

CHECKLIST

v4-07

In recitation, we have provided you with a list of simple procedures we want you to practice. To insure you practice these procedures, we will use the check list below in grading your completion of the scientific reasoning, notebooks and scientific articles. This list does not include everything on which you will be graded. You need to produce summary notes, outlines, notebooks and scientific articles that fulfill the stated purposes of each. The deductions will be made first, and then the more qualitative aspects of your work will be taken into account in your grade.

Completing the Scientific Reasoning

	Deduct 1.0	Complete
Preparation for Summary Talk		
Outline Completed		

Instructions for Notebooks and Articles

Look at this check-list. *Make corrections* in your scientific article and notebook where you would incur a deduction. When your notebook and article are ready to be turned in, fill in the check list as it applies to the *final* version of your article and notebook. Turn to the back page of this form. Fill in the last lines and sign the form. Turn this form in with your scientific article and notebook. You must also turn in your previous article and comment sheet.

Notebooks

	Deduct 0.5	OK
1. No loose pages		
2. Notes from lab discussions		
3. Questions in handout answered in notebook		
4. Sketch of apparatus (for each step)		
5. Description of procedures (for each step)		
6. Data tables with units and error bars (and description of how error bars were determined)		
7. All graphs - title, axes (units), error bars		
8. Analysis procedures and results recorded in notebook		
9. All calculations, including spreadsheets and computer graphs in notebook		
10. Progress reports each week		
11. Light cross out		
12. Delineate sections of work (headings, boxes, ...)		
13. Cross referencing among data tables, analysis, graphs		
14. Proper use of significant digits		
15. When best fit curve produced a.) show best fit curve on graph b.) state χ^2 c.) state if fit is good		
16. Final conclusions in notebook		

In response to comments on my previous work, I have improved the following aspects of my notebook:

Scientific Articles

	Deduct 0.5	OK
1. Double spaced, single sided**		
2. 5 sections with headings written out**		
a.) Abstract (1 paragraph: What done; method; specific conclusions)		
b.) Introduction (with road map at end)		
c.) Apparatus and Procedures		
d.) Results		
e.) Conclusions		
3. References (even to handout) in Physical Review style**		
4. Equations with more than a symbol and number appear in separate lines with equation number and all symbols defined.**		
5. At least one, appropriate block diagram**		
6. Tables numbered separately in the order in which they appear in the text.**		
7. All figures and graphs numbered consecutively as they are cited in text.**		
8. Uncertainties, labels on axes, etc. on graphs. All figures have a title and caption.**		
9. Proper treatment of significant digits and number format**		
10. Discussion of experimental uncertainties		
11. Forceful statement of conclusions at end of article.		

**If these items are not completed, your scientific article will be returned for reformatting before grading.

In response to comments on my previous work, I have improved the following aspects of my writing:

In response to comments on my previous work, I have improved the following aspects of my overall experiment:

Name: _____

Present Article Title: _____