Name _____ Class _____ Date _____

Skills Worksheet

Concept Review

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

_____ 1. outer planets

_____ 2. Ptolemy

_____ 3. inner planets

_____ 4. planetesimals

_____ 5. nebular hypothesis

_____ 6. Kepler's law of ellipses

_____ 7. Kepler's law of periods

_____ 8. differentiation

_____ 9. Copernicus

_____ 10. Kepler's law of equal areas

a. planets characterized by solid rock with a metallic core, zero to two moons, and impact craters

b. principle stating that each planet orbits the sun in a closed curve whose shape is determined by two foci

c. small bodies from which planets formed in the early stages of the development of the solar system

d. astronomer who believed that planets revolve around the sun at different speeds and distances from it

e. planets characterized by massive size, relatively low density, a thick atmosphere of helium and hydrogen, and a rock and metal core

f. law that the cube of the average distance of a planet from the sun is proportional to the square of the orbital period of the planet

g. principle stating that equal areas are covered in equal amounts of time as an object orbits the sun

h. theory that the sun and the planets condensed at about the same time out of a rotating cloud of gas and dust

i. astronomer who believed that planets moved in epicycles as they moved in larger and larger circles around Earth

j. the process by which Earth formed three distinct layers: a dense core of iron and nickel, a thick layer of iron- and magnesium-rich rock, and a thin crust of silica-rich rock

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

_____ 11. Earth's atmosphere formed as volcanic eruptions released nitrogen, water vapor, sulfur dioxide, carbon dioxide, ammonia,
a. helium, and hydrogen.
b. methane, and argon.
c. hydrogen, and methane.
d. argon, and helium.

_____ 12. Water vapor in the atmosphere of early Earth cooled and condensed to form rain. The rain collected on Earth's surface, creating the first
a. lakes.
b. rivers.
c. streams.
d. oceans.

_____ 13. Newton's principle that a moving body will remain in motion and resist a change in speed or direction until an outside force acts upon it is called
a. gravity.
b. inertia.
c. ellipse.
d. resistance.

_____ 14. The solar system body that is characterized by an unusually elongated orbit and is made of frozen methane, rock, and ice is
a. Mercury.
b. Mars.
c. Pluto.
d. Neptune.

_____ 15. Which two planets have massive storms called, respectively, the Great Red Spot and the Great Dark Spot?
a. Mercury and Venus
b. Jupiter and Saturn
c. Venus and Saturn
d. Jupiter and Neptune

_____ 16. Known for its rings and bands, the least dense planet is
a. Neptune.
b. Uranus.
c. Venus.
d. Saturn.

_____ 17. A gas giant with a distinctive blue-green color, indicating the presence of methane in its helium and hydrogen atmosphere, is
a. Uranus.
b. Mars.
c. Mercury.
d. Jupiter.

_____ 18. Which of the following make it possible for Earth to support life?
a. oxygen, land, and water
b. temperature, wind, and water
c. water, temperature, and soil
d. water, oxygen, and temperature

_____ 19. Which inner planets have almost the same size, mass, and density?
a. Mars and Mercury
b. Venus and Earth
c. Mercury and Venus
d. Earth and Mars

_____ 20. Which planets show evidence of heavy volcanic activity?
a. Mars and Venus
b. Earth and Mars
c. Venus and Earth
d. Mars and Mercury