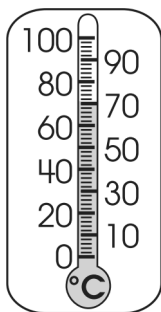


Name: _____

Date: _____

1. Use the information below to answer the question.

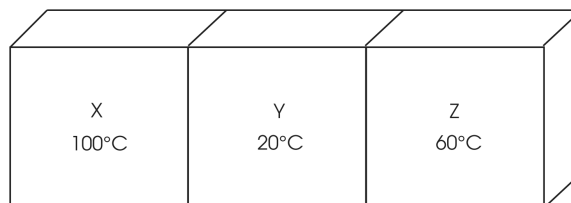


Students observe the liquid in the thermometer rising as the temperature increases.

What is the effect of the transfer of thermal energy that explains this observation?

- A. The liquid expands.
 B. The liquid contracts.
 C. The glass around the liquid expands.
 D. The glass around the liquid contracts.
2. What happens to metal railroad tracks during the heat of a summer day?
- A. decrease in weight B. increase in weight
 C. decrease in length D. increase in length
3. An empty glass is at room temperature. A student pours cold water into the glass. What will *most likely* result?
- A. Heat energy will transfer from the cold water to the glass until both are at the same temperature.
 B. Heat energy will transfer from the glass to the cold water until both are at the same temperature.
 C. Heat energy will transfer from the glass to the cold water until the glass has no more heat energy.

4. Three identical blocks are pushed together. The starting temperature of each is shown.



Which traces the transfer of thermal energy among the blocks?

- A. $X \leftarrow Y \rightarrow Z$ B. $X \rightarrow Y \rightarrow Z$
 C. $X \rightarrow Y \leftarrow Z$ D. $X \leftarrow Y \leftarrow Z$
5. A closed container of gas may explode when heated mainly because heating the gas causes the pressure to increase. Which statement *best* explains why the pressure increases when the gas is heated?
- A. The gas molecules expand.
 B. The gas molecules chemically react.
 C. The gas molecules become electrically charged.
 D. The gas molecules collide more often with the container.
6. Bill stands in a swimming pool and notices that the water around his feet is a lot cooler than the water near the surface. Which process causes this difference in temperature?
- A. convection B. evaporation
 C. radiation D. conduction
7. A chef pours a cup of rice into a pot of boiling water and observes the rice swirling around in the pot. Which of the following explains the cause of this action?
- A. Heat transfer by radiation makes the rice vibrate.
 B. The rice is carried along by conduction.
 C. The chef stirred the pot before the rice was added.
 D. The rice is carried along by convection currents.