4.6 Classwork #2

**1. The seasons change on Earth because of predictable patterns. Select the two statements that explain why the seasons change on Earth.**

A. The distance from the Earth to the sun changes.
B. The distance from the Earth to the moon changes.
C. Different places on Earth get different amounts of direct sunlight.
D. The amount of heat given off by the sun changes with the seasons.
E. Earth's tilt causes the sun to be higher or lower in the sky as seasons change.

**2. The sun heats the Earth unevenly, making the poles cold and the tropics hot, because-**

A. the tropics face more directly toward the sun
B. the poles are covered with ice which causes cold air
C. seasons change
D.weather changes

**3 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

**4. 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.

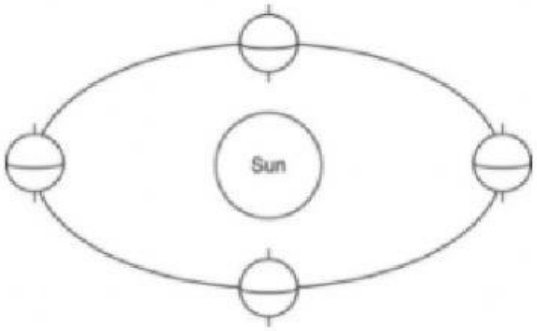
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**5. When is the highest tide and lowest tide for this week/**

| Height of High Tide (ft) | | |
|---|---|---|
| Date | AM | PM |
| 14 February 2021 | 3.67 ft | 3.87 ft |
| 15 February 2021 | 3.68 ft | 3.64 ft |
| 16 February 2021 | 3.61 ft | 3.45 ft |
| 17 February 2021 | 3.54 ft | 3.22 ft |
| 18 February 2021 | 3.45 ft | 3.02 ft |
| 19 February 2021 | 3.38 ft | 2.89 ft |

A. High Tide: 15February 2021, Low Tide: 15 February 2021
B. High Tide: 14February 2021, Low Tide: 18 February 2021
C. High Tide: 15February 2021, Low Tide: 19 February 2021
D. High Tide: 14February 2021, Low Tide: 19 February 2021

**6. 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 Earrth.
B. Show the rotation of Earth
C Show the moon orbiting the sun
D. Add the other planets that orbit the sun

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

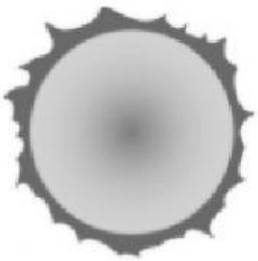
A. Distance to Mars
B. Temperature of the sun
C. Positions of the moon
D. Tilt of earth on its axis

**8. The diagram shows earth and the sun.**

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Earth



Sun

Note: Not to scale

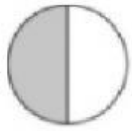
**Which number represents the area of earth receiving the most energy from the sun? 1 2 3 4**

**9. Sarah is studying how the moon changes phases as it revolves around earth.**




Note: Not to scale

**How would the moon appear from earth when the sun, earth, and the moon are arranged as shown in the diagram?**



First Quarter



Last Quarter



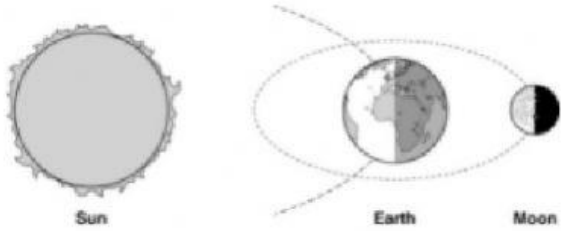
New Moon



Full Moon

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

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**What moon phase did people on earth see that night.**

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

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