Homework #9 Math 3283W - Fall 2016

The following problems will be relevant for your writing quiz on Thursday, 12/1/16.

Skill / Computational Problems. These problems are not handed in or graded, and do not involve enough writing to be the basis of a writing quiz, but are a good way to check that you understand the concepts used in the writing problems.

- Section 4.1: 11
- Section 4.2: 3, 6, 8
- Section 4.3: 4, 5, 8

Writing Problems. Your writing quiz on Thursday will be based on the problems below. A problem on the quiz could appear exactly as stated in the book, or it could be a slightly modified version of a problem below.

- Section 4.3: 3(a,d), 10
- Section 8.1: Let $a_n = \frac{1}{2^n}$. Prove $\sum a_n = 1$ directly from the definition of convergent series. In other words, do not use any formulas or other special approaches for geometric series; rather, prove that the sequence of partial sums $s_n = a_1 + a_2 + \cdots + a_n$ converges to 1.

Notice that exercises with a star have answers or hints in the back of the book. If those problems are assigned, use the back of the book to check your work. If a similar problem is assigned, you can do the starred problem to check whether you understand the concepts.