

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _w	A _z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
LISTOPAD 2021									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	1 55	8 54	15 36	105	99	11 18 44	9 57.7	31.6	-0.20
2	3 15	9 42	15 53	95	90	12 09 07	4 02.6	32.1	-0.11
3	4 37	10 32	16 11	84	80	13 00 24	- 2 16.3	32.6	-0.05
4	6 03	11 24	16 32	74	70	13 53 36	- 8 38.5	33.0	-0.01
5	7 32	12 20	16 57	64	60	14 49 39	-14 39.1	33.2	0.00
6	9 02	13 20	17 29	55	53	15 49 11	-19 49.5	33.3	0.02
7	10 28	14 23	18 13	49	48	16 52 04	-23 41.7	33.2	0.07
8	11 43	15 27	19 11	46	46	17 57 07	-25 53.3	33.0	0.14
9	12 41	16 29	20 22	47	48	19 02 15	-26 14.5	32.6	0.23
10	13 24	17 28	21 40	52	54	20 05 10	-24 50.0	32.2	0.33
11	13 55	18 22	22 59	58	61	21 04 15	-21 56.3	31.7	0.44
12	14 18	19 11	—	66	—	21 59 00	-17 55.0	31.3	0.55
13	14 37	19 57	0 16	74	69	22 49 44	-13 07.5	30.9	0.65
14	14 52	20 40	1 30	83	78	23 37 20	- 7 52.0	30.6	0.75
15	15 07	21 22	2 41	91	87	0 22 47	- 2 23.7	30.3	0.83
16	15 21	22 03	3 51	100	96	1 07 08	3 04.8	30.0	0.90
17	15 37	22 45	5 00	108	105	1 51 21	8 22.2	29.8	0.95
18	15 55	23 29	6 09	116	113	2 36 15	13 17.9	29.6	0.98
19	16 16	—	7 18	122	120	3 22 31	17 40.8	29.5	1.00
20	16 43	0 14	8 26	128	126	4 10 35	21 20.3	29.4	-1.00
21	17 17	1 02	9 32	132	131	5 00 35	24 05.7	29.4	-0.98
22	18 01	1 51	10 31	133	133	5 52 15	25 48.0	29.4	-0.94
23	18 54	2 42	11 22	133	133	6 44 59	26 20.4	29.5	-0.89
24	19 57	3 32	12 03	129	131	7 37 57	25 40.1	29.7	-0.82
25	21 06	4 22	12 35	124	126	8 30 20	23 48.1	29.9	-0.74
26	22 19	5 11	13 01	117	120	9 21 36	20 49.0	30.2	-0.65
27	23 33	5 58	13 22	109	112	10 11 35	16 49.9	30.5	-0.55
28	—	6 45	13 40	—	104	11 00 36	11 59.6	31.0	-0.45
29	0 49	7 31	13 57	100	95	11 49 17	6 28.2	31.5	-0.35
30	2 07	8 18	14 14	90	85	12 38 30	0 27.8	32.0	-0.25

nów:	4 XI	21 ^h 15 ^m	3 XI	18.7 ^h	Merkury	1°S
pierwsza kwadra:	11 XI	12 ^h 46 ^m	4 XI	4.7 ^h	Mars	2°S
pełnia:	19 XI	8 ^h 57 ^m	8 XI	5.4 ^h	Wenus	1°N
ostatnia kwadra:	27 XI	12 ^h 28 ^m	10 XI	14.5 ^h	Saturn	4°N
			11 XI	17.3 ^h	Jowisz	4°N
perygeum:	5 XI	22 ^h 21 ^m	13 XI	18.7 ^h	Neptun	4°N
apogeum:	21 XI	2 ^h 16 ^m	18 XI	1.9 ^h	Uran	1°N