

# Chemistry 30 Equivalency Test

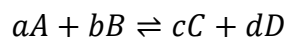
## Formula Sheet

$$Q = mc\Delta t$$

$$\Delta H = n\Delta H_m$$

$$\Delta H = -Q_{\text{calorimeter}}$$

$$\Delta H_r^\circ = \sum n\Delta_f H_{m,\text{products}}^\circ - \sum n\Delta_f H_{m,\text{reactants}}^\circ$$



$$K_c = \frac{[C]^c [D]^d}{[A]^a [B]^b}$$

$$K_w = [H_3O^+(aq)][OH^-(aq)] = 1.0 \times 10^{-14}$$

$$pH + pOH = 14.00 \text{ @SATP}$$

$$\Delta E^\circ = E_{r,\text{cathode}}^\circ - E_{r,\text{anode}}^\circ$$

$$Q = It$$

$$n_{e^-} = \frac{It}{F}$$

$$pH = -\log[H_3O^+(aq)]$$

$$[H_3O^+(aq)] = 10^{-pH}$$

$$pOH = -\log[OH^-(aq)]$$

$$[OH^-(aq)] = 10^{-pOH}$$

$$K_a K_b = K_w$$

$$[H_3O^+(aq)] = \sqrt{K_a \times [HA(aq)]}$$

$$[OH^-(aq)] = \sqrt{K_b \times [A^-(aq)]}$$