**Topics: Titration Homework**

1. What is the concentration of an HCl solution if it takes 35 mL of 0.45 M NaOH to neutralize 150 mL of the HCl?
2. What is the pH of the solution in problem 1?
3. I’ve got a large quantity of NaOH solution in my stockroom. If it takes 83.4 mL of 0.0050 M HCl to neutralize 25 mL of this solution, what is the concentration of the NaOH?
4. What is the pH of the solution in problem 3?
5. How can you tell when a titration has finished?
6. 65 mL of a solution of nitric acid have been titrated with 245 mL of 0.0005 M sodium hydroxide. Given this information, indicate the:
7. Concentration of the nitric acid solution:
8. pH of the nitric acid solution: