

**Experient 7 - The Copper and Silver Nitrate Reaction**

Mass of copper wire = \_\_\_\_\_ g

Mass of vial and AgNO<sub>3</sub> crystals = \_\_\_\_\_ g

Mass of empty vial = \_\_\_\_\_ g

Observations as the reaction proceeds

Mass of copper at the end = \_\_\_\_\_ g

Mass of silver made = \_\_\_\_\_ g

Calculations

1. Change in mass of the copper wire = \_\_\_\_\_ g

2. Moles of copper that reacted

= \_\_\_\_\_ mol

3. Moles of silver made

= \_\_\_\_\_ mol

4. Ratio of  $\frac{\text{moles Ag made}}{\text{moles Cu used}}$  = \_\_\_\_\_5. Mass of AgNO<sub>3</sub> used = \_\_\_\_\_ g6. Moles of AgNO<sub>3</sub> used

= \_\_\_\_\_ mol

7. Ratio of  $\frac{\text{moles Ag made}}{\text{moles AgNO}_3 \text{ used}}$  = \_\_\_\_\_Questions1. The equation is  $\text{Cu} + 2\text{AgNO}_3 \rightarrow \text{Cu}(\text{NO}_3)_2 + 2\text{Ag}$ 

a. How does your result in calculation 4 compare to the mole ratio shown in the equation?

2. How does your result in calculation 7 compare to the mole ratio shown in the equation?