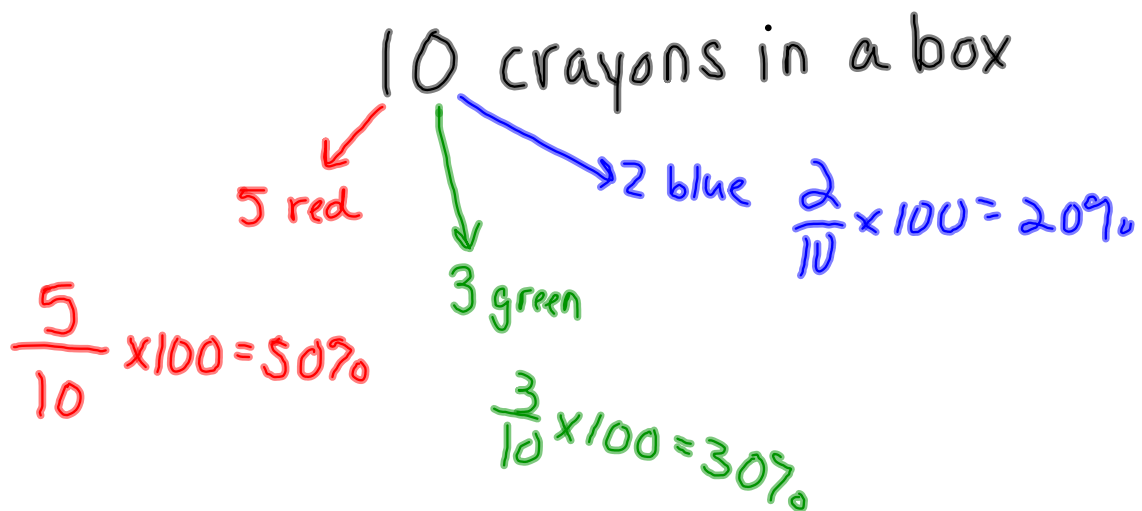


## Percent Composition



$$\frac{\text{total mass of 1 part}}{\text{total mass of whole}} \times 100 = \% \text{ comp.}$$

$$\frac{\text{total mass of moles for element}}{\text{molar mass of compound}} \times 100 = \% \text{ comp}$$



1) Find MM

1 mol C

% C?

$$\frac{12 \text{ g/mol}}{44 \text{ g/mol}} \times 100 = 27.3\%$$

2 mol O

% O?

$$\frac{32 \text{ g/mol}}{44 \text{ g/mol}} \times 100 = 72.7\%$$

100%

Law of Definite Proportions

What are the %'s in 100g CO<sub>2</sub>?

$$\% \text{ C} = 27.3\%$$

$$\% \text{ O} = 72.7\%$$

What are the %'s in 50g CO<sub>2</sub>?

They are the same.



2 mol N

$$\% \text{N} = \frac{28}{80 \text{ g/mol}} \times 100 = 35\% \text{ N}$$

4 mol H

$$\% \text{H} = \frac{4}{80 \text{ g/mol}} \times 100 = 5\% \text{ H}$$

3 mol O

$$\% \text{O} = \frac{48}{80 \text{ g/mol}} \times 100 = 60\% \text{ O}$$

How can I double check my answers?