

Name _____ Date _____ Period _____

Gas Ws #8: Review

1. A gas in a flexible container occupies 500.0 mL and 1.00 atm. If the temperature is constant, what volume does the flexible occupy when...
 - a) the pressure is 2.50 atm?
 - b) the pressure is .80 atm?
 - c) the pressure is doubled?
 - d) the pressure decreased by 1/2?
2. A sample of gas is in a steel container at 25.0°C and 1.00 atm. How will the pressure be affected when the temperature is.....
 - a) raised to 75.0°C
 - b) lowered to 0.00°C
 - c) double in °C to 50°C
 - d) double in K to 596K
3. A sample of a gas at 0.00°C occupies a volume of 25.0 mL. What happens to the volume of a gas if the pressure is held constant and the temperature is....
 - a) raised to 75.0°C
 - b) lowered to 0.00°C
 - c) double in °C to 50°C
 - d) double in K to 596K
4. If a 2.00 g sample of solid carbon dioxide (dry ice) is placed in a 500.0 mL sealed container at 25.0°C, what pressure will the carbon dioxide exert when it sublimates to form a gas?
3. How many molecules of bromine gas are present in 5.32 liters at 220.0°C and 2.60 atm?
4. A sample of oxygen occupies 0.575 L at 1.50 atm and 125.0°C. At what pressure (in atm) will its volume be at 0.300 L at 20.0°C?
5. How many moles of oxygen are present in the problem above?
6. What will the temperature be in °C if 2.00 L of gas at 0.00°C is expanded to 2.50 L? The initial pressure was 750.0 mm Hg and its final pressure is 740.0 mm Hg.
7. What is the molar mass of a gas if 268 mL at 69.0°C and 17.9 Torr has a mass of 0.0156 g?
8. What will be the new volume is 125 mL of He gas at 100.0°C and 0.981 atm is cooled to 25.0°C and the pressure is increased to 1.15 atm?
9. A tank contains a mixture of 3.0 mol N₂, 2.0 mole O₂ and 1.0 mole CO₂ at 25°C and a total pressure of 10.0 atm. Calculate the partial pressure (in atm) of each gas in the mixture.

10. What volume does 4.24 g of nitrogen gas occupy at 58.2°C and 2.04 atm?

