**KMT and Gas Laws Make Up Test: Topics**

1) What are the four postulates of the kinetic molecular theory? (8 pt)

2) Why are gases compressible? (4 pt)

3) What is an ideal gas? What is an example of an ideal gas? (5 pt)

4) If I have 3.5 moles of a gas at a pressure of 3.3 atm and a volume of 5.75 L, what is the temperature of this gas? R = 0.08206 Latm/molK. (5 pt)

5) I have 4.5 liters of a gas at a temperature of 0 K. If the pressure of the gas is 0.50 atm, how many moles of gas are present? R = 0.08206 Latm/molK. (5 pt)

6) A taxidermied squirrel has a volume of 570 mL at a temperature of 273 K. If the temperature of the squirrel is increased to 345 K, what will its new volume be? (5 pt)

7) A balloon held underwater has a volume of 15 L at a pressure of 2.3 atm. If the balloon is released so that it rises to the surface where the pressure is 0.95 atm, what will the new volume of the balloon be? (5 pt)

6) What happens in the following scenarios? (1 pt each, circle one answer each)

* When you decrease the temperature on a gas, the volume ( increases / decreases ).
* When you increase the temperature of a gas, the pressure ( increases / decreases ).
* When you increase the volume of a gas, the pressure ( increases / decreases ).
* When you decrease the pressure of a gas, the volume ( increases / decreases ).