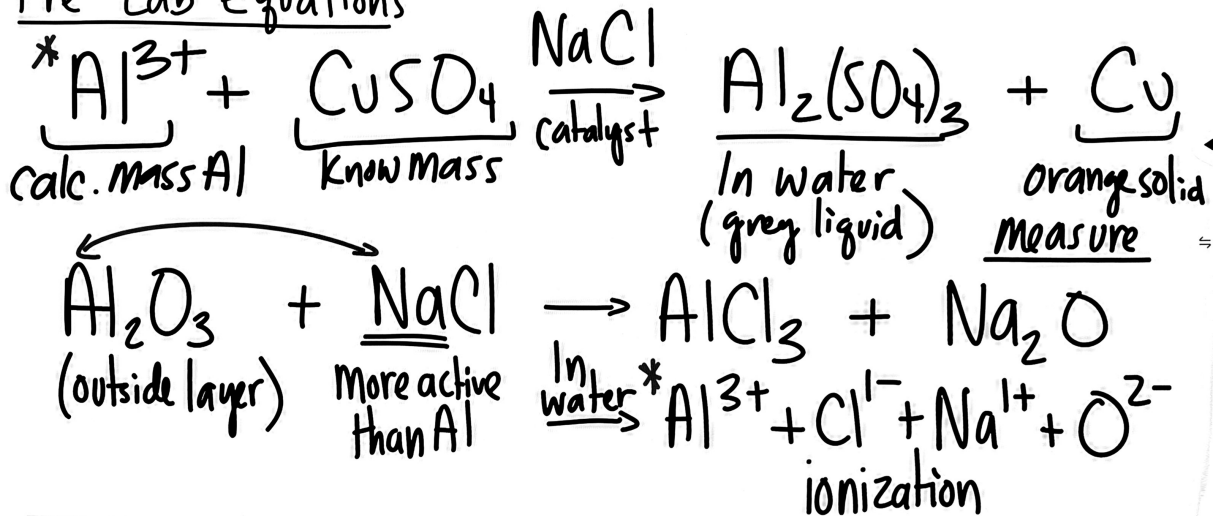
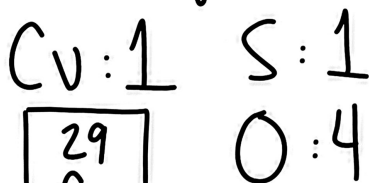
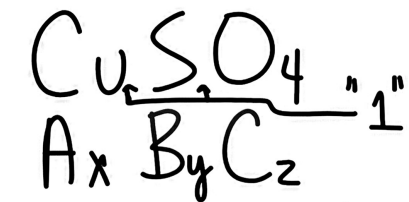


## Pre-Lab Equations



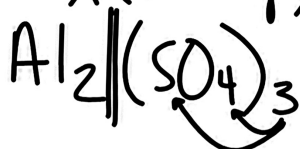
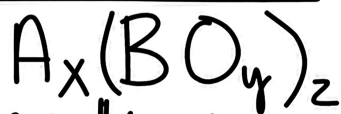
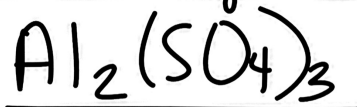
## Calculating Molar Mass



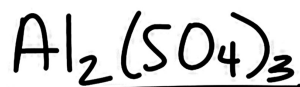
## CuSO<sub>4</sub>

|                   |     |              |
|-------------------|-----|--------------|
| Cu                | 1 x | 63.55g       |
| S                 | 1 x | 32.07g       |
| O                 | 4 x | 16.00g       |
| CuSO <sub>4</sub> |     | 159.62 g/mol |

## Calculating Molar Mass



$$\begin{aligned} \text{Al} : 2 \quad \text{S} : 1 \cdot 3 = 3 \\ \text{O} : 4 \cdot 3 = 12 \end{aligned}$$



|                              |    |             |
|------------------------------|----|-------------|
| Al                           | 2  | 26.98g      |
| S                            | 3  | 32.07g      |
| O                            | 12 | 16.00g      |
| $\text{Al}_2(\text{SO}_4)_3$ |    | 342.17g/mol |

Mar-18-2025 6:35 PM



## Converting mass and mol

3.26 mol  $\text{CuSO}_4$ , convert to mass  $\text{CuSO}_4$

$$\text{MM CuSO}_4 = 159.62 \text{ g/mol}$$

$$3.26 \text{ mol CuSO}_4 \mid 159.62 \text{ g CuSO}_4$$

$$\begin{array}{l|l} \text{Conv. 3} & 1 \text{ mol CuSO}_4 \\ \hline & = 520.36 \text{ g CuSO}_4 \end{array}$$

Conv. 1

mass<sub>A</sub> → mol<sub>A</sub>

$$\frac{\text{g}_A}{1 \text{ mol}_A} \mid \text{MM g}_A$$

mol<sub>B</sub> → mass<sub>B</sub>

$$\frac{\text{mol}_B}{\text{MM g}_B} \mid 1 \text{ mol}_B$$

Conv. 3

Mar-18-2025 6:35 PM



# Converting mass and mol

219.62 g  $\text{Al}_2(\text{SO}_4)_3$ ,  
convert to mol  $\text{Al}_2(\text{SO}_4)_3$

$$\text{MM}_{\text{Al}_2(\text{SO}_4)_3} = 342.17 \text{ g/mol}$$

|                                       |                                    |
|---------------------------------------|------------------------------------|
| 219.62 g $\text{Al}_2(\text{SO}_4)_3$ | 1 mol $\text{Al}_2(\text{SO}_4)_3$ |
|---------------------------------------|------------------------------------|

Conv. 1

|                                       |
|---------------------------------------|
| 342.17 g $\text{Al}_2(\text{SO}_4)_3$ |
|---------------------------------------|

$$= 0.64 \text{ mol } \text{Al}_2(\text{SO}_4)_3$$

Conv. 1

mass<sub>A</sub> → mol<sub>A</sub>

|                |                    |
|----------------|--------------------|
| g <sub>A</sub> | 1 mol <sub>A</sub> |
|                | MM g <sub>A</sub>  |

mol<sub>B</sub> → mass<sub>B</sub>

|                  |                   |
|------------------|-------------------|
| mol <sub>B</sub> | MM g <sub>B</sub> |
|------------------|-------------------|

Conv. 3

|                    |
|--------------------|
| 1 mol <sub>B</sub> |
|--------------------|