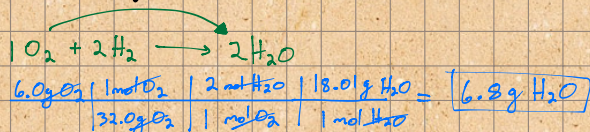
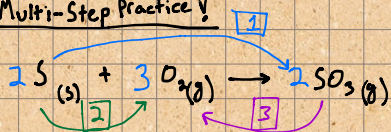


Warm-up:

1) If you have 6.0g of Oxygen reacting with excess hydrogen how many grams of Water would be produced?



Multi-Step Practice!



1) How many moles of product can be produced from 75.0g of Sulfur?

$$\frac{75.0 \text{ g S}}{32.06 \text{ g S}} \cdot \frac{1 \text{ mol S}}{1 \text{ mol S}} \cdot \frac{2 \text{ mol SO}_2}{2 \text{ mol S}} = 2.34 \text{ mol SO}_2$$

2) How many Liters of Oxygen are required to react with 75.0g of Sulfur?

$$\frac{75.0 \text{ g S}}{32.06 \text{ g S}} \cdot \frac{1 \text{ mol S}}{1 \text{ mol S}} \cdot \frac{3 \text{ mol O}_2}{2 \text{ mol S}} \cdot \frac{22.4 \text{ L O}_2}{1 \text{ mol O}_2} = 78.6 \text{ L O}_2$$

3) How many grams of oxygen are needed to produce 127g of Sulfur Trioxide?

$$\frac{127 \text{ g SO}_3}{80.1 \text{ g SO}_3} \cdot \frac{1 \text{ mol SO}_3}{1 \text{ mol SO}_3} \cdot \frac{3 \text{ mol O}_2}{2 \text{ mol SO}_3} \cdot \frac{32.0 \text{ g O}_2}{1 \text{ mol O}_2} = 76.1 \text{ g O}_2$$