

Name: \_\_\_\_\_ Hour: \_\_\_\_\_ Group Number: \_\_\_\_\_

Lab Title/Purpose: \_\_\_\_\_

**Introduction:**

The Independent variable in this investigation was \_\_\_\_\_, measured in units of \_\_\_\_\_.

Our method of collecting data was \_\_\_\_\_

Uncertainties in our measurements include: \_\_\_\_\_

The Dependent variable in this investigation was \_\_\_\_\_, measured in units of \_\_\_\_\_.

Our method of collecting data was \_\_\_\_\_

Uncertainties in our measurements include: \_\_\_\_\_

Scientific Constants for this investigation are (give names and values): \_\_\_\_\_

**Data:**

Measured Independent Variable	Measured Dependent Variable	Calculated value (if needed)	Calculated value (if needed)	Original Graph: _____(y) versus _____(x)
Name: _____ Units: _____	Name: _____ Units: _____	Name: _____ Equation: _____ Units: _____	Name: _____ Equation: _____ Units: _____	

Name \_\_\_\_\_ (units \_\_\_\_\_)

m = \_\_\_\_\_

b = \_\_\_\_\_

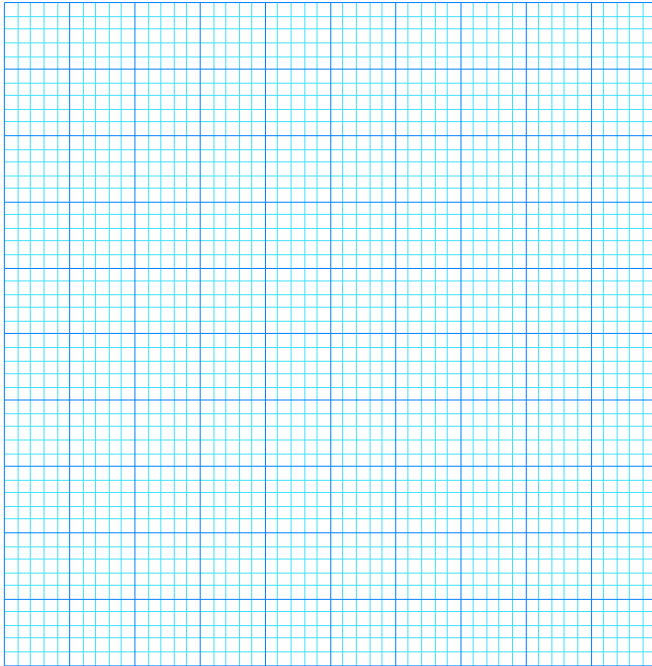
COR = \_\_\_\_\_

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Linearized Graph (if needed): \_\_\_\_\_(y) versus \_\_\_\_\_(x)

N  
A  
M  
E



U  
N  
I  
T  
S

Name \_\_\_\_\_ (units \_\_\_\_\_)

**m** = \_\_\_\_\_

**b** = \_\_\_\_\_

**COR** = \_\_\_\_\_

**Calculate 5% of Maximum y data:**

**The Equation** derived from our data is:

(remember to put units on the numbers, if data is linearized it will fit the form  $y = mx + b$ )

**Discussion of Results:**

**Relationship**

Our results show a (proportional, linear, equal) relationship between \_\_\_\_\_ (x-axis item) and \_\_\_\_\_ (y-axis item). The found relationship compares (favorably, unfavorably) with the expected result of \_\_\_\_\_ (textbook equation) which shows a (proportional, linear, equal) relationship.

**Analysis of Y-Intercept**

The y-intercept of our found equation is \_\_\_\_\_ (y-intercept value, could be negligible, + units) meaning when \_\_\_\_\_ (x-axis item) is zero, \_\_\_\_\_ (y-axis item) is \_\_\_\_\_ (y-intercept value, could be negligible).

The accepted results predict a beginning value of \_\_\_\_\_ (y-intercept of textbook equation- or real world value). Our results have an error of \_\_\_\_\_ % with this prediction.. This calculation is shown below

\_\_\_\_\_

% error calculation:  $| \text{accepted-ours} | / \text{accepted} * 100 = \% \text{ error}$   
\*If error < 10 % : This error is small, our success could be attributed to

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*If error > 10% : The error could be due to (DO NOT SAY HUMAN ERROR)

\_\_\_\_\_  
\_\_\_\_\_

Note: If you do not have numbers to compare, then discuss whether or not the y-intercept value is reasonable.

**Analysis of Slope**

The slope of our found equation is \_\_\_\_\_ (slope value + units), this tells us how much \_\_\_\_\_ (y-axis item) changes for every \_\_\_\_\_ (unit of x-axis) change of \_\_\_\_\_ (x-axis item).

The accepted results predict a rate of change of \_\_\_\_\_ (slope of textbook equation- or real world value), our results have an error of \_\_\_\_\_ % with this accepted value. This calculation is shown below:

\_\_\_\_\_

% error calculation:  $| \text{accepted-ours} | / \text{accepted} * 100 = \% \text{ error}$   
\*If error < 10 %: This error is small, our success could be attributed to

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*If error > 10% : The error could be due to (Do NOT SAY HUMAN ERROR)

\_\_\_\_\_  
\_\_\_\_\_

Note: If you do not have numbers to compare, then discuss whether or not the slope value is reasonable.

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