Phases Review WorksheetQuiz B Name_____

77. Which of the following has a definite volume? a) liquid; b) gas; c) solid; d) a and c; e) a and b

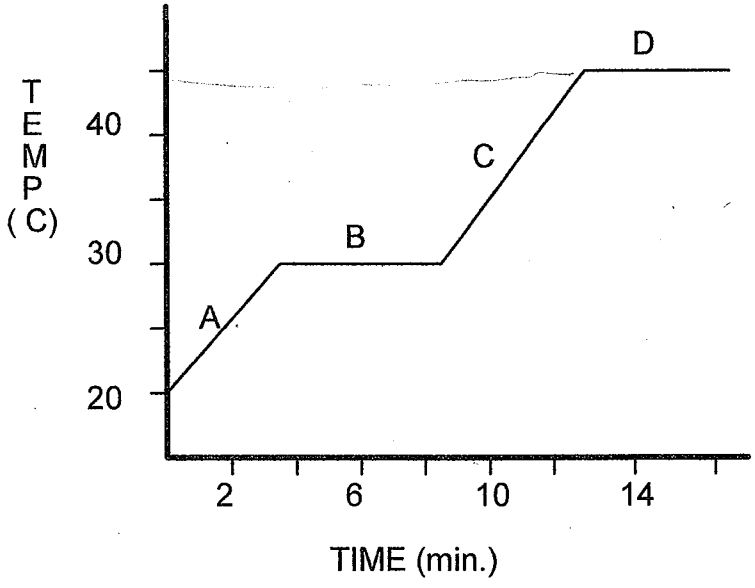
78. Pressure is equal to: a) force x area; b) area/force; c) force x volume; d) force/area.

79. The pressure at a particular point in a liquid depends upon: a) the total volume of the liquid; b) the depth in the liquid at that point; c) the cross sectional area of the liquid; d) none of the above.

80. Pressure can be increased by: a) decreasing the amount of force used; b) reducing the area the force acts on; c) increasing the area the force acts on; d) all of the above.

81. What instrument is used to measure atmospheric pressure? barometer

Use the graph below to answer <u>questions 82 - 87</u>. The graph was obtained by measuring the temperature of a substance as it is heated. Initially the substance was totally solid.



82. During segment D of the graph, what phases are present? a) solid; b) solid and liquid; c) liquid; d) liquid and gas; e) gas

83. During segment A of the graph, what phases are present? a) solid; b) solid and liquid; c) liquid; d) liquid and gas; e) gas

84. What is the boiling point of the substance?
a) 20 °C; b) 30 °C; c) 35 °C; d) 40 °C; e) 45 °C

85. What is the freezing point of the substance? a) 20 °C; b) 30 °C; c) 35 °C; d) 40 °C; e) 45 °C

86. During what segment of the graph would you have only liquid present? a) A; b) B; c) C; d) D

87. What phase is the substance in after 6 minutes? a) solid; b) liquid; c) gas; d) liquid and solid; e) liquid and gas

88. Which of the following processes is exothermic? a) boiling; b) melting; c) evaporation; d) freezing.

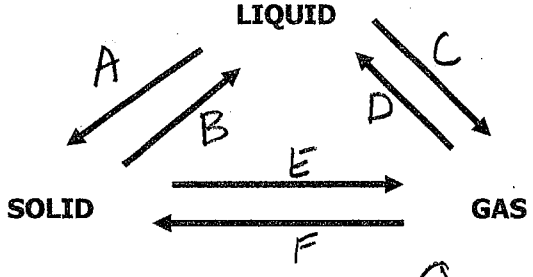
89. What happens when the vapor pressure of a liquid equals the atmospheric pressure?
a) the liquid freezes; b) the liquid sublimes; c) the liquid condenses; d) the liquid boils

90. As you travel up a mountain, what happens to the atmosperic pressure?
a) it increases; b) it decreases; c) it stays the same.

91. As you travel up a mountain, what happens to the boiling point of water?
a) it increases; b) it decreases; c) it stays the same.

92. As the temperature of a liquid increases, what happens to the vapor pressure of the liquid?
a) it increases; b) it decreases; c) it stays the same

Questions 93 – 96 Match the letters on the diagram with the phase change:



93. Condensing is letter: a) A; b) B; c) C; d) D; e) E; ab) F

94. Freezing is letter: a) A; b) B; c) C; d) D; e) E; ab) F

95. Boiling is letter: a) A; b) B; c) C; d) D; e) E; ab) F

96. Subliming is letter: a) A; b) B; c) C; d) D; e) E; ab) F

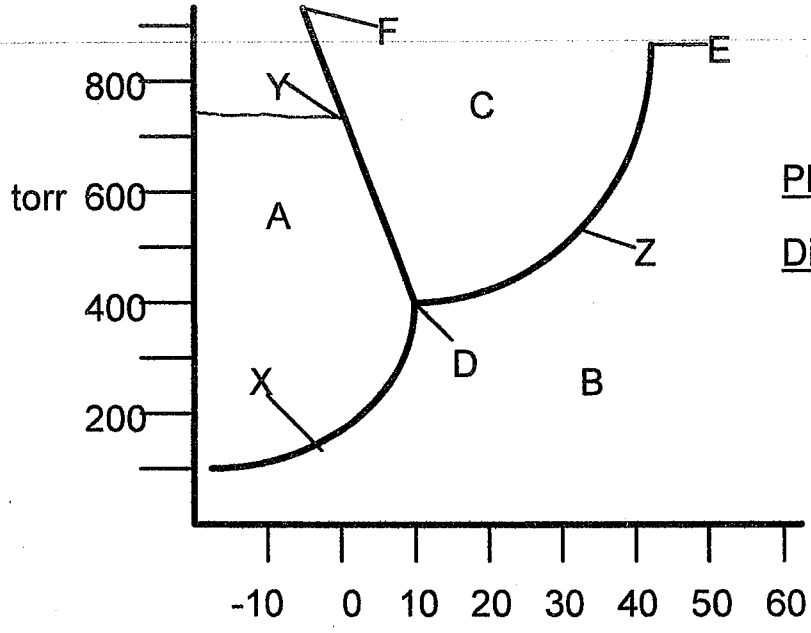
97. Evaporation is: a) endothermic; b) mesothermic; c) exothermic; d) isothermic

98. A change in which you must put energy into a substance is called:
a) endothermic; b) mesothermic; c) exothermic; d) isothermic

99. A substance that has neither a definite volume nor a definite shape:
a) solid; b) liquid; c) gas

100. A substance that has a definite volume but not a definite shape:
a) solid; b) liquid; c) gas

Phase Review Sheet III Name_____



Phase Diagram

1. What phase is in region A? solid
2. What phase is in region B? gas
3. What phase is in region C? liquid
4. What is point D called? triple point
5. What line represents the equilibrium between solid and liquid? X (Y) Z
6. What line represents the equilibrium between solid and gas? (X) Y Z
7. What line represents the equilibrium between liquid and gas? X Y (Z)
8. Which letter on the graph is the critical point? E
9. What is the critical temperature? 38°C
10. What temperature is the normal melting point? 0°C
11. The substance goes from 20°C and 600 torr to 50°C and 600 torr.
    What phase change occurred? boiling
12. The substance goes from 20°C and 200 torr to -10°C and 200 torr.
    What phase change occurred? deposition
13. The substance goes from 30°C and 200 torr to 20°C and 600 torr.
    What phase change occurred? condensation
14. At what temperature and pressure do all three phases of the substance exist in equilibrium? 400 torr 10°C