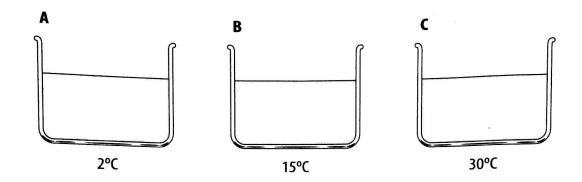


Temperature and Thermal Energy

Directions: Use the illustration below to answer questions 1 through 3.



- 1. If you put your hand into container A and then into container B, which would you say is warm? Which is cool?
- 2. Now put your hand into C, then B. Now which is warm? Which is cool?
- **3.** What is the problem in your description of B? What would be a more accurate way of describing B?

Directions: Correctly complete each sentence by underlining the best of the three choices in parentheses.

- 4. Molecules of a substance are in motion (only as a gas, only above the freezing point, all of the time).
- 5. Temperature is relative to the (kinetic, potential, electrical) energy of the molecules.
- 6. On the (Kelvin, Celsius, Fahrenheit) temperature scale, freezing is 0° (C, F, K).
- 7. On the (Kelvin, Celsius, Fahrenheit) temperature scale, water boils at 212° (C, F, K).
- 8. One liter of water at 50°C has (more, less, the same) kinetic energy as 2 liters of water at 50°C.
- **9.** Thermal energy is a measure of the (kinetic, potential, potential and kinetic) energy of a substance.
- 10. 100 mL of water at 20°C has (more, less, the same) thermal energy than 500 mL of water at 20°C.

Directions: Answer the following question on the lines provided.

11. The temperature of a warm spring day might be 75°F. What is that in °C and in K?