

Exam 01: Study Guide

The exam will consist of 10 questions from the material in the first five classes. The questions all have equal weights. You are not allowed any outside resources during the exam. You may bring a calculator, though it is not needed; you cannot use a phone as a calculator. The questions are of a similar length and difficulty to the worksheet questions, though multi-part questions are split apart and I will not ask questions at the level of the starred problems. Though, you still need to understand their answers unless otherwise indicated on the worksheet.

All 10 questions will be taken directly from the worksheets. I may split a complex question into parts, only ask part of the question, and change some of the non-critical details so that you cannot just memorize the exact answer.¹ Note that the class right before the exam will have no new handout, but the worksheet questions are fair game for the exam. The remaining 2 questions will be will at a similar level of difficulty, but may not directly match a question you have already seen. Because you have seen the questions before, I am fairly strict with partial credit.²

I will outline my guide to how you should study for the exam. I suggest taking all of the worksheets for this section (2-5) and try to re-solve each of the problems without any resources.³ The questions took a while the first time you saw them, but should be faster the second time through. If you get stuck, first look at the relevant handout; if you are still stuck, look at the solution. Mark any question that you cannot do on your own without assistance. After a pause of at least 1 hour, return to the questions that you had trouble with and try to redo them. If you are still stuck, repeat the process until you can do them on your own. If you have further questions, particularly if you think you would have trouble solving a problem with some minor changes, come to the review session the night before the exam. In the best case, you would have time to go through all of the questions one more time, at least those that you found the hardest, before the exam.

¹ For example, I might change the number of colors in a deck of cards or the number of sides on a die.

² For example, out of 10 points, most students will usually get full credit, a few might have 8 or 9 points if they made a silly error, and anyone else will get a 0 if the core of the solution is incorrect.

³ You can start reviewing worksheet 2-4 over the weekend even before we do the final one, which is a review.