Empirical Formula

Unit 7: The Mole

Empirical formula: smallest whole number ratio
of atoms in a compound

<u>Steps for emp formula:</u>
1) Change each element to <u>moles</u>.
2) Divide by the smallest mole # (*mole ratio*).
3) Round to nearest whole number if within 0.1. If not, then multiply everything using chart.*
4) Write the emp formula. Watch sig figs throughout!

*Multiplying Chart for Emp Formula
(use if answer is NOT within 0.1 of a whole #)

Decimal	Multiplyer
0.2	5
0.25	4
0.33	3
0.5	2
0.66	3
0.75	4

Practice

Find the emp formula of a compound composed of

81.82% C

18.18% H

To be completed in class! Leave 6 lines or so.

Find the emp formula of a compound composed of

26.6 g S
53.2 g O
20.2 g Mg

Name compound!

Find the emp formula of a compound composed of
9.61 g O
7.33 g Mg
0.61 g H

To be completed in class!
Leave 6 lines or so.

Name compound!