

SECTION 28.2 Inner Planets

In your textbook, read about Mercury and Venus.

Circle the letter of the choice that best completes the statement or answers the question.

1. The four inner planets of our solar system are
 - a. gas giant planets.
 - b. interplanetary asteroids.
 - c. terrestrial planets.
 - d. meteorites.
2. The closest planet to the Sun is
 - a. Venus.
 - b. Mercury.
 - c. Mars.
 - d. Earth.
3. How many times bigger than Mercury is Earth?
 - a. two times
 - b. three times
 - c. four times
 - d. five times
4. The surface of Mercury is similar to the surface of
 - a. Earth.
 - b. the Moon.
 - c. Venus.
 - d. Mars.
5. Observations of Mercury suggest that it was originally much larger, with a mantle and crust similar to that of
 - a. Earth.
 - b. the Moon.
 - c. Venus.
 - d. Mars.
6. The brightest planet in Earth's nighttime sky is
 - a. Mercury.
 - b. the Moon.
 - c. Venus.
 - d. Mars.
7. One day on Venus is equal to how many days on Earth?
 - a. 243 days
 - b. 43 days
 - c. 143 days
 - d. 4 days
8. In the 1960s, radar measurements showed that the surface of Venus is very hot and that it is
 - a. rotating quickly.
 - b. orbiting quickly.
 - c. rotating slowly.
 - d. orbiting slowly.
9. Venus's spin is an example of
 - a. retrograde motion.
 - b. backward rotation.
 - c. retrograde rotation.
 - d. backward motion.
10. The atmosphere of Venus is mostly
 - a. nitrogen and oxygen.
 - b. sodium.
 - c. oxygen.
 - d. carbon dioxide and nitrogen.

In your textbook, read about Earth and Mars.

For each statement below, write *true* or *false*.

- _____ 11. Earth's distance from the Sun and its nearly circular orbit allow water to exist on its surface as a solid, liquid, and gas.
- _____ 12. Earth's atmosphere is moderately dense and is composed of 78 percent oxygen and 21 percent nitrogen.
- _____ 13. Only Earth has a greenhouse effect.
- _____ 14. Mars is referred to as the red planet as a result of its high iron content and reddish appearance.
- _____ 15. Mars's atmosphere is similar to that of Venus, and it has a strong greenhouse effect.
- _____ 16. The southern hemisphere of Mars is dominated by sparsely cratered plains.

SECTION 28.3 *The Outer Planets, continued*

In your textbook, read about Uranus, Neptune, and Pluto.

For each statement, write true or false. Mark "A" for TRUE ; "B" for FALSE

- _____ 30. Uranus was discovered accidentally in 1781.
- _____ 31. Today, we are certain that Uranus has no moons and 15 rings.
- _____ 32. Most of Uranus's atmosphere is composed of helium and hydrogen, which causes its atmosphere to reflect blue light back into space.
- _____ 33. Uranus has a large, solid core that extends almost to the planet's surface.
- _____ 34. The rotational axis of Uranus is tipped over so far that the north pole almost lies in its orbital plane.
- _____ 35. Saturn is the only planet with rings.
- _____ 36. Uranus's tilt and its great distance from the Sun result in seasons on Uranus that last about 21 Earth years.
- _____ 37. Until 1994, Neptune had a persistent storm, the Great Dark Spot, with characteristics similar to Jupiter's Great Red Spot.
- _____ 38. Neptune's largest moon, Triton, has a retrograde orbit, which means it orbits like every other satellite in the solar system.
- _____ 39. Triton has nitrogen geysers and a thin atmosphere.
- _____ 40. Neptune's six rings are composed of microscopic dust particles.
- _____ 41. Neptune has a cloud-streaked atmosphere like Jupiter.

SECTION 28.4 Formation of Our Solar System

In your textbook, read about the other objects in the solar system. Mark "A" for TRUE ; "B" for FALSE

- _____ 42. A meteoroid is a broken fragment of an asteroid or other interplanetary material.
- _____ 43. A meteor is a meteoroid that bypasses Earth's atmosphere.
- _____ 44. A large meteorite will cause an impact crater when it collides with Earth.
- _____ 45. Pluto is not classified as a terrestrial planet because of its low density and small size.
- _____ 46. Pluto is larger than Earth and is made of ice.
- _____ 47. Like Earth's Moon, Pluto has no atmosphere.
- _____ 48. The orbit of Pluto is a perfect circle.
- _____ 49. Pluto and its moon Charon are in a synchronous rotation with each other.
- _____ 50. Pluto's properties more closely resemble those of the gas giants' large moons than of the other planets.

skip What happens when a comet comes within 3 AU of the Sun?

skip What is a periodic comet? Give an example.

skip What is a meteor shower?
