

Math 430 Grading Guidelines – Spring 2020
Last updated: January 10, 2020

1. HOMEWORK

Homework assignments will generally consist of problems which ask you to provide a complete proof of a statement. One of the most important skills that you can develop as a mathematician is being able to communicate your ideas to other mathematicians by providing a consistent, coherent, and concise argument for your claims. This course will continue on from Math 310 in terms of proof-writing; if you ever have questions about proof-writing style, or would like suggestions on developing your writing, please never hesitate to ask! In order to be as clear and transparent as possible about what the raw numerical grading score means, this document outlines the norms for grading in this course.

Unless otherwise marked, homework problems will be graded out of 10 points. These points are distributed into three categories:

- **Mathematical content.** This is about the correctness and completeness of your argument, and counts for **six** points.

- **Writing style.** In addition to complete mathematics, there are **three** points for the writing style. Homework submissions are expected to be clear and concise, and written in full and complete sentences. This is also about using the proper mathematical terms, clearly stating what the assumptions are in the proof, how the logical steps are made, and so on. Remember – a proof is not just an abstract mathematical object, but is a device for **communicating your mathematics**; good communication is always important! The use of L^AT_EX is also *highly* encouraged!

- **Citations.** There is **one** point for citations. In short: you need to clearly document any ideas which aren't your own. If you use the internet, a tutor, advice or discussion from a classmate (etc.; this list is not exhaustive!), then give a clear source for it in your citation. If you solve a problem completely on your own, then you can just say that – but the citation must still be there. As a reminder, any work that you submit must be **your own** – getting ideas from someone else is great, but having someone else write part of your assignment is not.

In short: **content is important, but so is the presentation of the content.** Just as a history essay is not just a list of dates, a mathematical proof is not just a list of equations!

If you have any questions about the assessment standards, or about how homework was graded, I am very happy to talk with you about it. Unfortunately, there is always a potential for misunderstanding or error during grading – so if you think there were any mistakes, please let me know! I will consider any regrading requests that are made within **one week** of returning the assignment to you via Crowdmark.

2. PRESENTATION

Oral communication of mathematics is also incredibly important. If you go into academia, you'll probably spend quite a bit of your time teaching; in industry, you'll need to present your mathematical ideas to your boss, your peers, and other stakeholders. As such, one of the graded components of the course is a (roughly) ten-minute in-class presentation of a proof from one of the homeworks. During this presentation, you'll talk about the proof at the board, and your classmates can ask questions about your presentation.

Grading of the presentation will again be graded on the **mathematical content and the form** (or style, if you prefer) of the presentation. When you're talking at the board, make sure to write information to help people follow the spoken part – be clear, write neatly and in full sentences, speak loudly, and explain what you're doing and why. Make sure to start early – this is not something to leave for the last minute! As always, I am happy to talk to you about your presentation in advance if you have questions or would like to practice.

During most presentations, you will (of course!) be an audience member rather than a presenter. Students are expected to **participate by asking questions** about the presentation.

As mentioned in the syllabus, some homework problems (starting in late January) will be eligible for presentation; you can claim a problem by emailing me. These problems are **first-come-first-serve**, so if something catches your eye, let me know as soon as possible! I'll keep a list on Canvas of problems that are eligible or claimed, so check there first.