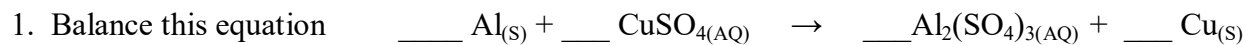


Stoich Practice QUIZ with answers Put your answers below. All work must be shown on white paper. Be neat.



2. What is the mole ratio for this equation? \_\_\_\_\_

What type of reaction does this represent? \_\_\_\_\_

3. 3. If you were to use up 11.0 moles of Al, how many moles of Cu would form? \_\_\_\_\_

4. If you use up 912 grams of Al, how many grams of Cu would form? \_\_\_\_\_

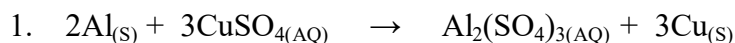


6. What is the mole ratio for this equation? \_\_\_\_\_

What type of reaction does this represent? \_\_\_\_\_

7. When 41.3 grams of Rb are used in a complete reaction, how many moles of  $\text{Rb}_2\text{SO}_4$  form? \_\_\_\_\_

8. If you use up  $8.49 \times 10^{26}$  atoms of Rb, how many atoms of Mg form? \_\_\_\_\_



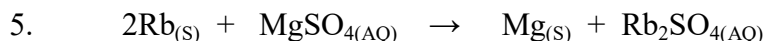
2. MR = 2:3:1:3 This is a single replacement reaction (table J)

$$3. \quad \text{MR} \quad \frac{\text{Al}}{\text{Cu}} \quad \frac{2}{3} \quad \frac{11.0}{x} \quad 2x = 33.0 \quad x = 16.5 \text{ moles copper}$$

$$4. \quad \frac{912 \text{ g Al}}{1} \times \frac{1 \text{ mole Al}}{27 \text{ g Al}} = 33.8 \text{ moles Al}$$

$$\text{MR} \quad \frac{\text{Al}}{\text{Cu}} \quad \frac{2}{3} \quad \frac{33.8}{x} \quad 2x = 101.4 \quad \longrightarrow \quad x = 50.7 \text{ moles copper}$$

$$\frac{50.7 \text{ moles Cu}}{1} \times \frac{64 \text{ g Cu}}{1 \text{ mole Cu}} = 3244.8 \quad \longrightarrow \quad 3249 \text{ g Cu}$$



6. MR = 2:1:1:1 This is also a single replacement reaction (table J)

$$7. \quad \frac{41.3 \text{ g Rb}}{1} \times \frac{1 \text{ mole}}{85 \text{ g Rb}} = 0.486 \text{ moles Rb}$$

$$\text{MR} \quad \frac{\text{Rb}}{\text{Rb}_2\text{SO}_4} \quad \frac{2}{1} \quad \frac{0.486}{x} \quad 2x = 0.486 \quad x = 0.243 \text{ moles rubidium sulfate}$$

$$8. \quad \frac{8.49 \times 10^{26} \text{ atoms Rb}}{1} \times \frac{1 \text{ mole of Rb}}{6.02 \times 10^{23} \text{ atoms Rb}} = \frac{8.49}{6.02} \times \frac{10^{26}}{10^{23}} = 1.41 \times 10^3 = 1410 \text{ moles Rb}$$

$$\text{MR} \quad \frac{\text{Rb}}{\text{Mg}} \quad \frac{2}{1} \quad \frac{1410}{x} \quad 2x = 1410 \quad \longrightarrow \quad x = 705 \text{ moles Mg}$$

$$\frac{705 \text{ moles Mg}}{1} \times \frac{6.02 \times 10^{23} \text{ atoms Mg}}{1 \text{ mole Mg}} = 4242.1 \times 10^{23} \quad \longrightarrow \quad 4.2441 \times 10^{26} \quad \longrightarrow \quad 4.24 \times 10^{26} \text{ atoms Mg}$$