Math 15200/14 Homework 4

Due date: 🎃 Thursday, October 31, 2019, 5pm (in my mailbox in Eckhart basement)

Please present your solutions clearly and in an organized way. Think of it this way: if you show it to another student in this class, he/she should be able to understand it without needing to ask you questions.

October 24

Goals:

- Reason with some basic properties of integrals

- Understand the mean value theorem for integrals

Exercises 5.8:

- 7, 9, 17, 21, 24, 35, 36, 37

Exercises 5.9:

- 3, 5, 7, 15, 20, 21

Exercises 6.1:

- 1: We didn't talk about this explicitly in class, but you should still be able to do this problem. The idea is to approximate with thin vertical rectangles for (a) and thin horizontal rectangles for (b). Example 3 may be helpful.

October 29

Goals:

- Work with solids of revolution

Exercises 6.2:

- 42, 43 (For these problems, take the sphere example from class and modify it. This should not require very much additional work.)

This is all for HW 4.