Exam Strategies

With that in mind, remember the basics:

- Get plenty of sleep before waking up on the exam day
- For the final, review the entire semester, not just the days after midterm 2
- You have 1.5, 2 hours to do midterms, final respectively, so use all these hours
    - Don't press submit if you have extra time and haven't done all of them
    - Reread every question carefully to make sure you're answering the right thing
- Go back and forth to solve problems in a timely manner
    - If you go in order 1, 2, 3… and are stuck, skip ahead and try others
    - Go back to any stuck problems only after trying and seeing every problem

These basics apply in general to exams. Specific tips for 243:

- Make sure all of your scratchwork is uploaded, click to preview after uploading
- Check for calculation mistakes on problems without partial credit: T/F, multiple choice
- If you can solve all prior problems yourself, you can do the exam yourself
- For every topic you struggled with on previous exams or quizzes, do the worksheet
    - Use incremental peeking strategy (described on next page)
    - Ask me for explanations if or you're so lost that even the solutions document doesn't help
- Go back and do all of the quiz problems that you missed
    - Again, use incremental peeking
    - If you're still confused about a solution or you missed class, email me

If you want to go all out, do every missing (quiz, discussion worksheet, WebAssign) problem using the methods above. If there's problems you only saw me or the solution document do, but now you can't remember how to do them, redo those as well. Then do every midterm problem you missed, and finally make sure you're good on subtopics that were not on quizzes or exams.

Above all else, remember that **you do not get better by just looking at the solutions**. You cannot become Messi by watching soccer, become Tiger Woods by watching golf, or Eminem by listening to rap. To improve your mathematical problem solving skills, you must solve more problems. There is no shortcut!

Before you join the Zoom for the exam, watch this motivational video.

Incremental Peeking

This is the method to improve your problem solving abilities for math classes. When given homework or another set of practice problems, try every single problem to the best of your abilities. For any problem you're stuck on, come back to it one more time later with a fresh mind. Finally, see if there's anything in the lecture video, lecture notes, or other introductory material that you're not using. Now if you're still stuck, the real strategy begins.

At this point, most students give up and look at the solution. You should look at the solution, but not the whole solution. Go line by line until you see something that you didn't think of. The moment you do, stop reading and see if you can finish the rest of the solution on your own. If you get stuck again, peek at the solution again. Rinse and repeat for however many ideas or steps you missed out on.

Disclaimer: This strategy is for problems just out of your reach. If the problem is too easy, it's a moot point since you will solve it without looking at the solution. If the problem is medium difficulty, you may need to look once or twice. If you see yourself getting stuck on many steps and you're nowhere close to solving it, build up your skills by doing other problems. On your 1st day at the gym, you can't walk up to the biggest dumbbell and lift it. Start with the smaller ones.