Name: _____ Date: _____

Chapter 7 Quiz

Part A: Modified True/False
Indicate whether each statement is true or false. If the statement is false, change the statement to make it true.

_____ **1.** When an object absorbs thermal energy, the particles in the object move faster.

_____

_____ **2.** For a liquid to freeze and form a solid, the particles in the liquid must gain energy.

_____

_____ **3.** During thermal expansion, the mass of an object increases.

_____

Part B: Completion
Complete each sentence given below.

4. The _____ of an object is a measure of the average _____ energy of its particles.

5. Thermal energy always moves from _____ objects to _____ objects.

Part C: Multiple Choice
Circle the letter beside the answer that best answers the question.

6. Which of the following statements is not part of the particle theory of matter?

(a) The particles in matter are always moving.
(b) An object's particles have spaces between them.
(c) The particles in matter move faster when they are heated.
(d) An object's particles expand when the object gets warmer.

7. A student measures the air pressure inside her bicycle tires before and after she goes on a long bicycle ride. What will she most likely observe?

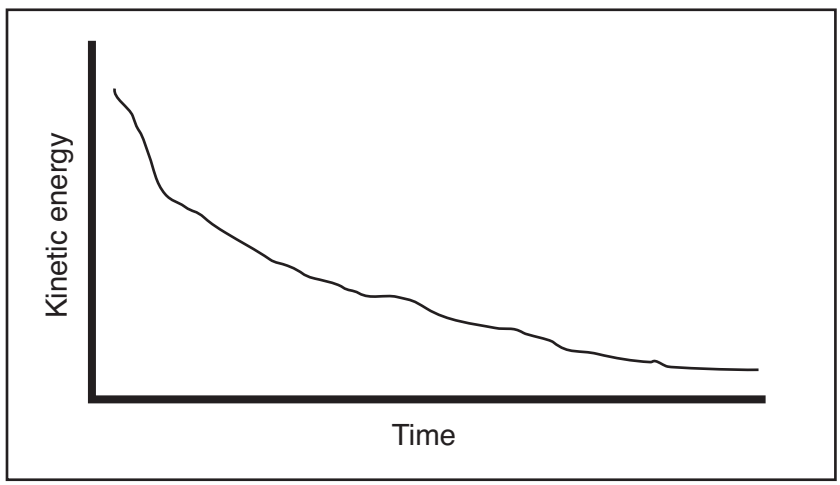
(a) The pressure in both tires is lower after the ride.
(b) The pressure in both tires is higher after the ride.
(c) The pressure in the front tire is higher after the ride, and the pressure in the rear tire is lower after the ride.
(d) The pressure in the rear tire is higher after the ride, and the pressure in the front tire is lower after the ride.

Name: _____ Date: _____

8. A scientist adds the same amount of energy to equal masses of four substances. Which of the four substances below will probably expand the most as it absorbs the energy?

(a) solid iron
(b) solid wood
(c) oxygen gas
(d) liquid water

9. The graph below shows how the kinetic energy of the particles in a substance changed over time. What most likely happened to the object's temperature over this time period?



(a) It increased.
(b) It decreased.
(c) It increased, then decreased.
(d) It decreased, then increased.

Part D: Short Answer

10. Use the particle theory of matter to explain why most objects expand when heated.

_____

_____

_____

11. A student observes that a cabinet door appears to be smaller in the winter than it is in the summer. He concludes that the particles in the wood shrink in cold weather. Explain what is wrong with the student's explanation, and give a correct explanation.

_____

_____

_____