

Math 318 Grading Guidelines - Fall 2019

Last updated: August 22, 2019

Homework assignments will generally consist of three components: brief computations without explanations, full computations with fully written explanations, and reflective writing. In addition to carrying out computations, this course will strongly emphasize the importance of *communicating mathematics clearly*; you'll carry these skills onwards, whether it's to a more rigorous proof class (like analysis), to an industry job (where you have to talk about your math with your colleagues and other stakeholders), or further into academia (where you'll find that a *lot* of your job is about writing!). In order to be as clear and transparent as possible, this document will describe how your submissions will be assessed. As always, if you have questions, comments, or concerns, please let me know.

- **Brief computations.** You'll need to provide support for your answer (i.e. "show your work"), but you do not need to include full-sentence explanations of why and how you solved the problem with whatever method you used. These problems will be given a score from $\{0, 1, 2, 3, 4\}$; a 4 represents a correct solution (or a solution with *very* minor problems, like a small arithmetic mistake). A 2 represents a partially correct solution – it's got some progress or the right idea, but was not ultimately successful. A 0 represents a non-assessable submission – either the problem was not submitted, or the approach does not give meaningful progress towards an answer. Finally, 1 and 3 are intermediate scores.
- **Full explanations.** For these problems, you'll need to provide a written explanation of your work – bare equations without context would not constitute a full solution, even if all the equations are correct. The writing must consist of full and complete sentences, and should provide an explanation of *where* all the equations come from and how they connect to each other. These problems will be given a score from $\{0, 1, 2, 3, 4\}$; a 4 represents a fully complete and correct solution that's properly written, or a solution that has at most very minor problems (e.g. a small arithmetic mistake that doesn't trivialize the problem). A score of 2 would be given to a partially correct solution that might have the right idea, but has substantial problems with the execution (or doesn't have an attempt to communicate where the solution comes from). A score of 0 would represent something that's not assessable – not submitted, or no meaningful progress towards a solution. Finally, 1 and 3 are intermediate scores.
- **Reflective writing.** There will be brief questions that prompt you to *analyze* some aspect of the course – whether it is an idea or proof in the textbook, or a self-assessment of your learning process, or something else. These problems will generally be graded only based on engagement with the prompt, not on correctness (especially because there will not be a unique correct answer for many of them).

In short: a brief computation can just be a chain of connected equations. A full explanation will *always* have a written component that explains the assumptions, starting point, and technique of the problem. It should (stylistically!) look like an example from a textbook.