Chemistry Gas Laws Practice Name:

*Use the combined gas law to solve the following problems:*

1) A gas takes up a volume of 17 liters, has a pressure of 2.3 atm, and a temperature of 299 K. If I raise the temperature to 350 K and lower the pressure to 1.5 atm, what is the new volume of the gas?

2) A gas has a temperature of 14 0C, and a volume of 4.5 liters. If the temperature is raised to 29 0C and the pressure is not changed, what is the new volume of the gas?

3) If I have 17 liters of gas at a temperature of 67 0C and a pressure of 88.89 atm, what will be the pressure of the gas if I raise the temperature to 94 0C and decrease the volume to 12 liters?

4) If I have 21 liters of gas held at a pressure of 78 atm and a temperature of 900 K, what will be the volume of the gas if I decrease the pressure to 45 atm and decrease the temperature to 750 K?

5) If I have 2.9 L of gas at a pressure of 5 atm and a temperature of 50 0C, what will be the temperature of the gas if I decrease the volume of the gas to 2.4 L and decrease the pressure to 3 atm?

6) 6.2 atm = ? torr

7) 1.2 atm = ? kPa

8) 105.6 mmHg = ? torr

9) 1820 mmHg = ? atm

10) 600 mmHg = ? kPa