molecules

Geometry Tetrahedral

Shape Tetrahedral

no lone pairs = non-polar

Polar = Polar

Tetrahedral

lone pair on central atom: Polar

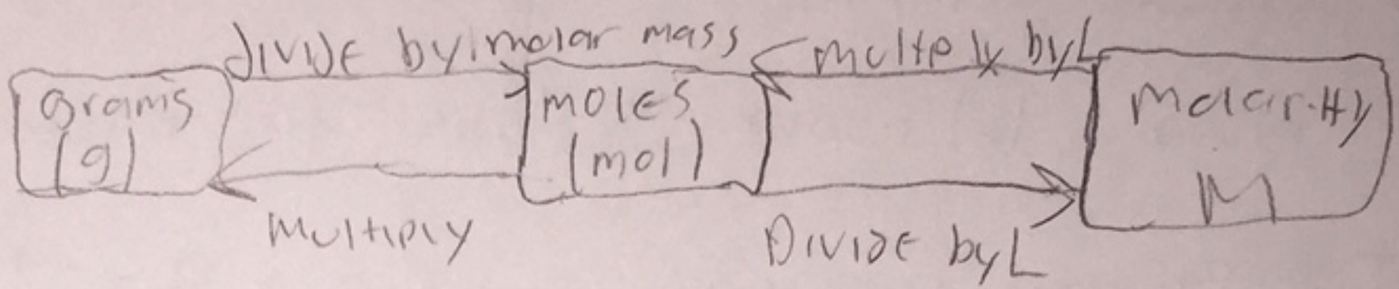
Shape is determined by # of lone pairs e-

Pyramidal, Polar

moles

1 mole = 6.02×10^{23}

molar mass - mass of 6.02×10^{23} particles



Molecular Formula

actual # of elements in a compound ex. C_2H_6

Empirical Formula

a formula that gives the simplest/lowest # ratio of atoms in a compand

Percent Composition

1. x molar mass of element by subscript of element in the compand
2. divide total molar mass of compand
3. multiply by 100

40.9

factors that affect Polarity/solubility
- two substances being the same polarity

↑ Pressure = ↑ Solubility of gases in liquid

↑ temp = ↑ solubility of solids in liquids

Solutions

mixture - two or more substances

Heterogeneous
particles aren't evenly distributed

Homogenous
particles are evenly distributed
also known as a solution

MAcid LAcid = (KAcid)(LBase)