Molar Conversions Stations Lab

A: $\frac{g\ Al \mid 1\ mol\ Al \mid 6.02\times10^{23}\ atoms}{26.98\ g\ Al \mid 1\ mol\ Al}$

B is like this
so is D, E, F, G

C: $CuSO_4 \cdot 5H_2O \xrightarrow{\Delta} CuSO_4 + 5H_2O$

$\frac{x\ g\ CuSO_4 \cdot 5H_2O \mid 1\ mol\ CuSO_4 \cdot 5H_2O \mid 5\ mol\ H_2O \mid \_\ g\ H_2O}{\_\ g\ CuSO_4 \cdot 5H_2O \mid 1\ mol\ CuSO_4 \cdot 5H_2O \mid 1\ mol\ H_2O}$

H: $\frac{g\ cream}{total\ g} \times 100\% =$ % composition

compare %, also compare masses

D: $\frac{30\ g\ sugar}{59\ g\ total}$

Mass-to-Mass Relationships Lab

$$CuCO_3 \cdot Cu(OH)_2 \xrightarrow{\Delta} 2\,CuO + CO_2 + H_2O$$

wanted

1.00 g given

$$1.00\,g\ CuCO_3 \cdot Cu(OH)_2 \left| \frac{1\ mol\ CuCO_3 \cdot Cu(OH)_2}{\_\ g\ CuCO_3 \cdot Cu(OH)_2} \right| \frac{2\ mol\ CuO}{1\ mol} \left| \frac{\_\ g\ CuO}{1\ mol\ CuO} \right.$$

theo.

#2

#1: CuO

mass evap. dish + black powder − mass evap. dish = black powder (actual)

$$\%\ yield = \frac{\#1}{\#2} \times 100\%$$

Limiting Reagents Lab

$CuSO_4 + Fe \rightarrow Cu + FeSO_4$

7.00g 2.00g ?

7.00g $CuSO_4$ | | | g Cu

pick smallest

2.00g Fe | | | g Cu

#2:

$3CuSO_4 + 2Fe \rightarrow 3Cu + Fe_2(SO_4)_3$

7.00g 2.00g ?

7.00g $CuSO_4$ | 3 / 3 | g Cu

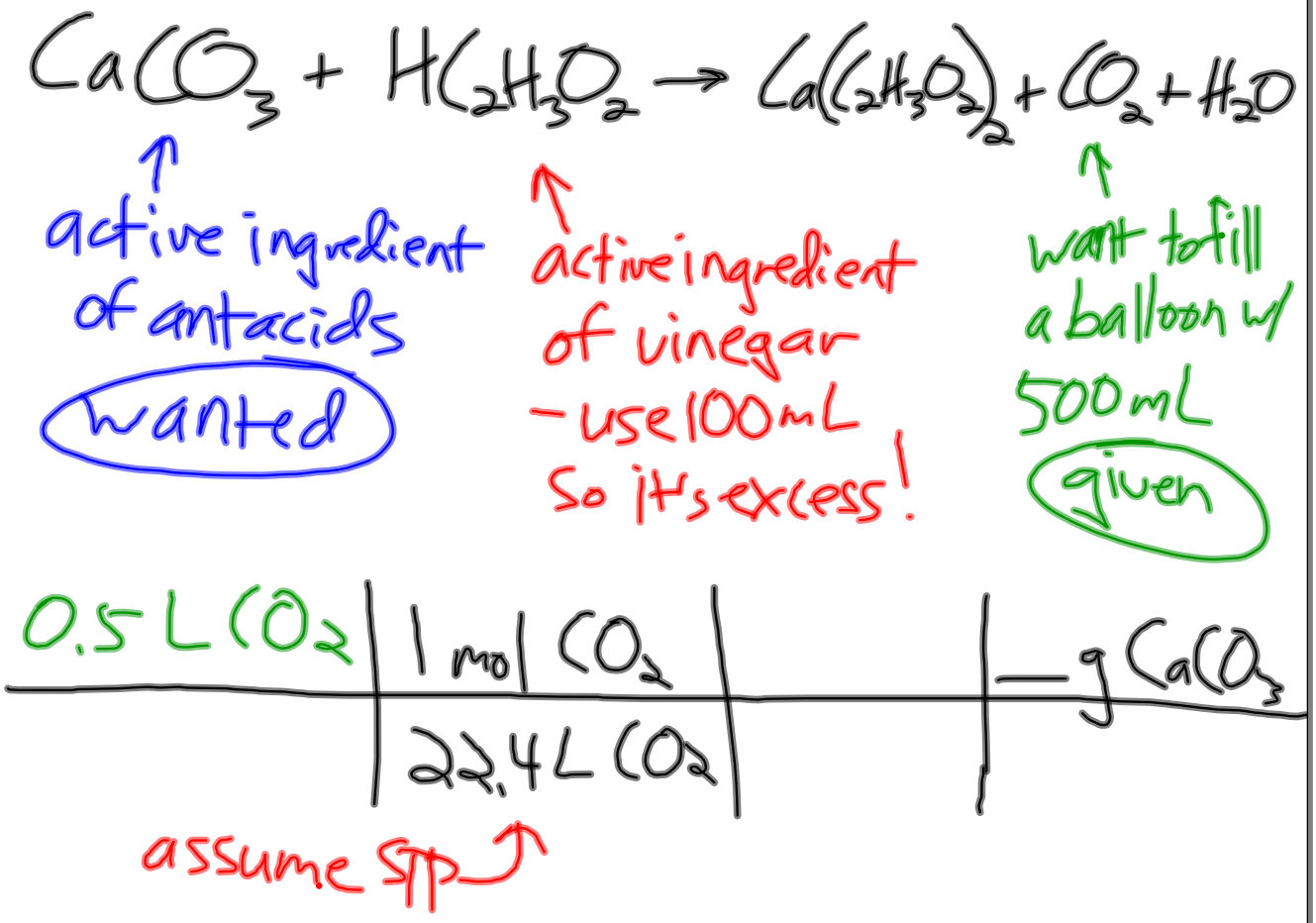
pick smallest

2.00g Fe | 3 / 2 | g Cu

#3) % yield = $\frac{\text{actual}}{\text{theoretical}} \times 100\%$

→ pick the closest mass of Cu

Bulbous Balloon Capstone Lab



For your write-up, you will need:

- header & title
- purpose
- equipment
- materials
- procedure
- calculations
- errors
- conclusion