CHAPTER

STUDY GUIDE

Inner Planets SECTION 28.2

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.			c. terrestrial planets.		
	b. interplanetary asteroids.		d.	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 Ea	arth'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	€.	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 exampl	e of				
	a. retrograde motion.	b. backward rotation.	C.	retrograde rotation.	d. backward motion.	
10.	The atmosphere of Venus	is mostly				
	a. nitrogen and oxygen.			c. oxygen.		
	b. sodium.		d.	carbon dioxide and ni	trogen.	
	our textbook, read about E each statement below, wr					
***************************************	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.					
		atmosphere is modera and 21 percent nitroge	-	dense and is composed	l of 78 percent	
	13. Only B	arth has a greenhouse (effe	ct.		
	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 so	uthern hemisphere of N	Mar	s is dominated by spars	sely cratered plains.	

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SECTION 28.3 Outer Planets

In your textbook, read about Jupiter and Saturn.

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

- 17. What percentage of all planetary matter in the solar system is in Jupiter's mass?
 - a. 40%
- **b.** 60%
- c. 50%

d. 70%

- 18. Galileo discovered Jupiter's
 - a. rings.

c. four major satellites.

b. 12 smaller satellites.

- d. Great Red Spot.
- 19. Elements in Jupiter's atmosphere remain in
 - a. only liquid form.

c. only gas form.

b. both gas and liquid forms.

- d. gas, liquid, and solid forms.
- 20.. The form of hydrogen that has properties of both a liquid and a metal is
 - a. liquid metallic hydrogen.

c. liquid hydrogen.

b. magnetic hydrogen.

- d. electric hydrogen.
- 21. Jupiter spins once on its axis in a little less than
 - a. 5 hours.
- **b.** 12 hours.
- **c.** 10 hours.
- d. 2 hours.
- 22. Low, warm, dark-colored, sinking clouds in Jupiter's atmosphere are known as
 - a. belts.

c. zones.

b. the Great Red Spot.

- d. rings.
- 23. Jupiter's four moons are composed of
 - a. clouds.
- b. ice and rock.
- c. hydrogen and oxygen. d. ice.
- 24. What is Jupiter's Great Red Spot?
 - a. a surface ocean

c. an atmospheric storm

b. a large moon

- d. an ice cap
- 25. Which of Jupiter's largest moons is almost completely molten inside?
 - a. Io

- b. Europa
- c. Ganymede
- d. Callisto

- 26. Saturn's average density is lower than that of
 - a. helium.
- b. hydrogen.
- c. water.
- d. methane.
- 27.. The ringlets and open gaps in Saturn's rings are caused by the gravitational effects of
 - a. Saturn.

c. Saturn's moons.

b. Jupiter.

- d. the Sun.
- 28. Many astronomers hypothesize that Saturn's rings were formed from
 - a. debris left over from the formation of Saturn and its moons.
 - b. debris left over from collisions of asteroids and other objects.
 - c. debris that escaped from Jupiter's gravitational pull.
 - d. asteroids attracted by Saturn's gravitational pull.
- 29. Saturn's largest moon is named
 - a. Io.

- b. Titan.
- c. Europa.
- d. Ganymede.

Study Guide

The Outer Planets, continued SECTION 28.3

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 is 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.				

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STUDY GUIDE

Formation of Our Solar System SECTION 28.4

In y	our 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.
Madelline	49. Pluto and its moon Charon are in a synchronous rotation with each other.
year and an	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?
akin	TATE As in a serial big and as Cive and assemble
skip	What is a periodic comet? Give an example.
skip	What is a meteor shower?
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