

C_3H_7OCl

$3(12) + 7(1) + 16 + 35 = 94 \text{ g/mole}$

6.02×10^{23}
molecules in 1 mole

Mass on PT

1 mole

22.4 L
at STP

STP

6.02×10^{23}
molecules

① $\frac{0.0025 \text{ moles}}{1 \text{ mole}} \times 94 \text{ g} = 0.235 \text{ g}$

② $\frac{5.6 \times 10^3 \text{ g}}{94 \text{ g}} = 59.57 \text{ moles}$

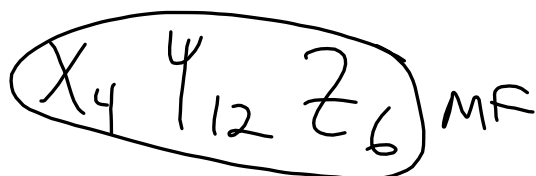
Mole testCHAP 7

- ① Mole - mole FCM Conversions
- ② Hydrate $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
- ③ % error = $\frac{|\text{Act} - \text{Exp}|}{\text{Act}} \times 100$ % Yield = $\frac{\text{got}}{\text{Supposed to get}} \times 100$
- ④ % Composition = $\frac{\text{Part}}{\text{Whole}} \times 100$
- ⑤ Molecular \leftrightarrow empirical formulas
- ⑥ % (grams) \rightarrow empirical formula
 $\% \rightarrow \text{g} \rightarrow \text{mole} \rightarrow \div \text{by smallest \#} \rightarrow$
- ⑦ Subscripts + coefficients
- ⑧ Molarity - Basic - Defn

$$\frac{\text{miles}}{1.33} \times 3 = 4$$

$$4 \times 3 = 12$$

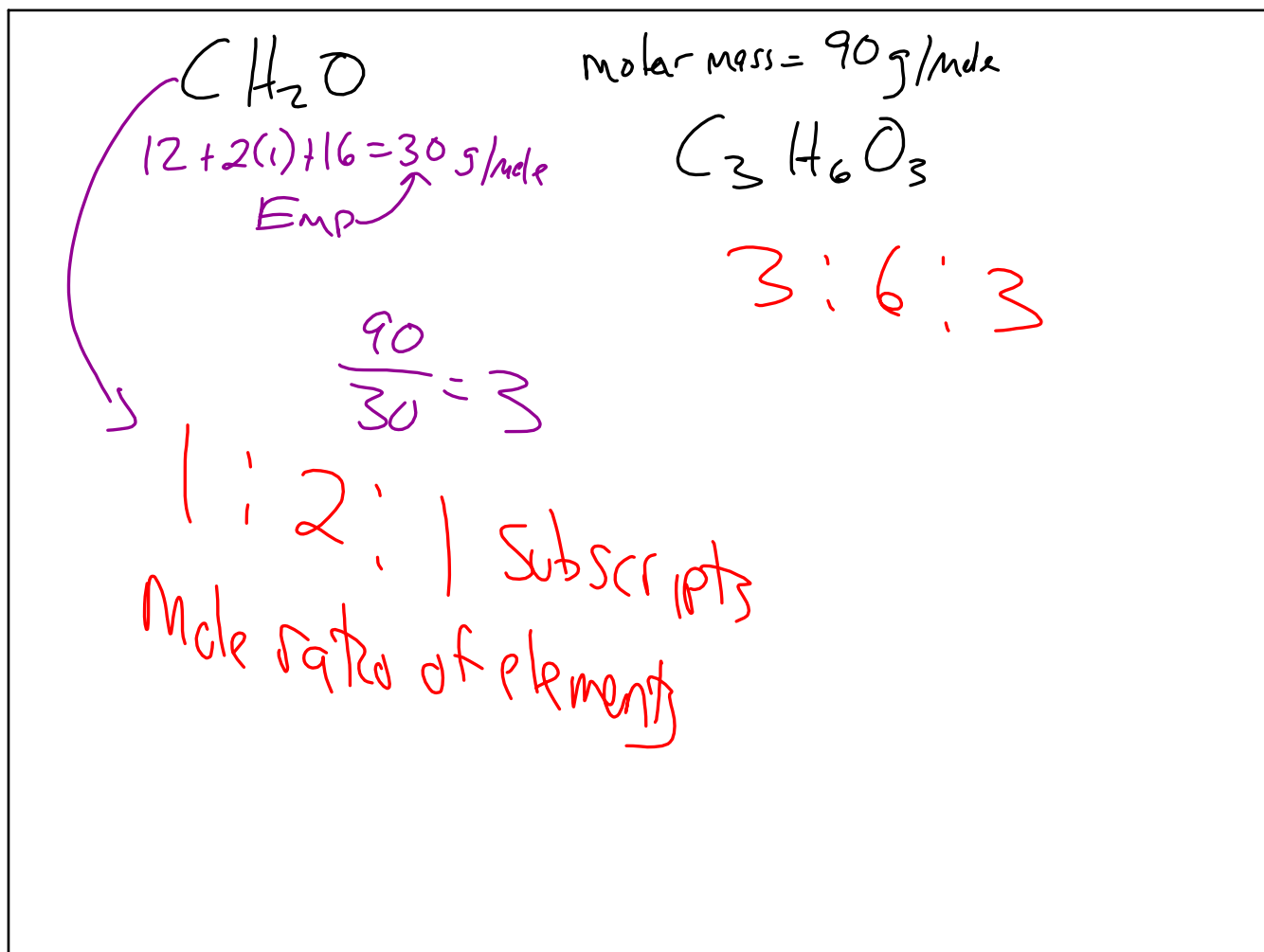
$$2 \times 3 = 6$$

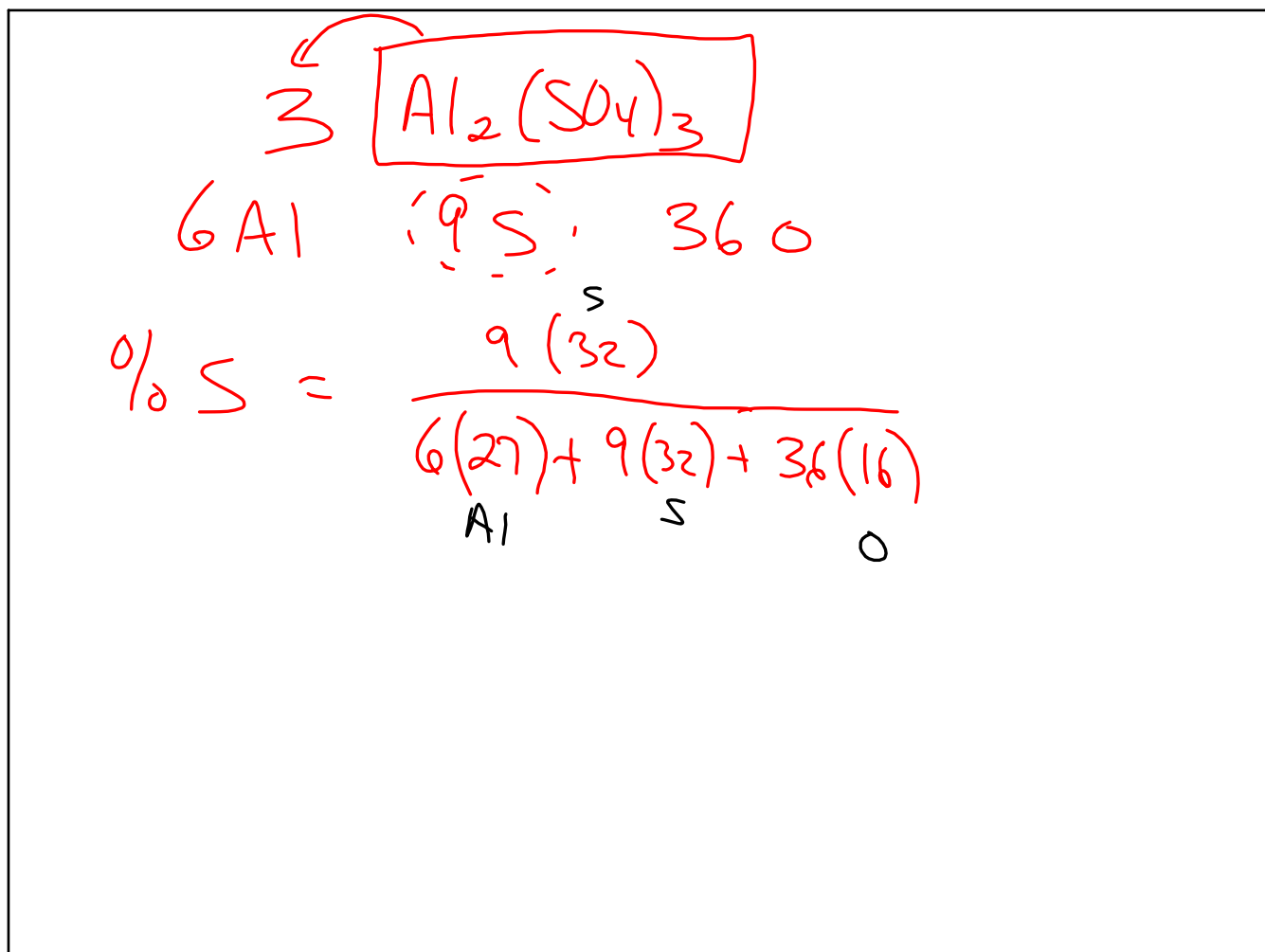


63.52% Iron + 36.48% S

$$\frac{63.52 \text{ g Fe}}{56 \text{ g Fe}} \text{ / mole Fe} = 1.134 \text{ /mole Fe} \quad \text{FeS}$$

$$\frac{36.48 \text{ g S}}{32 \text{ g S}} \text{ /mole S} = 1.14 \text{ /mole S}$$





$10\text{g CO}_2 = \text{_____ atoms of C}$

| | | | |
|-------------------------------|-------------------------------|---|----------------------------|
| 10g CO₂ | 1 mole CO ₂ | 1 mole C <small>element</small> | 6×10^{23} atoms C |
| | 44g CO₂ | 1 mole CO ₂ <small>compound</small> | 1 mole C |

(Mole)

6×10^{23} atoms of element
 6×10^{23} molecules compound
 22.4 L gas
 1000 g