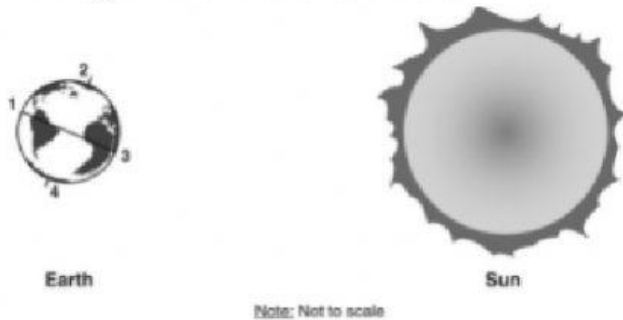


4.6 Quiz Sun, Moon, and Earth

1. Throughout the year, areas of the Earth's surface are either tilted away from the sun or toward the sun. This is a result of the Earth tilting on its axis. What is the main impact of this phenomenon?

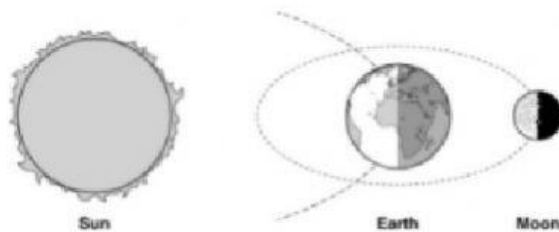
- A. it influences ocean currents
- B. it produces seasons
- C. it causes tides
- D. it generates winds

2. The diagram shows earth and the sun.



Which number represents the area of earth receiving the most energy from the sun? 1 2 3 4

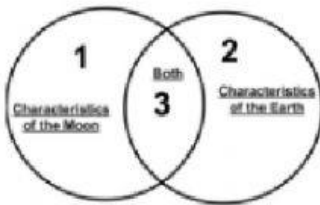
3. The picture shows the position of the sun, earth, and moon on one night.



What moon phase did people on earth see that night.

- A. first quarter
- B. full moon
- C. new moon
- D. third/last quarter

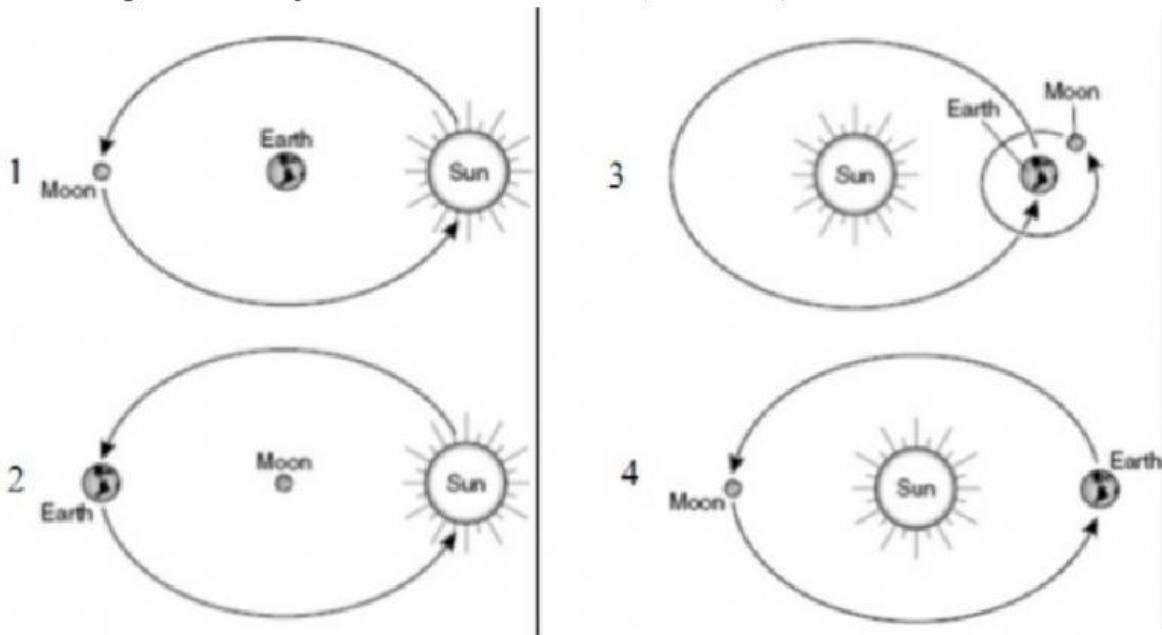
4. Look at the Venn diagram below.



Which of these would best fit in #3 in the Venn diagram.

- A. rocky surface
- B. active volcanoes
- C. liquid water present
- D. oxygen in the atmosphere

5. Which diagram correctly shows the orbits of Earth, the moon, and the sun?



6. Compared with Earth, the moon

- A. is two times larger.
- B. is four times larger.
- C. is smaller
- D. is about the same size

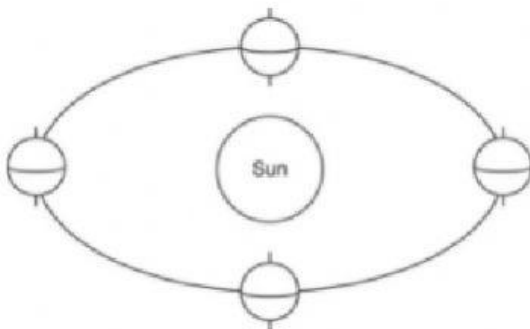
7. The table shows some of the characteristics of four different objects in our solar system.

| object | size | temperature | orbit |
|--------|--------|-------------|-----------------|
| 1 | small | cold | around a planet |
| 2 | small | cold | around the sun |
| 3 | large | hot | none |
| 4 | medium | warm | around the sun |

Which object is a moon?

- A. object 1
- B. object 2
- C. object 3
- D. object 4

8. Raul made a model to show how the position of Earth around the Sun can affect the seasons.



What improvement should be made to the diagram to correctly show how Earth's position affects seasons?

- A. Add the tilt of Earth.
- B. Show the rotation of Earth
- C Show the moon orbiting the sun
- D. Add the other planets that orbit the sun

9. The table shows some physical characteristics of the sun and moon.

| Sun | Moon |
|--------------------------------|-----------------------------|
| ? | ? |
| Rotates on its axis | Rotates on its axis |
| Creates its own light and heat | Reflects light from the sun |

Which set of characteristics correctly completes the table?

A.

| Sun | Moon |
|-----------------------|---------------------------|
| No gravitational pull | Strong gravitational pull |

B.

| Sun | Moon |
|-------------|---------------|
| Gas surface | Solid surface |

C.

| Sun | Moon |
|----------------------------------|---------------------------------|
| One-fourth the diameter of earth | 110 times the diameter of earth |

D.

| Sun | Moon |
|---------------|----------------------|
| No atmosphere | Atmosphere of gasses |

10. A tide table shows the time and height of the high and low tides at a certain location. The table below shows the data for Virginia Beach.

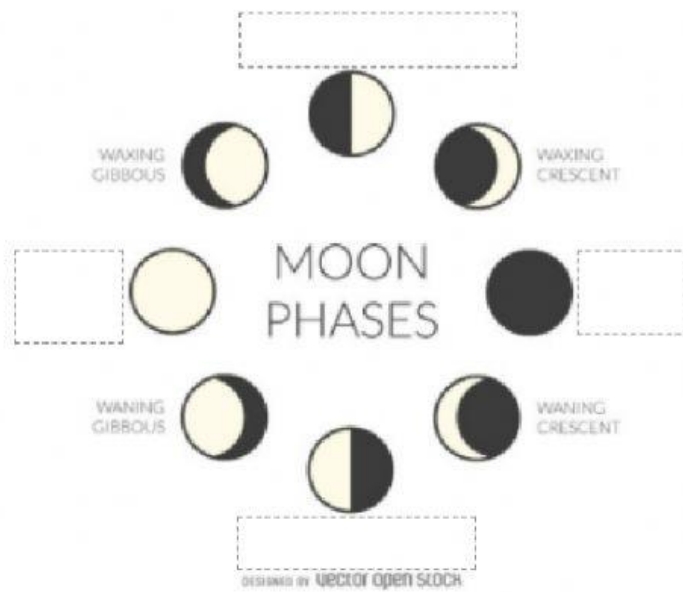
| Date | Time | Tide Height (feet) |
|--------|---------|--------------------|
| Aug. 7 | 2:00 pm | 4.2 |
| Aug. 7 | 8:15 pm | 0.4 |
| Aug. 8 | 2:30 am | 3.3 |
| Aug. 8 | 8:45 am | 0.1 |
| Aug. 8 | 3:00 pm | 4.1 |

Data courtesy of NOAA

Which of these best describes the pattern of the tides?

- A. High tides happen about 12 hours after low tides.
- B. Low tides happen only once every 24 hours
- C. High tides happen less often than low tides.
- D. Low tides happen about six hours after high tide.

11. Identify the correct moon phases.



12. Which of these is the most responsible for the changes of the seasons on earth?

- A. Distance to Mars
- B. Temperature of the sun
- C. Positions of the moon
- D. Tilt of earth on its axis