

## GAS DENSITY PRACTICE (moles #6)

- *Show all work.*
  - *Circle all answers.*
  - *Check sig.figs and units.*
  - *For these problems, remember that gas density is g/L and molar mass is g/mol.*
- 1) The density of a gas is 2.2 g/L under STP conditions. What is its molar mass?
  - 2) At STP, 11.4 L of a gas has a mass of 15.0 g. Calculate the density of the gas and its molar mass.
  - 3) The density of a gas is 6.500 g/L at STP. What is the molar mass of the gas?
  - 4) 9.50 L of a gas has a mass of 44.0 g at STP. What is the density of the gas? What is the molar mass of the gas?
  - 5) The density of a gas is 6.75 g/L under STP conditions. Calculate its molar mass.
  - 6) At STP, 35.00 L of a gas has a mass of 410.0 g. Calculate the density of the gas and its molar mass.
  - 7) What is the molar mass of a gas with a density of 1.6 g/L. Assume STP conditions.
  - 8) At STP, 15.75 L of a gas has a mass of 96.06 g. What is the density of the gas? What is the molar mass of the gas?
  - 9) The density of a gas is 1.2 g/L. What is its molar mass? Assume STP conditions.
  - 10) At STP, what is the molar mass of a gas with a density of 11.25 g/L.