

## EXPERIMENT 3

### PERCENTAGE OF ACETIC ACID IN VINEGAR

Name	.....
Section / Course	.....
Partner's Name (if applicable)	

**Objective** : .....

.....

.....

#### Data

Concentration of sodium hydroxide ( NaOH ) : ..... M.

Brand of vinegar : .....

Weight of volumetric flask + vinegar : .....

Weight of empty volumetric flask : .....

Weight of vinegar : .....

Listed concentration of  $\text{HC}_2\text{H}_3\text{O}_2$  in vinegar from bottle (% w/w) : .....

**A . Titration data**

Buret readings (mL)	<b>Trial 1</b>	<b>Trial 2</b>	<b>Trial 3</b>
Final reading			
Initial reading			
Volume of NaOH			

Average volume of NaOH : .....

**Data processing**

1. Calculate the molarity of acetic acid after the titration.

2. Calculate the concentration of acetic acid in g/L..

3. Calculate the weight of acetic acid in the original sample.

4. Calculate the percentage of acetic acid in your vinegar sample.

5. Different vinegars may have percentage of acetic acid. Is vinegar a mixture or an element?

### **Conclusions**

1. Has the vinegar truthfully reported the percent acidity? Support your answer with data.