

Lighter Than Air HW

Read and outline (Cornell style) **Section 14.4** in your chemistry textbook. ****Section outlines must be at least ½ page with 3-4 topic questions.**** Then answer the following assessment questions.

1. How many grams of CO_2 are in a 1.0-L balloon at STP?
2. What volume (in mL) will 0.00922g of H_2 gas occupy at STP?
3. Consider the following reaction: $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
 - a. Balance the equation.
 - b. How many liters of propane gas will undergo complete combustion with 34.0 L of oxygen gas?
4. Consider the following reaction: $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$
 - a. Balance the equation.
 - b. Determine the volume of hydrogen gas needed to react completely with 5.00 L of oxygen gas to form water.
5. Solid potassium metal will react with Cl_2 gas to form potassium chloride. How many liters of Cl_2 gas are needed to completely react with 0.204g of potassium at STP?