Name: _____

Gas Laws Home WS #2

DIRECTIONS: For each of the following problems: (1) Write down the correct gas law formula, (2) Substitute the numbers and units into the equation, (3) Write down your answer with units:

3. A gas has some volume when the pressure is 550. torr. When the pressure changes to 860. torr the volume changes to 6.35 liters. What was the original volume of the gas in liters?

4. A gas has a volume of 2.20 liters when the temperature is 40.0 °C. What would the volume be if the temperature changes to 72.0 °C?

5. A gas has a temperature of 20.0 °C when the pressure is 600. torr. What would the the pressure be if the temperature changes to 35.0 °C?

6. If a gas at 70.0 °C had a volume of 650. cm^3; what would the temperature in Celsius have to change to in order for the volume to change to 500. cm^3?

7. When the pressure is 2.60 atm, the volume of a gas is 67.0 cm^3. What would the volume be in atm if the pressure dropped to 1.80 atm?

8. At 50.0 °C a gas has a pressure of 650. mm Hg. The pressure now changes to 950. mm Hg. What is the new temperature?

9. At STP, the volume of a gas is 2560. ml. What does the volume become in ml if the pressure changes to 900. mm Hg?

10. 750. ml of a gas fills a balloon at STP. What should the volume be if the temperature changes to 393 K?