

Ch. 16.4-16.5: Acid-Base Titrations and Indicators

**Homework 16-5:** Problems pg. 722 #22, 24, 29, 35; Additional Problem: How many mL of 0.0850 M NaOH are required to titrate 25.0 mL of 0.128 M  $\text{CH}_2\text{ClCOOH}$  (chloroacetic acid,  $K_a = 1.38 \times 10^{-3}$ ) to the equivalence point? What is the pH of the solution at the equivalence point?

24  $\mathcal{M}(\text{H}_2\text{A}) = 90.1 \text{ g/mol}$

29  $\text{pH} = 5.82$

Additional Problem

$$V_{\text{NaOH}} = 37.6 \text{ mL NaOH}$$

$$\text{pH} = 7.78$$