

7. JULY.

Begins on Tuesday, has 31 days.

1856.

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Moon's Phases,

	D.	H.	M.
New Moon,	2	4	35 M.
First Quarter,	10	2	26 M.
Full Moon,	17	4	35 E.
Last Quarter,	24	10	6 M.
New Moon,	31	4	13 E.

PROB. 16.—The sides of a hexagon are 12, what is the side of the largest inscribed square?

PROB. 17.—A cubical cistern is 20 feet square, and 20 feet deep, and full of water. How large a circular orifice at the bottom will empty it in an hour?

PROB. 18.—In what time will the amount of \$1 at 6 per cent compound interest, equal

● Moon High
outh. water.
E. M. H. M.

0 41 7 34
1 39 8 27
2 39 9 14
3 39 10 0
4 37 10 44
5 31 11 27
6 20 morn.
7 5 0 10
8 46 0 57
9 26 1 44
10 5 2 33
11 44 3 32
12 25 4 35
13 9 5 30
14 56 6 26
15 48 7 16
16 44 8 0
17 0 8 43
18 43 9 24
19 43 10 5
20 40 10 47
21 35 11 31
22 27 ev. 17
23 16 1 7
24 4 2 1
25 52 3 1
26 41 4 5
27 33 5 5
28 28 6 11
29 26 7 14

Day of Mon.	Day of Week.	Phenomena, Chronology, etc.	Sun rises. H. M.	Sun sets. H. M.	Sun's dec.N. °	Moon's place.	Moon sets. H. M.	Moon south. H. M.	High water. H. M.
1	Tue	Daybreak 2 26.	4 34	7 26	23 5	II	sets.	11 26	8 12
2	Wed	♀ station. <i>Dry and</i>	4 34	7 26	23 1	II	8 21	ev. 24	9 5
3	Thu	Cap. Ft. Erie 1814.	4 35	7 25	22 56	II	9 5	1 20	9 52
4	Fri	Independence. <i>hot.</i>	4 35	7 25	22 51	II	9 39	2 11	10 37
5	Sat	B. Chippewa 1814.	4 35	7 25	22 45	II	10 8	2 58	11 16
6	E	7th Sun. aft. Trinity.	4 36	7 24	22 39	II	10 31	3 41	11 53
7	Mon	Daybr'k 2 32. <i>Rainy</i>	4 36	7 24	22 32	II	10 52	4 22	morn.
8	Tue	Burke d. 1797. <i>and</i>	4 37	7 23	22 25	II	11 12	5 1	0 31
9	Wed	● in apogee. <i>cool.</i>	4 37	7 23	22 18	II	11 31	5 40	1 9
10	Thu	● near Mars. <i>Hot.</i>	4 38	7 22	22 11	II	11 52	6 20	1 50
11	Fri	Hamilton shot 1804.	4 38	7 22	22 3	II	morn.	7 2	2 32
12	Sat	Mars 90° E. of Sun.	4 39	7 21	21 54	II	0 14	7 47	3 22
13	E	Daybreak 2 39.	4 40	7 20	21 45	II	0 42	8 37	4 21
14	Mon	<i>Cloudy and rain.</i>	4 40	7 20	21 36	II	1 16	9 31	5 23
15	Tue	● lowest. <i>Windy.</i>	4 41	7 19	21 27	II	1 58	10 29	6 30
16	Wed	B. Stony Point '79.	4 42	7 18	21 17	II	2 53	11 29	7 9
17	Thu	Bat. Warsaw 1815.	4 42	7 18	21 7	II	rises.	morn.	8 21
18	Fri	♀ near ♄. <i>Warm.</i>	4 43	7 17	20 56	II	8 33	0 29	9 11
19	Sat	Daybreak 2 46.	4 44	7 16	20 45	II	9 5	1 27	9 56
20	E	9th Sun. aft. Trinity.	4 45	7 15	20 34	II	9 33	2 21	10 39
21	Mon	● in perigee. <i>Rain.</i>	4 45	7 15	20 22	II	9 59	3 12	11 22
22	Tue	☿ enters ♄. <i>Hot.</i>	4 46	7 14	20 10	II	10 24	4 1	ev. 6
23	Wed	Bagdad sack'd 1401	4 47	7 13	19 58	II	10 48	4 49	0 52
24	Thu	Bat. Niagara, 1768.	4 48	7 12	19 45	II	11 17	5 38	1 38
25	Fri	Daybreak 2 54.	4 49	7 11	19 32	II	11 50	6 29	2 28
26	Sat	Coleridge di. 1834.	4 50	7 10	19 19	II	morn.	7 23	3 24
27	E	♀ in perihe. <i>Very hot</i>	4 51	7 9	19 5	II	0 27	8 19	4 34
28	Mon	● highest. <i>and dry.</i>	4 52	7 8	18 51	II	1 17	9 17	5 50
29	Tue	Jupiter stationary.	4 52	7 8	18 37	II	2 12	10 15	7 8
30	Wed	Moon & Mercury.	4 53	7 7	18 23	II	3 14	11 11	8 10
31	Thu	Thunder Shower.	4 54	7 6	18 8	II	sets.	ev. 3	9 2

day must