

## Laboratory Recording Form

Report Title: \_\_\_\_\_

Author	Team Members
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Lab reports are done individually. Team members may collaborate on a report. **NO COPYING FROM OTHER SOURCES!** Fill out completely and hand in this form at the end of the laboratory. It will be returned to you and you **MUST** bring it to the next laboratory to write your full report.

### INTRODUCTION

Describe the system under study

State the purpose/hypothesis of the investigation. First identify the variables in the experiment. Then state the hypothesis or outcome of the experiment that you expect.

How does this experiment relate to anything useful or practical? How might study of the topic of this lab benefit or affect humanity? What application might use the results of this study?

### **THEORY**

What is known about the "system" that you are studying? List needed equations and define each variable in the equations.

Do any of the formulas make assumptions that might not be correct in the "real life" experimental situation?

List important rules that need to be followed in setting up the apparatus and in performing the experiment so that you can better compare theory and measurements.

### **DATA PROCESSING**

Explain any special computing or processing needed for interpreting the experimental data

## **QUESTION**

## **EQUIPMENT**

Complete List of Equipment

## **APPARATUS SKETCH**

Draw the apparatus setup and label each component used in the activity

## PROCEDURE

List the steps you took to do the experiment (setup, calibration and experiment)

## **SAFETY**

Important Safety Precautions

## **CALIBRATION**

Sketch of calibration setup and calibration data

## **EXPERIMENTAL DATA**

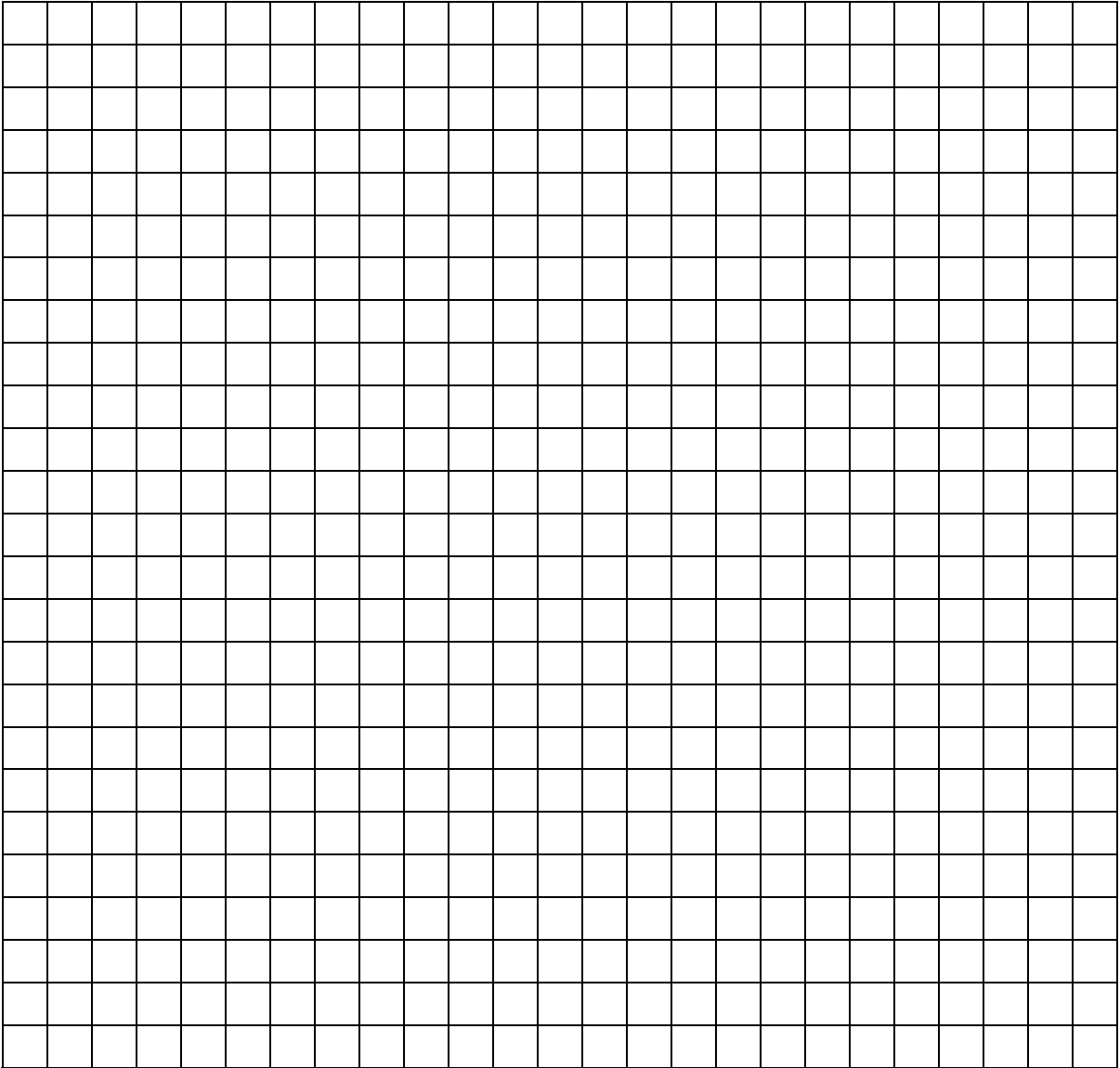
Make independent measurements of every value carefully several times. Compute averages and standard deviations. Summarize all data in tables with clear labels and estimate the uncertainty in EVERY value.

## **CALCULATIONS**

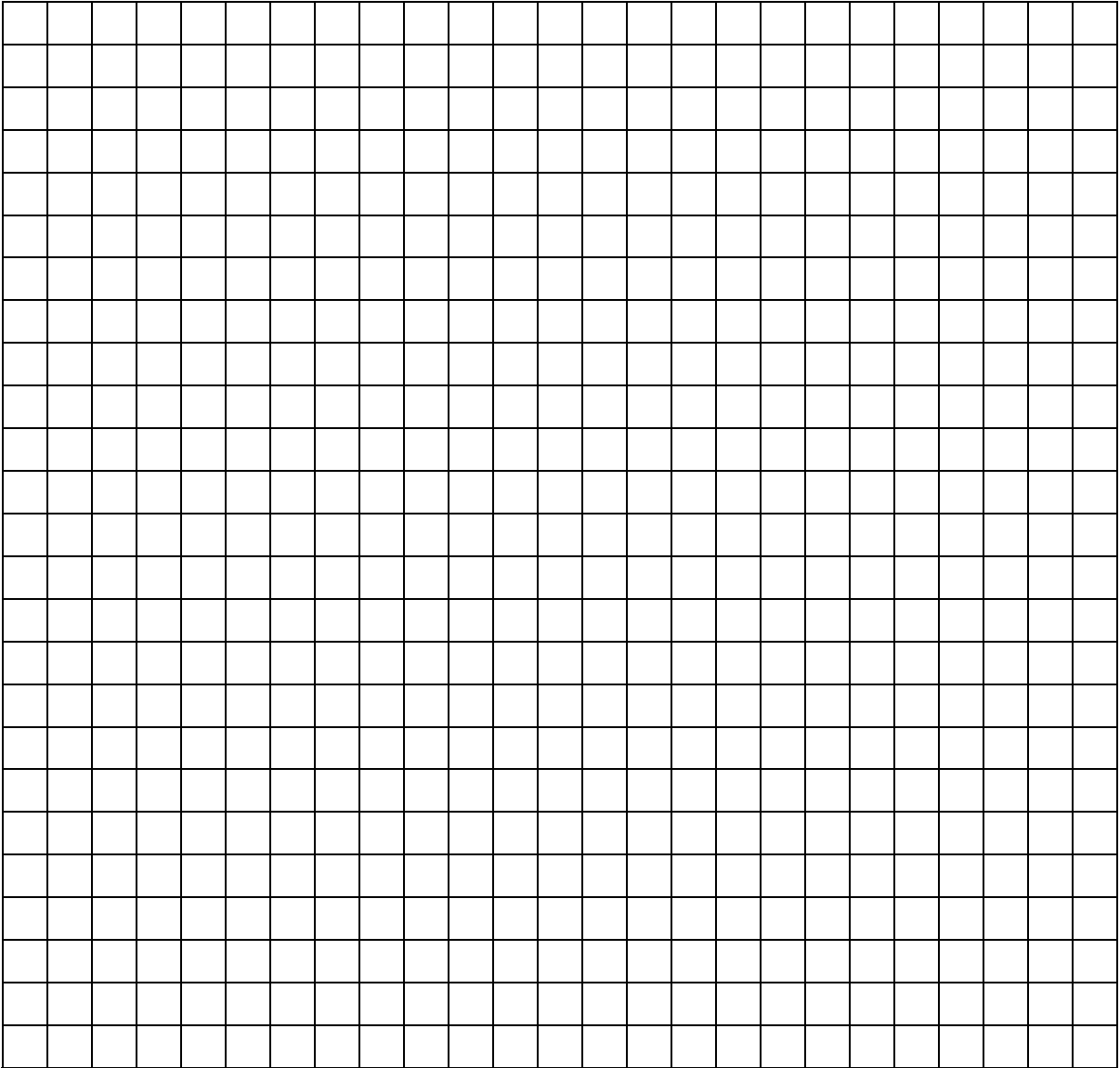
Give an example of each calculation



## GRAPHS



# GRAPHS



### MAIN CAUSES OF UNCERTAINTY

List every type of measurement made in this experiment, estimate its uncertainty and describe the main causes of uncertainty in each value.

<b>Measurement</b>	<b>Uncertainty</b>	<b>Main Causes of Uncertainty in the Measurement</b>

### **IMPROVEMENT SUGGESTIONS**

How could this activity be improved? List 2 specific suggestions that would make this a better experiment.

### **FOLLOW-UP SUGGESTIONS**

What additional other scientific experiment could be done to learn more about the topic of this lab?

### **REFERENCES**

Author, Title, Chapter, Page(s), Publisher, Date of Publication. Include listings of any computer programs and addresses of websites used