

## Math 4220: Homework 8

This is the eighth homework assignment for Math 4220. I have broken the homework assignment into two parts. Part I has exercises that you should do (and I expect you to do) but you need not turn in. The exercises in the second part of the homework are exercises you should write up and submit via Gradescope. Your solutions should be consistent with the directions in the syllabus. If you get stuck on any part of the homework, please come and see me or Max. More importantly, have fun!

**Part I** (Do not write up)

*Exercise 1.* Read Sections 5.1 and 5.2 of the course textbook.

*Exercise 2.* Do Exercises 1, 3, 5, 7, 9, 11, 15, 17, and 19 in Section 5.1 of the textbook.

*Exercise 3.* Do Exercises 1, 2, 3, 5, 7, 9, 13, and 17 in Section 5.2 of the textbook.

**Part II** (Write up and Submit via Gradescope)

*Exercise 1.* Please do Exercise 8 in Section 5.1 of the course textbook.

*Exercise 2.* For this exercise:

- i. Please do Exercise 13 in Section 5.1 of the course textbook.
- ii. Please do Exercise 14 in Section 5.1 of the course textbook.

*Exercise 3.* Please do Exercise 20 in Section 5.1 of the course textbook.

*Exercise 4.* Please do Exercise 6 in Section 5.2 of the course textbook.

*Exercise 5.* For this exercise:

- i. Please do Exercise 14 in Section 5.2 of the course textbook.
- ii. Please do Exercise 15 in Section 5.2 of the course textbook.

*Exercise 6.* For this exercise:

- i. Please do Exercise 18 in Section 5.2 of the course textbook.
- ii. Please do Exercise 19 in Section 5.2 of the course textbook.