sup>3</sup> 48	F 29
S 30	8 34 53	9 <sup>3</sup> 39'56	20 <sup>3</sup> 33	27 <sup>3</sup> 41	20 <sup>3</sup> 17	12 <sup>3</sup> 11	5 <sup>3</sup> 55	15 <sup>3</sup> 8	6 <sup>3</sup> 37	21 <sup>3</sup> 0	6 <sup>3</sup> 48	20 <sup>3</sup> 1	21 <sup>3</sup> 30	9 <sup>3</sup> 16	2 <sup>3</sup> 49	S 30
S 31	8 38 50	10 <sup>3</sup> 40'50	4 <sup>3</sup> 43	28 <sup>3</sup> 18	20 <sup>3</sup> 48	12 <sup>3</sup> 51	6 <sup>3</sup> 8	15 <sup>3</sup> 3	6 <sup>3</sup> 40	21 <sup>3</sup> 2	6 <sup>3</sup> 49	20 <sup>3</sup> R 2	21 <sup>3</sup> 26	9 <sup>3</sup> 23	2 <sup>3</sup> 50	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day								
F 1	23s 4	2s 1	0s19	24s42	2s 1	13s22	1s 0	18s 1	0n32	23s15	0n13	16n38	1n 0	19s37	0s35	21s24	0n35	12s53	16s52	3n 7	2n46	1s20	11n32	0s57
S 2	22 59	2n27	1 32	24 33	2 3	12 57	0 54	18 11	0 31	23 15	0 13	16 39	1 0	19 36	0 35	21 24	0 35	12 53	16 52	3 7	2 47	1 22	11 32	0 57
S 3	22 54	6 46	2 40	24 22	2 5	12 31	0 48	18 22	0 31	23 15	0 13	16 41	1 0	19 35	0 35	21 24	0 35	12 52	16 52	3 7	2 49	1 24	11 32	0 57
M 4	22 48	10 42	3 38	24 10	2 6	12 5	0 42	18 32	0 30	23 15	0 13	16 42	1 0	19 35	0 35	21 23	0 35	12 52	16 52	3 8	2 50	1 26	11 32	0 57
T 5	22 42	14 1	4 22	23 56	2 7	11 39	0 36	18 42	0 30	23 15	0 13	16 43	1 0	19 34	0 35	21 23	0 35	12 51	16 51	3 10	2 51	1 28	11 31	0 57
W 6	22 35	16 30	4 51	23 41	2 7	11 13	0 30	18 52	0 29	23 15	0 12	16 44	1 0	19 33	0 35	21 23	0 35	12 51	16 51	3 13	2 52	1 30	11 31	0 57
T 7	22 28	18 1	5 3	23 24	2 7	10 47	0 23	19 1	0 28	23 15	0 12	16 46	1 1	19 32	0 35	21 22	0 35	12 50	16 50	3 17	2 54	1 31	11 31	0 57
F 8	22 20	18 28	4 57	23 5	2 7	10 21	0 16	19 11	0 28	23 15	0 12	16 47	1 1	19 31	0 35	21 22	0 35	12 50	16 50	3 22	2 55	1 33	11 31	0 57
S 9	22 12	17 54	4 35	22 45	2 6	9 55	0 9	19 21	0 27	23 15	0 12	16 48	1 1	19 30	0 35	21 22	0 35	12 49	16 50	3 26	2 56	1 35	11 31	0 57
S 10	22 4	16 23	3 59	22 23	2 5	9 28	0 2	19 30	0 27	23 15	0 12	16 50	1 1	19 30	0 35	21 21	0 35	12 49	16 49	3 30	2 57	1 37	11 31	0 57
M 11	21 55	14 4	3 11	22 0	2 3	9 2	0n 5	19 39	0 26	23 15	0 12	16 51	1 1	19 29	0 35	21 21	0 35	12 48	16 49	3 34	2 59	1 39	11 31	0 57
T 12	21 46	11 9	2 15	21 35	2 1	8 36	0 13	19 48	0 25	23 15	0 12	16 52	1 1	19 28	0 35	21 21	0 35	12 48	16 49	3 36	3 0	1 41	11 31	0 57
W 13	21 36	7 48	1 13	21 8	1 58	8 9	0 21	19 57	0 25	23 15	0 12	16 54	1 1	19 27	0 35	21 20	0 35	12 47	16 48	3 37	3 1	1 43	11 31	0 57
T 14	21 26	4 11	0 10	20 41	1 54	7 43	0 29	20 6	0 24	23 14	0 12	16 55	1 2	19 26	0 35	21 20	0 35	12 47	16 48	3 38	3 2	1 44	11 31	0 57
F 15	21 15	0 28	0n54	20 11	1 50	7 17	0 37	20 14	0 24	23 14	0 12	16 57	1 2	19 25	0 35	21 20	0 35	12 46	16 48	3 38	3 4	1 46	11 31	0 57
S 16	21 4	3s16	1 55	19 41	1 45	6 51	0 45	20 23	0 23	23 14	0 12	16 58	1 2	19 25	0 35	21 19	0 35	12 46	16 47	3 37	3 5	1 48	11 31	0 57
S 17	20																							

# ASTRODIENST EPHEMERIS for the year 1830

## geocentric

FEBRUARY 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	8 42 46	11 <sup>41</sup> 43	18 <sup>41</sup> 41	28 <sup>45</sup> 45	21 <sup>18</sup> 18	13 <sup>31</sup> 31	6 <sup>20</sup> 20	14 <sup>58</sup> 58	6 <sup>44</sup> 44	21 <sup>4</sup> 4	6 <sup>50</sup> 50	20 <sup>2</sup> 2	21 <sup>23</sup> 23	9 <sup>30</sup> 30	2 <sup>52</sup> 52	M 1
T 2	8 46 43	12 <sup>42</sup> 34	2 <sup>11</sup> 27	29 <sup>2</sup> 2	21 <sup>46</sup> 46	14 <sup>11</sup> 11	6 <sup>33</sup> 33	14 <sup>53</sup> 53	6 <sup>47</sup> 47	21 <sup>6</sup> 6	6 <sup>51</sup> 51	20 <sup>0</sup> 0	21 <sup>20</sup> 20	9 <sup>36</sup> 36	2 <sup>53</sup> 53	T 2
W 3	8 50 39	13 <sup>43</sup> 24	16 <sup>2</sup> 2	29 <sup>8</sup> 8	22 <sup>12</sup> 12	14 <sup>51</sup> 51	6 <sup>45</sup> 45	14 <sup>49</sup> 49	6 <sup>51</sup> 51	21 <sup>9</sup> 9	6 <sup>52</sup> 52	19 <sup>56</sup> 56	21 <sup>17</sup> 17	9 <sup>43</sup> 43	2 <sup>54</sup> 54	W 3
T 4	8 54 36	14 <sup>44</sup> 12	29 <sup>24</sup> 24	29 <sup>3</sup> 3	22 <sup>36</sup> 36	15 <sup>31</sup> 31	6 <sup>58</sup> 58	14 <sup>44</sup> 44	6 <sup>54</sup> 54	21 <sup>11</sup> 11	6 <sup>53</sup> 53	19 <sup>51</sup> 51	21 <sup>14</sup> 14	9 <sup>50</sup> 50	2 <sup>55</sup> 55	T 4
F 5	8 58 33	15 <sup>44</sup> 59	12 <sup>33</sup> 33	28 <sup>47</sup> 47	22 <sup>58</sup> 58	16 <sup>11</sup> 11	7 <sup>10</sup> 10	14 <sup>39</sup> 39	6 <sup>58</sup> 58	21 <sup>13</sup> 13	6 <sup>54</sup> 54	19 <sup>46</sup> 46	21 <sup>11</sup> 11	9 <sup>56</sup> 56	2 <sup>57</sup> 57	F 5
S 6	9 2 29	16 <sup>45</sup> 45	25 <sup>29</sup> 29	28 <sup>21</sup> 21	23 <sup>19</sup> 19	16 <sup>50</sup> 50	7 <sup>22</sup> 22	14 <sup>34</sup> 34	7 <sup>1</sup> 1	21 <sup>15</sup> 15	6 <sup>55</sup> 55	19 <sup>40</sup> 40	21 <sup>7</sup> 7	10 <sup>3</sup> 3	2 <sup>58</sup> 58	S 6
S 7	9 6 26	17 <sup>46</sup> 29	8 <sup>13</sup> 13	27 <sup>44</sup> 44	23 <sup>37</sup> 37	17 <sup>30</sup> 30	7 <sup>34</sup> 34	14 <sup>29</sup> 29	7 <sup>5</sup> 5	21 <sup>17</sup> 17	6 <sup>56</sup> 56	19 <sup>34</sup> 34	21 <sup>4</sup> 4	10 <sup>10</sup> 10	3 <sup>0</sup> 0	S 7
M 8	9 10 22	18 <sup>47</sup> 12	20 <sup>43</sup> 43	26 <sup>58</sup> 58	23 <sup>54</sup> 54	18 <sup>10</sup> 10	7 <sup>46</sup> 46	14 <sup>24</sup> 24	7 <sup>8</sup> 8	21 <sup>19</sup> 19	6 <sup>57</sup> 57	19 <sup>30</sup> 30	21 <sup>1</sup> 1	10 <sup>16</sup> 16	3 <sup>1</sup> 1	M 8
T 9	9 14 19	19 <sup>47</sup> 53	3 <sup>0</sup> 0	26 <sup>4</sup> 4	24 <sup>8</sup> 8	18 <sup>50</sup> 50	7 <sup>58</sup> 58	14 <sup>19</sup> 19	7 <sup>12</sup> 12	21 <sup>21</sup> 21	6 <sup>58</sup> 58	19 <sup>27</sup> 27	20 <sup>58</sup> 58	10 <sup>23</sup> 23	3 <sup>3</sup> 3	T 9
W10	9 18 15	20 <sup>48</sup> 33	15 <sup>7</sup> 7	25 <sup>3</sup> 3	24 <sup>20</sup> 20	19 <sup>30</sup> 30	8 <sup>10</sup> 10	14 <sup>14</sup> 14	7 <sup>15</sup> 15	21 <sup>23</sup> 23	6 <sup>59</sup> 59	19 <sup>26</sup> 26	20 <sup>55</sup> 55	10 <sup>30</sup> 30	3 <sup>5</sup> 5	W10
T 11	9 22 12	21 <sup>49</sup> 12	27 <sup>4</sup> 4	23 <sup>58</sup> 58	24 <sup>30</sup> 30	20 <sup>10</sup> 10	8 <sup>22</sup> 22	14 <sup>9</sup> 9	7 <sup>18</sup> 18	21 <sup>25</sup> 25	7 <sup>0</sup> 0	19 <sup>26</sup> 26	20 <sup>51</sup> 51	10 <sup>36</sup> 36	3 <sup>6</sup> 6	T 11
F 12	9 26 8	22 <sup>49</sup> 49	8 <sup>55</sup> 55	22 <sup>49</sup> 49	24 <sup>38</sup> 38	20 <sup>50</sup> 50	8 <sup>34</sup> 34	14 <sup>5</sup> 5	7 <sup>22</sup> 22	21 <sup>27</sup> 27	7 <sup>1</sup> 1	19 <sup>27</sup> 27	20 <sup>48</sup> 48	10 <sup>43</sup> 43	3 <sup>8</sup> 8	F 12
S 13	9 30 5	23 <sup>50</sup> 25	20 <sup>43</sup> 43	21 <sup>40</sup> 40	24 <sup>43</sup> 43	21 <sup>30</sup> 30	8 <sup>45</sup> 45	14 <sup>0</sup> 0	7 <sup>25</sup> 25	21 <sup>29</sup> 29	7 <sup>3</sup> 3	19 <sup>29</sup> 29	20 <sup>45</sup> 45	10 <sup>50</sup> 50	3 <sup>10</sup> 10	S 13
S 14	9 34 2	24 <sup>51</sup> 00	2 <sup>32</sup> 32	20 <sup>31</sup> 31	24 <sup>46</sup> 46	22 <sup>10</sup> 10	8 <sup>57</sup> 57	13 <sup>55</sup> 55	7 <sup>29</sup> 29	21 <sup>31</sup> 31	7 <sup>4</sup> 4	19 <sup>31</sup> 31	20 <sup>42</sup> 42	10 <sup>56</sup> 56	3 <sup>12</sup> 12	S 14
M15	9 37 58	25 <sup>51</sup> 34	14 <sup>27</sup> 27	19 <sup>25</sup> 25	24 <sup>47</sup> 47	22 <sup>50</sup> 50	9 <sup>8</sup> 8	13 <sup>50</sup> 50	7 <sup>32</sup> 32	21 <sup>33</sup> 33	7 <sup>5</sup> 5	19 <sup>32</sup> 32	20 <sup>39</sup> 39	11 <sup>3</sup> 3	3 <sup>14</sup> 14	M15
T 16	9 41 55	26 <sup>52</sup> 06	26 <sup>32</sup> 32	18 <sup>22</sup> 22	24 <sup>45</sup> 45	23 <sup>30</sup> 30	9 <sup>20</sup> 20	13 <sup>46</sup> 46	7 <sup>35</sup> 35	21 <sup>35</sup> 35	7 <sup>6</sup> 6	19 <sup>33</sup> 33	20 <sup>36</sup> 36	11 <sup>10</sup> 10	3 <sup>16</sup> 16	T 16
W17	9 45 51	27 <sup>52</sup> 38	8 <sup>54</sup> 54	17 <sup>25</sup> 25	24 <sup>40</sup> 40	24 <sup>11</sup> 11	9 <sup>31</sup> 31	13 <sup>41</sup> 41	7 <sup>39</sup> 39	21 <sup>37</sup> 37	7 <sup>7</sup> 7	19 <sup>32</sup> 32	20 <sup>32</sup> 32	11 <sup>16</sup> 16	3 <sup>18</sup> 18	W17
T 18	9 49 48	28 <sup>53</sup> 08	21 <sup>35</sup> 35	16 <sup>33</sup> 33	24 <sup>33</sup> 33	24 <sup>51</sup> 51	9 <sup>42</sup> 42	13 <sup>36</sup> 36	7 <sup>42</sup> 42	21 <sup>39</sup> 39	7 <sup>8</sup> 8	19 <sup>31</sup> 31	20 <sup>29</sup> 29	11 <sup>23</sup> 23	3 <sup>20</sup> 20	T 18
F 19	9 53 44	29 <sup>53</sup> 36	4 <sup>30</sup> 30	15 <sup>49</sup> 49	24 <sup>24</sup> 24	25 <sup>31</sup> 31	9 <sup>54</sup> 54	13 <sup>32</sup> 32	7 <sup>45</sup> 45	21 <sup>41</sup> 41	7 <sup>9</sup> 9	19 <sup>29</sup> 29	20 <sup>26</sup> 26	11 <sup>30</sup> 30	3 <sup>22</sup> 22	F 19
S 20	9 57 41	0 <sup>54</sup> 03	18 <sup>11</sup> 11	15 <sup>11</sup> 11	24 <sup>12</sup> 12	26 <sup>11</sup> 11	10 <sup>5</sup> 5	13 <sup>27</sup> 27	7 <sup>49</sup> 49	21 <sup>43</sup> 43	7 <sup>11</sup> 11	19 <sup>26</sup> 26	20 <sup>23</sup> 23	11 <sup>36</sup> 36	3 <sup>24</sup> 24	S 20
S 21	10 1 37	1 <sup>54</sup> 29	2 <sup>8</sup> 8	14 <sup>41</sup> 41	23 <sup>58</sup> 58	26 <sup>51</sup> 51	10 <sup>16</sup> 16	13 <sup>23</sup> 23	7 <sup>52</sup> 52	21 <sup>45</sup> 45	7 <sup>12</sup> 12	19 <sup>23</sup> 23	20 <sup>20</sup> 20	11 <sup>43</sup> 43	3 <sup>27</sup> 27	S 21
M22	10 5 34	2 <sup>54</sup> 53	16 <sup>28</sup> 28	14 <sup>19</sup> 19	23 <sup>41</sup> 41	27 <sup>31</sup> 31	10 <sup>27</sup> 27	13 <sup>18</sup> 18	7 <sup>55</sup> 55	21 <sup>46</sup> 46	7 <sup>13</sup> 13	19 <sup>21</sup> 21	20 <sup>17</sup> 17	11 <sup>50</sup> 50	3 <sup>29</sup> 29	M22
T 23	10 9 31	3 <sup>55</sup> 16	1 <sup>8</sup> 8	14 <sup>3</sup> 3	23 <sup>21</sup> 21	28 <sup>11</sup> 11	10 <sup>37</sup> 37	13 <sup>14</sup> 14	7 <sup>59</sup> 59	21 <sup>48</sup> 48	7 <sup>14</sup> 14	19 <sup>20</sup> 20	20 <sup>13</sup> 13	11 <sup>56</sup> 56	3 <sup>31</sup> 31	T 23
W24	10 13 27	4 <sup>55</sup> 37	16 <sup>1</sup> 1	13 <sup>55</sup> 55	23 <sup>0</sup> 0	28 <sup>51</sup> 51	10 <sup>48</sup> 48	13 <sup>9</sup> 9	8 <sup>2</sup> 2	21 <sup>50</sup> 50	7 <sup>16</sup> 16	19 <sup>21</sup> 21	20 <sup>10</sup> 10	12 <sup>3</sup> 3	3 <sup>34</sup> 34	W24
T 25	10 17 24	5 <sup>55</sup> 56	0 <sup>58</sup> 58	13 <sup>54</sup> 54	22 <sup>36</sup> 36	29 <sup>31</sup> 31	10 <sup>59</sup> 59	13 <sup>5</sup> 5	8 <sup>5</sup> 5	21 <sup>52</sup> 52	7 <sup>17</sup> 17	19 <sup>19</sup> 19	20 <sup>7</sup> 7	12 <sup>9</sup> 9	3 <sup>36</sup> 36	T 25
F 26	10 21 20	6 <sup>56</sup> 13	15 <sup>51</sup> 51	14 <sup>0</sup> 0	22 <sup>10</sup> 10	0 <sup>11</sup> 11	11 <sup>9</sup> 9	13 <sup>1</sup> 1	8 <sup>8</sup> 8	21 <sup>54</sup> 54	7 <sup>18</sup> 18	19 <sup>20</sup> 20	20 <sup>4</sup> 4	12 <sup>16</sup> 16	3 <sup>38</sup> 38	F 26
S 27	10 25 17	7 <sup>56</sup> 28	0 <sup>34</sup> 34	14 <sup>11</sup> 11	21 <sup>42</sup> 42	0 <sup>51</sup> 51	11 <sup>20</sup> 20	12 <sup>56</sup> 56	8 <sup>11</sup> 11	21 <sup>55</sup> 55	7 <sup>19</sup> 19	19 <sup>21</sup> 21	20 <sup>1</sup> 1	12 <sup>23</sup> 23	3 <sup>41</sup> 41	S 27
S 28	10 29 13	8 <sup>56</sup> 41	15 <sup>0</sup> 0	14 <sup>28</sup> 28	21 <sup>12</sup> 12	1 <sup>31</sup> 31	11 <sup>30</sup> 30	12 <sup>52</sup> 52	8 <sup>15</sup> 15	21 <sup>57</sup> 57	7 <sup>21</sup> 21	19 <sup>22</sup> 22	19 <sup>57</sup> 57	12 <sup>29</sup> 29	3 <sup>44</sup> 44	S 28

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	17s18	13n 8	4s26	10s38	1n22	0s19	3n25	22s15	0n12	23s 8	0n10	17n23	1n 4	19s11	0s35	21s14	0n35	12s36	16s42	3n57	3n25	2s18	11n34	0s58			
T 2	17 1	15 49	4 57	10 16	1 39	0n 2	3 36	22 20	0 11	23 8	0 10	17 24	1 4	19 10	0 35	21 14	0 35	12 36	16 42	3 58	3 26	2 19	11 34	0 58			
W 3	16 43	17 34	5 11	9 58	1 56	0 23	3 48	22 26	0 10	23 7	0 10	17 26	1 4	19 9	0 35	21 13	0 35	12 35	16 42	3 59	3 28	2 21	11 35	0 58			
T 4	16 26	18 20	5 7	9 44	2 13	0 44	3 59	22 31	0 9	23 7	0 10	17 27	1 4	19 8	0 35	21 13	0 35	12 35	16 41	4 1	3 29	2 23	11 35	0 58			
F 5	16 8	18 6	4 47	9 34	2 29	1 3	4 11	22 36	0 9	23 6	0 10	17 29	1 4	19 7	0 35	21 13	0 35	12 34	16 41	4 3	3 30	2 25	11 36	0 58			
S 6	15 50	16 55	4 13	9 29	2 45	1 23	4 23	22 41	0 8	23 5	0 10	17 30	1 4	19 6	0 35	21 12	0 35	12 33	16 41	4 6	3 31	2 27	11 36	0 58			
S 7	15 31	14 54	3 27	9 28	2 59	1 41	4 36	22 45	0 7	23 5	0 10	17 32	1 5	19 5	0 35	21 12	0 35	12 33	16 40	4 8	3 33	2 29	11 37	0 58			
M 8	15 12	12 13	2 31	9 32	3 11	1 59	4 48	22 50	0 6	23 4	0 10	17 33	1 5	19 5	0 35	21 12	0 35	12 32	16 40	4 10	3 34	2 30	11 37	0 58			
T 9	14 53	9 2	1 29	9 40	3 22	2 16	5 0	22 54	0 5	23 4	0 10	17 35	1 5	19 4	0 35	21 12	0 35	12 31	16 40	4 11	3 35	2 32	11 38	0 58			
W10	14 34	5 30	0 24	9 52	3 31	2 32	5 12	22 58	0 4	23 3	0 10	17 36	1 5	19 3	0 35	21 11	0 35	12 31	16 40	4 11	3 36	2 34	11 38	0 58			
T 11	14 15	1 49	0n42	10 7	3 37	2 47	5 25	23 2	0 4	23 2	0 9	17 38	1 5	19 2	0 36	21 11	0 35	12 30	16 39	4 11	3 38	2 36	11 39	0 58			
F 12	13 55	1s55	1 45	10 26	3 42	3 2	5 37	23 6	0 3	23 2	0 9	17 39	1 5	19 1	0 36	21 11	0 35	12 29	16 39	4 11	3 39	2 38	11 39	0 58			
S 13	13 35	5 34	2 44	10 46	3 43	3 15	5 50	23 9	0 2	23 1	0 9	17 41	1 5	19 0	0 36	21 10	0 35	12 29	16 39	4 10	3 40	2 40	11 40	0 58			
S 14	13 15	8 59	3 36	11 8	3 43	3 27	6 2	23 13	0 1	23 0	0 9	17 42	1 5	18 59	0 36	21 10	0 35	12 28	16 39	4 9	3 41	2 41	11 41	0 58			
M15	12 55	12 4	4 19	11 31	3 40	3 39	6 14	23 16	0 0	22 59	0 9	17 44	1 5	18 58	0 36	21 10	0 35	12 27	16 38	4 9	3 43	2 43	11 41	0 58			
T 16	12 34	14 41	4 51	11 55	3 35	3 49	6 26	23 19	0s 1	22 59	0 9	17 45	1 5	18 58	0 36	21 9	0 35	12 27	16 38	4 8	3 44	2 45	11 42	0 58			
W17	12 13	16 41	5 10	12 19	3 29	3 58	6 38	23 21	0 2	22 58	0 9	17 46	1 5	18 57	0 36	21 9	0 35	12 26	16 38	4 9	3 45	2 47	11 43	0 58			
T 18	11 52	17 56	5 16	12 42	3 20	4 6	6 50	23 24	0 3	22 57	0 9	17 48	1 5	18 56	0 36	21 9	0 35	12 25	16 38	4 9	3 46	2 49	11 43	0 58			
F 19	11 31	18 18	5 5	13 4	3 11	4 13	7 1	23 26	0 3	22 57	0 9	17 49	1 5	18 55	0 36	21 8	0 35	12 25	16 38	4 10	3 48	2 51	11 44	0 58			
S 20	11 10	17 39	4 37	13 26	3 0	4 19	7 12	23 29	0 4	22 56	0 9	17 51	1 5	18 54	0 36	21 8	0 35	12 24	16 37	4 11	3 49	2 52	11 45	0 58			
S 21	10 48	15 55	3 52	13 45	2 48	4 23	7 23	23 31	0 5	22 55	0 9	17 52	1 6	18 53	0 36	21 8	0 35	12 23	16 37	4 12	3 50	2 54	11 45	0 58			
M22	10 27	13 10	2 52	14 4	2 36	4 26	7 34	23 32	0 6	22 54	0 9	17 53	1 6	18 53	0 36	21 8	0 35	12 23	16 37	4 13	3 51	2 56	11 46	0 58			
T 23	10 5	9 32	1 39	14 20	2 23	4 27	7 44	23 34	0 7	22 54	0 8	17 55	1 6	18 52	0 36	21 7	0 35	12 22	16 37	4 14	3 53	2 58	11 47	0 58			
W24	9 43	5 14	0 18	14 35	2 10	4 28	7 53	23 35	0 8	22 53	0 8	17 56	1 6	18 51	0 36	21 7	0 35	12 21	16 37	4 14	3 54	3 0	11 48	0 58			
T 25	9 21	0 36	1s 4	14 48	1 56	4 26	8 2	23 37	0 9	22 52	0 8	17 57	1 6	18 50	0 36	21 7	0 35	12 21	16 36	4 14	3 55	3 2	11 49	0 58			
F 26	8 58	4n 3	2 22	15 0	1 43	4 24	8 10	23 38	0 10	22 51	0 8	17 59	1 6	18 49	0 36	21 6	0 35	12 20	16 36	4 13	3 56	3 3	11 49	0 58			
S 27	8 36	8 24	3 30	15 9	1 30	4 20	8 18	23 38	0 11	22 50	0 8	18 0	1 6	18 49	0 36	21 6	0 35	12 19	16 36	4 13	3 58	3 5	11 50	0 58			
S 28	8s13	12n10	4s22	15s17	1n17	4n14	8n25	23s39	0s12	22s50	0n 8	18n 1	1n 6	18s48	0s36	21s 6	0n35	12s19	16s36	4n13	3n59	3s 7	11n51	0s59			

# ASTRODIENST EPHEMERIS for the year 1830

## geocentric

MARCH 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	10 33 10	9♂56'52	29♂ 8	14♂51	20°R40	2♂11	11♂40	12°R48	8♂18	21♂59	7♂22	19♂23	19♂54	12♂36	3♂46	M 1
T 2	10 37 6	10°57'01	12♂56	15°19	20♂ 7	2°51	11°50	12♂44	8°21	22° 0	7°23	19°R23	19°51	12°43	3°49	T 2
W 3	10 41 3	11°57'08	26°23	15°51	19°32	3°31	12° 0	12°40	8°24	22° 2	7°25	19°23	19°48	12°49	3°52	W 3
T 4	10 45 0	12°57'13	9♂32	16°28	18°57	4°11	12°10	12°36	8°27	22° 4	7°26	19°22	19°45	12°56	3°54	T 4
F 5	10 48 56	13°57'16	22°23	17° 9	18°20	4°51	12°20	12°32	8°30	22° 5	7°27	19°21	19°42	13° 3	3°57	F 5
S 6	10 52 53	14°57'16	5♂ 0	17°54	17°43	5°31	12°30	12°29	8°33	22° 7	7°29	19°21	19°38	13° 9	4° 0	S 6
S 7	10 56 49	15°57'14	17°24	18°43	17° 5	6°12	12°39	12°25	8°36	22° 8	7°30	19°20	19°35	13°16	4° 3	S 7
M 8	11 0 46	16°57'11	29°37	19°35	16°27	6°52	12°49	12°21	8°39	22°10	7°32	19°20	19°32	13°23	4° 6	M 8
T 9	11 4 42	17°57'05	11♂41	20°30	15°50	7°32	12°58	12°18	8°42	22°11	7°33	19°20	19°29	13°29	4° 9	T 9
W10	11 8 39	18°56'57	23°38	21°27	15°12	8°12	13° 7	12°14	8°45	22°13	7°34	19°20	19°26	13°36	4°12	W10
T 11	11 12 35	19°56'47	5♂31	22°28	14°36	8°52	13°16	12°11	8°47	22°14	7°36	19°20	19°22	13°43	4°15	T 11
F 12	11 16 32	20°56'36	17°20	23°31	14° 0	9°32	13°25	12° 8	8°50	22°16	7°37	19°20	19°19	13°49	4°18	F 12
S 13	11 20 28	21°56'22	29° 8	24°37	13°25	10°12	13°34	12° 5	8°53	22°17	7°39	19°19	19°16	13°56	4°21	S 13
S 14	11 24 25	22°56'07	10♂59	25°44	12°52	10°52	13°43	12° 2	8°56	22°18	7°40	19°19	19°13	14° 3	4°24	S 14
M15	11 28 22	23°55'50	22°56	26°54	12°20	11°32	13°51	11°59	8°59	22°20	7°41	19°18	19°10	14° 9	4°27	M15
T 16	11 32 18	24°55'31	5♂ 2	28° 6	11°50	12°12	14° 0	11°56	9° 1	22°21	7°43	19°18	19° 7	14°16	4°30	T 16
W17	11 36 15	25°55'11	17°21	29°21	11°22	12°52	14° 8	11°53	9° 4	22°22	7°44	19°18	19° 3	14°23	4°34	W17
T 18	11 40 11	26°54'49	29°58	0♂36	10°56	13°32	14°16	11°50	9° 7	22°23	7°46	19°D17	19° 0	14°29	4°37	T 18
F 19	11 44 8	27°54'25	12♂57	1°54	10°32	14°12	14°24	11°47	9° 9	22°25	7°47	19°18	18°57	14°36	4°40	F 19
S 20	11 48 4	28°53'59	26°20	3°14	10°10	14°52	14°32	11°45	9°12	22°26	7°49	19°18	18°54	14°43	4°44	S 20
S 21	11 52 1	29°53'32	10♂10	4°35	9°50	15°32	14°40	11°42	9°14	22°27	7°50	19°19	18°51	14°49	4°47	S 21
M22	11 55 57	0♂53'02	24°26	5°58	9°33	16°12	14°48	11°40	9°17	22°28	7°52	19°20	18°48	14°56	4°50	M22
T 23	11 59 54	1°52'31	9♂ 7	7°22	9°19	16°52	14°55	11°38	9°19	22°29	7°53	19°21	18°44	15° 3	4°54	T 23
W24	12 3 51	2°51'58	24° 6	8°48	9° 6	17°32	15° 3	11°36	9°22	22°30	7°54	19°R21	18°41	15° 9	4°57	W24
T 25	12 7 47	3°51'23	9♂16	10°16	8°57	18°12	15°10	11°33	9°24	22°31	7°56	19°20	18°38	15°16	5° 1	T 25
F 26	12 11 44	4°50'46	24°28	11°45	8°49	18°52	15°17	11°31	9°26	22°32	7°57	19°19	18°35	15°23	5° 4	F 26
S 27	12 15 40	5°50'07	9♂31	13°15	8°44	19°32	15°24	11°30	9°29	22°33	7°59	19°17	18°32	15°29	5° 8	S 27
S 28	12 19 37	6°49'25	24°18	14°47	8°42	20°12	15°31	11°28	9°31	22°34	8° 0	19°15	18°28	15°36	5°11	S 28
M29	12 23 33	7°48'41	8♂42	16°20	8°D42	20°52	15°38	11°26	9°33	22°35	8° 2	19°13	18°25	15°43	5°15	M29
T 30	12 27 30	8°47'55	22°40	17°55	8°44	21°31	15°44	11°25	9°35	22°36	8° 3	19°11	18°22	15°49	5°19	T 30
W31	12 31 26	9♂47'07	6♂11	19♂32	8♂49	22♂11	15♂50	11♂23	9♂38	22♂37	8♂ 5	19°D10	18♂19	15♂56	5♂22	W31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
M 1	7s51	15n 8	4s58	15s23	1n 4	4n 8	8n31	23s40	0s13	22s49	0n 8	18n 2	1n 6	18s47	0s36	21s 6
T 2	7 28	17 9	5 16	15 27	0 51	3 59	8 36	23 40	0 14	22 48	0 8	18 3	1 6	18 46	0 36	21 5
W 3	7 5	18 9	5 15	15 29	0 38	3 50	8 40	23 40	0 15	22 47	0 8	18 5	1 6	18 45	0 36	21 5
T 4	6 42	18 9	4 58	15 30	0 26	3 39	8 44	23 40	0 16	22 46	0 8	18 6	1 6	18 45	0 36	21 5
F 5	6 19	17 13	4 27	15 29	0 14	3 27	8 46	23 39	0 17	22 46	0 8	18 7	1 6	18 44	0 36	21 5
S 6	5 56	15 26	3 42	15 26	0 3	3 14	8 48	23 39	0 18	22 45	0 8	18 8	1 6	18 43	0 36	21 4
S 7	5 33	12 57	2 48	15 22	0s 8	3 0	8 48	23 38	0 19	22 44	0 7	18 9	1 6	18 42	0 36	21 4
M 8	5 9	9 56	1 47	15 15	0 19	2 46	8 48	23 37	0 20	22 43	0 7	18 10	1 6	18 42	0 36	21 4
T 9	4 46	6 32	0 42	15 8	0 29	2 30	8 46	23 36	0 22	22 42	0 7	18 11	1 6	18 41	0 36	21 4
W10	4 23	2 54	0n24	14 59	0 39	2 13	8 44	23 35	0 23	22 42	0 7	18 12	1 6	18 40	0 36	21 3
T 11	3 59	0s50	1 29	14 48	0 48	1 56	8 40	23 33	0 24	22 41	0 7	18 13	1 6	18 39	0 36	21 3
F 12	3 36	4 30	2 30	14 36	0 57	1 39	8 36	23 32	0 25	22 40	0 7	18 14	1 6	18 39	0 36	21 3
S 13	3 12	8 0	3 24	14 22	1 6	1 21	8 31	23 30	0 26	22 39	0 7	18 15	1 6	18 38	0 36	21 3
S 14	2 48	11 11	4 10	14 7	1 14	1 3	8 25	23 28	0 27	22 38	0 7	18 16	1 6	18 37	0 36	21 2
M15	2 25	13 55	4 45	13 50	1 22	0 44	8 18	23 26	0 28	22 38	0 7	18 16	1 6	18 37	0 36	21 2
T 16	2 1	16 6	5 8	13 32	1 29	0 26	8 10	23 23	0 29	22 37	0 7	18 17	1 6	18 36	0 36	21 2
W17	1 37	17 35	5 18	13 12	1 36	0 8	8 2	23 21	0 31	22 36	0 7	18 18	1 6	18 35	0 36	21 2
T 18	1 14	18 15	5 12	12 52	1 42	0s10	7 53	23 18	0 32	22 35	0 6	18 19	1 6	18 34	0 36	21 1
F 19	0 50	18 0	4 51	12 29	1 48	0 28	7 44	23 15	0 33	22 34	0 6	18 20	1 6	18 34	0 36	21 1
S 20	0 26	16 45	4 14	12 6	1 54	0 46	7 33	23 12	0 34	22 34	0 6	18 20	1 6	18 33	0 36	21 1
S 21	0 3	14 29	3 21	11 41	1 59	1 3	7 23	23 8	0 35	22 33	0 6	18 21	1 6	18 33	0 36	21 1
M22	0n21	11 17	2 14	11 14	2 3	1 19	7 12	23 5	0 37	22 32	0 6	18 22	1 6	18 32	0 36	21 1
T 23	0 45	7 17	0 57	10 47	2 7	1 35	7 1	23 1	0 38	22 31	0 6	18 22	1 6	18 31	0 36	21 1
W24	1 8	2 45	0s26	10 18	2 11	1 50	6 49	22 57	0 39	22 31	0 6	18 23	1 6	18 31	0 36	21 0
T 25	1 32	2n 1	1 48	9 48	2 14	2 5	6 37	22 53	0 40	22 30	0 6	18 23	1 6	18 30	0 36	21 0
F 26	1 56	6 40	3 3	9 16	2 17	2 19	6 25	22 49	0 42	22 29	0 6	18 24	1 6	18 29	0 36	21 0
S 27	2 19	10 49	4 3	8 44	2 19	2 32	6 13	22 45	0 43	22 29	0 6	18 25	1 6	18 29	0 36	21 0
S 28	2 43	14 13	4 47	8 10	2 21	2 44	6 1	22 40	0 44	22 28	0 6	18 25	1 6	18 28	0 36	21 0
M29	3 6	16 39	5 11	7 35	2 23	2 56	5 48	22 35	0 46	22 27	0 5	18 25	1 6	18 28	0 37	21 0
T 30	3 29	18 0	5 16	6 59	2 23	3 7	5 36	22 30	0 47	22 26	0 5	18 26	1 6	18 27	0 37	20 59
W31	3n53	18n17	5s 2	6s21	2s24	3s17	5n23	22s25	0s48	22s26	0n 5	18n26	1n 6	18s27	0s37	20s59

Julian Day Number = 2389512.5, Delta T = 10.59 sec  
 Ecliptic obliquity = 23°27'32, Nutation = - 0°00'02, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 22°22'08, Lahiri = 21°29'08

# ASTRODIENST EPHEMERIS for the year 1830

## geocentric

APRIL 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 35 23	10°46'16	19°18	21°9	8°56	22°51	15°57	11°R22	9°40	22°38	8°6	19°11	18°16	16°3	5°26	T 1
F 2	12 39 20	11°45'23	2°3	22°48	9°5	23°31	16°3	11°21	9°42	22°38	8°8	19°12	18°13	16°9	5°30	F 2
S 3	12 43 16	12°44'27	14°29	24°29	9°16	24°11	16°9	11°19	9°44	22°39	8°9	19°13	18°9	16°16	5°33	S 3
S 4	12 47 13	13°43'30	26°41	26°11	9°29	24°51	16°14	11°18	9°46	22°40	8°10	19°15	18°6	16°22	5°37	S 4
M 5	12 51 9	14°42'30	8°42	27°54	9°45	25°30	16°20	11°18	9°48	22°41	8°12	19°16	18°3	16°29	5°41	M 5
T 6	12 55 6	15°41'27	20°37	29°39	10°2	26°10	16°25	11°17	9°50	22°41	8°13	19°R17	18°0	16°36	5°45	T 6
W 7	12 59 2	16°40'23	2°27	1°26	10°21	26°50	16°31	11°16	9°52	22°42	8°15	19°16	17°57	16°42	5°48	W 7
T 8	13 2 59	17°39'17	14°16	3°14	10°42	27°29	16°36	11°15	9°53	22°42	8°16	19°14	17°53	16°49	5°52	T 8
F 9	13 6 55	18°38'08	26°5	5°3	11°5	28°9	16°41	11°15	9°55	22°43	8°18	19°10	17°50	16°56	5°56	F 9
S 10	13 10 52	19°36'58	7°57	6°54	11°30	28°49	16°45	11°15	9°57	22°43	8°19	19°5	17°47	17°2	6°0	S 10
S 11	13 14 48	20°35'45	19°53	8°46	11°56	29°28	16°50	11°14	9°59	22°44	8°21	19°0	17°44	17°9	6°4	S 11
M12	13 18 45	21°34'31	1°55	10°40	12°24	0°8	16°54	11°14	10°0	22°44	8°22	18°54	17°41	17°16	6°7	M12
T 13	13 22 42	22°33'15	14°7	12°36	12°54	0°48	16°59	11°D14	10°2	22°45	8°23	18°49	17°38	17°22	6°11	T 13
W14	13 26 38	23°31'57	26°30	14°33	13°25	1°27	17°3	11°14	10°3	22°45	8°25	18°44	17°34	17°29	6°15	W14
T 15	13 30 35	24°30'38	9°7	16°31	13°57	2°7	17°7	11°14	10°5	22°46	8°26	18°42	17°31	17°36	6°19	T 15
F 16	13 34 31	25°29'17	22°2	18°31	14°31	2°46	17°10	11°15	10°6	22°46	8°28	18°D40	17°28	17°42	6°23	F 16
S 17	13 38 28	26°27'54	5°18	20°32	15°6	3°26	17°14	11°15	10°8	22°46	8°29	18°41	17°25	17°49	6°27	S 17
S 18	13 42 24	27°26'30	18°57	22°35	15°42	4°5	17°17	11°15	10°9	22°46	8°31	18°42	17°22	17°56	6°31	S 18
M19	13 46 21	28°25'03	3°1	24°39	16°20	4°45	17°20	11°16	10°10	22°47	8°32	18°43	17°19	18°2	6°35	M19
T 20	13 50 17	29°23'36	17°30	26°44	16°59	5°24	17°23	11°17	10°12	22°47	8°33	18°R44	17°15	18°9	6°39	T 20
W21	13 54 14	0°22'06	2°20	28°50	17°39	6°3	17°26	11°18	10°13	22°47	8°35	18°43	17°12	18°16	6°43	W21
T 22	13 58 11	1°20'35	17°27	0°57	18°20	6°43	17°29	11°19	10°14	22°47	8°36	18°41	17°9	18°22	6°46	T 22
F 23	14 2 7	2°19'02	2°40	3°5	19°2	7°22	17°31	11°20	10°15	22°47	8°37	18°36	17°6	18°29	6°50	F 23
S 24	14 6 4	3°17'27	17°50	5°14	19°45	8°1	17°34	11°21	10°16	22°47	8°39	18°30	17°3	18°36	6°54	S 24
S 25	14 10 0	4°15'50	2°47	7°22	20°29	8°40	17°36	11°22	10°17	22°R47	8°40	18°23	16°59	18°42	6°58	S 25
M26	14 13 57	5°14'12	17°23	9°31	21°13	9°19	17°38	11°23	10°18	22°47	8°41	18°16	16°56	18°49	7°2	M26
T 27	14 17 53	6°12'31	1°32	11°40	21°59	9°58	17°39	11°25	10°19	22°47	8°43	18°10	16°53	18°56	7°6	T 27
W28	14 21 50	7°10'48	15°11	13°48	22°46	10°37	17°41	11°26	10°20	22°47	8°44	18°6	16°50	19°2	7°10	W28
T 29	14 25 46	8°9'04	28°22	15°56	23°33	11°16	17°42	11°28	10°21	22°47	8°45	18°4	16°47	19°9	7°14	T 29
F 30	14 29 43	9°8'17	11°12	18°8	24°21	11°55	17°43	11°230	10°22	22°47	8°47	18°D3	16°44	19°16	7°18	F 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
T 1	4n16	17n33	4s34	5s43	2s24	3s26	5n11	22s20	0s50	22s25	0n5	18n27	1n6	18s26	0s37	T 1
F 2	4 39	15 57	3 52	5 3	2 23	3 34	4 58	22 15	0 51	22 25	0 5	18 27	1 6	18 26	0 37	F 2
S 3	5 2	13 37	3 0	4 22	2 22	3 41	4 46	22 9	0 52	22 24	0 5	18 27	1 6	18 25	0 37	S 3
S 4	5 25	10 44	2 1	3 40	2 21	3 48	4 34	22 3	0 54	22 23	0 5	18 28	1 6	18 25	0 37	S 4
M 5	5 48	7 25	0 58	2 57	2 19	3 53	4 21	21 58	0 55	22 23	0 5	18 28	1 6	18 24	0 37	M 5
T 6	6 11	3 50	0n7	2 13	2 16	3 58	4 9	21 52	0 57	22 22	0 5	18 28	1 6	18 24	0 37	T 6
W 7	6 34	0 7	1 12	1 48	2 13	4 2	3 57	21 45	0 58	22 22	0 5	18 28	1 6	18 23	0 37	W 7
T 8	6 56	3s35	2 13	0 22	2 10	4 5	3 46	21 39	0 59	22 21	0 4	18 28	1 6	18 23	0 37	T 8
F 9	7 19	7 9	3 8	0n5	2 6	4 7	3 34	21 32	1 1	22 21	0 4	18 28	1 6	18 22	0 37	F 9
S 10	7 41	10 27	3 56	0 53	2 1	4 8	3 22	21 26	1 2	22 20	0 4	18 28	1 6	18 22	0 37	S 10
S 11	8 3	13 20	4 33	1 42	1 56	4 9	3 11	21 19	1 4	22 20	0 4	18 28	1 6	18 21	0 37	S 11
M12	8 25	15 41	4 58	2 32	1 50	4 8	3 0	21 12	1 5	22 19	0 4	18 29	1 6	18 21	0 37	M12
T 13	8 47	17 22	5 11	3 23	1 44	4 7	2 49	21 5	1 7	22 19	0 4	18 29	1 6	18 20	0 37	T 13
W14	9 9	18 16	5 9	4 14	1 38	4 5	2 38	20 58	1 8	22 18	0 4	18 28	1 6	18 20	0 37	W14
T 15	9 30	18 17	4 52	5 6	1 31	4 3	2 28	20 50	1 10	22 18	0 4	18 28	1 6	18 20	0 37	T 15
F 16	9 52	17 22	4 21	5 59	1 23	3 59	2 17	20 43	1 11	22 18	0 4	18 28	1 6	18 19	0 37	F 16
S 17	10 13	15 29	3 35	6 52	1 15	3 55	2 7	20 35	1 13	22 17	0 4	18 28	1 6	18 19	0 37	S 17
S 18	10 34	12 42	2 35	7 46	1 7	3 50	1 57	20 27	1 14	22 17	0 3	18 28	1 6	18 19	0 37	S 18
M19	10 55	9 5	1 25	8 39	0 58	3 45	1 47	20 19	1 16	22 17	0 3	18 28	1 6	18 18	0 37	M19
T 20	11 16	4 50	0 7	9 33	0 49	3 39	1 38	20 11	1 18	22 16	0 3	18 28	1 6	18 18	0 37	T 20
W21	11 37	0 11	1s13	10 28	0 39	3 32	1 28	20 3	1 19	22 16	0 3	18 27	1 6	18 18	0 37	W21
T 22	11 57	4n33	2 29	11 22	0 29	3 24	1 19	19 55	1 21	22 16	0 3	18 27	1 6	18 17	0 37	T 22
F 23	12 17	9 2	3 35	12 15	0 19	3 16	1 10	19 46	1 22	22 16	0 3	18 27	1 6	18 17	0 37	F 23
S 24	12 37	12 54	4 26	13 8	0 9	3 7	1 2	19 38	1 24	22 16	0 3	18 26	1 6	18 17	0 37	S 24
S 25	12 57	15 52	4 57	14 1	0n2	2 58	0 53	19 29	1 26	22 15	0 3	18 26	1 6	18 17	0 37	S 25
M26	13 17	17 44	5 9	14 52	0 13	2 48	0 45	19 20	1 27	22 15	0 3	18 26	1 5	18 16	0 37	M26
T 27	13 36	18 27	5 0	15 43	0 23	2 37	0 37	19 12	1 29	22 15	0 2	18 25	1 5	18 16	0 38	T 27
W28	13 55	18 2	4 35	16 32	0 34	2 26	0 29	19 3	1 31	22 15	0 2	18 25	1 5	18 16	0 38	W28
T 29	14 14	16 39	3 56	17 20	0 45	2 15	0 21	18 53	1 32	22 15	0 2	18 24	1 5	18 16	0 38	T 29
F 30	14n33	14n28	3s6	18n6	0n55	2s2	0n13	18s44	1s34	22s15	0n2	18n24	1n5	18s16	0s38	F 30

Julian Day Number = 2389543.5, Delta T = 10.54 sec

Ecliptic obliquity = 23°27'32", Nutation = - 0°00'04", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 22°22'12", Lahiri = 21°29'12"

# ASTRODIENST EPHEMERIS for the year 1830

## geocentric

MAY 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 33 40	10♌ 5'28	23♌32	20♌ 7	25♌10	12♌34	17♌44	11♌32	10♌23	22°R47	8°V48	18♌ 4	16♌40	19♌22	7♌22	S 1
S 2	14 37 36	11° 3'37	5♌40	22°10	26° 0	13°13	17°45	11°34	10°23	22♌47	8°49	18° 5	16°37	19°29	7°26	S 2
M 3	14 41 33	12° 1'44	17°37	24°11	26°50	13°51	17°46	11°36	10°24	22°46	8°51	18°R 6	16°34	19°36	7°30	M 3
T 4	14 45 29	12°59'49	29°27	26°11	27°41	14°30	17°46	11°38	10°25	22°46	8°52	18° 5	16°31	19°42	7°34	T 4
W 5	14 49 26	13°57'52	11♌14	28° 7	28°33	15° 9	17°46	11°40	10°25	22°46	8°53	18° 2	16°28	19°49	7°38	W 5
T 6	14 53 22	14°55'54	23° 3	0♌ 1	29°25	15°47	17°R46	11°42	10°26	22°45	8°54	17°57	16°25	19°56	7°42	T 6
F 7	14 57 19	15°53'54	4♌55	1°52	0°V18	16°26	17°46	11°45	10°26	22°45	8°55	17°50	16°21	20° 2	7°46	F 7
S 8	15 1 15	16°51'52	16°53	3°40	1°11	17° 4	17°46	11°48	10°26	22°45	8°57	17°40	16°18	20° 9	7°50	S 8
S 9	15 5 12	17°49'49	28°58	5°25	2° 5	17°42	17°45	11°50	10°27	22°44	8°58	17°29	16°15	20°16	7°54	S 9
M10	15 9 9	18°47'44	11♌11	7° 7	3° 0	18°21	17°45	11°53	10°27	22°44	8°59	17°18	16°12	20°22	7°58	M10
T 11	15 13 5	19°45'38	23°34	8°46	3°55	18°59	17°44	11°56	10°27	22°43	9° 0	17° 7	16° 9	20°29	8° 1	T 11
W12	15 17 2	20°43'30	6♌ 7	10°20	4°50	19°37	17°43	11°59	10°28	22°43	9° 1	16°58	16° 5	20°36	8° 5	W12
T 13	15 20 58	21°41'21	18°53	11°52	5°46	20°15	17°41	12° 2	10°28	22°42	9° 3	16°52	16° 2	20°42	8° 9	T 13
F 14	15 24 55	22°39'11	1♌52	13°20	6°43	20°53	17°40	12° 5	10°28	22°42	9° 4	16°47	15°59	20°49	8°13	F 14
S 15	15 28 51	23°36'59	15° 8	14°44	7°40	21°31	17°38	12° 8	10°28	22°41	9° 5	16°46	15°56	20°56	8°17	S 15
S 16	15 32 48	24°34'47	28°41	16° 5	8°37	22° 9	17°36	12°12	10°R28	22°40	9° 6	16°D45	15°53	21° 2	8°21	S 16
M17	15 36 44	25°32'33	12♌35	17°21	9°35	22°46	17°34	12°15	10°28	22°40	9° 7	16°R46	15°50	21° 9	8°25	M17
T 18	15 40 41	26°30'18	26°49	18°34	10°33	23°24	17°32	12°19	10°28	22°39	9° 8	16°45	15°46	21°16	8°29	T 18
W19	15 44 38	27°28'02	11°V22	19°44	11°32	24° 2	17°30	12°22	10°28	22°38	9° 9	16°43	15°43	21°22	8°32	W19
T 20	15 48 34	28°25'45	26°12	20°49	12°31	24°39	17°27	12°26	10°27	22°38	9°10	16°39	15°40	21°29	8°36	T 20
F 21	15 52 31	29°23'27	11♌11	21°50	13°30	25°16	17°24	12°30	10°27	22°37	9°11	16°32	15°37	21°36	8°40	F 21
S 22	15 56 27	0♌21'08	26°11	22°48	14°30	25°54	17°22	12°34	10°27	22°36	9°12	16°23	15°34	21°42	8°44	S 22
S 23	16 0 24	1°18'48	11♌ 3	23°41	15°30	26°31	17°18	12°38	10°27	22°35	9°13	16°12	15°30	21°49	8°47	S 23
M24	16 4 20	2°16'26	25°38	24°30	16°30	27° 8	17°15	12°42	10°26	22°34	9°14	16° 1	15°27	21°56	8°51	M24
T 25	16 8 17	3°14'03	9♌48	25°15	17°31	27°45	17°12	12°46	10°26	22°33	9°15	15°52	15°24	22° 3	8°55	T 25
W26	16 12 13	4°11'39	23°32	25°55	18°32	28°21	17° 8	12°50	10°25	22°32	9°16	15°44	15°21	22° 9	8°59	W26
T 27	16 16 10	5° 9'13	6♌46	26°31	19°33	28°58	17° 4	12°54	10°25	22°31	9°17	15°39	15°18	22°16	9° 2	T 27
F 28	16 20 7	6° 6'46	19°35	27° 3	20°34	29°34	17° 0	12°59	10°24	22°31	9°18	15°37	15°15	22°23	9° 6	F 28
S 29	16 24 3	7° 4'18	2♌ 2	27°30	21°36	0♌11	16°56	13° 3	10°23	22°30	9°19	15°36	15°11	22°29	9°10	S 29
S 30	16 28 0	8° 1'48	14°10	27°53	22°38	0°47	16°52	13° 8	10°23	22°28	9°20	15°36	15° 8	22°36	9°13	S 30
M31	16 31 56	8♌59'16	26♌ 7	28♌11	23°V40	1♌23	16♌47	13♌12	10°22	22♌27	9°V20	15♌35	15♌ 5	22♌43	9♌17	M31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
S 1	14n51	11n40	2s 9	18n50	1n 5	1s50	0n 6	18s35	1s36	22s15	0n 2	18n23	1n 5	18s15	0s38	S 1
S 2	15 9	8 25	1 7	19 32	1 15	1 37	0s 1	18 26	1 38	22 15	0 2	18 23	1 5	18 15	0 38	S 2
M 3	15 27	4 51	0 3	20 12	1 24	1 23	0 8	18 16	1 39	22 15	0 2	18 22	1 5	18 15	0 38	M 3
T 4	15 45	1 9	1n 1	20 49	1 33	1 9	0 15	18 6	1 41	22 15	0 2	18 21	1 5	18 15	0 38	T 4
W 5	16 3	2s36	2 1	21 24	1 41	0 54	0 21	17 57	1 43	22 15	0 1	18 21	1 5	18 15	0 38	W 5
T 6	16 20	6 14	2 56	21 57	1 49	0 40	0 28	17 47	1 45	22 15	0 1	18 20	1 5	18 15	0 38	T 6
F 7	16 37	9 39	3 44	22 27	1 56	0 24	0 34	17 37	1 47	22 15	0 1	18 19	1 5	18 15	0 38	F 7
S 8	16 53	12 42	4 22	22 59	2 2	0 9	0 40	17 27	1 48	22 16	0 1	18 18	1 5	18 15	0 38	S 8
S 9	17 10	15 15	4 48	23 14	2 8	0n 8	0 46	17 17	1 50	22 16	0 1	18 18	1 5	18 15	0 38	S 9
M10	17 26	17 9	5 2	23 42	2 13	0 24	0 52	17 7	1 52	22 16	0 1	18 17	1 5	18 15	0 38	M10
T 11	17 41	18 17	5 2	24 2	2 17	0 41	0 57	16 57	1 54	22 16	0 1	18 16	1 5	18 15	0 38	T 11
W12	17 57	18 32	4 47	24 19	2 20	0 58	1 2	16 47	1 56	22 17	0 1	18 15	1 5	18 15	0 38	W12
T 13	18 12	17 52	4 18	24 35	2 22	1 16	1 8	16 36	1 58	22 17	0 0	18 14	1 5	18 15	0 38	T 13
F 14	18 27	16 16	3 35	24 48	2 24	1 33	1 13	16 26	2 0	22 17	0 0	18 13	1 5	18 15	0 38	F 14
S 15	18 42	13 46	2 40	24 58	2 24	1 51	1 17	16 16	2 2	22 17	0 0	18 12	1 5	18 15	0 38	S 15
S 16	18 56	10 28	1 35	25 7	2 24	2 10	1 22	16 5	2 3	22 18	0 0	18 11	1 5	18 15	0 38	S 16
M17	19 10	6 30	0 22	25 14	2 23	2 28	1 26	15 55	2 5	22 18	0s 0	18 10	1 5	18 15	0 38	M17
T 18	19 23	2 5	0s53	25 18	2 21	2 47	1 31	15 44	2 7	22 19	0 0	18 9	1 5	18 15	0 38	T 18
W19	19 37	2n33	2 7	25 21	2 18	3 7	1 35	15 33	2 9	22 19	0 0	18 8	1 5	18 15	0 38	W19
T 20	19 50	7 7	3 13	25 22	2 14	3 26	1 39	15 23	2 11	22 20	0 0	18 7	1 5	18 15	0 38	T 20
F 21	20 2	11 17	4 7	25 21	2 9	3 45	1 43	15 12	2 13	22 20	0 1	18 6	1 5	18 15	0 38	F 21
S 22	20 14	14 43	4 43	25 19	2 4	4 5	1 46	15 1	2 15	22 21	0 1	18 5	1 5	18 15	0 38	S 22
S 23	20 26	17 9	5 1	25 15	1 57	4 25	1 50	14 50	2 17	22 21	0 1	18 4	1 5	18 15	0 38	S 23
M24	20 38	18 26	4 58	25 10	1 49	4 45	1 53	14 40	2 19	22 22	0 1	18 3	1 5	18 15	0 39	M24
T 25	20 49	18 30	4 36	25 3	1 41	5 5	1 56	14 29	2 21	22 22	0 1	18 2	1 5	18 15	0 39	T 25
W26	21 0	17 29	3 59	24 55	1 32	5 26	1 59	14 18	2 24	22 23	0 1	18 0	1 5	18 16	0 39	W26
T 27	21 11	15 31	3 10	24 46	1 22	5 46	2 2	14 7	2 26	22 23	0 1	17 59	1 5	18 16	0 39	T 27
F 28	21 21	12 51	2 13	24 36	1 11	6 7	2 5	13 56	2 28	22 24	0 2	17 58	1 5	18 16	0 39	F 28
S 29	21 30	9 39	1 11	24 25	0 59	6 28	2 7	13 45	2 30	22 25	0 2	17 57	1 5	18 16	0 39	S 29
S 30	21 40	6 7	0 8	24 12	0 46	6 48	2 10	13 34	2 32	22 25	0 2	17 55	1 5	18 16	0 39	S 30
M31	21n49	2n24	0n56	23n59	0n32	7n 9	2s12	13s23	2s34	22s26	0s 2	17n54	1n 5	18s17	0s39	M31

Julian Day Number = 2389573.5, Delta T = 10.49 sec  
 Ecliptic obliquity = 23°27'32, Nutation = -0°00'05, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 22°22'16, Lahiri = 21°29'16





# ASTRODIENST EPHEMERIS for the year 1830

## geocentric

JULY 1830

00:00 UT

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

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	23n11	10s43	4n16	18n56	4s11	17n20	2s20	8s2	3s46	22s53	0s6	17n2	1n4	18s29	0s40	21s7
F 2	23 7	13 39	4 45	19 5	4 3	17 36	2 19	7 53	3 49	22 54	0 7	17 0	1 4	18 30	0 40	21 7
S 3	23 3	16 3	5 1	19 16	3 55	17 52	2 18	7 44	3 51	22 55	0 7	16 58	1 4	18 30	0 40	21 8
S 4	22 58	17 45	5 3	19 27	3 45	18 8	2 16	7 35	3 54	22 56	0 7	16 56	1 4	18 31	0 40	21 8
M 5	22 53	18 37	4 51	19 39	3 35	18 23	2 14	7 26	3 56	22 57	0 7	16 54	1 4	18 31	0 40	21 8
T 6	22 47	18 32	4 23	19 52	3 25	18 38	2 13	7 18	3 59	22 58	0 7	16 52	1 4	18 32	0 40	21 8
W 7	22 41	17 28	3 41	20 5	3 13	18 53	2 11	7 9	4 1	22 58	0 7	16 50	1 4	18 32	0 40	21 9
T 8	22 35	15 25	2 47	20 19	3 1	19 7	2 9	7 1	4 4	22 59	0 7	16 47	1 4	18 33	0 40	21 9
F 9	22 28	12 30	1 42	20 34	2 49	19 20	2 7	6 53	4 6	23 0	0 8	16 45	1 5	18 34	0 40	21 9
S 10	22 21	8 51	0 30	20 48	2 36	19 34	2 5	6 45	4 9	23 1	0 8	16 43	1 5	18 34	0 40	21 9
S 11	22 14	4 42	0s45	21 3	2 23	19 46	2 3	6 37	4 11	23 2	0 8	16 41	1 5	18 35	0 40	21 10
M 12	22 6	0 15	1 57	21 17	2 10	19 59	2 1	6 29	4 14	23 3	0 8	16 39	1 5	18 35	0 40	21 10
T 13	21 58	4n14	3 3	21 31	1 57	20 11	1 59	6 22	4 16	23 4	0 8	16 37	1 5	18 36	0 40	21 10
W 14	21 49	8 31	3 58	21 44	1 43	20 22	1 56	6 14	4 19	23 4	0 8	16 35	1 5	18 37	0 40	21 10
T 15	21 40	12 18	4 39	21 57	1 29	20 33	1 54	6 7	4 21	23 5	0 8	16 33	1 5	18 37	0 40	21 11
F 16	21 31	15 23	5 2	22 9	1 16	20 43	1 52	6 0	4 24	23 6	0 9	16 30	1 5	18 38	0 40	21 11
S 17	21 21	17 31	5 7	22 19	1 2	20 53	1 49	5 53	4 26	23 7	0 9	16 28	1 5	18 38	0 40	21 11
S 18	21 11	18 34	4 53	22 28	0 49	21 3	1 47	5 47	4 29	23 7	0 9	16 26	1 5	18 39	0 40	21 11
M 19	21 1	18 29	4 22	22 36	0 35	21 12	1 44	5 40	4 31	23 8	0 9	16 24	1 5	18 40	0 40	21 12
T 20	20 50	17 19	3 36	22 42	0 22	21 20	1 41	5 34	4 34	23 9	0 9	16 22	1 5	18 40	0 40	21 12
W 21	20 39	15 13	2 40	22 46	0 10	21 28	1 39	5 28	4 36	23 10	0 9	16 19	1 5	18 41	0 40	21 12
T 22	20 27	12 23	1 36	22 47	0n3	21 35	1 36	5 23	4 39	23 10	0 9	16 17	1 5	18 42	0 40	21 13
F 23	20 15	9 2	0 28	22 47	0 14	21 42	1 33	5 17	4 41	23 11	0 10	16 15	1 5	18 42	0 40	21 13
S 24	20 3	5 21	0n39	22 44	0 26	21 48	1 31	5 12	4 44	23 12	0 10	16 13	1 5	18 43	0 40	21 13
S 25	19 51	1 31	1 43	22 38	0 36	21 54	1 28	5 7	4 46	23 12	0 10	16 10	1 5	18 43	0 40	21 13
M 26	19 38	2s19	2 42	22 30	0 46	21 59	1 25	5 2	4 49	23 13	0 10	16 8	1 5	18 44	0 40	21 14
T 27	19 25	6 0	3 34	22 20	0 56	22 4	1 22	4 57	4 51	23 14	0 10	16 6	1 5	18 45	0 40	21 14
W 28	19 11	9 28	4 16	22 6	1 4	22 8	1 19	4 53	4 54	23 14	0 10	16 3	1 5	18 45	0 40	21 14
T 29	18 57	12 33	4 47	21 50	1 12	22 11	1 16	4 48	4 56	23 15	0 10	16 1	1 5	18 46	0 40	21 14
F 30	18 43	15 8	5 6	21 31	1 19	22 14	1 13	4 44	4 59	23 16	0 10	15 59	1 5	18 47	0 40	21 15
S 31	18n29	17s6	5n12	21n10	1n25	22n16	1s10	4s41	5s1	23s16	0s11	15n56	1n5	18s47	0s40	21s15

Julian Day Number = 2389634.5, Delta T = 10.39 sec  
 Ecliptic obliquity = 23°27'31", Nutation = - 0°00'05", out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 22°22'24", Lahiri = 21°29'25"



# ASTRODIENST EPHEMERIS for the year 1830

## geocentric

AUGUST 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 36 23	8♌10'46	24♊37	3♈51	3♈16	0♉2	9♍44	19♌52	8♍30	20♍56	9♍33	10♍42	11♍48	29♎37	11♎47	S 1
M 2	20 40 19	9° 8'12	7♋28	5°56	4°27	0°16	9♋39	20° 0	8♋28	20♋54	9♋32	10♋37	11°45	29°43	11°48	M 2
T 3	20 44 16	10° 5'37	20♋38	8° 1	5°38	0°28	9°33	20° 7	8°25	20°53	9°32	10°33	11°42	29°50	11°48	T 3
W 4	20 48 12	11° 3'04	4♌7	10° 6	6°49	0°40	9°27	20°15	8°23	20°51	9°31	10°28	11°39	29°57	11°49	W 4
T 5	20 52 9	12° 0'32	17°53	12°10	7°59	0°52	9°22	20°23	8°20	20°50	9°31	10°26	11°35	0♍4	11°50	T 5
F 6	20 56 5	12°58'00	1♋53	14°13	9°10	1° 2	9°17	20°30	8°18	20°49	9°30	10°24	11°32	0°10	11°51	F 6
S 7	21 0 2	13°55'30	16° 4	16°15	10°21	1°12	9°11	20°38	8°16	20°47	9°30	10°D24	11°29	0°17	11°51	S 7
S 8	21 3 59	14°53'01	0♉21	18°16	11°33	1°21	9° 6	20°45	8°13	20°46	9°29	10°25	11°26	0°24	11°52	S 8
M 9	21 7 55	15°50'34	14°40	20°15	12°44	1°30	9° 2	20°53	8°11	20°44	9°28	10°26	11°23	0°30	11°52	M 9
T 10	21 11 52	16°48'07	28°59	22°14	13°55	1°37	8°57	21° 1	8° 9	20°43	9°28	10°28	11°20	0°37	11°53	T 10
W 11	21 15 48	17°45'43	13♋14	24°11	15° 6	1°44	8°52	21° 8	8° 6	20°41	9°27	10°R28	11°16	0°44	11°53	W 11
T 12	21 19 45	18°43'20	27°23	26° 6	16°18	1°50	8°48	21°16	8° 4	20°40	9°26	10°28	11°13	0°50	11°53	T 12
F 13	21 23 41	19°40'58	11♊24	28° 1	17°29	1°55	8°44	21°24	8° 2	20°39	9°26	10°27	11°10	0°57	11°54	F 13
S 14	21 27 38	20°38'38	25°15	29°53	18°41	1°59	8°40	21°31	7°59	20°37	9°25	10°25	11° 7	1° 4	11°54	S 14
S 15	21 31 34	21°36'20	8♋56	1♍45	19°53	2° 3	8°36	21°39	7°57	20°36	9°24	10°23	11° 4	1°10	11°54	S 15
M 16	21 35 31	22°34'03	22°23	3°35	21° 4	2° 6	8°32	21°47	7°55	20°35	9°24	10°20	11° 0	1°17	11°54	M 16
T 17	21 39 28	23°31'47	5♌37	5°23	22°16	2° 7	8°29	21°54	7°52	20°33	9°23	10°18	10°57	1°24	11°R54	T 17
W 18	21 43 24	24°29'33	18°36	7°10	23°28	2° 8	8°25	22° 2	7°50	20°32	9°22	10°16	10°54	1°31	11°54	W 18
T 19	21 47 21	25°27'20	1♍20	8°56	24°40	2°R 8	8°22	22°10	7°48	20°31	9°21	10°15	10°51	1°37	11°54	T 19
F 20	21 51 17	26°25'09	13°49	10°40	25°52	2° 8	8°19	22°17	7°46	20°29	9°21	10°D15	10°48	1°44	11°54	F 20
S 21	21 55 14	27°22'59	26° 6	12°23	27° 4	2° 6	8°16	22°25	7°43	20°28	9°20	10°15	10°45	1°51	11°54	S 21
S 22	21 59 10	28°20'50	8♊11	14° 5	28°16	2° 4	8°14	22°33	7°41	20°27	9°19	10°16	10°41	1°57	11°53	S 22
M 23	22 3 7	29°18'43	20° 7	15°45	29°28	2° 0	8°11	22°40	7°39	20°26	9°18	10°17	10°38	2° 4	11°53	M 23
T 24	22 7 3	0♍16'37	1♌59	17°24	0♌40	1°56	8° 9	22°48	7°37	20°25	9°17	10°19	10°35	2°11	11°52	T 24
W 25	22 11 0	1°14'32	13°50	19° 1	1°53	1°51	8° 7	22°56	7°35	20°24	9°16	10°19	10°32	2°17	11°52	W 25
T 26	22 14 57	2°12'28	25°44	20°38	3° 5	1°45	8° 5	23° 3	7°33	20°22	9°15	10°20	10°29	2°24	11°52	T 26
F 27	22 18 53	3°10'26	7♊46	22°12	4°17	1°39	8° 3	23°11	7°30	20°21	9°15	10°R20	10°25	2°31	11°51	F 27
S 28	22 22 50	4° 8'26	20° 1	23°46	5°30	1°32	8° 2	23°18	7°28	20°20	9°14	10°19	10°22	2°37	11°50	S 28
S 29	22 26 46	5° 6'26	2♋33	25°18	6°42	1°24	8° 0	23°26	7°26	20°19	9°13	10°19	10°19	2°44	11°50	S 29
M 30	22 30 43	6° 4'28	15°26	26°49	7°55	1°15	7°59	23°34	7°24	20°18	9°12	10°18	10°16	2°51	11°49	M 30
T 31	22 34 39	7♍2'31	28♋41	28♍19	9♌8	1°Y 5	7♋58	23♌41	7♋22	20♋17	9°Y11	10♍18	10♍13	2♌58	11♎48	T 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
S 1	18n14	18s18	5n 3	20n46	1n30	22n18	1s 7	4s37	5s 3	23s17	0s11	15n54	1n 5	18s48	0s40	21s15
M 2	17 59	18 37	4 39	20 20	1 35	22 19	1 4	4 34	5 6	23 17	0 11	15 52	1 5	18 49	0 40	21 15
T 3	17 44	17 56	3 59	19 52	1 39	22 19	1 1	4 31	5 8	23 18	0 11	15 49	1 6	18 49	0 40	21 16
W 4	17 28	16 14	3 6	19 22	1 42	22 19	0 58	4 28	5 10	23 18	0 11	15 47	1 6	18 50	0 40	21 16
T 5	17 12	13 34	2 0	18 49	1 44	22 18	0 55	4 26	5 12	23 19	0 11	15 45	1 6	18 50	0 40	21 16
F 6	16 56	10 5	0 47	18 15	1 45	22 16	0 52	4 24	5 14	23 19	0 11	15 42	1 6	18 51	0 40	21 16
S 7	16 40	5 59	0s31	17 40	1 46	22 14	0 49	4 22	5 17	23 20	0 11	15 40	1 6	18 52	0 40	21 17
S 8	16 23	1 30	1 48	17 3	1 46	22 12	0 46	4 20	5 19	23 20	0 11	15 38	1 6	18 52	0 40	21 17
M 9	16 6	3n 3	2 57	16 25	1 45	22 8	0 43	4 19	5 21	23 21	0 12	15 35	1 6	18 53	0 40	21 17
T 10	15 49	7 26	3 56	15 45	1 44	22 4	0 40	4 17	5 23	23 21	0 12	15 33	1 6	18 54	0 40	21 17
W 11	15 31	11 22	4 40	15 5	1 42	22 0	0 37	4 16	5 25	23 21	0 12	15 30	1 6	18 54	0 40	21 18
T 12	15 14	14 36	5 7	14 24	1 40	21 54	0 34	4 16	5 27	23 22	0 12	15 28	1 6	18 55	0 40	21 18
F 13	14 56	16 58	5 15	13 42	1 37	21 49	0 30	4 15	5 28	23 22	0 12	15 26	1 6	18 55	0 40	21 18
S 14	14 37	18 18	5 5	12 59	1 34	21 42	0 27	4 15	5 30	23 23	0 12	15 23	1 6	18 56	0 40	21 18
S 15	14 19	18 33	4 37	12 16	1 30	21 35	0 24	4 16	5 32	23 23	0 12	15 21	1 6	18 57	0 40	21 18
M 16	14 0	17 45	3 54	11 32	1 25	21 27	0 21	4 16	5 33	23 23	0 12	15 18	1 6	18 57	0 40	21 19
T 17	13 41	15 58	3 0	10 48	1 21	21 19	0 18	4 17	5 35	23 24	0 12	15 16	1 6	18 58	0 40	21 19
W 18	13 22	13 25	1 57	10 3	1 16	21 10	0 15	4 18	5 36	23 24	0 13	15 13	1 7	18 58	0 40	21 19
T 19	13 3	10 15	0 49	9 19	1 10	21 1	0 12	4 19	5 38	23 24	0 13	15 11	1 7	18 59	0 40	21 19
F 20	12 43	6 40	0n20	8 34	1 5	20 51	0 9	4 20	5 39	23 25	0 13	15 9	1 7	18 59	0 40	21 19
S 21	12 23	2 53	1 27	7 49	0 58	20 40	0 6	4 22	5 40	23 25	0 13	15 6	1 7	19 0	0 40	21 20
S 22	12 4	0s58	2 29	7 4	0 52	20 29	0 3	4 24	5 41	23 25	0 13	15 4	1 7	19 1	0 40	21 20
M 23	11 43	4 44	3 23	6 19	0 46	20 17	0n 0	4 26	5 42	23 25	0 13	15 1	1 7	19 1	0 40	21 20
T 24	11 23	8 16	4 9	5 35	0 39	20 4	0 3	4 29	5 43	23 26	0 13	14 59	1 7	19 2	0 40	21 20
W 25	11 3	11 29	4 44	4 50	0 32	19 51	0 6	4 31	5 44	23 26	0 13	14 57	1 7	19 2	0 40	21 20
T 26	10 42	14 14	5 7	4 5	0 24	19 38	0 9	4 34	5 45	23 26	0 13	14 54	1 7	19 3	0 40	21 21
F 27	10 21	16 25	5 17	3 21	0 17	19 24	0 12	4 37	5 45	23 26	0 13	14 52	1 7	19 3	0 40	21 21
S 28	10 0	17 53	5 13	2 37	0 9	19 9	0 15	4 40	5 46	23 26	0 14	14 49	1 7	19 4	0 40	21 21
S 29	9 39	18 32	4 54	1 54	0 2	18 54	0 17	4 44	5 46	23 27	0 14	14 47	1 7	19 4	0 40	21 21
M 30	9 17	18 16	4 20	1 10	0s 6	18 38	0 20	4 48	5 46	23 27	0 14	14 44	1 8	19 5	0 40	21 21
T 31	8n56	17s 0	3n31	0n27	0s14	18n21	0n23	4s51	5s46	23s27	0s14	14n42	1n 8	19s 5	0s40	21s22

Julian Day Number = 2389665.5, Delta T = 10.34 sec  
 Ecliptic obliquity = 23°27'32, Nutation = - 0°00'04, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 22°22'29, Lahiri = 21°29'29

ASTRODIENST EPHEMERIS for the year 1830  
geocentric

SEPTEMBER 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	22 38 36	8 <sup>m</sup> 0'36	12 <sup>m</sup> 20	29 <sup>m</sup> 47	10 <sup>m</sup> 20	0°R55	7°R58	23 <sup>h</sup> 49	7°R20	20°R16	9°R10	10°R18	10 <sup>m</sup> 10	3 <sup>m</sup> 4	11°R47	W 1
T 2	22 42 32	8°58'43	26°22	1 <sup>h</sup> 14	11°33	0°Y44	7 <sup>h</sup> 57	23°56	7 <sup>h</sup> 18	20°15	9°Y 9	10 <sup>m</sup> 18	10° 6	3°11	11°R46	T 2
F 3	22 46 29	9°56'50	10 <sup>h</sup> 43	2°39	12°46	0°32	7°57	24° 4	7°17	20°14	9° 8	10°18	10° 3	3°18	11°45	F 3
S 4	22 50 26	10°55'00	25°19	4° 4	13°59	0°20	7°D56	24°11	7°15	20°14	9° 7	10°18	10° 0	3°24	11°44	S 4
S 5	22 54 22	11°53'12	10°Y 3	5°27	15°12	0° 7	7°56	24°19	7°13	20°13	9° 6	10°18	9°57	3°31	11°43	S 5
M 6	22 58 19	12°51'25	24°48	6°48	16°25	29 <sup>h</sup> 54	7°57	24°26	7°11	20°12	9° 5	10°17	9°54	3°38	11°42	M 6
T 7	23 2 15	13°49'40	9 <sup>h</sup> 28	8° 8	17°38	29°40	7°57	24°33	7° 9	20°11	9° 4	10°17	9°51	3°44	11°41	T 7
W 8	23 6 12	14°47'58	23°57	9°27	18°51	29°25	7°58	24°41	7° 8	20°10	9° 3	10°17	9°47	3°51	11°40	W 8
T 9	23 10 8	15°46'17	8 <sup>h</sup> 12	10°43	20° 4	29°10	7°58	24°48	7° 6	20° 9	9° 2	10°16	9°44	3°58	11°38	T 9
F 10	23 14 5	16°44'39	22° 9	11°59	21°17	28°55	7°59	24°55	7° 4	20° 9	9° 1	10°D16	9°41	4° 4	11°37	F 10
S 11	23 18 1	17°43'03	5 <sup>h</sup> 49	13°13	22°31	28°39	8° 0	25° 3	7° 3	20° 8	9° 0	10°17	9°38	4°11	11°36	S 11
S 12	23 21 58	18°41'29	19°11	14°24	23°44	28°23	8° 2	25°10	7° 1	20° 7	8°58	10°17	9°35	4°18	11°34	S 12
M13	23 25 55	19°39'57	2 <sup>h</sup> 18	15°35	24°58	28° 6	8° 3	25°17	6°59	20° 7	8°57	10°18	9°31	4°25	11°33	M13
T 14	23 29 51	20°38'28	15° 9	16°43	26°11	27°49	8° 5	25°24	6°58	20° 6	8°56	10°19	9°28	4°31	11°31	T 14
W15	23 33 48	21°37'00	27°46	17°49	27°25	27°32	8° 7	25°32	6°56	20° 6	8°55	10°20	9°25	4°38	11°29	W15
T 16	23 37 44	22°35'34	10 <sup>m</sup> 12	18°53	28°38	27°15	8° 9	25°39	6°55	20° 5	8°54	10°R20	9°22	4°45	11°28	T 16
F 17	23 41 41	23°34'11	22°27	19°55	29°52	26°58	8°11	25°46	6°53	20° 5	8°53	10°20	9°19	4°51	11°26	F 17
S 18	23 45 37	24°32'49	4 <sup>h</sup> 34	20°54	1 <sup>m</sup> 6	26°41	8°14	25°53	6°52	20° 4	8°52	10°19	9°16	4°58	11°24	S 18
S 19	23 49 34	25°31'29	16°32	21°50	2°19	26°23	8°16	26° 0	6°51	20° 4	8°51	10°17	9°12	5° 5	11°22	S 19
M20	23 53 30	26°30'11	28°26	22°44	3°33	26° 6	8°19	26° 7	6°49	20° 3	8°50	10°14	9° 9	5°11	11°20	M20
T 21	23 57 27	27°28'54	10 <sup>m</sup> 16	23°35	4°47	25°49	8°22	26°14	6°48	20° 3	8°48	10°12	9° 6	5°18	11°19	T 21
W22	0 1 23	28°27'40	22° 7	24°22	6° 1	25°32	8°26	26°21	6°47	20° 2	8°47	10° 9	9° 3	5°25	11°17	W22
T 23	0 5 20	29°26'28	4 <sup>h</sup> 0	25° 6	7°15	25°15	8°29	26°28	6°46	20° 2	8°46	10° 7	9° 0	5°32	11°15	T 23
F 24	0 9 17	0 <sup>h</sup> 25'17	16° 1	25°45	8°29	24°58	8°33	26°34	6°45	20° 2	8°45	10° 5	8°57	5°38	11°12	F 24
S 25	0 13 13	1°24'08	28°12	26°21	9°43	24°42	8°36	26°41	6°44	20° 2	8°44	10°D 4	8°53	5°45	11°10	S 25
S 26	0 17 10	2°23'00	10 <sup>h</sup> 40	26°52	10°57	24°26	8°40	26°48	6°43	20° 1	8°43	10° 5	8°50	5°52	11° 8	S 26
M27	0 21 6	3°21'55	23°28	27°18	12°11	24°10	8°44	26°55	6°42	20° 1	8°41	10° 6	8°47	5°58	11° 6	M27
T 28	0 25 3	4°20'51	6 <sup>h</sup> 39	27°39	13°25	23°55	8°49	27° 1	6°41	20° 1	8°40	10° 7	8°44	6° 5	11° 4	T 28
W29	0 28 59	5°19'49	20°17	27°54	14°39	23°40	8°53	27° 8	6°40	20° 1	8°39	10° 9	8°41	6°12	11° 1	W29
T 30	0 32 56	6 <sup>h</sup> 18'49	4 <sup>h</sup> 22	28 <sup>h</sup> 3	15 <sup>m</sup> 53	23 <sup>h</sup> 26	8 <sup>h</sup> 58	27 <sup>h</sup> 15	6 <sup>h</sup> 39	20 <sup>h</sup> 1	8 <sup>h</sup> 38	10°R 9	8 <sup>m</sup> 37	6 <sup>m</sup> 18	10 <sup>h</sup> 59	T 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	8n34	14s44	2n29	0s15	0s23	18n 5	0n26	4s55	5s46	23s27	0s14	14n40	1n 8	19s 6	0s40	21s22	0n34	12s12	17s14	7n43	7n46	8s41	14n 8	1s19			
T 2	8 13	11 32	1 17	0 58	0 31	17 47	0 28	4 59	5 46	23 27	0 14	14 37	1 8	19 6	0 40	21 22	0 34	12 13	17 15	7 43	7 47	8 43	14 8	1 19			
F 3	7 51	7 35	0s 2	1 39	0 39	17 29	0 31	5 4	5 45	23 27	0 14	14 35	1 8	19 7	0 40	21 22	0 34	12 13	17 15	7 43	7 48	8 44	14 7	1 19			
S 4	7 29	3 7	1 23	2 20	0 47	17 11	0 33	5 8	5 44	23 27	0 14	14 32	1 8	19 7	0 40	21 22	0 34	12 14	17 15	7 43	7 50	8 46	14 7	1 19			
S 5	7 7	1n34	2 38	3 1	0 56	16 52	0 36	5 12	5 44	23 27	0 14	14 30	1 8	19 8	0 40	21 22	0 34	12 14	17 15	7 43	7 51	8 48	14 6	1 19			
M 6	6 44	6 9	3 43	3 41	1 4	16 33	0 39	5 17	5 43	23 28	0 14	14 28	1 8	19 8	0 40	21 23	0 34	12 15	17 15	7 43	7 52	8 50	14 6	1 19			
T 7	6 22	10 21	4 33	4 20	1 13	16 13	0 41	5 21	5 42	23 28	0 14	14 25	1 8	19 9	0 40	21 23	0 34	12 15	17 15	7 43	7 53	8 51	14 5	1 20			
W 8	5 59	13 51	5 5	4 59	1 21	15 52	0 43	5 26	5 40	23 28	0 14	14 23	1 9	19 9	0 40	21 23	0 34	12 16	17 16	7 43	7 54	8 53	14 5	1 20			
T 9	5 37	16 28	5 17	5 37	1 30	15 32	0 46	5 31	5 39	23 28	0 15	14 21	1 9	19 9	0 40	21 23	0 34	12 16	17 16	7 43	7 55	8 55	14 4	1 20			
F 10	5 14	18 4	5 11	6 15	1 38	15 10	0 48	5 35	5 38	23 28	0 15	14 18	1 9	19 10	0 40	21 23	0 34	12 17	17 16	7 43	7 57	8 57	14 4	1 20			
S 11	4 51	18 34	4 46	6 51	1 46	14 49	0 50	5 40	5 36	23 28	0 15	14 16	1 9	19 10	0 40	21 23	0 34	12 17	17 16	7 43	7 58	8 58	14 3	1 20			
S 12	4 29	18 0	4 7	7 27	1 55	14 27	0 53	5 45	5 34	23 28	0 15	14 14	1 9	19 11	0 40	21 23	0 34	12 18	17 16	7 43	7 59	9 0	14 2	1 20			
M13	4 6	16 29	3 16	8 1	2 3	14 4	0 55	5 50	5 32	23 28	0 15	14 11	1 9	19 11	0 40	21 23	0 34	12 19	17 16	7 43	8 0	9 2	14 2	1 21			
T 14	3 43	14 9	2 15	8 35	2 11	13 41	0 57	5 54	5 30	23 28	0 15	14 9	1 9	19 11	0 40	21 24	0 34	12 19	17 16	7 42	8 1	9 4	14 1	1 21			
W15	3 20	11 11	1 9	9 8	2 19	13 18	0 59	5 59	5 27	23 28	0 15	14 7	1 9	19 12	0 40	21 24	0 34	12 20	17 17	7 42	8 3	9 5	14 1	1 21			
T 16	2 57	7 44	0 1	9 40	2 27	12 55	1 1	6 3	5 25	23 28	0 15	14 4	1 10	19 12	0 40	21 24	0 34	12 20	17 17	7 42	8 4	9 7	14 0	1 21			
F 17	2 33	4 1	1n 7	10 10	2 34	12 30	1 3	6 8	5 22	23 27	0 15	14 2	1 10	19 12	0 40	21 24	0 34	12 21	17 17	7 42	8 5	9 9	13 59	1 21			
S 18	2 10	0 11	2 10	10 39	2 42	12 6	1 5	6 12	5 19	23 27	0 15	14 0	1 10	19 13	0 40	21 24	0 34	12 21	17 17	7 42	8 6	9 11	13 58	1 21			
S 19	1 47	3s38	3 7	11 7	2 49	11 41	1 6	6 16	5 16	23 27	0 15	13 58	1 10	19 13	0 40	21 24	0 34	12 22	17 17	7 43	8 7	9 12	13 58	1 22			
M20	1 23	7 15	3 55	11 34	2 56	11 16	1 8	6 20	5 13	23 27	0 15	13 55	1 10	19 13	0 40	21 24	0 34	12 22	17 17	7 44	8 9	9 14	13 57	1 22			
T 21	1 0	10 35	4 33	11 59	3 2	10 51	1 10	6 24	5 10	23 27	0 15	13 53	1 10	19 14	0 40	21 24	0 34	12 23	17 17	7 45	8 10	9 16	13 56	1 22			
W22	0 37	13 29	5 0	12 22	3 8	10 25	1 12	6 28	5 6	23 27	0 16	13 51	1 10	19 14	0 40	21 24	0 34	12 23	17 17	7 46	8 11	9 17	13 56	1 22			
T 23	0 13	15 50	5 13	12 44	3 14	9 59	1 13	6 31	5 3	23 27	0 16	13 49	1 10	19 14	0 40	21 24	0 34	12 24	17 17	7 47	8 12	9 19	13 55	1 22			
F 24	0s10	17 32	5 13	13 3	3 20	9 33	1 15	6 34	4 59	23 27	0 16	13 46	1 11	19 14	0 40	21 24	0 34	12 24	17 17	7 48	8 13	9 21	13 54	1 22			
S 25	0 33	18 27	5 0	13 21	3 24	9 6	1 16	6 37	4 55	23 26	0 16	13 44	1 11	19 15	0 40	21 25	0 34	12 25	17 17	7 48	8 15	9 23	13 53	1 22			
S 26	0 57	18 31	4 31	13 36	3 29	8 40	1 17	6 40	4 51	23 26	0 16	13 42	1 11	19 15	0 40	21 25	0 34	12 25	17 17	7 48	8 16	9 24	13 52	1 23			
M27	1 20	17 39	3 49	13 49	3 32	8 13	1 19	6 42	4 47	23 26	0 16	13 40	1 11	19 15	0 40	21 25	0 34	12 26	17 18	7 47	8 17	9 26	13 52	1 23			
T 28	1 44	15 49	2 54	13 59	3 35	7 45	1 20	6 45	4 43	23 26	0 16	13 38	1 11	19 15	0 39	21 25	0 34	12 26	17 18	7 47	8 18	9 28	13 51	1 23			
W29	2 7	13 2	1 47	14 7	3 37	7 18	1 21	6 47	4 39	23 26	0 16	13 36	1 11	19 16	0 39	21 25	0 34	12 27	17 18	7 46	8 19	9 30	13 50	1 23			
T 30	2s31	9s25	0n32	14s11	3s38	6n50	1n22	6s48	4s34	23s25	0s16	13n33	1n11	19s16	0s39	21s25	0n33	12s27	17s18	7n46	8n21	9s31	13n49	1s23			

# ASTRODIENST EPHEMERIS for the year 1830

## geocentric

OCTOBER 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	0 36 52	7♂1750	18♂53	28°R 5	17♂ 8	23°R12	9♂ 3	27♂21	6°R38	20°R 1	8°R37	10°R 9	8♂34	6♂25	10°R57	F 1
S 2	0 40 49	8°16'54	3♂44	28♂ 0	18°22	22♂59	9° 8	27°27	6♂37	20°D 1	8♂36	10♂ 8	8°31	6°32	10♂54	S 2
S 3	0 44 46	9°15'59	18°49	27°48	19°36	22°46	9°13	27°34	6°37	20♂ 1	8°34	10° 5	8°28	6°39	10°52	S 3
M 4	0 48 42	10°15'07	3♂58	27°28	20°51	22°34	9°18	27°40	6°36	20° 1	8°33	10° 1	8°25	6°45	10°49	M 4
T 5	0 52 39	11°14'16	19° 2	27° 0	22° 5	22°23	9°24	27°46	6°35	20° 1	8°32	9°57	8°22	6°52	10°47	T 5
W 6	0 56 35	12°13'29	3♂51	26°24	23°19	22°12	9°29	27°53	6°35	20° 1	8°31	9°52	8°18	6°59	10°44	W 6
T 7	1 0 32	13°12'43	18°20	25°40	24°34	22° 2	9°35	27°59	6°34	20° 1	8°30	9°49	8°15	7° 5	10°42	T 7
F 8	1 4 28	14°12'00	2♂24	24°48	25°48	21°53	9°41	28° 5	6°34	20° 1	8°29	9°47	8°12	7°12	10°39	F 8
S 9	1 8 25	15°11'19	16° 3	23°50	27° 3	21°44	9°47	28°11	6°33	20° 1	8°27	9°D46	8° 9	7°19	10°37	S 9
S 10	1 12 21	16°10'41	29°18	22°46	28°18	21°36	9°53	28°17	6°33	20° 2	8°26	9°47	8° 6	7°25	10°34	S 10
M11	1 16 18	17°10'04	12♂13	21°37	29°32	21°29	10° 0	28°23	6°33	20° 2	8°25	9°48	8° 2	7°32	10°31	M11
T 12	1 20 15	18° 9'30	24°49	20°25	0♂47	21°23	10° 6	28°29	6°32	20° 2	8°24	9°50	7°59	7°39	10°29	T 12
W13	1 24 11	19° 8'59	7♂11	19°13	2° 2	21°17	10°13	28°35	6°32	20° 3	8°23	9°R51	7°56	7°46	10°26	W13
T 14	1 28 8	20° 8'29	19°22	18° 1	3°16	21°12	10°20	28°40	6°32	20° 3	8°22	9°50	7°53	7°52	10°23	T 14
F 15	1 32 4	21° 8'02	1♂25	16°52	4°31	21° 8	10°27	28°46	6°32	20° 3	8°20	9°48	7°50	7°59	10°20	F 15
S 16	1 36 1	22° 7'37	13°22	15°48	5°46	21° 5	10°34	28°52	6°32	20° 4	8°19	9°44	7°47	8° 6	10°17	S 16
S 17	1 39 57	23° 7'13	25°15	14°51	7° 1	21° 2	10°42	28°57	6°D32	20° 4	8°18	9°37	7°43	8°12	10°14	S 17
M18	1 43 54	24° 6'52	7♂ 6	14° 3	8°16	21° 1	10°49	29° 3	6°32	20° 5	8°17	9°29	7°40	8°19	10°12	M18
T 19	1 47 50	25° 6'33	18°57	13°24	9°31	21° 0	10°57	29° 8	6°32	20° 5	8°16	9°20	7°37	8°26	10° 9	T 19
W20	1 51 47	26° 6'16	0♂49	12°56	10°46	21°D 0	11° 5	29°13	6°32	20° 6	8°15	9°11	7°34	8°32	10° 6	W20
T 21	1 55 43	27° 6'01	12°44	12°39	12° 0	21° 1	11°13	29°19	6°32	20° 6	8°14	9° 2	7°31	8°39	10° 3	T 21
F 22	1 59 40	28° 5'47	24°46	12°D34	13°15	21° 2	11°21	29°24	6°33	20° 7	8°13	8°56	7°28	8°46	10° 0	F 22
S 23	2 3 37	29° 5'35	6♂57	12°40	14°30	21° 5	11°29	29°29	6°33	20° 8	8°12	8°51	7°24	8°53	9°57	S 23
S 24	2 7 33	0♂ 5'25	19°21	12°57	15°45	21° 8	11°37	29°34	6°33	20° 8	8°11	8°48	7°21	8°59	9°54	S 24
M25	2 11 30	1° 5'17	2♂ 2	13°23	17° 0	21°12	11°46	29°39	6°34	20° 9	8° 9	8°D47	7°18	9° 6	9°51	M25
T 26	2 15 26	2° 5'10	15° 5	13°59	18°15	21°16	11°54	29°44	6°34	20°10	8° 8	8°48	7°15	9°13	9°48	T 26
W27	2 19 23	3° 5'05	28°34	14°44	19°31	21°22	12° 3	29°49	6°34	20°11	8° 7	8°49	7°12	9°19	9°45	W27
T 28	2 23 19	4° 5'02	12♂30	15°36	20°46	21°28	12°12	29°53	6°35	20°12	8° 6	8°R49	7° 8	9°26	9°42	T 28
F 29	2 27 16	5° 5'00	26°55	16°36	22° 1	21°35	12°21	29°58	6°36	20°12	8° 5	8°48	7° 5	9°33	9°39	F 29
S 30	2 31 12	6° 5'00	11♂45	17°41	23°16	21°43	12°30	0♂ 2	6°36	20°13	8° 4	8°44	7° 2	9°40	9°36	S 30
S 31	2 35 9	7♂ 5'01	26♂55	18♂51	24♂31	21♂51	12♂39	0♂ 7	6♂37	20♂14	8♂ 3	8♂38	6♂59	9♂46	9♂33	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl
F 1	2s54	5s 8	0s48	14s11	3s38	6n22	1n23	6s50	4s30	23s25	0s16	13n31	1n12	19s16	0s39	21s25
S 2	3 17	0 26	2 6	14 8	3 37	5 54	1 24	6 51	4 26	23 25	0 16	13 29	1 12	19 16	0 39	21 25
S 3	3 41	4n21	3 16	14 2	3 34	5 25	1 25	6 52	4 21	23 25	0 16	13 27	1 12	19 16	0 39	21 25
M 4	4 4	4 8	5 53	4 13	13 51	3 30	4 57	6 52	4 16	23 24	0 16	13 25	1 12	19 16	0 39	21 25
T 5	4 27	12 48	4 52	13 35	3 25	4 28	1 27	6 53	4 12	23 24	0 16	13 23	1 12	19 17	0 39	21 25
W 6	4 50	15 51	5 11	13 15	3 17	3 59	1 27	6 53	4 7	23 24	0 16	13 21	1 12	19 17	0 39	21 25
T 7	5 13	17 49	5 9	12 51	3 8	3 30	1 28	6 52	4 2	23 23	0 17	13 19	1 13	19 17	0 39	21 25
F 8	5 36	18 38	4 48	12 22	2 57	3 1	1 29	6 52	3 58	23 23	0 17	13 17	1 13	19 17	0 39	21 25
S 9	5 59	18 19	4 12	11 48	2 44	2 32	1 29	6 51	3 53	23 22	0 17	13 15	1 13	19 17	0 39	21 25
S 10	6 22	17 0	3 23	11 11	2 30	2 3	1 29	6 50	3 48	23 22	0 17	13 13	1 13	19 17	0 39	21 25
M11	6 45	14 50	2 25	10 30	2 14	1 33	1 30	6 48	3 43	23 22	0 17	13 11	1 13	19 17	0 39	21 25
T 12	7 8	11 59	1 21	9 46	1 56	1 4	1 30	6 46	3 39	23 21	0 17	13 10	1 13	19 17	0 39	21 25
W13	7 30	8 39	0 15	9 1	1 37	0 34	1 30	6 44	3 34	23 21	0 17	13 8	1 14	19 17	0 39	21 25
T 14	7 53	5 0	0n52	8 15	1 17	0 5	1 30	6 41	3 29	23 20	0 17	13 6	1 14	19 17	0 39	21 25
F 15	8 15	1 11	1 54	7 30	0 56	0s25	1 30	6 39	3 24	23 20	0 17	13 4	1 14	19 17	0 39	21 25
S 16	8 37	2s39	2 52	6 46	0 35	0 55	1 30	6 36	3 19	23 19	0 17	13 2	1 14	19 17	0 39	21 25
S 17	9 0	6 21	3 41	6 5	0 15	1 24	1 30	6 32	3 15	23 19	0 17	13 0	1 14	19 17	0 39	21 25
M18	9 22	9 48	4 20	5 28	0n 5	1 54	1 30	6 28	3 10	23 18	0 17	12 59	1 14	19 17	0 39	21 25
T 19	9 44	12 51	4 48	4 56	0 24	2 24	1 30	6 24	3 5	23 18	0 17	12 57	1 15	19 17	0 39	21 25
W20	10 5	15 23	5 4	4 29	0 41	2 53	1 30	6 20	3 1	23 17	0 17	12 55	1 15	19 17	0 39	21 25
T 21	10 27	17 17	5 6	4 8	0 57	3 23	1 29	6 16	2 56	23 16	0 17	12 54	1 15	19 17	0 39	21 25
F 22	10 48	18 26	4 56	3 52	1 12	3 52	1 29	6 11	2 51	23 16	0 17	12 52	1 15	19 17	0 39	21 25
S 23	11 10	18 46	4 31	3 43	1 24	4 22	1 28	6 6	2 47	23 15	0 18	12 50	1 15	19 17	0 39	21 24
S 24	11 31	18 12	3 54	3 39	1 35	4 51	1 28	6 0	2 42	23 15	0 18	12 49	1 16	19 17	0 39	21 24
M25	11 52	16 44	3 4	3 41	1 45	5 21	1 27	5 55	2 38	23 14	0 18	12 47	1 16	19 16	0 39	21 24
T 26	12 12	14 21	2 4	3 48	1 53	5 50	1 27	5 49	2 33	23 13	0 18	12 46	1 16	19 16	0 39	21 24
W27	12 33	11 8	0 55	3 59	1 59	6 19	1 26	5 43	2 29	23 12	0 18	12 44	1 16	19 16	0 39	21 24
T 28	12 53	7 11	0s20	4 15	2 4	6 48	1 25	5 36	2 25	23 12	0 18	12 43	1 16	19 16	0 39	21 24
F 29	13 14	2 41	1 35	4 34	2 7	7 17	1 24	5 29	2 21	23 11	0 18	12 41	1 17	19 16	0 39	21 24
S 30	13 34	2n 6	2 47	4 57	2 9	7 45	1 23	5 23	2 16	23 10	0 18	12 40	1 17	19 16	0 39	21 24
S 31	13s53	6n50	3s48	5s23	2n10	8s14	1n22	5s15	2s12	23s 9	0s18	12n38	1n17	19s15	0s39	21s24

Julian Day Number = 2389726.5, Delta T = 10.24 sec  
 Ecliptic obliquity = 23°27'33, Nutation = - 0°00'07, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 22°22'37, Lahiri = 21°29'37

ASTRODIENST EPHEMERIS for the year 1830  
geocentric

NOVEMBER 1830

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 39 6	8♉5'05	12♏15	20♊6	25♊46	22♏0	12♏49	0♏11	6♏38	20♏15	8°R 2	8°R30	6♏56	9♏53	9°R30	M 1
T 2	2 43 2	9° 5'10	27°34	21°25	27° 1	22°10	12°58	0°16	6°39	20°16	8°Y 1	8°Y21	6°53	10° 0	9°R27	T 2
W 3	2 46 59	10° 5'17	12♏40	22°47	28°17	22°21	13° 8	0°20	6°39	20°17	8° 0	8°11	6°49	10° 6	9°24	W 3
T 4	2 50 55	11° 5'27	27°25	24°12	29°32	22°32	13°18	0°24	6°40	20°18	7°59	8° 3	6°46	10°13	9°21	T 4
F 5	2 54 52	12° 5'38	11♏42	25°40	0♏47	22°44	13°28	0°28	6°41	20°19	7°58	7°57	6°43	10°20	9°18	F 5
S 6	2 58 48	13° 5'52	25°30	27° 9	2° 2	22°56	13°38	0°32	6°42	20°21	7°57	7°54	6°40	10°27	9°15	S 6
S 7	3 2 45	14° 6'07	8♏48	28°39	3°18	23° 9	13°48	0°36	6°43	20°22	7°57	7°D52	6°37	10°33	9°11	S 7
M 8	3 6 41	15° 6'25	21°41	0♏11	4°33	23°23	13°58	0°39	6°44	20°23	7°56	7°52	6°34	10°40	9° 8	M 8
T 9	3 10 38	16° 6'44	4♏12	1°44	5°48	23°37	14° 8	0°43	6°46	20°24	7°55	7°R53	6°30	10°47	9° 5	T 9
W10	3 14 35	17° 7'06	16°27	3°18	7° 3	23°52	14°19	0°47	6°47	20°25	7°54	7°52	6°27	10°53	9° 2	W10
T11	3 18 31	18° 7'29	28°30	4°52	8°19	24° 7	14°29	0°50	6°48	20°27	7°53	7°50	6°24	11° 0	8°59	T11
F12	3 22 28	19° 7'54	10♏25	6°27	9°34	24°24	14°40	0°53	6°49	20°28	7°52	7°46	6°21	11° 7	8°56	F12
S13	3 26 24	20° 8'21	22°16	8° 2	10°49	24°40	14°50	0°57	6°51	20°29	7°51	7°38	6°18	11°13	8°53	S13
S14	3 30 21	21° 8'50	4♏ 7	9°38	12° 5	24°57	15° 1	1° 0	6°52	20°31	7°51	7°28	6°14	11°20	8°50	S14
M15	3 34 17	22° 9'20	15°58	11°13	13°20	25°15	15°12	1° 3	6°53	20°32	7°50	7°15	6°11	11°27	8°48	M15
T16	3 38 14	23° 9'53	27°51	12°49	14°36	25°33	15°23	1° 6	6°55	20°33	7°49	7° 0	6° 8	11°34	8°45	T16
W17	3 42 10	24°10'26	9♏48	14°25	15°51	25°52	15°34	1° 9	6°56	20°35	7°48	6°46	6° 5	11°40	8°42	W17
T18	3 46 7	25°11'01	21°50	16° 0	17° 6	26°11	15°46	1°12	6°58	20°36	7°47	6°32	6° 2	11°47	8°39	T18
F19	3 50 4	26°11'38	3♏59	17°36	18°22	26°31	15°57	1°14	7° 0	20°38	7°47	6°21	5°59	11°54	8°36	F19
S20	3 54 0	27°12'16	16°15	19°11	19°37	26°51	16° 8	1°17	7° 1	20°39	7°46	6°12	5°55	12° 0	8°33	S20
S21	3 57 57	28°12'55	28°43	20°47	20°53	27°12	16°20	1°19	7° 3	20°41	7°45	6° 6	5°52	12° 7	8°30	S21
M22	4 1 53	29°13'35	11♏24	22°22	22° 8	27°33	16°31	1°22	7° 5	20°42	7°45	6° 3	5°49	12°14	8°27	M22
T23	4 5 50	0♏14'17	24°22	23°57	23°24	27°55	16°43	1°24	7° 7	20°44	7°44	6° 2	5°46	12°21	8°25	T23
W24	4 9 46	1°14'59	7♏42	25°32	24°39	28°17	16°55	1°26	7° 8	20°45	7°43	6° 2	5°43	12°27	8°22	W24
T25	4 13 43	2°15'42	21°26	27° 7	25°55	28°39	17° 7	1°28	7°10	20°47	7°43	6° 2	5°39	12°34	8°19	T25
F26	4 17 39	3°16'27	5°Y36	28°42	27°10	29° 2	17°19	1°30	7°12	20°49	7°42	6° 0	5°36	12°41	8°16	F26
S27	4 21 36	4°17'12	20°11	0♏17	28°25	29°25	17°31	1°32	7°14	20°50	7°42	5°55	5°33	12°47	8°14	S27
S28	4 25 33	5°17'59	5♏ 8	1°51	29°41	29°49	17°43	1°34	7°16	20°52	7°41	5°47	5°30	12°54	8°11	S28
M29	4 29 29	6°18'46	20°19	3°26	0♏56	0°Y13	17°55	1°35	7°18	20°54	7°41	5°37	5°27	13° 1	8° 8	M29
T30	4 33 26	7♏19'35	5♏35	5♏ 0	2♏12	0°Y37	18°37	1°37	7♏21	20°56	7°Y40	5°Y26	5°Y24	13♏ 8	8♏ 6	T30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
M 1	14s13	11n11	4s33	5s51	2n10	8s42	1n21	5s 8	2s 8	23s 8	0s18	12n37	1n17	19s15	0s39	21s24
T 2	14 32	14 47	4 59	6 21	2 10	9 11	1 20	5 0	2 4	23 8	0 18	12 36	1 17	19 15	0 39	21 23
W 3	14 51	17 20	5 3	6 53	2 8	9 39	1 19	4 53	2 0	23 7	0 18	12 34	1 18	19 15	0 39	21 23
T 4	15 10	18 39	4 47	7 27	2 6	10 6	1 18	4 45	1 56	23 6	0 18	12 33	1 18	19 14	0 38	21 23
F 5	15 29	18 44	4 13	8 2	2 2	10 34	1 16	4 36	1 52	23 5	0 18	12 32	1 18	19 14	0 38	21 23
S 6	15 47	17 41	3 26	8 37	1 59	11 1	1 15	4 28	1 48	23 4	0 18	12 31	1 18	19 14	0 38	21 23
S 7	16 5	15 41	2 28	9 13	1 55	11 28	1 14	4 19	1 45	23 3	0 18	12 30	1 18	19 14	0 38	21 23
M 8	16 23	12 57	1 25	9 50	1 50	11 55	1 12	4 11	1 41	23 2	0 18	12 28	1 19	19 13	0 38	21 23
T 9	16 40	9 40	0 20	10 27	1 45	12 21	1 11	4 2	1 37	23 1	0 19	12 27	1 19	19 13	0 38	21 23
W10	16 58	6 3	0n45	11 4	1 40	12 47	1 9	3 52	1 34	23 0	0 19	12 26	1 19	19 13	0 38	21 22
T11	17 15	2 14	1 47	11 41	1 34	13 13	1 8	3 43	1 30	22 59	0 19	12 25	1 19	19 12	0 38	21 22
F12	17 31	1s37	2 44	12 18	1 28	13 39	1 6	3 34	1 27	22 58	0 19	12 24	1 19	19 12	0 38	21 22
S13	17 48	5 24	3 32	12 54	1 22	14 4	1 4	3 24	1 24	22 57	0 19	12 23	1 20	19 12	0 38	21 22
S14	18 4	8 57	4 12	13 31	1 16	14 29	1 2	3 14	1 20	22 55	0 19	12 22	1 20	19 11	0 38	21 22
M15	18 19	12 9	4 40	14 7	1 9	14 53	1 1	3 4	1 17	22 54	0 19	12 21	1 20	19 11	0 38	21 21
T16	18 35	14 53	4 56	14 42	1 3	15 18	0 59	2 54	1 14	22 53	0 19	12 21	1 20	19 10	0 38	21 21
W17	18 50	17 0	5 0	15 17	0 56	15 41	0 57	2 43	1 11	22 52	0 19	12 20	1 21	19 10	0 38	21 21
T18	19 5	18 23	4 50	15 51	0 49	16 5	0 55	2 33	1 7	22 51	0 19	12 19	1 21	19 10	0 38	21 21
F19	19 19	18 58	4 26	16 25	0 42	16 28	0 53	2 22	1 4	22 49	0 19	12 18	1 21	19 9	0 38	21 21
S20	19 33	18 39	3 51	16 58	0 36	16 50	0 51	2 11	1 1	22 48	0 19	12 18	1 21	19 9	0 38	21 21
S21	19 47	17 26	3 3	17 30	0 29	17 12	0 49	2 1	0 58	22 47	0 19	12 17	1 21	19 8	0 38	21 20
M22	20 0	15 21	2 6	18 2	0 22	17 34	0 47	1 49	0 56	22 45	0 19	12 16	1 22	19 8	0 38	21 20
T23	20 13	12 27	1 1	18 32	0 15	17 55	0 45	1 38	0 53	22 44	0 19	12 16	1 22	19 7	0 38	21 20
W24	20 26	8 49	0s 9	19 2	0 8	18 15	0 43	1 27	0 50	22 43	0 19	12 15	1 22	19 7	0 38	21 20
T25	20 38	4 38	1 20	19 31	0 1	18 35	0 41	1 16	0 47	22 41	0 20	12 15	1 22	19 6	0 38	21 19
F26	20 50	0 4	2 29	19 59	0s 6	18 55	0 39	1 4	0 45	22 40	0 20	12 14	1 23	19 6	0 38	21 19
S27	21 1	4n39	3 30	20 26	0 12	19 14	0 36	0 52	0 42	22 38	0 20	12 14	1 23	19 5	0 38	21 19
S28	21 12	9 10	4 19	20 52	0 19	19 33	0 34	0 41	0 39	22 37	0 20	12 13	1 23	19 5	0 38	21 19
M29	21 23	13 11	4 50	21 17	0 26	19 51	0 32	0 29	0 37	22 35	0 20	12 13	1 23	19 4	0 38	21 19
T30	21s33	16n20	5s 0	21s40	0s32	20s 8	0n30	0s17	0s34	22s34	0s20	12n13	1n24	19s 4	0s38	21s18

Julian Day Number = 2389757.5, Delta T = 10.19 sec  
Ecliptic obliquity = 23°27'32, Nutation = - 0°00'09, out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 22°22'41, Lahiri = 21°29'42

ASTRODIENST EPHEMERIS for the year 1830  
geocentric

DECEMBER 1830

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
W 1	4 37 22	8°20'25	20II43	6°34	3°27	1°2	18°20	1°38	7°23	20°57	7°R40	5°R14	5°20	13°14	8°R 3	W 1
T 2	4 41 19	9°21'16	5°35	8° 9	4°43	1°27	18°32	1°39	7°25	20°59	7°Y39	5°20	5°17	13°21	8°R 1	T 2
F 3	4 45 15	10°22'08	20° 1	9°43	5°58	1°52	18°44	1°40	7°27	21° 1	7°39	4°55	5°14	13°28	7°58	F 3
S 4	4 49 12	11°23'02	3°58	11°17	7°14	2°18	18°57	1°42	7°29	21° 3	7°38	4°50	5°11	13°34	7°56	S 4
S 5	4 53 8	12°23'56	17°24	12°51	8°29	2°44	19° 9	1°43	7°32	21° 5	7°38	4°47	5° 8	13°41	7°54	S 5
M 6	4 57 5	13°24'52	0°23	14°26	9°45	3°11	19°22	1°43	7°34	21° 7	7°37	4°D46	5° 5	13°48	7°51	M 6
T 7	5 1 2	14°25'50	12°57	16° 0	11° 0	3°37	19°35	1°44	7°36	21° 9	7°37	4°R46	5° 1	13°55	7°49	T 7
W 8	5 4 58	15°26'48	25°13	17°34	12°16	4° 4	19°48	1°45	7°39	21°10	7°37	4°45	4°58	14° 1	7°47	W 8
T 9	5 8 55	16°27'48	7°15	19° 9	13°31	4°32	20° 1	1°45	7°41	21°12	7°36	4°44	4°55	14° 8	7°44	T 9
F 10	5 12 51	17°28'48	19° 8	20°43	14°47	4°59	20°13	1°46	7°44	21°14	7°36	4°40	4°52	14°15	7°42	F 10
S 11	5 16 48	18°29'50	0°58	22°17	16° 2	5°27	20°26	1°46	7°46	21°16	7°36	4°33	4°49	14°21	7°40	S 11
S 12	5 20 44	19°30'53	12°48	23°52	17°18	5°55	20°39	1°46	7°49	21°18	7°36	4°23	4°45	14°28	7°38	S 12
M13	5 24 41	20°31'57	24°41	25°27	18°33	6°23	20°53	1°R46	7°52	21°20	7°35	4°10	4°42	14°35	7°36	M13
T 14	5 28 37	21°33'01	6°39	27° 2	19°49	6°52	21° 6	1°46	7°54	21°22	7°35	3°57	4°39	14°42	7°34	T 14
W15	5 32 34	22°34'07	18°44	28°36	21° 4	7°21	21°19	1°46	7°57	21°24	7°35	3°43	4°36	14°48	7°32	W15
T 16	5 36 31	23°35'13	0°57	0°12	22°20	7°50	21°32	1°46	8° 0	21°26	7°35	3°29	4°33	14°55	7°30	T 16
F 17	5 40 27	24°36'19	13°18	1°47	23°36	8°20	21°45	1°45	8° 2	21°29	7°35	3°18	4°30	15° 2	7°28	F 17
S 18	5 44 24	25°37'27	25°49	3°22	24°51	8°49	21°59	1°45	8° 5	21°31	7°34	3°10	4°26	15° 8	7°27	S 18
S 19	5 48 20	26°38'34	8°29	4°57	26° 7	9°19	22°12	1°44	8° 8	21°33	7°34	3° 4	4°23	15°15	7°25	S 19
M20	5 52 17	27°39'42	21°21	6°33	27°22	9°49	22°26	1°43	8°11	21°35	7°34	3° 1	4°20	15°22	7°23	M20
T 21	5 56 13	28°40'50	4°26	8° 8	28°38	10°19	22°39	1°43	8°14	21°37	7°34	3°D 1	4°17	15°29	7°21	T 21
W22	6 0 10	29°41'58	17°47	9°44	29°53	10°50	22°53	1°42	8°17	21°39	7°34	3° 1	4°14	15°35	7°20	W22
T 23	6 4 6	0°34'06	1°25	11°20	1°3	11°21	23° 6	1°40	8°19	21°41	7°D34	3°R 1	4°11	15°42	7°18	T 23
F 24	6 8 3	1°44'14	15°23	12°56	2°24	11°51	23°20	1°39	8°22	21°43	7°34	3° 1	4° 7	15°49	7°17	F 24
S 25	6 12 0	2°45'23	29°40	14°31	3°40	12°23	23°34	1°38	8°25	21°46	7°34	2°58	4° 4	15°55	7°15	S 25
S 26	6 15 56	3°46'31	14°14	16° 7	4°55	12°54	23°47	1°37	8°28	21°48	7°34	2°52	4° 1	16° 2	7°14	S 26
M27	6 19 53	4°47'39	29° 2	17°42	6°11	13°25	24° 1	1°35	8°31	21°50	7°34	2°45	3°58	16° 9	7°13	M27
T 28	6 23 49	5°48'48	13°56	19°17	7°26	13°57	24°15	1°34	8°34	21°52	7°35	2°36	3°55	16°16	7°12	T 28
W29	6 27 46	6°49'56	28°48	20°52	8°42	14°29	24°29	1°32	8°38	21°54	7°35	2°26	3°51	16°22	7°10	W29
T 30	6 31 42	7°51'05	13°28	22°26	9°57	15° 1	24°42	1°30	8°41	21°57	7°35	2°18	3°48	16°29	7° 9	T 30
F 31	6 35 39	8°52'13	27°49	24°3	11°13	15°33	24°56	1°28	8°44	21°59	7°Y35	2°11	3°45	16°36	7°R 8	F 31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
W 1	21s43	18n19	4s49	22s 3	0s38	20s25	0n27	0s 5	0s32	22s32	0s20	12n12	1n24	19s 3	0s38	21s18	0n32	12s40	17s 7	9n36	9n34	11s16	12n48	1s29
T 2	21 52	19 2	4 19	22 25	0 45	20 41	0 25	0n 8	0 30	22 30	0 20	12 12	1 24	19 2	0 38	21 18	0 32	12 40	17 7	9 40	9 35	11 18	12 47	1 29
F 3	22 1	18 27	3 33	22 46	0 51	20 57	0 23	0 20	0 27	22 29	0 20	12 12	1 24	19 2	0 38	21 17	0 32	12 40	17 6	9 43	9 36	11 20	12 46	1 29
S 4	22 10	16 46	2 35	23 5	0 57	21 12	0 20	0 32	0 25	22 27	0 20	12 12	1 24	19 1	0 38	21 17	0 32	12 40	17 6	9 45	9 37	11 21	12 46	1 29
S 5	22 18	14 12	1 30	23 24	1 3	21 26	0 18	0 45	0 23	22 25	0 20	12 12	1 25	19 1	0 38	21 17	0 32	12 39	17 6	9 46	9 38	11 23	12 45	1 29
M 6	22 26	10 59	0 23	23 41	1 8	21 40	0 16	0 57	0 20	22 24	0 20	12 12	1 25	19 0	0 38	21 17	0 32	12 39	17 5	9 46	9 39	11 25	12 44	1 29
T 7	22 33	7 22	0n43	23 57	1 14	21 54	0 13	1 10	0 18	22 22	0 20	12 11	1 25	18 59	0 38	21 16	0 32	12 39	17 5	9 46	9 41	11 26	12 43	1 29
W 8	22 40	3 32	1 46	24 11	1 19	22 6	0 11	1 22	0 16	22 20	0 20	12 11	1 25	18 59	0 38	21 16	0 32	12 39	17 5	9 46	9 42	11 28	12 42	1 29
T 9	22 46	0s23	2 43	24 25	1 24	22 18	0 8	1 35	0 14	22 18	0 20	12 12	1 26	18 58	0 38	21 16	0 32	12 39	17 4	9 47	9 43	11 30	12 42	1 29
F 10	22 52	4 14	3 32	24 37	1 29	22 29	0 6	1 48	0 12	22 16	0 20	12 12	1 26	18 57	0 38	21 16	0 32	12 39	17 4	9 49	9 44	11 31	12 41	1 29
S 11	22 58	7 53	4 11	24 48	1 34	22 40	0 4	2 1	0 10	22 14	0 21	12 12	1 26	18 57	0 38	21 15	0 32	12 38	17 4	9 51	9 45	11 33	12 40	1 29
S 12	23 3	11 14	4 40	24 57	1 39	22 50	0 1	2 14	0 8	22 13	0 21	12 12	1 26	18 56	0 38	21 15	0 32	12 38	17 3	9 55	9 46	11 35	12 40	1 29
M13	23 7	14 9	4 57	25 6	1 43	22 59	0s 1	2 27	0 6	22 11	0 21	12 12	1 27	18 55	0 38	21 15	0 32	12 38	17 3	9 59	9 48	11 36	12 39	1 29
T 14	23 11	16 30	5 0	25 12	1 47	23 8	0 3	2 40	0 4	22 9	0 21	12 12	1 27	18 55	0 38	21 14	0 32	12 38	17 3	10 4	9 49	11 38	12 38	1 29
W15	23 15	18 9	4 51	25 18	1 51	23 15	0 6	2 53	0 2	22 7	0 21	12 13	1 27	18 54	0 37	21 14	0 32	12 37	17 2	10 9	9 50	11 40	12 38	1 29
T 16	23 18	19 0	4 28	25 22	1 54	23 22	0 8	3 6	0 0	22 5	0 21	12 13	1 27	18 53	0 37	21 14	0 31	12 37	17 2	10 14	9 51	11 41	12 37	1 29
F 17	23 21	18 57	3 52	25 24	1 58	23 29	0 11	3 20	0n 1	22 3	0 21	12 13	1 28	18 53	0 37	21 14	0 31	12 37	17 1	10 18	9 52	11 43	12 36	1 29
S 18	23 23	17 59	3 4	25 25	2 1	23 35	0 13	3 33	0 3	22 1	0 21	12 14	1 28	18 52	0 37	21 13	0 31	12 37	17 1	10 21	9 53	11 44	12 36	1 29
S 19	23 25	16 7	2 7	25 25	2 3	23 39	0 15	3 46	0 5	21 58	0 21	12 14	1 28	18 51	0 37	21 13	0 31	12 36	17 1	10 23	9 55	11 46	12 35	1 30
M20	23 26	13 25	1 2	25 23	2 5	23 44	0 18	4 0	0 6	21 56	0 21	12 15	1 28	18 50	0 37	21 13	0 31	12 36	17 0	10 24	9 56	11 48	12 35	1 30
T 21	23 27	10 1	0s 8	25 20	2 7	23 47	0 20	4 13	0 8	21 54	0 21	12 15	1 28	18 50	0 37	21 12	0 31	12 36	17 0	10 25	9 57	11 49	12 34	1 30
W22	23 28	6 2	1 18	25 15	2 9	23 50	0 22	4 26	0 10	21 52	0 21	12 16	1 29	18 49	0 37	21 12	0 31	12 35	17 0	10 24	9 58	11 51	12 33	1 30
T 23	23 27	1 40	2 25	25 8	2 10	23 52	0 25	4 40	0 11	21 50	0 21	12 16	1 29	18 48	0 37	21 12	0 31	12 35	16 59	10 24	9 59	11 53	12 33	1 30
F 24	23 27	2n53	3 26	25 0	2 11	23 53	0 27	4 53	0 13	21 48	0 21	12 17	1 29	18 47	0 37	21 11	0 31	12 35	16 59	10 25	10 0	11 54	12 32	1 30
S 25	23 26	7 23	4 15	24 51	2 11	23 54	0 29	5 7	0 14	21 45	0 22	12 18	1 29	18 46	0 37	21 11	0 31	12 34	16 59	10 26	10 1	11 56	12 32	1 30
S 26	23 24	11 31	4 49	24 39	2 11	23 54	0 32	5 21	0 16	21 43	0 22	12 18	1 30	18 46	0 37	21 11	0 31	12 34	16 58	10 28	10 3	11 58	12 32	1 30
M27	23 22	15 1	5 4	24 27	2 11	23 53	0 34	5 34	0 17	21 41	0 22	12 19	1 30	18 45	0 37	21 10	0 31	12 34	16 58	10 30	10 4	11 59	12 31	1 30
T 28	23 20	17 33	4 59	24 12	2 9	23 51	0 36	5 48	0 19	21 38	0 22	12 20	1 30	18 44	0 37	21 10	0 31	12 33	16 57	10 34	10 5	12 1	12 31	1 30
W29	23 17	18 54	4 33	23 56	2 8	23 48	0 38	6 1	0 20	21 36	0 22	12 21	1 30	18 43	0 37	21 10	0 31	12 33	16 57	10 37	10 6	12 2	12 30	1 30
T 30	23 14	18 58	3 50	23 39	2 5	23 45	0 40	6 15	0 22	21 34	0 22	12 22	1 31	18 42	0 37	21 9	0 31	12 32	16 57	10 40	10 7	12 4	12 30	1 30
F 31	23s10	17n47	2s53	23s20	2s 2	23s41	0s42	6n29	0n23	21s31	0s22	12n22	1n31	18s41	0s37	21s 9	0n31	12s32	16s56	10n42	10n 8	12s 6	12n30	1s30