

## Chemistry Chapter 12

1. **Actual Yield:** the amount of product actually produced when a chemical reaction is carried out in an experiment.
2. **Excess Reactant:** a reactant that remains after a chemical reaction stops.
3. **Limiting Reactant:** a reactant that is totally consumed during a chemical reaction, limits the extent of the reaction, and determines the amount of product.
4. **Mole Ratio:** in a balanced equation, the ratio between the numbers of moles of any two substances.
5. **Percent Yield:** the ratio of actual yield (from an experiment) to theoretical yield (from stoichiometric calculations) expressed as a percent.
6. **Stoichiometry:** the study of quantitative relationships between the amounts of reactants used and products formed by a chemical reaction; is based on the law of conservation of mass.
7. **Theoretical Yield:** in a chemical reaction, the maximum amount of product that can be produced from a given amount of reactant.

### Key Equations

$$\text{Moles of known} \times \frac{\text{moles of unknown}}{\text{moles of known}} = \text{moles of unknown} \quad \text{pg. 358}$$

$$\frac{\text{actual yield (from experiment)}}{\text{theoretical yield (from stoichiometric calculations)}} \times 100 = \text{percent yield} \quad \text{pg. 370}$$