

Name: _____ Date: _____ Class period: _____



Unit: Gas Laws

“Boyle’s and Charles’s Laws”

Directions: Please show all work, round each answer the correct number of significant figures, and include units. ☺

1. A gas occupies 100.0 mL at a pressure of 780 mm Hg. What is the volume of the gas when its pressure is increased to 880 mm Hg?
2. A gas has a pressure of 0.410 atm and a volume of 32 L. At what pressure would the volume of the gas change to 28L?
3. A gas occupies 525 mL at a pressure of 85.0 kPa. What would the volume of the gas be at a pressure of 65.0 kPa?
4. A gas occupies 3.5 L at standard pressure. Find the volume of the gas when the pressure is 1140 mm Hg.
5. A gas has a volume of 750 mL at a pressure of 2.15 atm. What will the pressure be if the volume becomes 1.25 L?

6. If a gas has a volume of 750 mL at 25°C, what would the volume of the gas be at 55°C?
7. At what temperature would the volume of a gas be 0.550 L if it had a volume of 0.432 L at -20.0°C?
8. What would the volume of a gas be at -150°C, if it had a volume of 693 mL at 45°C?
9. 3.0 L of a gas is at a temperature of 78°C. Find the volume of the gas at standard temperature.
10. At what temperature (in °C) would the volume of a gas be equal to 45.7 L, if the volume of that gas was 33.9 L at 12.4°C?