

Answers/analyses should be written in **third person** and **past tense**. Do not use “I” or “we” when writing scientific reports.

**Name:**

**Lab Partner(s):**

**Date of Experiment:**

**Date of Report:**

### **Abstract**

Write this section **LAST** even though it appears on the first page of the report. An abstract should be <150 words in paragraph form and a very short version of your conclusion.

**Approach to the abstract:**

1. Write your report and conclusion.
2. Construct your abstract to very briefly summarize the purpose of the experiment and report the results.
4. Cite the sources of any values. Use endnotes in APA format. Refer to the citations within the text.
5. Start your report on the **next** page.

### **Background**

In your own words, explain the background information/concepts/theory needed to understand the experiment. Present the theory behind the experiment, the purpose of the experiment, and any chemical or mathematical equations relevant to the experiment. This section is usually 4-5 paragraphs but may be shorter or longer depending on the experiment.

### **Results and Discussion**

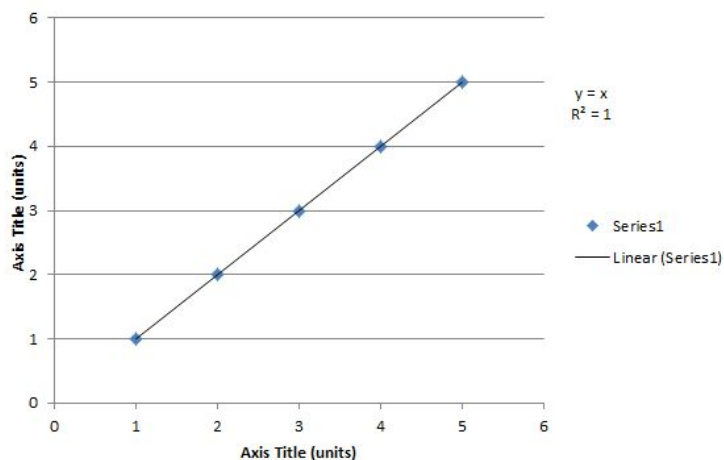
This section will be paragraphs of text with graphs used to illustrate the points that you are making.

Present your data by writing a short paragraph explaining the experiment or trial and then referring to Figure 1, Figure 2, Figure 3, etc. as appropriate. Paste them in as .jpg or other graphic file type. Make sure that the data points are connected so that the shape of any curves are evident. Also be sure that the resolution is high enough so that all important aspects of the graph are readable.

As you present your figures, explain the significance of the equivalence points and midpoints and the resultant values that you determined from the data.

For all figures:

- label the axes
- include a descriptive caption detailing what you learned from the graph
- state whatever useful data you have to describe the equivalence points.
- if possible, mark and label the equivalence points and midpoints



**Figure 1. Graph Here: X vs. Y.** Add a descriptive caption (1-2 sentences, point out important features). Be sure to label axes properly and include units. If appropriate, do a linear regression or other fit if appropriate and include the equation and R-squared on the graph. Define variables and summarize information obtained from the graph.

You may include a data table to illustrate how you determined the equivalence points. Label the tables appropriately (Table 1, Table 2, etc.) and include descriptive captions as you did in previous reports.

If you used first/second derivative plots, include those as figures. State in each caption what you learned from that plot.

Don't forget to report the code/number/letter and molar mass of your unknown!

## **Conclusion**

In paragraph form, present your final results for the experiment and explain what the results mean. You should include any conclusions that you were able to make from the experiment. Include relevant information and cite appropriate sources. Analyze experimental errors and comment on improvements you would make if you were to do the experiment again.

## **References**

Endnotes in Journal of the American Chemical Society format.