Student Name: _____ Date: _____

Lesson Check: The Solar System

1) Which is NOT part of our solar system?

- **A)** the moons around Jupiter
- **B)** asteroids and meteoroids
- **C)** comets
- **D)** stars that are not the Sun

2) The Moon orbits around the Sun.

- True
- False

3) Kaya's class is working together to make an model of the solar system to hang in their classroom. What will the class have to do to correctly represent the distance between objects in the model?

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4) Naa is reading an article about objects in the solar system. She finds out that Ganymede, one of Jupiter's moons, is bigger than the planet Mercury. Which statement explains why Ganymede is not classified as a planet?

- **A)** It orbits Jupiter and not the Sun.
- **B)** It is not as close to the Sun as Mercury.
- **C)** It is not shaped like the rest of the planets.
- **D)** It is held in its orbit by gravity.

5) Thom reads an article on the internet that that claims some lakes on Saturn are contain frozen methane. He reads that there is methane on Neptune, too. Which sentence best describes data that would suggest methane is frozen on Neptune?

- **A)** Neptune's atmosphere has more methane than Saturn's.
- **B)** Neptune's mass is less than Saturn's.
- **C)** Neptune's surface temperature is colder than Saturn's.
- **D)** Neptune's distance from the Sun is greater than Saturn's.

6) Inner planets are mostly made of _____, while outer ones are made of _____.

Planet	Distance from the Sun (AU)	Type	Mass (kg)	Diameter (km)	Number of Known Moons
Mercury	0.39	Rocky	0.33×10^{24}	4,878	0
Venus	0.72	Rocky	0.49×10^{24}	12,104	0
Earth	1.00	Rocky	5.97×10^{24}	12,756	1
Mars	1.52	Rocky	0.642×10^{24}	6,794	2
Jupiter	5.20	Gaseous	1898×10^{24}	142,984	67
Saturn	9.54	Gaseous	568×10^{24}	120,536	62

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7) The table shows data about six planets in our solar system.

Planet	Distance from the Sun (AU)	Type	Mass (kg)	Diameter (km)	Number of Known Moons
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Venus	0.72	Rocky	0.49×10^{24}	12,104	0
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Identify the **most likely** distance from the Sun where a rocky planet with a diameter of 9,500 km and three moons would be found. Support your answer with evidence from the table.

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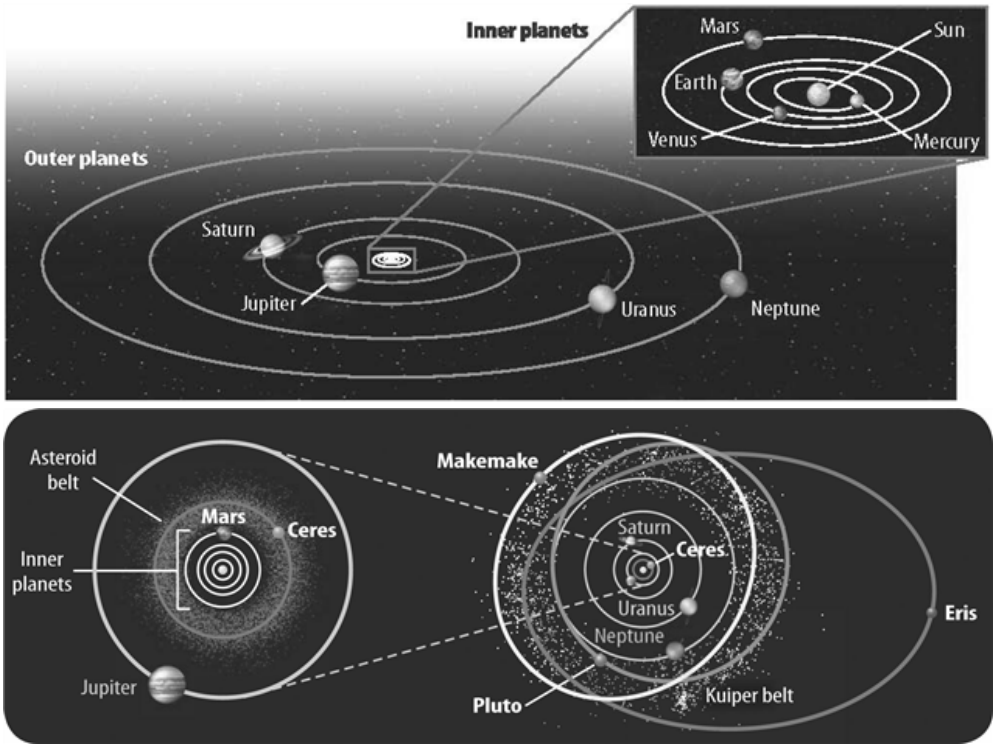
8) Why did the artists for both of these illustrations feel it necessary to represent the inner planets with a pulled out piece?



- **A)** Both drawings are needed to show that there are other objects in our solar system.
- **B)** Both drawings are needed to correctly represent the distances between the planets.
- **C)** Both drawings are needed to show the placement of the solar system in the Milky Way.
- **D)** Both drawings are needed to show a more dramatic representation of the shape of the planets' orbits.

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9) Use your knowledge of the characteristics, locations, and motions of the planets to compare and contrast inner and outer planets. Your response should include two ways that they are similar and two ways that they are different.

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10) Describe a comet. What is it made of? What path is its orbit? What is it like when it is close to the Sun? What is it like when it is far away from the Sun?