

Chemistry - Stoichiometry

Percent Yield

What is meant by percent?

$$\% = \frac{\textit{Part}}{\textit{Total}} \times 100\%$$

Example: What is your percent grade on a test that has 36 questions and you only got 33 correct?

Extend that logic: What is the percent yield for a reaction that should produce 6.35 g of product but only produced 4.50 g?

Vocabulary: Theoretical Yield

Actual Yield

Percent Yield

Example: In a synthesis reaction zinc reacts with iodine. Write the balanced chemical equation and predict the theoretical yield if 125.0 g of zinc was used. If 515.6 g were produced by the reaction in the lab, what is the percent yield?

Example: Try this on your own.

When heated, calcium oxide is produced from decomposing calcium carbonate. The other produce is carbon dioxide.

- a. What is the theoretical yield of CO_2 from the decomposition of 235.0 g of calcium carbonate?
- b. What is the percent yield if 97.5 g of CO_2 is recovered?