Name:

NetID:

Name on Gradescope:

- **Don’t panic!**
- Please print your name and NetID in each page in the appropriate fields, and circle your discussion section in the boxes above. We will return your exam at the indicated section.
- If you brought anything except your writing implements, your double-sided handwritten (in the original) $8\frac{1}{2}'' \times 11''$ cheat sheet, and your university ID, please put it away for the duration of the exam. In particular, please turn off and put away all medically unnecessary electronic devices.
  - Submit your cheat sheet together with your exam. An exam without your cheat sheet attached to it will not be graded.
  - If you are NOT using a cheat sheet, please indicate so in large friendly letters on this page.
- Please ask for clarification if any question is unclear.
- **This exam lasts 120 minutes.**
- If you run out of space for an answer, feel free to use the blank pages at the back of this booklet, but please tell us where to look.
- As usual, answering any (sub)problem with “I don’t know” (and nothing else) is worth 25% partial credit. Correct, complete, but sub-optimal solutions are always worth more than 25%. A blank answer is not the same as “I don’t know”.
- Total IDK points for the whole exam would not exceed 10.
- **Beware of the Four Deadly Sins.** Give complete solutions, not examples. Declare all your variables. If you don’t know the answer admit it and use IDK. Do not write unnecessary text.
- **Style counts.** Please use the backs of the pages or the blank pages at the end for scratch work, so that your actual answers are clear.
- Try to avoid writing in the margins of the pages, as it might not be scanned in.
- Please return all paper with your answer booklet: your cheat sheet, and all scratch paper. We will not return the cheat sheet.
- **Good luck!**