

4. PERCENT YIELD

CH30S

UNIT 2 – CHEMICAL REACTIONS

MR. WIEBE

(A.K.A. "What you got compared to what you shoulda got!")

1

YOU CAN'T ALWAYS GET WHAT YOU WANT!

$$\text{Percentage Yield} = \frac{\text{Actual Yield}}{\text{Theoretical Yield}} \times 100\%$$

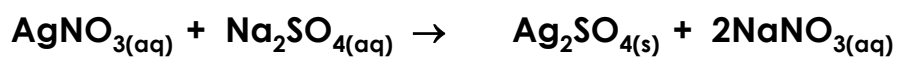
Actual Yield is what is experimentally **measured in the lab**.

Theoretical Yield is what is **calculated** using stoichiometry.

2

EXAMPLE #1

In an experiment 152. g of AgNO_3 is reacted with excess Na_2SO_4 . After the reaction is complete, 75.1 g of Ag_2SO_4 was collected. Calculate the percentage yield.



3

EXAMPLE #2

Calculate the theoretical yield in litres at STP of CO_2 in the reaction of 100.0 g of Fe_2O_3 . If the actual yield was 19.0 L @ STP, calculate the percentage yield.



4