Name _____ Class _____ Date _____

Assessment

Chapter Test A

Chapter: Planets of the Solar System

MATCHING

In the space provided, write the letter of the definition that best matches the term or phrase.

_____ 1. Ptolemy

_____ 2. gas giant

_____ 3. planetesimal

_____ 4. terrestrial planet

_____ 5. protoplanet

_____ 6. Copernicus

_____ 7. solar nebula

_____ 8. Kuiper Belt

_____ 9. Newton

_____ 10. Pluto

a. a large body made up of smaller bodies that joined together through collisions and gravity

b. an astronomer who believed that the planets moved in epicycles as they revolved in larger circles around Earth

c. a rotating cloud of gas and dust from which Earth's solar system formed

d. a type of planet that has a deep, massive atmosphere made mostly of gas and is denser than an inner planet

e. a small body far from the sun; made of frozen methane, rock, and ice

f. a small body from which a planet originated in the early stages of the solar system

g. a planet that is made of solid rock and has impact craters and a metallic core; another name for *inner planet*

h. a scientist who hypothesized that a moving body will stay in motion and resist a change in speed or direction until an outside force acts on it

i. a region that is just beyond the orbit of Neptune and contains many small bodies made mostly of ice

j. an astronomer who proposed a heliocentric model of the solar system

MULTIPLE CHOICE

In the space provided, write the letter of the answer choice that best completes each statement or best answers each question.

_____ 11. The proper combination of temperature, water, and oxygen
a. affects Neptune's orbit.
b. causes gas giants to form.
c. supports life on Earth.
d. results in storms on Jupiter.

_____ 12. Kepler's first law states that planets orbit the sun in paths called
a. ellipses.
b. circles.
c. epicycles.
d. periods.

_____ 13. Young Earth formed a core, a mantle, and a crust in a process called
a. layering.
b. settling.
c. dispersion.
d. differentiation.

_____ 14. Early freshwater oceans became salty when
a. rainwater carried dissolved solid rock to the oceans.
b. coral reefs created a salty ocean bottom.
c. salt particles fell from the atmosphere into the oceans.
d. floods carried salty soil to the deltas and then into the oceans.

_____ 15. The two inner planets that are most alike in size, mass, and density are
a. Mercury and Venus.
b. Earth and Mars.
c. Venus and Earth.
d. Mars and Mercury.

_____ 16. Kepler's third law describes the relationship between the average distance of a planet from the sun and the planet's
a. orbital period.
b. average temperature.
c. gravitational pull.
d. inertia.

_____ 17. Which planet has volcanic regions that may still be active?
a. Mercury
b. Uranus
c. Saturn
d. Mars

_____ 18. Kepler's second law states that equal areas are covered in equal amounts of time as an object
a. spins on its axis.
b. travels one light-year.
c. orbits the sun.
d. completes an eclipse.

_____ 19. Which planet has the most complex ring system?
a. Neptune
b. Jupiter
c. Uranus
d. Saturn

_____ 20. Earth's atmosphere developed when many volcanic eruptions released large amounts of gases in a process called
a. lava flow.
b. outgassing.
c. combustion.
d. ozone.

Name _____ Class _____ Date _____

Assessment

Chapter Test B

Chapter: Planets of the Solar System

MATCHING

In the space provided, write the letter of the description that best matches the term or phrase.

_____ 1. law of ellipses

_____ 2. Ptolemy

_____ 3. Copernicus

_____ 4. law of periods

_____ 5. Newton

_____ 6. law of equal areas

a. states that equal areas are covered in equal amounts of time as an object orbits the sun

b. proposed that planets moved in epicycles as they revolved in larger and larger circles around Earth

c. hypothesized that a stationary body will remain at rest until an outside force acts on it

d. proposed that planets revolve around the sun in the same direction but at different speeds

e. states that a planet orbits the sun in an elliptical path, not in a circle

f. describes the relationship between the average distance of a planet from the sun and the orbital period of the planet

MULTIPLE CHOICE

In the space provided, write the letter of the answer choice that best completes each sentence or best answers each question.

_____ 7. Which planet has seasons like Earth's because its axis tilts at an almost identical angle?
a. Mercury
b. Venus
c. Uranus
d. Mars

_____ 8. Which of the following separates the outer planets from the inner planets?
a. the asteroid belt
b. the Great Red Spot
c. the Kuiper Belt
d. a large magnetic field

_____ 9. A rotating cloud of gas and dust from which Earth's solar system formed is called
a. a solar nebula.
b. a supernova.
c. a solar eclipse.
d. an astronomical explosion.

_____ 10. When the solar system formed, smaller bodies joined together through collisions and the force of gravity to form larger bodies called
a. moons.
b. protoplanets.
c. planetesimals.
d. planets.

_____ 11. Jupiter's Great Red Spot and Neptune's Great Dark Spot are both
a. vast canyons.
b. raging storms.
c. frozen oceans.
d. massive volcanoes.

_____ 12. A region of the solar system that is just beyond the orbit of Neptune and contains small bodies made mostly of ice is called
a. an asteroid belt.
b. Quaoar.
c. the outer galaxy.
d. the Kuiper Belt.

_____ 13. About 99% of all the matter that was contained in the solar nebula now composes the
a. planets.
b. moons.
c. sun.
d. supernova.

_____ 14. Around the core of Earth is an iron- and magnesium-rich rock layer called the
a. atmosphere.
b. mantle.
c. crust.
d. magma.

_____ 15. When fast-moving planets pass slow-moving planets in their orbits, planets that orbit more slowly than Earth appear to be moving backward because of
a. retrograde motion.
b. reverse activity.
c. retraction.
d. reflective movement.

_____ 16. Planet-like bodies that circle stars other than Earth's sun are called
a. nebulas.
b. moons.
c. planetesimals.
d. exoplanets.

_____ 17. The asteroid belt is between
a. Earth and Mars.
b. Jupiter and Saturn.
c. Mars and Jupiter.
d. Saturn and Uranus.

_____ 18. Small bodies from which planets originated during the early formation of the solar system are called
a. comets.
b. planetesimals.
c. asteroids.
d. protoplanets.