$$N_{\mathrm{A}} = 6.023 \times 10^{23} \; \tfrac{\text{units}}{\text{mol}}$$

$$(\text{w/v}) \, \% = \frac{\text{g solute}}{\text{mL solution}} \times 100$$

$$(\text{v/v}) \, \% = \frac{\text{mL solute}}{\text{mL solution}} \times 100$$

$$\mathrm{M} = \frac{\text{mol solute}}{\text{L solution}}$$

$$\mathrm{M}_1 \mathrm{V}_1 = \mathrm{M}_2 \mathrm{V}_2$$

$$\text{pH} = -\log_{10} \left[\mathrm{H_3O^+} \right]$$

$$\text{pOH} = -\log_{10} \left[\mathrm{OH} \right]$$

$$K_{\mathrm{a}} = \left[\mathrm{H_3O^+} \right] \left[\mathrm{OH^-} \right] = 1 \times 10^{-14}$$