

MOON'S PHASES.	D.	Toronto.		Quebec.		Twilight or Daylight begins and ends at—											
						Toronto.		Halifax.		Montreal.		Fredrick.		Quebec.			
		Beg.	End.	Beg.	End.	Beg.	End.	Beg.	End.	Beg.	End.	Beg.	End.	Beg.	End.	Beg.	End.
● New Moon	7	6	0 ev	6	32 ev												
● First Quarter ...	14	10	25 mo	10	58 mo	h	m	h	m	h	m	h	m	h	m	h	m
○ Full Moon	21	10	11 ev	10	41 ev	15	50	17	52	16	53	14	51	13	55	6	12
● Last Quarter ...	30	3	17 mo	3	50 mo	10	5	25	5	25	24	5	51	22	5	55	6
● Perigee.....	10	4	45 mo	5	17 mo	20	5	47	6	35	4	48	6	33	5	50	6
● Apogee.....	26	3	45 mo	4	17 mo	30	5	41	6	46	5	41	6	43	5	41	6

Ephemeris of the Planets, &c.

Day	Mo.	Venus South Morn.	Mars South Morn.	Jupiter South Even.	Saturn South Even.	Sun's Long. Ind.	Sun's Right Ascen.	Venus Right Ascen.	Mars Right Ascen.	Jupiter Right Ascen.	Saturn Right Ascen.	Venus Decl. South.	Mars Decl. South.	Jupiter Decl. South.	Saturn Decl. North.
		h m	h m	h m	h m	° /	h m	h m	h m	h m	h m	°	°	°	°
1 ...		8 51	5 56	3 31	10 56	281 33	18 40	15 33	12 34	22 13	5 40	16 10	1 12	12	7 22
7 ...		8 53	5 39	3 12	10 31	286 46	19 12	16 1	12 43	22 18	5 38	17 46	2 6	11	22 11
13 ...		9 00	5 23	2 53	10 5	292 47	19 38	16 20	12 52	22 23	5 36	19 9	2 51	11	14 22
19 ...		9 5	5 8	2 34	9 40	298 51	20 4	16 58	13 0	22 28	5 35	20 18	3 38	10	45 22
25 ...		9 11	4 51	2 15	9 15	305 20	20 21	17 28	13 7	22 33	5 33	21 8	4 15	10	16 22
31 ...		9 18	4 33	1 57	8 50	311 5	20 54	17 58	13 13	22 38	5 32	21 33	4 47	9	45 22

Day of Month.	Day of Week.	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.			Sun Rises.			Sun Sets.			Pole Star in Meridian Evening.	Shadow at Noon Mark. Evening.				M's Age Noon.	Moon South Morn.	Moon's Place at 7 P. M.	Sun's Declination South.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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PROB. 6.—The bulge diameter of a cheese is 19 inches, and side diameter 18 inches. It is 6 in. deep at the edges, and 7 in. at the centre of the sides. Required its solid contents.

PROB. 7.—The three lines drawn from the angles of a triangle perpendicular to the oppo-

site sides, meet in a point—if the length of these lines from the angles to the point where they meet are 1, $\sqrt{6}$, and $\sqrt{6}$ respectively, it is required to determine the sides of the triangle by quadratic equations.

PROB. 8.—Given $x^4 - 2x^3 + x = 2$, to find x .