

MOON'S PHASES.	D.	Toronto.	Quebec.	Twilight or Daylight begins and ends at—															
				Days.	Toronto.		Halifax.		Montreal.		Fredericton.		Quebec.						
					Beg.	End.	Beg.	End.	Beg.	End.	Beg.	End.	Beg.	End.					
					A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.	A. M.	P. M.			
☾ First Quarter ...	8	7 5 ev	7 37 ev																
☾ Full Moon	16	0 38 mo	1 10 mo	h	m	h	m	h	m	h	m	h	m	h	m	h	m		
☾ Last Quarter ...	22	3 50 ev	4 23 ev	12	49	23	43	9 29	2 36	9 36	2 32	9 39	2 29	9 43					
☾ New Moon	30	5 57 mo	6 29 mo	10	3	6 9	4 3	0 9	16	2 55	9 15	2 51	9 18	2 47	9 23				
☾ Apogee	5	7 21 ev	7 53 ev	20	3	22	8 43	3 18	8 48	3 14	8 52	3 11	8 55	3 7	8 59				
☾ Perigee	17	9 0 ev	9 32 ev	30	3	42	8 19	3 38	8 23	3 32	8 26	3 30	8 31	3 26	8 34				

Ephemeris of the Planets, &c.

Day Mo.	Venus South. Even.	Mars South. Even.	Jupiter South. Morn.	Saturn South. Morn.	Sun's Longt. Morn.	Sun's Right Ascen.	Venus Right Ascen.	Mars Right Ascen.	Jupiter Right Ascen.	Saturn Right Ascen.	Venus Decl. North.	Mars Decl. North.	Jupiter Decl. North.	Saturn Decl. North.
1 ...	h m	h m	h m	h m	° /	h m	h m	h m	h m	h m	° /	° /	° /	° /
7 ...	0 21	5 11	3 59	9 55	129 33	8 48	9 3	13 54	0 36	6 37	18	9 12	21	2 17
13 ...	0 27	5 1	3 55	9 34	135 18	9 11	9 33	14 7	0 35	6 40	16	1 13	57	2 12
19 ...	0 32	4 51	3 31	9 13	141 4	9 34	10 2	14 20	0 35	6 43	13	36	15	2 4
25 ...	0 37	4 42	2 42	8 53	146 50	9 56	10 30	14 35	0 33	6 45	10	58	16	1 54
31 ...	0 41	4 33	2 17	8 32	152 37	10 18	10 58	14 50	0 32	6 48	8	9	17	1 42

Day of Month	Day of Week	Day of Year	Calendar for Upper Canada and Nova Scotia.						Calendar for Lower Canada and New Brunswick.						DEPARTMENT FOR ALL OF UPPER AND LOWER CANADA.													
			Sun Rises.		Sun Sets.		Moon Sets.		Sun Rises.		Sun Sets.		Moon Sets.		Pole Star in Meridian Morning.	Shadow at Noon Mark. Evening.	Mn's Age, Noon.	Moon South Even.	Moon's Place. 7 P. M.	Sun's Declination North.								
			h	m	h	m	h	m	h	m	h	m	h	m							h	m	h	m	s	°	'	''
1	Friday	214	4	47	25	8	16	4	47	25	8	23	4	26	11	12	6	0	0	8	0	52	♊	23	17	52	37	
2	Satur.	215	4	48	24	8	39	4	48	24	8	43	4	22	16	12	5	56	1	8	1	36	♋	5	17	37	10	
3	SUND.	216	4	49	22	8	58	4	50	22	9	0	4	18	21	12	5	51	2	8	2	18	do.	17	17	21	26	
4	Mond.	217	4	50	21	9	16	4	51	21	9	17	4	14	26	12	5	46	3	8	2	58	do.	29	17	5	25	
5	Tuesd.	218	4	51	20	9	33	4	52	20	9	31	4	10	31	12	5	40	4	8	3	37	♌	11	16	49	7	
6	Wed.	219	4	53	19	9	51	4	54	18	9	48	4	6	35	12	5	34	5	8	4	16	do.	23	16	32	33	
7	Thur.	220	4	54	17	10	10	4	54	16	10	5	4	2	40	12	5	26	6	8	4	56	♍	4	16	15	43	
8	Friday	221	4	55	16	10	31	4	56	14	10	24	3	58	45	12	5	19	7	8	5	40	do.	16	15	58	37	
9	Satur.	222	4	56	14	11	1	4	57	13	10	52	3	54	50	12	5	10	8	8	6	27	do.	29	15	41	16	
10	SUND.	223	4	57	13	11	37	4	59	11	11	27	3	50	55	12	5	2	9	8	7	18	♎	11	15	23	40	
11	Mond.	224	4	58	12	Morn	5	0	7	10	Morn		3	47	0	12	4	52	10	8	8	14	do.	24	15	5	50	
12	Tuesd.	225	4	59	10		24	5	17	9		12	3	43	4	12	4	42	11	8	9	12	♏	7	14	47	45	
13	Wed.	226	5	17	9		1	24	5	27	8	1	12	3	39	9	12	4	31	12	8	10	13	do.	21	14	29	26
14	Thur.	227	5	27	7		2	35	5	37	5	2	25	3	35	14	12	4	20	13	8	11	12	♐	5	14	10	53
15	Friday	228	5	37	5	Rises	5	47	4	Rises			3	31	19	12	4	8	14	8	Morn		do.	20	13	52	7	
16	Satur.	229	5	47	4	7	40	5	67	2	7	44	3	27	24	12	3	56	15	8	0	8	♑		5	13	33	7
17	SUND.	230	5	57	2	8	25	8	87	0	8	4	3	23	28	12	3	43	16	8	1	2	do.	20	13	15	55	
18	Mond.	231	5	66	1	8	26	5	96	59	8	25	3	19	33	12	3	30	17	8	1	53	♒	4	12	54	30	
19	Tuesd.	232	5	86	59	8	48	5	96	57	8	45	3	15	38	12	3	17	18	8	2	43	do.	19	12	34	53	
20	Wed.	233	5	96	57	9	14	5	106	56	9	49	3	11	43	12	3	2	19	8	3	33	♓		3	12	15	3
21	Thur.	234	5	106	56	9	41	5	126	54	9	34	3	7	47	12	2	48	20	8	4	25	do.	18	11	55	2	
22	Friday	235	5	116	54	10	18	5	136	53	10	8	3	3	52	12	2	33	21	3	5	18	♈	2	11	34	49	
23	Satur.	236	5	126	53	11	0	5	146	50	10	49	2	59	57	12	2	17	28	6	14	do.	15	11	14	26		
24	SUND.	237	5	136	51	11	53	5	166	48	11	41	2	56	1	12	2	1	23	8	7	12	do.	28	10	53	51	
25	Mond.	238	5	146	49	Morn	5	17	6	47	Morn		2	52	6	12	1	45	24	8	8	10	♉	11	10	33	6	
26	Tuesd.	239	5	166	48		52	5	186	46		40	2	48	11	12	1	28	25	8	9	6	do.	24	10	12	11	
27	Wed.	240	5	176	46	1	58	5	196	43	1	48	2	44	15	12	1	11	26	8	9	59	♊	7	9	51	6	
28	Thur.	241	5	186	44	3	6	5	206	42	2	58	2	40	20	12	0	54	27	8	10	48	do.	19	9	29	51	
29	Friday	242	5	196	42	4	11	5	216	41	4	5	2	36	25	12	0	36	28	8	11	33	♋	2	9	8	27	
30	Satur.	243	5	206	40	Sets.	5	22	6	38	Sets.		2	32	29	12	0	18	0	2	Ev.	16	do.	14	8	46	55	
31	SUND.	244	5	216	39	7	22	5	236	37	7	23	2	28	34	12	0	0	1	2	0	56	do.	26	8	25	14	

Prob. 59.—From a cask containing 324 gallons of wine, a certain quantity is drawn, and then it is filled with water, and then the same quantity of the mixture is drawn, and so on for four times, filling up with water at every draught, when 81 gallons of pure wine was in

the cask. How much wine was drawn each time?

Prob. 60.—In an isosceles triangle there are inscribed 3 circles; the radius of the largest and smallest are 16 and 9. Required the size of the triangle.