Titration Curves

Weak Base   +   Strong Acid

0.1 M NH_3 0.1 M HCl

25.0 mL   20.0 mL

2.5 x 10^{-3} mol

K_a = 1.8 x 10^{-5}

pH = 8.65

$$pOH = pK_b + \log \frac{[NH_4^+]}{[NH_3]}$$

5.0 x 10^{-4} mol NH_3

2.0 x 10^{-3} mol NH_4^+

V = 45 x 10^{-3} L

$$pOH = 4.74 + \log \frac{(0.44)}{(0.11)} = 5.34$$

pH

volume HCl added (mL)