**Ideal Gas Law Worksheet Review**

***PV=nRT*** R = 0.0821 L·atm/mol·K

62.4 L·mm Hg/mol·K

**mass mole** 8.314 L·kPa/mol·K

Standard pressure and temperature (STP): 1 atm and 273 K

1. How many moles of a gas at 100°C does it take to fill a 1.00 L flask to a pressure of 1.50 atm?
2. A camping stove holds 3000 g of liquid C3H8. How large of a container would be needed to hold the gas at a temperature of at 25°C and a pressure of 3.0 atm? (hint: need to convert to moles first)
3. What volume would be occupied by 3.5 mol of oxygen gas at a pressure of 768 mm Hg and a temperature fo 25°C?
4. A ten-liter gas cylinder contains 55 moles nitrogen. What pressure, in kPa, is exerted by the nitrogen at 25°C?
5. A drum used to transport crude oil has a volume of 162 L. How many grams of water, as steam, are required to fill the drum at 1.20 atm and 100°C?
6. How many moles of air are there in a 125 mL flask if the pressure is 755 mm Hg and the temperature is 20°C?