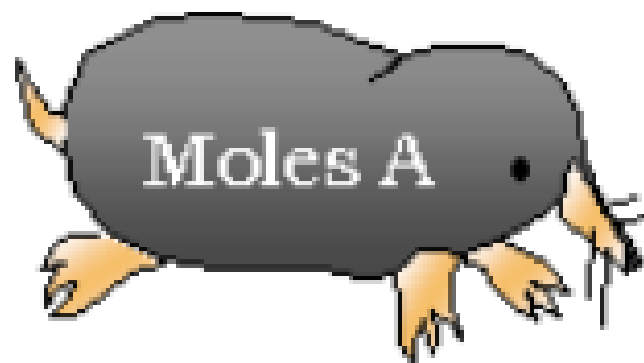


Calculating Molar Mass



23.0 35.5
48.0 g of NaCl = moles

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

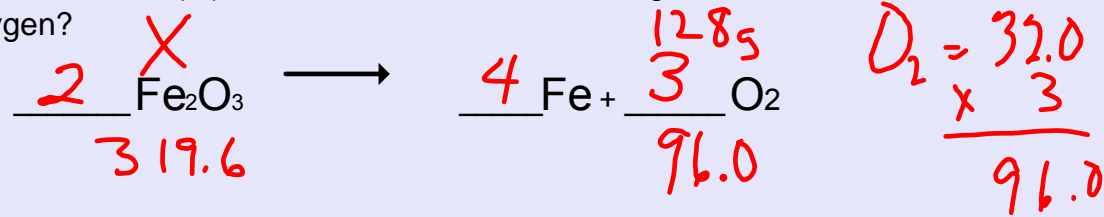
2 mol NaCl = g

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

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

$$3 \text{ mol} \frac{164.1 \text{ g}}{1 \text{ mol}} = 492.3$$
$$\frac{40.1}{28.0}{96.0}{164.1}$$

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



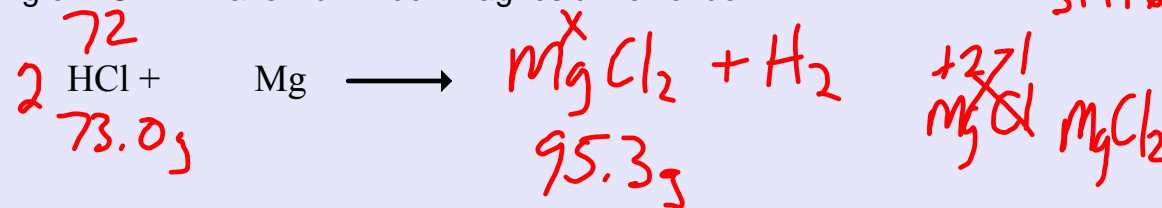
$$\frac{\text{X}}{319.6} = \frac{128}{96}$$

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

$$\begin{array}{r} \text{Fe } 55.9 \times 2 = 111.8 \\ \text{O } 16.0 \times 3 = 48 \\ \hline 159.8 \end{array}$$

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

72 g of HCl will make How much magnesium chloride?



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

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

$$\frac{72}{73.0} = \frac{\text{X}}{95.3}$$

$$\text{X} = 94\text{g}$$