% Composition Steps

1. Find the molar mass
of the molecule
2. Divide each element’s atomic mass by the molar mass of the molecule
3. Multiply by 100 to put answer in terms of an actual %

\*Note\* If you add up the % for each element it should add up to 100%...but rounding answers may make it not quite add up to 100%. That’s ok.

Determining Empirical Formula Steps

1. Given: % composition
2. Assume you have 100g sample to make #s easier
3. Use the poem!
 *- Percent to mass
 - Mass to Moles
 - Divide by small
 - Multiply by whole*

\*Note\* When multiplying by whole, you need to multiply each element by the same number!

Determining Molecular Formula Steps

1. Find molar mass of the empirical formula
2. Divide molecular formula mass by empirical formula mass
3. Multiply empirical formula subscripts by the multiplier # found in step 2
 *- No cute rhyme this time…sorry!* ☺

\*Note\* When finding the multiplier in step 2, you will usually have to round a little bit until you get a whole number. That is ok.

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% Composition Steps

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