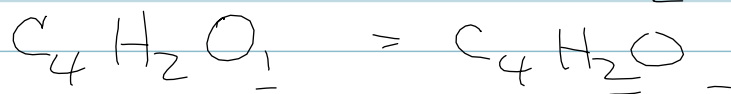
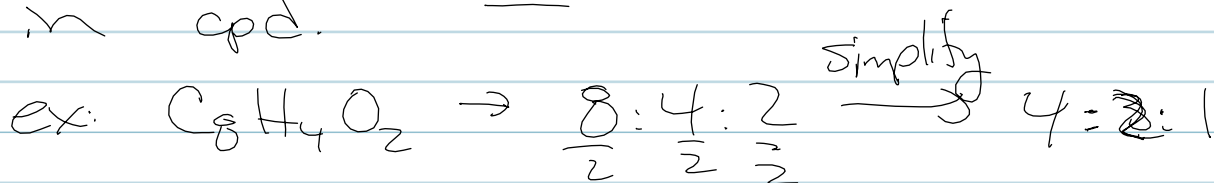


Empirical Formulas

= smallest whole # ratio of elements in cpd.



Given masses or % not as easy.

1. If given % \rightarrow change to g by assuming 100 g of cpd.
2. Once you have grams, must change to moles.
- * 3. To find ratio, divide all moles by smallest # moles, looking for whole # or $\frac{1}{2}$ #.

57. cpd that contain 46.46g Lithium
53.54 g Oxygen. Find empirical formula

$$46.46 \text{ g Li} \times \frac{1 \text{ mol}}{6.9 \text{ g}} = 6.73 \text{ mol Li}$$

$$53.54 \text{ g O} \times \frac{1 \text{ mol}}{16.0 \text{ g}} = 3.35 \text{ mol O}$$

part of cpd
not diatomic

$$\frac{6.73 \text{ mol Li}}{3.35 \text{ mol O}} = \frac{2 \text{ Li}}{1 \text{ O}}$$

