Name _____ Class _____ Date _____

Section 29.1

Models of the Solar System

Read each statement below. If the statement is true, write *T* in the space provided. If the statement is false, write *F* in the space provided.

_____ **1.** Ptolemy's model of the universe proposed that each planet has two motions.

_____ **2.** The geocentric model of the solar system states that the planets revolve around the sun.

_____ **3.** Galileo's observations confirmed the validity of a heliocentric solar system model.

_____ **4.** Kepler suggested that planets move at different speeds at different points in their orbits.

_____ **5.** According to Kepler's third law, the cube of the average distance of a planet from the sun is always proportional to the square of the planet's period.

Choose the one best response. Write the letter of that choice in the space provided.

_____ **6.** Kepler's first law states that planets orbit the sun in paths called:

a. circles. **b.** periods. **c.** epicycles. **d.** ellipses.

_____ **7.** The tendency of an object to remain at rest until acted upon by an outside force is called:

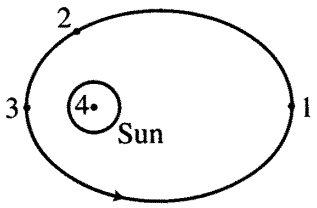
a. inertia. **b.** magnetism. **c.** gravity. **d.** velocity

_____ **8.** Based on Kepler's third law, the orbit period of an object four astronomical units from the sun would be:

a. 4 years. **b.** 8 years. **c.** 16 years. **d.** 32 years.

_____ **9.** Kepler's laws were developed from observations made by:

a. Copernicus. **b.** Galileo. **c.** Ptolemy. **d.** Brahe.



_____ **10.** In the diagram, perihelion is located at the point labeled:

a. 1. **b.** 2.
c. 3. **d.** 4.