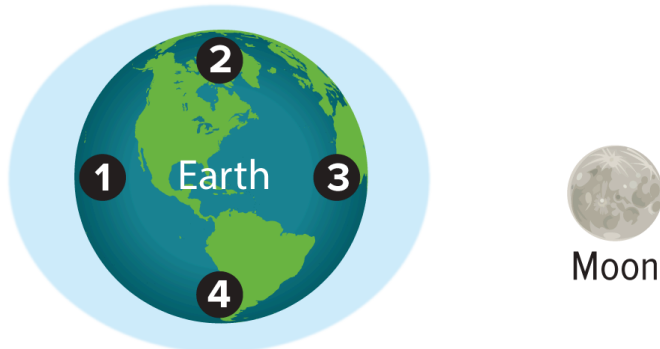


**Ch 11 Lesson 3 Review**

---

1) The diagram shows the position of the Moon relative to Earth.



Not drawn to scale

How will the tide at Point 4 change in the next 12 hours?

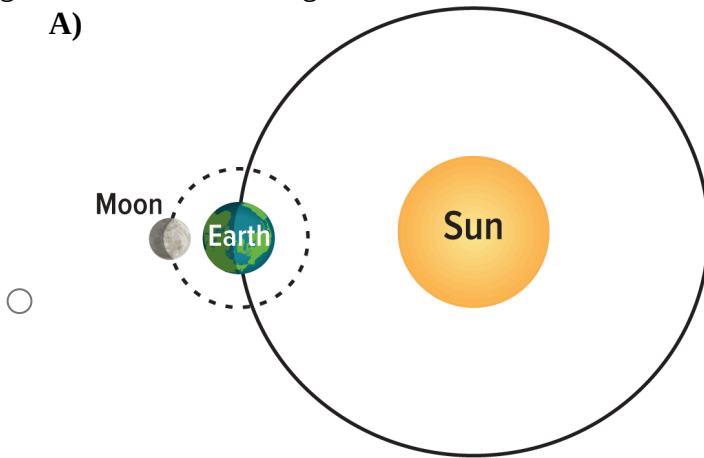
- A) The tide will change from high tide to low tide and back to high tide.
- B) The tide will change from high tide to low tide.
- C) The tide will change from low tide to high tide.
- D) The tide will change from low tide to high tide and back to low tide.

**Ch 11 Lesson 3 Review**

---

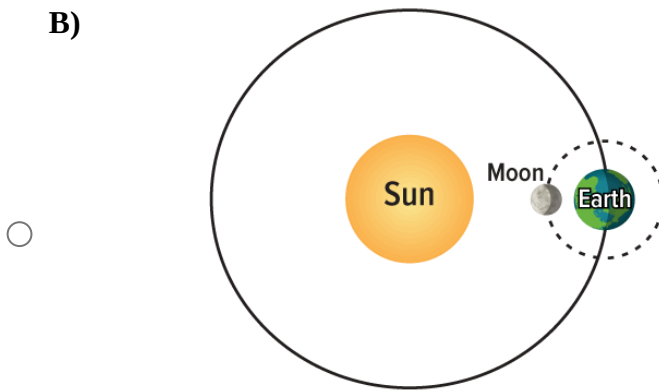
2) Which model correctly shows the positions of the Sun, Earth, and the Moon that result in the smallest gravitational force acting on Earth's oceans?

**A)**



Not drawn to scale

**B)**

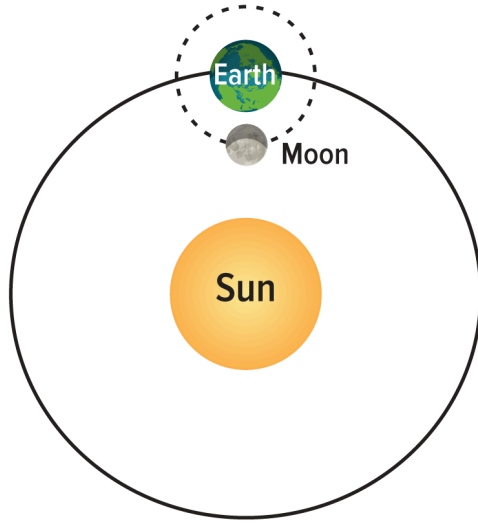


Not drawn to scale

**Ch 11 Lesson 3 Review**

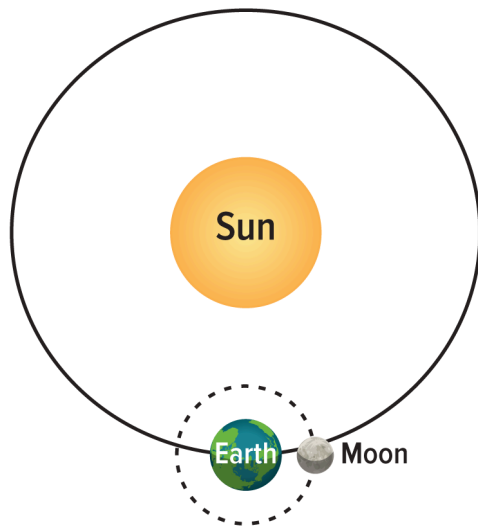
---

**C)**



Not drawn to scale

**D)**

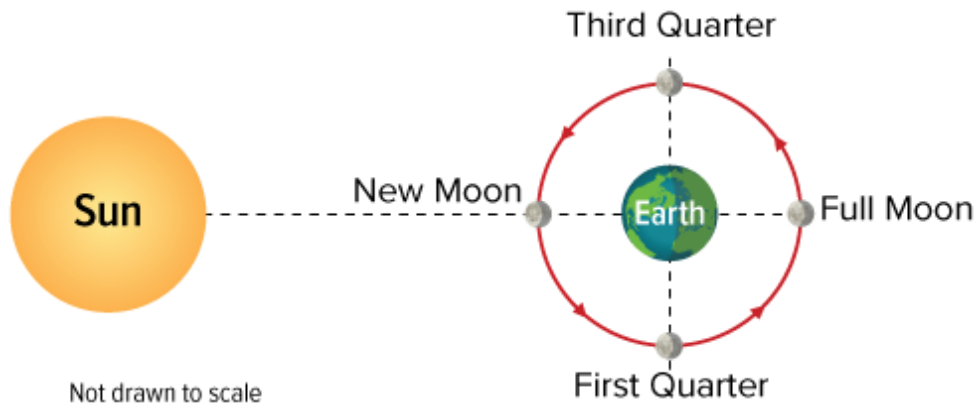


Not drawn to scale

**Ch 11 Lesson 3 Review**

---

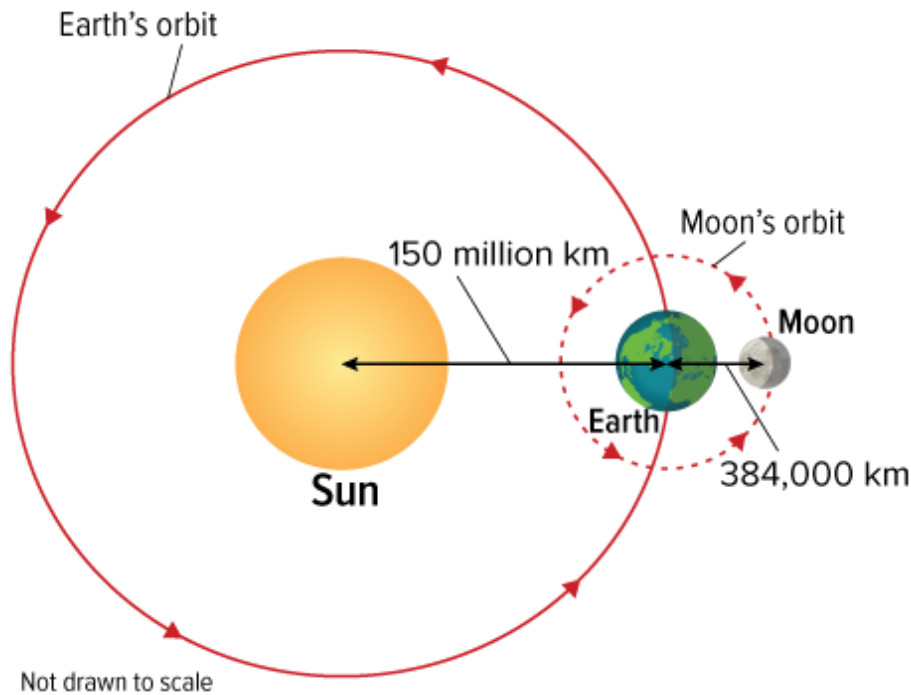
- 3) The image below shows the relative position of the Sun, the Moon, and Earth at four points along the lunar cycle. How many times a month does a spring tide occur?



- A) once a month
- B) twice a month
- C) three times a month
- D) four times a month

**Ch 11 Lesson 3 Review**

- 4) Given the variation in mass of and distance between objects in this image, the gravitational force each exerts on the others varies dramatically. How is it possible that the strongest gravitational force from the Sun, pulling on Earth, is **NOT** the gravitational force that has the greatest impact on Earth's ocean tides, which is from the moon?



- A) A gravitational force depends on both mass and distance, but the tidal force is affected more by mass than by distance.
- B) A gravitational force depends on both orbit and distance, but the tidal force is affected more by distance than by orbit.
- C) A gravitational force depends on both mass and orbit, but the tidal force is affected more by orbit than by mass.
- D) A gravitational force depends on both mass and distance, but the tidal force is affected more by distance than by mass.

**Ch 11 Lesson 3 Review**

5)

The table below shows the high and low tide levels at one coastal point over a brief period of time. Which of these dates experienced a spring tide?

**Tidal Range at Rocky Point**

Month: April	10	11	12	13	14	15	16	17	18	19	20
High Tide (ft above sea level)	1.55	1.95	2.25	2.55	2.75	2.82	2.80	2.70	2.50	2.25	2.0
Low Tide (ft	0.02	0.0	-0.30	-0.50	-0.70	-0.80	-0.75	-0.52	-0.20	0.2	0.8

**Ch 11 Lesson 3 Review**

---

t a b o v e se a le v el )												
---	--	--	--	--	--	--	--	--	--	--	--	--

- A)** April 11
- B)** April 12
- C)** April 15
- D)** April 20