
Math 322: Elliptic Curves

HOMEWORK GRADING RUBRIC AND GUIDELINES

Each graded homework problem is worth 4 points. These points will count as 90% of the grade for each assignment. The other 10% will come from a grade determined by the quality of your writing. At this point in your mathematical career, I expect you to have developed strong writing skills. The rubric for assigning these points is below. On the back of the page is the guidelines for homework problems in the class and some further information on academic honesty.

Mathematical Accuracy

4 points Correct mathematical solution. Everything is justified with only very minor errors, if that (for example a simple copying error).

3 points The solution is mainly correct with only a minor error or omission, such as a correct statement asserted at some point but not justified.

2 points The solution may technically be correct but there is little or no justification of it. Or the solution may contain a more serious error (something that is clearly a misunderstanding of a crucial concept).

1 point The problem started on the right track and then things went bad quickly. Perhaps a major error was made, or wild claims with no justification, or the point of the problem was misunderstood.

0 points Did not attempt the problem or only stated trivial consequences of the problem.

Clarity of Writing

5 points The solutions are well written with clearly expressed ideas. There are practically no grammatical or spelling errors.

4 points The solutions are well written however excessive ideas and details are included or the argument is not concisely formed. There are few, if any, grammatical or spelling errors.

3 points The writing is missing key information which makes it hard for the reader to understand the proofs. There may be gaps in the logic or missing descriptions of key symbols or notation. Overall the grammar and spelling errors are minimal.

2 point The writing is difficult to follow at times and may include small grammatical errors, some incorrect spelling, or a couple of unclear sentences.

1 points The writing is poor and the ideas are not clearly expressed. It may include poor grammar, incomplete sentences, or bad spelling.

Guidelines

I. Assume you should always justify why your answer is valid or correct, even if the problem doesn't explicitly say that. For "Find a blah ..." or "Give an example of blah ..." problems you should always implicitly add an "...and explain why" to the problem.

II. All your solutions should be written in complete sentences and in paragraph form.

III. List at the top of the first page the names of anyone with whom you worked or any source (animate or inanimate) from which you received assistance.

IV. While you are writing your solutions, don't think about writing them for me. Think about writing explanations for the other students in the class. You don't need to justify results we proved in class (although you should reference them) but you should explain your reasoning for any results or conclusions beyond what we cover in class.

V. There will be a variety of types of homework problems: standard, Magma, proof completions, and challenge problems. Your solution style to each type may vary.

Academic Honesty

You are allowed to work together to solve homework problems but everyone must write their own solutions. Here are some more explicit instructions regarding this. If a few of you are sitting around discussing how to solve a problem and in the course of the conversation one of you figures out a key piece and discusses it with everyone else, and then you all go home and write up your own answers, that is fine. Additionally, you may discuss your written solutions with anyone you have worked with to solve a particular problem.

However, it is not ok if one of you solves a problem yourself first, and then gives other people the key pieces of the proof. Giving good hints is generally very tough. If you already have a proof and someone asks you how to solve the problem, you should tell them you already figured it out. Conversely, if you know your colleagues have figured out a proof, you should not ask them for help but instead should talk to me.

Consulting any completed solutions is academically dishonest. Never search the internet for a solution to a problem. Reading a math solution is much easier than figuring it out yourself. It only hurts your learning to find solutions online or in other books. I intentionally write some difficult problems and do not assume most students will ace the homeworks. Talk to me or other students who have not yet solved the problem if you are stuck.