

No homework will be collected. Instead the “daily work” portion of your grade will be determined by the weekly progress report of your work.

Homework Progress Report:

due online by 11:59pm each Saturday (except Thanksgiving week and Spring Break)

How you invest in your learning outside of class is at your discretion, but I have expectations.

- Expectations for class time:
  - Be physically and mentally present
  - Ask questions, and expect to be called on to answer questions
  - Understand the material from the previous class (I will assume this)
  - Take good notes - organized, with commentary that was not presented on the board
- Expectations for your “study” time:
  - Master concepts, do not complete tasks
  - Plan to have to apply ideas to new situations on the tests
  - Synthesize your lecture notes into study notes,  $< 1$  page per section
    - \* include key theory (statements and proofs - create your own outline/bullets for proofs)
    - \* identify the “usual” problems
    - \* how to recognize problems that use these methods
    - \* bulleted solution processes for each of the “usual” problems
  - Work enough problems to be fast at both problem recognition and problem solution
  - Work with other students to explain how concepts work to each other
  - Know how to do today’s problems before coming to class tomorrow
  - Employ good mathematical presentation in all problems worked
  - Review past material briefly each week
  - Invest enough time each day
- How you should be utilizing your textbook:
  - Preview the next section (we cover almost all the sections in order, so next is whatever came after the last thing we talked about)
    - \* look for any new definitions - rewrite them using your own words
    - \* look for any new theory - identify the main ideas of the proof
    - \* see if you can describe the type of problems that section solves in 5 to 10 words
  - Master the previous section
    - \* Use the recommended problems to build your speed and accuracy
    - \* Use the examples to help clarify how problems are to be solved

GOAL FOR STUDY: mastery

... mastery is fast/efficient solution of problems and the ability to apply concepts to new situations

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## PRESENTATION STANDARDS:

The goal is professional, fluent, and clear communication of what you know.

- Mathematical presentation is like grammar. There are subjects, verbs ( $=, \leq, >$ , etc.), and objects. Always write in “complete sentences.”
- Tests/presentations/projects are not about what you know but are about what you can communicate about what you know – so the presentation of your work/logic should always be neat, orderly, clearly defined, with just the right amount of work (excessive steps are not required, just answers are not (usually) acceptable).
- Always work down the page (working in columns is generally not acceptable) - there should be one problem worked in each “row” because this contributes to clarity and the development of your logical argument.
- Skip lines between problems; if you have dense handwriting, skip every other line and skip 2-3 lines between problems.
- Clearly label problems/sub problems – problems do not necessarily have to be worked in order but must be clearly labeled either way (your professor will communicate his expectation on working problems out of order)
- Answers are to be presented as the logical conclusion of your work, not as the only important thing (i.e., at the start of the problem and/or unconnected with any justifying work)
- Papers should not be submitted with spiral/ripped edges (clean edges are professional)
- Take-home tests (when time is not limited) should be neatly presented (rewritten, organized neatly, no scratchwork, just a final polished presentation)

## PROBLEM EXPECTATIONS:

The goal is to prove your mastery (not your just barely comprehending).

- Read all words carefully in a question. Everything is important, so know what the meanings of all words are and how those words tell you to respond.
  - Theory is a precise expression of important ideas. While it is not graded word for word, jot for jot, the precise ideas must be maintained. Embrace thorough, smooth learning and presentation. Can you recite the theory from the last class period quickly, comfortably, and conversationally?
  - Theory tells us how to solve problems, know exactly what problems connected to each theorem (and sometimes definitions) look like, and know how to solve them.
  - Know what the key steps of each problem are, then present only the key steps (or the minimum needed to get the answer right and show all your logic).
  - Do enough practice for each type of problem so that you are smooth.
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