

### Heat Assignment Answers

1.  $E_{th}$  = # of Particles and their kinetic energy      Heat = change in thermal energy
2. By increasing the kinetic energy of the particles through force we can increase thermal energy
3. Pot of coffee has more particles so it has more thermal energy
4. No a thermometer measures average kinetic energy
5.
  - a.  $-173^{\circ}\text{C}$
  - b.  $0^{\circ}\text{C}$
  - c.  $100^{\circ}\text{C}$
  - d.  $36^{\circ}\text{C}$
6.
  - a. 373 K
  - b. 223 K
  - c. 273 K
  - d. 422 K