Section 8.6: Alternating Series
MATH 131: Calculus II, Section 2

Name (Print): _____

Due: Monday, December 3, 2018 at the beginning of class

After reading Section 8.6 (pages 649-656 in the text), respond to the following questions **on this handout**. Be sure to staple your pages together before turning it in if they are not double sided. **You must answer all parts to all questions to earn full credit!!! Also, use FULL SENTENCES to answer questions that require words.** See the salmon homework guidelines handout for details.

Response Section

1. State the definition of an alternating series.

2. State Theorem 8.18: The Alternating Series Test.

3. State Theorem 8.19: The Alternating Harmonic Series.

4. (a) Give an example of an alternating series that is divergent.

   (b) How do you know that your series is divergent?

5. State the definition of absolute and conditional convergence.

6. (a) Give an example of a series that is absolutely convergent.

   (b) Give an example of a series that is conditionally convergent.

7. State Theorem 8.21: Absolute Convergence Implies Convergence.

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

Questions/Overview Section

9. Write down any **questions** you have on the reading. Be as specific as possible! See the salmon homework guidelines handout for details.

Reflection Section

10. Write **two or three** sentences reflecting on the process of your work so far in the course. See the salmon homework guidelines handout for details.

Time Section

11. How much time did you spend on this reading assignment? _____