

Chapter 05 Thermal Energy Test

Multiple Choice

Choose the choice that best completes the sentence or answers the question.

- ____ 1. Temperature is a measure of the _____ of molecular motion.
a. mass
b. average kinetic energy
c. potential energy
d. thermal energy
- ____ 2. The direction of heat transfer depends _____, which is not
a. speed
b. volume
c. mass
d. velocity
- ____ 3. Heat is the _____
a. amount of thermal energy in an object
b. difference between the kinetic and potential energy
c. energy of heat transfer
d. transfer energy of potential and kinetic energy
- ____ 4. A gas in a piston gets hot by means of _____
a. conduction
b. convection
c. radiation
d. conduction
- ____ 5. If a piston is higher specific heat than steel, it will reach _____ heat faster.
a. heating faster
b. heating slower
c. cooling faster
d. cooling slower

Completion

Complete each sentence.

11. The zero point temperature is _____ (0K, 0°C, -273°C).
12. Mercury thermometers and alcoholometers are _____, (expand, contract, contract/expand & contract).
13. Infrared waves produce a rapid motion through _____, (heat, cold, low light energy, or electromagnetic waves).
14. When you put your hand near a fire, you feel heat. It is really there, it has mass, but it has no weight. It is held by _____, (radiation, velocity, conduction).
15. If you add 100 cal of water at 10°C to 100 cal of water at 20°C, the average kinetic energy of the mixture _____, (increases, decreases, remains the same).
16. When 100 cal of water at 20°C is added to 100 cal of water at 30°C, the thermal energy _____, (increases, decreases, remains the same, is the combined values).
17. Temperature is a measure of the average value of the _____ (kinetic, potential and kinetic) energy of the particles in a substance.