

## Problem Solving Lab Notebook Grading

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| <b>Pre-Lab: Done before the lab is conducted. (3pts)</b> | <p>3pts</p> <p>The Problem is Clearly stated and is rephrased in a manner that allows the reader to know what physical quantity is being investigated.</p> <p>The concepts you believe you will use are stated.</p> <p>You have a plan to get the desired variable &amp; you've stated what will be measured, &amp; what will be calculated.</p>   |   | <p>1pt</p> <p>The Problem is stated.</p> <p>Some concepts are stated, but their connection to the lab is not clearly stated.</p> <p>You have a plan to get the desired variable.</p>   |
| <b>Procedure (3pts)</b>                                  | <p>3 pts</p> <p>Procedure is clearly stated. A freshman could understand what you did and why.</p>   | <p>2 pts</p> <p>Procedure isn't very clear and makes several assumptions of knowledge. Your classmates would have a challenging time figuring out what you did.</p>   | <p>1pt</p> <p>Not even Einstein could figure out what you did.</p>   |
| <b>Data (5 pts)</b>                                      | <p>5 pts</p> <p>The data was recorded in the notebook when you first made the measurements. The data is in a data table.</p> <p>Appropriate graphs are plotted with the data points and a best fit curve/line run through the data. The equation for the curve should be included.</p> <p>The graphs are permanently attached on their own sheet within the notebook</p> <p>Sources of error are clearly discussed with all data collected and how it affects the results.</p> | <p>3 pts</p> <p>The data was recorded in the notebook.</p> <p>Appropriate graphs are plotted with the data points and a best fit curve/line run through the data. The equation for the curve should be included.</p> <p>The graphs are attached on their own sheet within the notebook</p> <p>Sources of error are discussed with some of the data collected.</p> | <p>1 pt</p> <p>The data was recorded in the notebook.</p> <p>Appropriate graphs are plotted with the data points and a best fit curve/line run through the data. The equation for the curve should be included.</p> <p>The graphs are included.</p> <p>Sources of error are discussed, but insufficiently, with some of the data collected and how it affects the results.</p> |
| <b>Conclusion (5pts)</b>                                 | <p>5 pts</p> <p>State your results.</p> <p>How do you answer the lab question?</p> <p>How reliable is your data &amp; answer when you consider the amount of error involved?</p>   |   | <p>1pt</p> <p>Results are stated.</p> <p>Lab question is answered.</p>   |