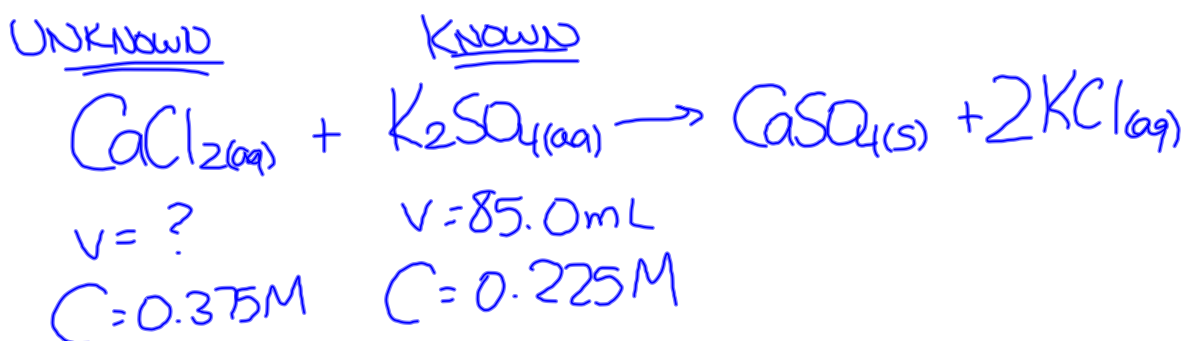


# Homework - Worksheet



Step 1: Moles Known

$$0.085 \text{ L K}_2\text{SO}_4 \times \frac{0.225 \text{ mol K}_2\text{SO}_4}{1 \text{ L K}_2\text{SO}_4} = 0.019125 \text{ mol K}_2\text{SO}_4$$

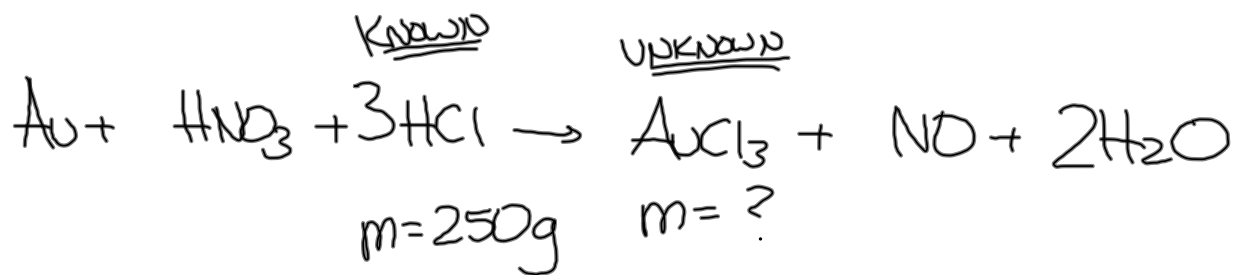
Step 2: Moles Unknown

$$0.019125 \text{ mol K}_2\text{SO}_4 \times \frac{1 \text{ mol CaCl}_2}{1 \text{ mol K}_2\text{SO}_4} = 0.019125 \text{ mol CaCl}_2$$

Step 3: Volume Unknown

$$V = \frac{n}{C} = \frac{0.019125 \text{ mol CaCl}_2}{0.375 \text{ mol/L CaCl}_2} = 0.0510 \text{ L CaCl}_2$$

$$0.019125 \text{ mol CaCl}_2 \times \frac{1 \text{ L CaCl}_2}{0.375 \text{ mol CaCl}_2} = 0.0510 \text{ L CaCl}_2$$



Step 1: Moles Known

$$250\text{g HCl} \times \frac{1\text{ mol HCl}}{36.46\text{g HCl}} = 6.857\text{ mol HCl}$$

Step 2: Moles Unknown

$$6.857\text{ mol HCl} \times \frac{1\text{ mol AuCl}_3}{3\text{ mol HCl}} = 2.286\text{ mol AuCl}_3$$

Step 3: Mass Unknown

$$2.286\text{ mol AuCl}_3 \times \frac{303.32\text{ g AuCl}_3}{1\text{ mol AuCl}_3} = \boxed{690\text{ g AuCl}_3}$$

# **Stoichiometry Review Worksheet**

# Quiz - Tomorrow