INTRODUCTION TO TITRATION

Name: _____ Date: _____ Station #: _____

Objective: To practice dilution, and the use of titration for volumetric analysis and to familiarize with all the techniques necessary to perform successful titrations in future.

Procedure: As in CHEM 1105 lab manual, pages _____.

Observations:

Part I:

Part II:

Data:

Part I:

Concentration of pipetting solution =

Volume of solution pipetted =

Total volume of dilute solution prepared =

Part II:

Molarity of NaOH: _____

Volume of HCl pipetted: _____

	Run 1	Run 2	Run 3	Run 4
Initial burette vol. (mL)				
Final burette vol. (mL)				
Vol. of NaOH used (mL)				
End Point colour				

Calculations:

Part I:

Calculate the final concentration of the diluted solution

Part II:

1. Calculate the % difference between runs 1 & 2, runs 2 & 3 and runs 1 & 3.

$$\%\ difference = \left| \frac{V_1 - V_2}{\left(\frac{V_1 + V_2}{2}\right)} \right| \times 100\%$$

2. Calculate the concentration of the unknown HCl solution.

Conclusion:

Questions:

1. Why did you not rinse out your Erlenmeyer flasks with acid before you pipetted the acid in?

2. Would it matter if your Erlenmeyer flasks were wet (with distilled water) when you pipetted the acid into them?

3. Would your titration volumes have changed if your beakers had not been dry and before you put the acid or base into them? Why?