Math 295 - Fall 2020
Warm up 8.1
Due before class on Monday November 2

Please turn in this assignment on Gradescope.

Problem 1 : (Objective E1) For this problem, please look up the following results or series. A trustworthy resource is Wikipedia, but any online source is fine for this assignment. If you have taken Calculus 3, they might be familiar from there. In any case, spend some time reminding yourself of what you know about series, or read a little bit about series (for example by reading the Wikipedia pages you find below).

a) What is the definition of the harmonic series? Does it converge or diverge? Write the first five terms of the sum.

b) What is the definition of the alternating harmonic series? Does it converge or diverge? Write the first five terms of the sum.

c) State the Ratio Test (for convergence of series). Make sure to carefully copy down all the hypotheses.

d) State the Root Test (for convergence of series). Make sure to carefully copy down all the hypotheses.