Name:_____

Gay-Lussac's Law Worksheet With Answers

1. **Determine the pressure change when a constant volume of gas at 1.00 atm is heated from 20.0 °C to 30.0 °C.**

2. **A container of gas is initially at 0.500 atm and 25 °C. What will the pressure be at 125 °C?**

3. **A gas container is initially at 47 mm Hg and 77 K (liquid nitrogen temperature.) What will the pressure be when the container warms up to room temperature of 25 °C?**

4. **A gas thermometer measures temperature by measuring the pressure of a gas inside the fixed volume container. A thermometer reads a pressure of 248 kPa at 0 °C. What is the temperature when the thermometer reads a pressure of 345 kPa?**

5. A gas is collected at 22.0 °C and 745.0 mm Hg. When the temperature is changed to 0 °C, what is the resulting pressure

6. A gas has a pressure of 699.0 mm Hg at 40.0 °C. What is the temperature at standard pressure (1 atm = 760 mmHg)?

7. If a gas is cooled from 323.0 K to 273.15 K and volume is kept constant what final pressure would result if the original pressure was 750.0 mm Hg?

8. The temperature of a sample of gas in a steel tank at 30.0 kPa is increased from –100.0°C to 25.0 °C. What is the final pressure inside the tank?