Math 30750
Spring, 2017

Assignment 1, due January 27

Chapter 1 and the start of Chapter 2 contain material you learned in Introduction to Mathematical Reasoning. In this assignment you will review the material by reading it and then doing some problems. I don't plan to go over it in class other than answering your questions about it.

Read: Chapter 1 and sections 2.1 and 2.2.

Do: §1.1 #2,4,8, §1.2 #8, §1.3 #8, §1.4 #12, §2.1 #2(d),6, 8

Comments: Did you know that §1.1 #8 is one of the most useful inequalities in mathematics?

In §1.1 #8, use the field and order properties of the real numbers to provide a careful proof. You may assume the results of §1.1 #2,4 as well as of propositions proved in the text.

There are (at least) two types of multipart problems. In one, e.g., §2.1 #2, each part is a specific example to work out, independent of the other parts. In another, e.g., §1.4 #12, the parts are hints, which break a much harder problem up into smaller pieces, In such a problem, don't groan about the large number of parts—be thankful you were given the hints.