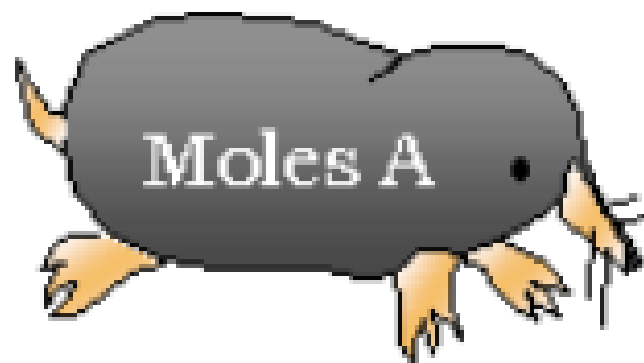


Calculating Molar Mass



23.0 35.5
 48.0 g of NaCl = moles

$$48.0 \text{ g} \frac{1 \text{ mol}}{58.5 \text{ g}} = .821 \text{ mol}$$

2 mol NaCl = g

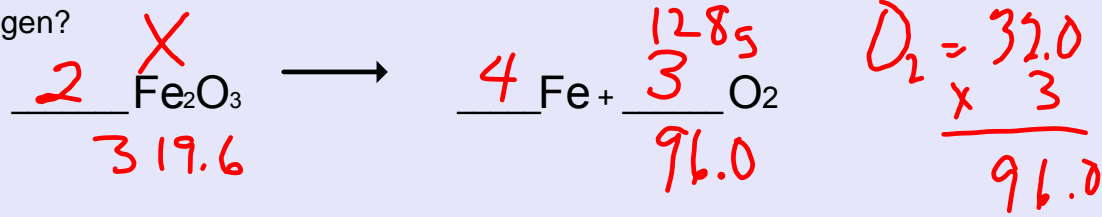
$$2 \text{ mol} \frac{58.5}{1 \text{ mol}} = 117 \text{ g}$$

3 mol Ca (NO₃)₂ Ca - 40.1 g
 N = 14.0 x 2 28.0
 O: 16.0 x 6 96.0

$$3 \text{ mol} \frac{164.1 \text{ g}}{1 \text{ mol}} = 492.3 \text{ g}$$

$$\frac{96.0}{164.1}$$

How much iron (III) oxide is needed to make 128 g of oxygen?



$$\begin{array}{r}
 \text{O}_2 = 32.0 \\
 \times 3 \\
 \hline
 96.0
 \end{array}$$

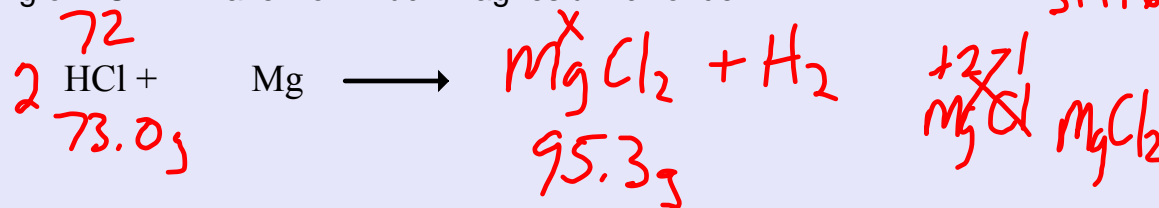
$$\frac{\text{X}}{319.6} = \frac{128}{96}$$

$$\text{X} = 426\text{g}$$

$$\begin{array}{l}
 \text{Fe } 55.9 \times 2 = 111.8 \\
 \text{O } 16.0 \times 3 = 48
 \end{array}$$

$$\begin{array}{r}
 111.8 \\
 + 48 \\
 \hline
 159.8 \\
 \times 2 \\
 \hline
 319.6
 \end{array}$$

72 g of HCl will make How much magnesium chloride?



$$\begin{array}{r}
 1.0 \\
 + 35.5 \\
 \hline
 36.5 \\
 \times 2 \\
 \hline
 73.0
 \end{array}$$

$$\begin{array}{r}
 24.3 \\
 35.5 \times 2 = 71.0 \\
 \hline
 95.3\text{g}
 \end{array}$$

$$\begin{array}{r}
 72 \\
 \hline
 73.0 = \frac{\text{X}}{95.3} \\
 \text{X} = 94\text{g}
 \end{array}$$