

MATH 104 – TALASKA

HOMEWORK GUIDELINES, SPRING 2016

Graded HW

Graded homework should be a pleasure to read!

In particular, as with most upper division courses, you will not usually be able to sit down, crank out the problems, write down the first thing that comes to mind, and then turn that in. You will need to do scratch work (and it's totally normal to often be wrong on your first attempt at a proof), organize your thoughts, and turn in work that looks and reads like a FINAL DRAFT. Only a few problems each week will require this fancy treatment, but I'm very serious about what you do with those few problems.

Typing homework is encouraged, but neat handwriting is also perfectly fine. If you do type your homework, absolutely feel free to handwrite equations or draw diagrams by hand. Just put them in where they belong by leaving space in your typed document; don't give me silly arrows pointing all over your homework.

If you expect to continue with advanced math, it would be a smart move to learn basic L^AT_EX typesetting early on.

General neatness requirements – your homework will NOT be graded if you ignore these.

- Use my cover sheet. You can always print another from the course website if you lose yours. Put your NAME on the cover sheet.
- Be sure to fill in the collaborations portion of the cover sheet, e.g. “got hint in OH”, “worked with Harry P. and Hermione G.”, “solved all by myself!”
- Use paper with clean edges. Nothing ripped out of a spiral notebook!
- Staple all pages together, cover sheet on top. (I will do my best to bring my stapler on HW days.)
- Clearly label each problem, and ALWAYS start with (a brief summary of) the problem statement.
- Write almost entirely in complete sentences. Equations and figures are fine, of course, but try to minimize your use of shorthand symbols in graded homework. Use your words instead, such as “for all” instead of “ \forall ” in the middle of a paragraph.
- Leave some space between problems, so there is room for commentary by me or the grader.

Your solutions must be correct AND well-written to receive full credit. Provide justification for any claims you make. If you want to cite a theorem from class, previous homework, or the book, you must state the result you are using (unless it is a fancy named theorem, in which case you can use the name). Do not refer to anything like “Theorem 3.12” – your proofs should be readable without flipping all over the textbook.

Turn in your graded homework to me in person. I do not accept homework emailed to me. If you want someone else to print your homework for you, bribe your friends.

Ungraded homework

On each homework assignment, there will also be a list of ungraded problems. Do them, but do not turn them in. These are problems I expect you to figure out, but you don't need to spend time carefully writing them up.

Collaboration and outside resources

- You should definitely discuss homework problems with other students! The best way to learn is to think hard about a problem on your own until you get really stuck or solve it, then ask someone else how they thought about it. However, when it comes to writing down your solutions, you must do this by yourself, **in your own words**, without looking at someone else's paper or any other source.
- The easiest way to make sure you never come too close to copying on homework is to never look at anyone else's written solutions before the deadline. On the flip side, don't *send* your written solutions to anyone. When you are staring at someone else's proof, it is extremely hard to formulate things in your own words, so avoid the temptation.
- On Piazza, feel free to give hints to graded homework problems, even big ones, but do not share any complete written solutions until after the homework deadline has passed. Even for ungraded problems, it is better to discuss the outline of your approach rather than filling in all tiny details.
- I know it is very tempting to look up solutions online when you are stuck, but please don't, and certainly do not blindly trust a proof you find on the internet. For learning purposes, it is MUCH better to ask me for a hint to get you started, and besides, there are a lot of wrong proofs out there.
- Please don't bother other professors with your homework questions for this class.
- You **MUST** acknowledge any help you get, whether it is from me, your peers, a website, another textbook, etc.