# Reading Assignment for Section 8.6

## MATH 131: Calculus II, Section 1
## Spring Semester 2014

**Follow the general guidelines for the Reading Assignment (the salmon colored handout).** Be sure to include and label all four standard parts 1,2,3,4 of the Reading Assignment in what you hand in. Be sure to **staple** together pages if you have more than one, and include your **name** at the top of at least the first page. Neatness is appreciated!!!

**Due:** by the beginning of class on Wednesday, April 23rd

Read:

Section 8.6, pages 577-584: Alternating Series. Do the Quick Checks along the way! Check your answers to them at the end of the Exercises for Section 8.6!

Notes:

In previous sections of this chapter, we have been dealing with series all of whose terms are positive. Note that this meant that the sequence of partial sums was always increasing (think for a minute to make sure you believe that). What happens if some of our terms are positive and some of our terms are negative? Now what happens with the sequence of partial sums? In particular, in this section we will study what happens when the terms of a series alternate between positive and negative terms.

**Remember that your answers should include complete sentences for every question (this time, there is an exception to this - you do not have to write sentences for c and e, but you should show your work!). Be sure to address all parts of each question.**

Reading Questions for part (1):

a) What is an alternating series? Give an example of a convergent alternating series. Why does this series converge? Give an example of a divergent alternating series? Why does this series diverge?

b) If a series is absolutely convergent, is it convergent? Give an example to support your answer. Remember to explain in full sentences.

c) If a series is convergent, is it absolutely convergent? Give an example to support your answer. Remember to explain in full sentences.

Remember parts 2-4 on the salmon handout! **Reread the directions for these parts to be sure that you are answering the questions.** If you have lost your salmon handout, there is a link on our website to the Homework Guidelines.