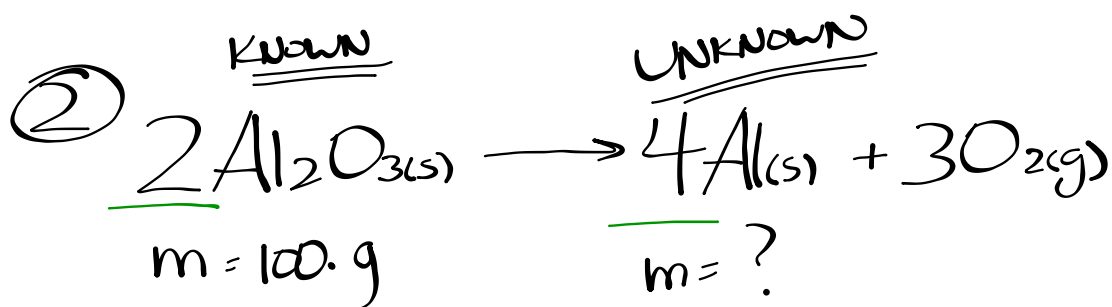


Homework - Worksheet



Step 1: # of moles known

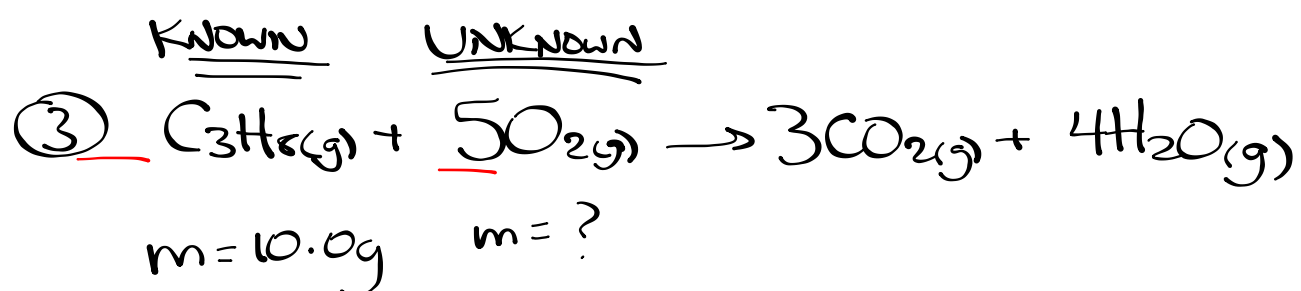
$$100. \text{g Al}_2\text{O}_3 \times \frac{1 \text{ mol Al}_2\text{O}_3}{101.96 \text{ g Al}_2\text{O}_3} = 0.981 \text{ mol Al}_2\text{O}_3$$

Step 2: # moles unknown

$$0.981 \text{ mol Al}_2\text{O}_3 \times \frac{4 \text{ mol Al}}{2 \text{ mol Al}_2\text{O}_3} = 1.962 \text{ mol Al}$$

Step 3: mass unknown

$$1.962 \text{ mol Al} \times \frac{26.98 \text{ g Al}}{1 \text{ mol Al}} = \boxed{52.9 \text{ g Al}}$$



$$10.0\text{g C}_3\text{H}_8 \times \frac{1\text{ mol C}_3\text{H}_8}{44.11\text{g C}_3\text{H}_8} \times \frac{5\text{ mol O}_2}{1\text{ mol C}_3\text{H}_8} \times \frac{32.00\text{g O}_2}{1\text{ mol O}_2} =$$

$$= 36.3\text{g O}_2$$

Worksheet #2 - Gravimetric Stoichiometry

1) 400.4 g SO_2

4) 150 g NaOH

2) 17 kg C

5) 690 g AuCl_3

3) 408 g CO

6) 11 g NH_3

Worksheet