

HOMEWORK 7 MATH 104, SECTION 4

Office Hours: Tuesday 2:30-4pm and Wednesday 5:15-6:45pm at 735 Evans.

Nima's Office Hours: Monday 8-12, Tuesday 9-12 and Wednesday 9-11am at 1010 Evans.

PROBLEM SET

Submit your homework at the beginning of the lecture on Tuesday. A select number of problems will be graded. *Late homework will not be accepted under any circumstances.*

You are encouraged to discuss the problems with your classmates, but you must write your solutions on your own and acknowledge collaborators/cite references if any.

Write clearly! Mastering mathematical writing is one of the goals of this course.

You have to staple your work if it is more than one page.

Due October 22:

- Ross, Exercise 17.2 (No proof required)
- Ross, Exercise 17.4, 17.9(a)(b), 17.10(a)(b)
- Ross, Exercise 18.5, 18.6, 18.7, 18.10
- Special case of Ross, Exercise 18.9: Prove that a polynomial f on \mathbb{R} given by $f(x) = x^3 + ax^2 + bx + c$ with $a, b, c, \in \mathbb{R}$ has at least one real root.

READING

There will be reading assigned for each lecture. You should come to the class having read the assigned sections of the textbook.

Due October 22: Ross, Section 18

Due October 24: Ross, Section 19