

Name: _____

Titration Lab Report

PART A: MAKING A SODIUM HYDROXIDE SOLUTION FROM SOLID NaOH

1. Ask your teacher for the concentration of NaOH that you are to make ($C_{\text{NaOH}} = \text{_____ M}$)
2. Show a calculation for the mass of NaOH required to make 100 mL of solution at your assigned concentration. Please include significant digits
3. Make your solution as per the teachers instructions and store as required.

PART B: TITRATION OF NaOH AGAINST 0.1 M HCl

4. Clean and set up a single burett titration station as described by your teacher. Use 0.1 M HCl as your **titrant** (solution in the burett that you titrate with).
5. Carefully measure out a 25 mL aliquot of your NaOH solution for use as the **analyte**. Use bromothymol blue as the indicator. Be sure to use white paper to aid in colour determination.
6. Titrate with HCl and record your observations. Repeat as time permits.

| | Volume of NaOH Analyte | Volume of 0.1 M HCl Titrant |
|----------|------------------------|-----------------------------|
| Trial #1 | 25 mL | |
| Trial #2 | 25 mL | |
| Trial #3 | 25 mL | |
| Trial #4 | 25 mL | |

