Gas Laws Worksheet #1

Boyle's Law describes the relationship between _____ and _____, and they are _____ proportional. The variables _____ and _____ remain constant.

1) If 50 mL of Oxygen gas is compressed from 20 atm of pressure to 40 atm of pressure, what is the new volume at constant temperature?

2) If a gas sample in a balloon had a volume of 100 mL and a pressure of 3 atm. It was then compressed to a pressure of 10 atm, what would be its volume?

Charles Law describes the relationship between _____ and _____ , and they are _____ proportional. The variables _____ and _____ remain constant.

1) A gas occupies a volume of 100 mL at 300 K. At what temperature will the gas have a volume of 200 mL?

2) If the volume of a gas sample is 500 mL at 25° C what will be its volume at 50° C?

Gay-Lussac's Law describes the relationship between _____ and _____, and they are _____ proportional. The variables _____ and _____ remain constant.

1) 10.0 L of a gas is found to exert 97.0 kPa at 25.0° C. What would be the required temperature to change the pressure to standard pressure?

2) 5.00 L of a gas is collected at 22.0° C and 745.0 mmHg. When the temperature is changed to standard what is the new pressure?