

Submission Instructions

Please review the following instructions before submitting your work.

1. Problem sets are assigned from the course lecture notes. Problem numbers can be found on the [course website](#) or in your assignments on Canvas.
2. See our [course syllabus](#) for the problem set submission schedule.
3. Your score will be calculated as follows: thoroughness of peer review (2/12) and presentation/correctness of solutions (10/12).
4. Your preliminary draft must be submitted to Canvas by the date indicated on the submission schedule. You will not be eligible to peer review unless you submit your problem set by the due date. Note that you are welcome to submit incomplete assignments, but **you must have made nontrivial progress on at least half of the problems assigned**.
5. Your final version must be submitted to Gradescope by the date indicated on the submission schedule. Regrade requests are due one week after the assignment is returned to you.
6. Final versions must be typeset using LaTeX and should be presented professionally. I suggest reviewing [this guide on good mathematical writing](#). Here is [a guide](#) on using LaTeX.
7. Your lowest two problem set scores will be dropped at the end of the semester.

Final Submission Grading Rubric

Each problem submitted to Gradescope will be marked out of 4 points on presentation and correctness according to the following rubric (adapted from [here](#)).

4 pts. Solution is presented professionally and is logically complete and correct. Sentences are complete and mostly grammatically correct. Notation or shorthand is not used unnecessarily. Some minor typos or other errors that do not majorly impact the argument or presentation are permitted. There are no important steps missing or assumed. All assumptions and special cases have been covered. All suggestions for improvement come under the category of “improvements for clarity” rather than “correcting logical errors”. Omission of details will be judged depending on context of the material, with simpler steps being acceptable for omission when covering more advanced topics.

3 pts. Solution is close to full and complete, however there are some important deficiencies in either presentation or correctness. Some examples of deficiency in presentation include confusing writing, excessive use of notation or shorthand, and incomplete sentences. Examples of deficiency in solution include easily fixable logical errors or holes (such as forgetting to check a trivial case), inappropriate omission of detail, forgetting to check the hypotheses of a theorem, or making unwarranted simplifying assumptions. Note that these are not exhaustive lists of possible deficiencies.

2 pts. Solution contains a reasonable basic proof outline, and several correct logical steps can be identified, but there are major holes in the argument which require lengthy repair. If the solution is mathematically sound, but very confusingly written, a score of 3/4 is likely appropriate. However

if a solution is so confusingly written that it cannot be followed with a reasonable amount of effort, a solution of 2/4 is warranted.

1 pt. Solution involves some relevant logical steps, such as a choice of relevant theorem and indication of how it might be applied. However there is no outline of a solution and most logical steps are missing. This grade is also appropriate if the student misunderstood the question or made an unwarranted simplifying assumption that results in a trivial or near-trivial solution, even if that solution is correct.

0 pts. The problem was not completed, or the solution has no helpful logical steps toward a solution. Simply stating relevant definitions or theorem generally will not be awarded any points.

Once all problems have been scored, your total grade on the problem set will then be scaled to a mark out of 10 for your presentation/correctness of solutions score.