Stoichiometry

Definition

Stoichiometry is the science of determining the relative proportions or quantity ratios, in which substances react.

Balancing Chemical Equations

Coefficients are numbers that show the proportions of reactants and products in a reaction in moles.

Guidelines for Balancing

- 1. Write the skeleton (unbalanced) equation.
- 2. Balance the equations using coefficients.
 - a. Balance elements other that H and O first.
 - b. Balance polyatomic ions as a group of atoms (not as individual atoms)
 - c. Balance H
 - d. Balance O note that you may use ½ if you are comfortable with it!!

Eg.
$$C_3H_8O + 9/2 O_2 \rightarrow 3CO_2 + 4H_2O$$

 $2C_3H_8O + 9O_2 \rightarrow 6CO_2 + 8H_2O$

3. Check that the coefficients are in the lowest ratio possible.

Complete p. 321-324 Q 1-3