Lesson 88: Molecular Formulas Notes

Molecular Formula

- represents the _____ number of _____ of each _____ in the _____
- not necessary for _____ _____
- necessary for _____ _____

The molecular formula for water is _____, and empirical formula is also _____.

The molecular formula for hydrogen peroxide is _____, and empirical formula is _____.

Example Problem

The empirical formula for glucose is CH_2O.

a) If the molar mass is 180.0 g/mole, find the molecular formula.

b) If the molar mass is _____ g/mole, find the molecular formula.

Problem Set One (work on separate paper)

empirical formula	molar mass
CH	____ g/mol
NO_2	____ g/mol
C_3H_8	____ g/mol

Lesson 88: Molecular Formulas Notes (cont.) Chemistry with Lab

Ex. Problem: Find the molecular formula for a compound with:

_____ g N _____ g O molar mass _____ g/mol

Hydrates

- _____ with _____ molecules adhering to the _____ or _____
- $Na_2CO_3 \bullet$ _____ H_2O

  indicates _____ _____ molecules adhering to each _____ _____ of sodium carbonate
- mass of _____ = mass of _____ compound minus mass of _____ compound

Example Problems

Determine the formula of hydrated barium chloride from this data:

initial mass of hydrated compound = 1.373 g
mass after heating – 1.175 g

Determine the formula for the hydrate that is _____% $CaSO_3$ and

_____% H_2O.

The Chemistry Quiz

CR1. _____ CR2. _____ 1. _____ 2. _____ 3. _____

4. _____ 5. _____