

Let's do a few Molar Conversions to see if you understand...

Find the number of Moles (if Grams is given)

1. How many moles of Magnesium is in a 96.0 gram sample?

Answers: *Recall, when working with these types of problems, ALWAYS start with what was given. And then slide the unit (that you started with) so that you are able to cancel the unit...*

$$\frac{96.0 \text{ g Mg}}{1} \times \frac{1 \text{ mol Mg}}{24.30 \text{ g}} = 3.95 \text{ mol Mg}$$

2. How many moles of Nickel is in a 25.0 gram sample?

Answers:

$$\frac{25.0 \text{ g Ni}}{1} \times \frac{1 \text{ mol Ni}}{58.93 \text{ g}} = 0.424 \text{ mol Ni}$$

3. How many grams of copper are in 2.50 moles of copper?

Answers:

$$\frac{2.50 \text{ mol Cu}}{1} \times \frac{63.55 \text{ g}}{1 \text{ mol Cu}} = 159 \text{ g Cu}$$