More Titration Questions

COMMON FORMULAE

Hydrochloric acid = HCl, Sodium hydroxide – NaOH, Sodium sulphate = Na_2SO_4, Sodium nitrate = $NaNO_3$, Nitric acid = HNO_3, Sulphuric acid = H_2SO_4, Sodium hydroxide – NaOH, Sodium sulphate = Na_2SO_4, Sodium nitrate = $NaNO_3$, Phosphoric acid = H_3PO_4, Sodium phosphate = Na_3PO_4, Potassium sulphate = K_2SO_4

Answer the titration calculation questions in your book, be sure to remember that 1 litre = 1 dm^3= 1000 cm^3 or 1000 ml and that mol/dm^3 = concentration

1. 10.0 cm^3 of a solution of potassium hydroxide was titrated with a 0.10 mol/dm^3 solution of hydrochloric acid. 13.5 cm^3 of the acid was required for neutralization. Calculate the concentration of the potassium hydroxide solution. 0.135mol/dm^3

2. Calculate the concentration of an ethanoic acid solution if 34.57 cm^3 of this solution are needed to neutralize 25.19 cm^3 of 0.1025 mol/dm^3 sodium hydroxide. 0.075mol/dm^3 (2sf)

$$CH_3COOH\ (aq) + NaOH\ (aq) \rightarrow Na^+(aq) + CH_3COOH^-(aq) + H_2O\ (l)$$

3. 25.00cm^3 of 0.100 mol/dm^3 NaOH is needed to titrate 25.00cm^3 of a solution of hydrochloric acid. Calculate the concentration of the acid. 0.100mol/dm^3

4. 23.15cm^3 of 0.125 mol/dm^3 NaOH is needed to titrate 25.00cm^3 of a solution of hydrochloric acid. Calculate the concentration of the acid. 0.12mol/dm^3 (2sf)

5. 25.00cm^3 of 0.200 mol/dm^3 NaOH is needed to titrate 25.00cm^3 of a solution of sulphuric acid. Calculate the concentration of the acid. 0.1mol/dm^3