

Student: _____ Grade: _____ / _____

Experiment: _____

Common Abstract Errors	
<i>Purpose</i>	
<input type="checkbox"/> Purpose refers to the lab manual or other outside information	
<input type="checkbox"/> Purpose is incorrect (the correct purpose is almost always “to measure ...” or “to determine...”)	
<i>Equipment & Procedure</i>	
<input type="checkbox"/> Abstract lists the equipment rather than describing it	
<input type="checkbox"/> Procedure is too detailed	
<input type="checkbox"/> Procedure is insufficiently detailed or refers to the lab manual	
<input type="checkbox"/> Procedure does not reflect what you actually did	
<input type="checkbox"/> You accepted measurements that are not believable	
<i>Analysis & Uncertainties</i>	
<input type="checkbox"/> Abstract doesn’t state why a plot was made	
<input type="checkbox"/> Abstract blames or credits a plot for making a decision	
<input type="checkbox"/> Abstract blames or credits Excel for making a decision	
<input type="checkbox"/> Result is computed incorrectly	
<input type="checkbox"/> Uncertainty is computed incorrectly	
<i>Results & Conclusions</i>	
<input type="checkbox"/> Numeric result has incorrect significant figures	
<input type="checkbox"/> Numeric result has bad units	
<input type="checkbox"/> Numeric result uses “E” or ‘^’ notation (scientific notation must be in the form $(1.23 \pm 0.04) \times 10^{-2}$)	
<input type="checkbox"/> Conclusion blames “human error” or the equivalent	
<input type="checkbox"/> Conclusion doesn’t state the primary source of error (what improvement would most improve the result?)	
<input type="checkbox"/> The stated primary source of error was already accounted for, so it can’t still affect the results	
<i>Mechanical</i>	
<input type="checkbox"/> Abstract has spelling and/or capitalization errors	
<input type="checkbox"/> Abstract has grammar errors (such as run-on sentences, missing verbs, missing nouns)	
<input type="checkbox"/> Abstract has tense errors (every part should be in past tense)	
<input type="checkbox"/> Abstract uses future tenses like “would” or “could” inappropriately	
<input type="checkbox"/> Abstract uses a pronoun inappropriately (usually, you don’t say what “it” is)	
<input type="checkbox"/> Abstract uses an article incorrectly (“a” and “the” mean different things)	
<input type="checkbox"/> Abstract has poor word choice (usually, a word doesn’t mean what you think it does, or is too fancy)	
<input type="checkbox"/> Abstract is not sufficiently concise	
<input type="checkbox"/> Abstract contains forbidden elements (such as pictures or equations)	

Comments:

Student: _____

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Logbook & Excel Grading Checklist	
<i>Overall</i>	
<input type="checkbox"/> The logbook is the correct quad-ruled, hard bound notebook	
<input type="checkbox"/> All pages are numbered, on both sides, including pages that you haven't used yet	
<input type="checkbox"/> Student's name and contact information are on the cover	
<input type="checkbox"/> Pages 1 and 2 (Not the inside cover!), at a minimum, are reserved for the table of contents	
<input type="checkbox"/> Table of contents is complete for all completed labs	
<input type="checkbox"/> Logbook has no torn-out pages	
<i>Preparatory Work</i>	
<input type="checkbox"/> Pre-Lab quiz work and ideas are recorded in the logbook	
<input type="checkbox"/> Addresses main ideas, not just answers to questions	
<input type="checkbox"/> Main ideas are summarized for easy access	
<i>Lab Work & Effort</i>	
<input type="checkbox"/> Recorded lab partner's name and contact info	
<input type="checkbox"/> Recorded all <i>original</i> measurements (<i>before</i> making any calculations or unit conversions)	
<input type="checkbox"/> Recorded all necessary quantities	
<input type="checkbox"/> Repeated measurements that were obviously incorrect	
<input type="checkbox"/> Uses appropriate symbols for each quantity (including equations on plots)	
<i>Analysis & Uncertainties</i>	
<input type="checkbox"/> Has a copy of relevant plots	
<input type="checkbox"/> Relates results from plots (e.g., slopes) to basic equations (i.e., understands purpose of each plot)	
<input type="checkbox"/> Presents algebraic representations of all uncertainties	
<i>Clarity & Presentation</i>	
<input type="checkbox"/> Mistakes, although crossed out with a single line, are still legible	
<input type="checkbox"/> Includes complete, clear, labeled drawing of the experiment without extraneous detail	
<input type="checkbox"/> Includes a summary table with all relevant quantities	
<input type="checkbox"/> Summary includes units and uncertainties	
<input type="checkbox"/> Provides sufficient description (procedure) so that someone else could repeat the experiment without the assistance of the lab manual or any other external reference	
<input type="checkbox"/> Data, analyses, etc. are not crammed into too small a space or in illogical order	
<input type="checkbox"/> All numerical information is labeled (i.e., not just floating numbers without context)	
<input type="checkbox"/> Includes an original copy of appropriate abstract	
<i>Excel</i>	
<input type="checkbox"/> Recorded all <i>original</i> measurements (<i>before</i> making any calculations or unit conversions)	
<input type="checkbox"/> Uses only Excel equations for <i>all</i> other cells (that is, you may never enter any value from a calculator)	
<input type="checkbox"/> Each measured value is entered only once	
<input type="checkbox"/> Includes labels and units	
<input type="checkbox"/> Worksheet includes all partners' names and the date that the experiment was performed	
<input type="checkbox"/> Plots are formatted properly (uses template, has proper labels, etc.)	