

**Mole Problem****Mole Mixed Review**

**DO THESE** Solve the following problems. Show your work and include the units

1. What is the Molar mass of tetracarbon hexahydride?
2. What is the Molar mass of sulfuric acid?
3. What is the Molar mass of copper (II) hydroxide?
4. How many grams is  $9.3 \times 10^{15}$  atoms of Lead?
5. How many representative particles are in 2.73L of nitrogen dioxide at STP?
6. How many Liters are in  $5.25 \times 10^{26}$  molecules of bromine gas at STP?
7. Find the mass of each of  $3.65 \times 10^{-2}$  mol Potassium sulfate
8. How many molecules are in 2.61g of dihydrogen dioxide?
9. How many molecules at STP are in a container that contains 0.60L of carbon tetrahydride.
10. What is the mass of 0.70 L Krypton at STP?
11. An extra strength aspirin tablet contains 500mg of aspirin,  $C_9H_8O_4$ . How many molecules of aspirin are in one extra strength aspirin tablet?

**SKIP THESE PROBLEMS** Find the percent composition of the compound

12. Silver nitrate
13. Hexacarbon hexahydride
14. Tin (II) phosphate

**DO THESE** Find the Empirical Formula for each of the following

15. Given 21.69% C, 9.64% O, 68.7% F
16. Given 62.1% C, 5.21% H, 12.1% N, 20.7% O

**DO THESE** Find the Molecular Formula for each of the following

17. Given 35.51% C, 4.77% H, 37.85% O, 8.29% N, 13.60% Na, molar mass = 169g/mol
18. Given 59.0% C, 7.1% H, 26.2% O, 7.7% N, molar mass = 180 g/mol