

Combined Foundation

$$1\text{dm}^3 = 1000\text{cm}^3$$

$$\text{Percentage mass} = \frac{\text{Mass of element}}{\text{Formula Mass}} \times 100$$

$$\text{Conc.} = \frac{\text{Mass of substance (g)}}{\text{Volume of solvent (dm}^3\text{)}}$$

Combined Higher

$$\text{Moles} = \frac{\text{Mass(g)}}{\text{Formula Mass}}$$

$$\text{Conc.} = \frac{\text{Amount of solute (mol)}}{\text{Volume of solvent (dm}^3\text{)}}$$

Avogadro's Constant: 1 mole =
 6.02×10^{23} molecules / particles / ions

Separate Foundation

$$\% \text{ Yield} = \frac{\text{The mass you get}}{\text{Theoretical yield}} \times 100$$

$$\text{atom economy} = \frac{\text{molecular mass of the desired product}}{\text{sum of molecular masses of all reactants}}$$

Separate Higher

$$\text{Moles of a gas} = \frac{\text{Volume in dm}^3}{24}$$

Titration calculations using the mole and concentration equations