Boiling – Sample Questions

37. What is the process of a substance changing from a solid to a vapor without passing through the liquid phase?
a. condensation
b. evaporation
c. sublimation
d. vaporization

38. Why would a camper near the top of Mt. Everest find that water boils at less than 100ºC?
a. There is greater atmospheric pressure than at sea level.
b. The flames are hotter at that elevation.
c. There is less atmospheric pressure than at sea level.
d. The atmosphere has less moisture.

39. During boiling, the temperature of a liquid
a. remains constant.
b. increases.
c. decreases.
d. approaches the standard boiling point.

48. Which is true regarding evaporation and boiling?
a. Evaporation takes place at the surface
b. Boiling takes place at the surface
c. Evaporation occurs at the boiling point
d. Boiling occurs at any temperature

52. As the atmospheric pressure on the surface of a liquid decreases, its boiling point
a. decreases.
b. increases.
c. remains unchanged.
d. shows no correlation.

True or False:

___ 1. A liquid can "be made hotter" (risen to a higher temperature) than its' boiling point temperature.

___ 2. Boiling a liquid always requires the input of heat energy.

___ 3. Water can be made to boil at room temperature.

Answers:
37. c
38. c
39. a
48. a
52. a
True or False: 1. False
2. False
3. True