

Experiment 05

pH Titration Report Form

Name: _____

Date: _____

Data

Class Ticket: _____

Prelab questions

1. In Experiment 2, you calibrated a pipette. Note the calibrations for 2 mL, 1 mL, 0.5 mL, and one drop.

Pipette Reading	Actual Value
2.0 mL	
1.0 mL	
0.5 mL	
1-drop	

2. In Experiment 4, you prepared a solution of Na_2CO_3 . What is the concentration of that solution?

The concentration of the Na_2CO_3 is _____ M.

Lab Report

Table 1:

Data: First Titration		Plot these columns	
Nominal mL added by pipette	Actual mL added with pipette	Total mL added with pipette	pH
0 mL	0 mL		
+ 2 mL			
+ 2 mL			
+ 2 mL			
+ 2 mL			

Etc., for as many points as you have for this data set.

Table 2

Summary Table	
<u>Average concentration and standard deviation of acetic acid Part A in calculations</u>	
<u>Average concentration and standard deviation of acetic acid Part B in calculations</u>	

Questions

1. Draw by hand on one of your Excel graphs what a strong acid/strong base titration curve would look like. Attach your marked-up Excel graph to this report.
2. Provide your Q_{data} and the Q_{critical} for your data.

Q_{data} _____

Q_{critical} _____

3. Calculate the molarity of a solution of potassium hydroxide if 19.55 mL is required for the titration of a 20.20 mL sample of a 0.3467 M sulfuric acid solution.