

1. Which planet most resembles the Moon in visible surface features and atmosphere?

- a. Mars
 - b. Uranus
 - c. Mercury
 - d. Venus
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2. Mercury's atmosphere is

- a. almost nonexistent.
 - b. relatively dense, composed mostly of nitrogen (80%) and oxygen (20%).
 - c. relatively thin, composed of carbon dioxide with small quantities of nitrogen and argon.
 - d. very thin, made up of sulfur dioxide and hydrogen sulfide from volcanoes.
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3. Why is the surface of Venus hotter than that of Mercury, even though Mercury is much closer to the Sun?

- a. Venus experiences continuous volcanic activity and the release of hot lava onto the surface.
 - b. Venus rotates rapidly, which ensures that its entire surface is being heated regularly and uniformly.
 - c. The thick carbon dioxide atmosphere of Venus has prevented re-emission into space of the heat absorbed from sunlight.
 - d. Chemical reactions within the thick clouds and dense atmosphere of Venus are continuously supplying heat to the surface.
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4. The distinctive red color of Mars is probably caused by

- a. the scattering of blue sunlight out of the optical beam by dust in the atmosphere, similar to sunsets on Earth.
 - b. red dust that is suspended high above the surface by winds and filters the sunlight.
 - c. iron oxides or rust in the soil.
 - d. progressive reddening of sunlight as it traverses the interplanetary dust between the Sun and Mars and then Mars and Earth.
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5. The "snow" that occasionally falls in and near the polar regions of Mars consists of

- a. very fine white dust, disturbed occasionally by fierce wind storms.
 - b. frozen sulfuric acid droplets.
 - c. water ice.
 - d. carbon dioxide ice.
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6. The Great Red Spot is

- a. a large, long-lived storm system in Jupiter's atmosphere.
 - b. the top of a massive mountain penetrating through Jupiter's clouds.
 - c. a temporary storm in Jupiter's atmosphere, lasting a few months.
 - d. the colored polar cap of Jupiter.
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7. A comet's tail always

- a. trails behind the comet in its orbit and so points away from the Sun only while the comet is approaching the Sun.
 - b. points toward the Sun because the tail is caused by jets of gases evaporated from the comet's nucleus on the side heated by the Sun.
 - c. points away from the Sun, regardless of the motion of the comet.
 - d. points toward the nearest planet, attracted by the planet's gravity field as the comet passes by the planet.
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8. The cause of the “meteor showers” seen at regular times each year on Earth is most probably

- a. sunspot activity and the resultant geomagnetic disturbances.
 - b. unstable weather conditions on Earth.
 - c. Earth moving through the remnant dust and rock fragments of an old comet that are orbiting the Sun in the comet's old orbit.
 - d. Earth running into material within the spiral arm structure of the Milky Way.
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