

Math 500: Midterm the First

Date/Time/Location: Wednesday, February 26 in the usual class time and location.

Office hours: For the week of February 24, I will have the following special schedule:

- Monday from 1:30-3.
- Tuesday from 2-3:30.
- No office hour on Wednesday or Thursday.

Test format: The questions will be similar to, but on average easier than, those on the homework assignments. I will not ask you to repeat proofs of theorems covered in class or in one of the texts; for example, I will not ask you to prove the existence of Sylow subgroups.

Cheat sheet: The text will be closed book, but you may bring one sheet of standard US letter or A4 paper to the exam, on which you have written, printed, or copied anything that you think will be helpful. You can use both sides, but must be able to read it without a magnifying glass or suchlike aide.

Material covered: Fair game is anything from:

- Lecture up to and including Wednesday, February 19.
- Part 1 of Rezk's notes.
- Chapters 1-6 of Dummit and Foote, with the exception of 6.2.

By far the most important material is that which appeared in lecture or on the homework.

Study resources: The course webpage, which is <http://dunfield.info/500> contains scanned lecture notes and solutions to the HW problems. I will post solutions to HW 4 soon after class on Friday.

Practice exam: I have posted the exam I gave in Fall 2023 on the course schedule part of the webpage, see the entry for February 26.

You may also find useful practice questions on old algebra comp exams, though we have covered topics (e.g. free groups) which don't appear anywhere in these:

<https://math.illinois.edu/academics/graduate-program/coursework-and-exams/study-comp-exams>