

## Diurnal vs. Semi-diurnal tide pattern analysis

### Part One - Tides:

**Diurnal** has \_\_\_\_\_ high and \_\_\_\_\_ low tide(s) during each 24-hour day

Areas that might experience this would be: \_\_\_\_\_

**Semi-diurnal** has \_\_\_\_\_ high and \_\_\_\_\_ low tide(s) during each 24-hour day

Areas that might experience this would be: \_\_\_\_\_

**Mixed semi-diurnal** has \_\_\_\_\_ high and \_\_\_\_\_ low tide(s) during each 24-hour day

Areas that might experience this would be: \_\_\_\_\_

Describe the difference between a semi-diurnal and a mixed semi-diurnal tide pattern. \_\_\_\_\_

\_\_\_\_\_

### Part Two – Moon Positions

Describe the difference between the apogee and perigee moon positions on the diagram \_\_\_\_\_

\_\_\_\_\_

In which phase would the moon appear to be larger? \_\_\_\_\_ And why would this be? \_\_\_\_\_

When is our next apogee ( \_\_\_\_\_ ) and perigee ( \_\_\_\_\_ ) moon occurring in 2018.

Perigee moons are \_\_\_\_\_ % larger and \_\_\_\_\_ % brighter than an apogee moon.

What are alternative words for an apogee (aka \_\_\_\_\_ ) and perigee (aka \_\_\_\_\_ ) moon.

Compared to a normal tide, apogee moon tides are a type of \_\_\_\_\_ tide and have a \_\_\_\_\_ greater variation; and the perigee moon tides are also a type of \_\_\_\_\_ tide and have a \_\_\_\_\_ smaller variation.

### Part Three – Sun, Moon, & Earth Positions

The name of the moons that have the Sun, Moon, & Earth all in the same plane is \_\_\_\_\_ & \_\_\_\_\_ and have both \_\_\_\_\_ tides.

This is the name of the moon's appearance after a new moon but before a full moon: \_\_\_\_\_ crescent and \_\_\_\_\_ gibbous.

This is the name of the moon's appearance after a full moon but before a new moon: \_\_\_\_\_ crescent and \_\_\_\_\_ gibbous.

These moon positions are at 90-degrees from the Sun – Earth plane. \_\_\_\_\_ and \_\_\_\_\_ moon. The tides seen during these phases are called \_\_\_\_\_ tides and are ( **larger / smaller** ) than spring tides.

# Tide Analysis – Milford, Connecticut. November 2018.

## Milford Harbor Tides - Nov/2018

DATE	HIGH				LOW						
	AM	ft	PM	ft	AM	ft	PM	ft	RISE	SET	MOON
1 Thu	6:08	6.3	6:31	6.7	12:00	0.3	12:22	0.6	7:23	5:48	
2 Fri	7:12	6.5	7:37	6.7	1:03	0.2	1:28	0.4	7:24	5:47	
3 Sat	8:11	6.9	8:38	6.8	2:02	0.0	2:30	0.1	7:25	5:46	
4 Sun	8:07	7.2	8:33	6.9	1:58	-0.2	2:27	-0.3	6:26	4:44	
5 Mon	8:58	7.5	9:25	7.0	2:49	-0.3	3:20	-0.5	6:27	4:43	
6 Tue	9:45	7.6	10:13	7.0	3:37	-0.3	4:09	-0.7	6:29	4:42	
7 Wed	10:30	7.6	10:59	6.9	4:22	-0.3	4:55	-0.7	6:30	4:41	
8 Thu	11:14	7.6	11:44	6.7	5:06	-0.1	5:39	-0.6	6:31	4:40	
9 Fri	11:57	7.3			5:48	0.1	6:23	-0.3	6:32	4:39	
10 Sat	12:28	6.5	12:40	7.1	6:31	0.4	7:06	-0.0	6:33	4:38	
11 Sun	1:13	6.3	1:24	6.8	7:15	0.7	7:50	0.3	6:35	4:37	
12 Mon	1:58	6.1	2:10	6.4	8:01	1.0	8:37	0.6	6:36	4:36	
13 Tue	2:47	5.9	3:00	6.1	8:51	1.2	9:26	0.8	6:37	4:35	
14 Wed	3:38	5.7	3:54	5.9	9:45	1.3	10:18	0.9	6:38	4:34	
15 Thu	4:32	5.7	4:50	5.8	10:42	1.4	11:11	1.0	6:39	4:34	
16 Fri	5:26	5.8	5:47	5.7	11:39	1.3			6:40	4:33	
17 Sat	6:19	6.0	6:41	5.8	12:03	0.9	12:34	1.1	6:42	4:32	
18 Sun	7:08	6.2	7:32	6.0	12:53	0.7	1:26	0.8	6:43	4:31	
19 Mon	7:55	6.5	8:20	6.2	1:40	0.5	2:14	0.4	6:44	4:31	
20 Tue	8:38	6.8	9:05	6.3	2:26	0.3	3:00	0.1	6:45	4:30	
21 Wed	9:20	7.1	9:50	6.5	3:09	0.1	3:45	-0.3	6:46	4:29	
22 Thu	10:02	7.3	10:34	6.6	3:53	-0.0	4:29	-0.5	6:47	4:29	
23 Fri	10:45	7.5	11:20	6.7	4:36	-0.1	5:14	-0.7	6:49	4:28	
24 Sat	11:30	7.5			5:22	-0.2	6:01	-0.8	6:50	4:28	
25 Sun	12:07	6.7	12:18	7.5	6:09	-0.1	6:51	-0.7	6:51	4:27	
26 Mon	12:57	6.6	1:09	7.4	7:01	-0.0	7:43	-0.5	6:52	4:27	
27 Tue	1:50	6.5	2:05	7.1	7:56	0.1	8:39	-0.4	6:53	4:26	
28 Wed	2:47	6.5	3:05	6.9	8:57	0.3	9:39	-0.2	6:54	4:26	
29 Thu	3:48	6.4	4:09	6.6	10:02	0.3	10:40	-0.1	6:55	4:26	
30 Fri	4:50	6.5	5:15	6.5	11:08	0.3	11:41	-0.0	6:56	4:25	

The first night of a full moon in November 2018 is \_\_\_\_\_

The highest tide of November occurs on \_\_\_\_\_ at \_\_\_\_\_ ( a.m. / p.m. )

Provide 2 different dates and times that there would be a neap tide

- a) \_\_\_\_\_ @ \_\_\_\_\_ ( a.m. / p.m. )
- b) \_\_\_\_\_ @ \_\_\_\_\_ ( a.m. / p.m. )

The lowest tide of November occurs on \_\_\_\_\_ at \_\_\_\_\_ ( a.m. / p.m. )

A waxing crescent moon will occur on \_\_\_\_\_

A waning crescent moon will occur on \_\_\_\_\_

A spring tide would occur on these days:

- a) \_\_\_\_\_
- b) \_\_\_\_\_

Choose the test or match option in the function bar of the quizlet in the link below to test yourself on moon shapes. (link: <https://quizlet.com/10178138/quiz-on-moon-phases-flash-cards/>)

Which one(s) did you know right away? \_\_\_\_\_

Which one(s) did you need to attempt more than once? \_\_\_\_\_