Molar Volume Worksheet

1. Find the volume in the problems below. Assume they are gasses at STP.
   a. 4.5 moles of H_2

   b. 56.0 grams of O_2

   c. 0.0023 moles of CO_2

   d. 5.2×10^{26} molecules of CH_4

2. Find the molecules in the problems below.
a. 500 moles of Cl_2

b. 20,484 grams of H_2O

c. 75.0 liters of F_2 at STP

3. Find the mass in the problems below
a. 9.0×10^{17} molecules of He gas at STP

b. 11.5 liters of Cl_2 gas at STP

c. 75.0 moles of Argon gas at STP

4. Find the moles of hydrogen in the problems below

a. 4 moles of CH_4 32 grams CH_4 $3.01X10^{23}$ molecules of CH_4 44.8 liters CH_4

5. Do the problems below. Show all you work

a. Find the volume of 3.0×10^{25} molecules of Neon gas at STP

b. You have 36.0 grams of Iron. How many moles of iron do you have?

c. Calculate the number of molecules in 17.0 liters of oxygen gas at STP

d. Jim has 300 grams of sulfur dioxide. How many moles of oxygen are in Jim's sulfur dioxide?

e. Billy has 5.6×10^{24} molecules of Helium gas to fill balloons at a ballgame. If each balloon holds 1.5 liters, how many balloons can he fill? Assume STP