

18.2 Calculations involving acids and bases

Understandings:

- The expression for the dissociation constant of a weak acid (K_a) and a weak base (K_b).
- For a conjugate acid base pair, $K_a \times K_b = K_w$.
- The relationship between K_a and pK_a is ($pK_a = -\log K_a$), and between K_b and pK_b is ($pK_b = -\log K_b$).

Applications and skills:

- Solution of problems involving $[H^+ (aq)]$, $[OH^-(aq)]$, pH, pOH, K_a , pK_a , K_b and pK_b .
- Discussion of the relative strengths of acids and bases using values of K_a , pK_a , K_b and pK_b .