Math 15300/14 Homework 3
Due date: Thursday, January 30, 2020, 5pm (in my mailbox in Eckhart basement)

Please present your solutions clearly and in an organized way. Think of it this way: if you show it to another student in this class, he/she should be able to understand it without needing to ask you questions.

Wolfram Alpha

Wolfram Alpha is a very useful tool. Check it out if you have not used it before: http://wolframalpha.com. For example, try entering the following text into Wolfram Alpha:

- `plot y = sin(1/x)` (direct link)
- `integrate x/(x^2+2x+5)^2 dx` (direct link)
- `eevee curve` (direct link)

January 23

Goals:

- Find limits of sequences and functions
- Evaluate improper integrals with unbounded intervals

Section 12.2:

- 1, 3, 5, 7, 9, 19, 21
- Hints:
  - For 1–9, the problems ask you to find the sum of the series. Remember that evaluating the sum is usually very difficult, and we only saw how to do this for two types of series.
  - For 19 and 21, use a fact about convergent series that we discussed in class

This is all for HW 3.