

Name: \_\_\_\_\_

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**Chapter 9 Test Practice**  
**Conceptual Physics**

Parent Signature: \_\_\_\_\_

**Section 9.1**

1. The illustrations on page 240 represent elements. The diagram which best represents a mixture of two compounds is \_\_\_\_\_.

2. Which diagram on page 240 best represents a gas in a closed container?

The graph on page 240 represents the uniform cooling of a substance starting with the substance as a gas above its boiling point. Use the graph to answer the following two questions.

3. The interval which represents a phase change is

a. A-B

b. C-D

c. D-E

d. E-F

4. The melting point of this substance is about

a. 10°C

b. 50°C

c. 100°C

d. 140°C

5. A temperature of 50°F is equal to

a. 323K

b. 50°C

c. -223K

d. 10°C

6. Skip this question.

**Section 9.2**

7. The heat energy that must be added to raise the temperature of 3 kg of steel from 20°C to 30°C is about \_\_\_\_\_. (Cp for steel = 470 J/kg°C)

a. 470 J.

b. 1,410 J.

c. 4,700 J.

d. 14,100 J.

8. Compared to a gold atom, the mass of an aluminum atom is small. The specific heat of aluminum is

- a. lower because there are more atoms per kilogram
- b. higher because there are more atoms per kilogram
- c. lower because energy is spread over fewer atoms
- d. higher because energy is spread over fewer atoms

### Section 9.3

9. The transfer of heat through the motion of fluids is called

- a. conduction.
- b. reflection.
- c. radiation.
- d. convection.

10. Heat will always flow from object A to object B if object B has a lower

- a. mass.
- b. total energy.
- c. specific heat.
- d. temperature.