

# Reading Assignment for Section 8.3

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 9th

Read:

Section 8.3, pages 549-553: Infinite Series. Do the Quick Checks along the way! Check your answers to them at the end of the Exercises for Section 8.3!

Notes:

In this section we delve deeper into what a series is, focusing on two very important and interesting kinds of series: geometric and telescoping. We will discover that these two types of series are very nice! What is nice about them?

**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) (i) What is a geometric series? (ii) When does it converge and when does it diverge? (iii) Why does your answer to (ii) make sense?
- b) Give an example of a geometric series that diverges and one that converges. Explain how you know, and for the convergent series calculate what it converges to.
- c) What is a telescoping series? Where does its name come from?

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.