

Math 15300/14 Homework 7

Due date: Thursday, February 27, 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](#))

February 20

Goals:

- Practice various ways of visualizing functions of several variables
- Practice calculating partial derivatives

Section 15.3:

- 5, 11, 19, 27, 37, 41–46

Section 15.4:

- 1, 3, 5, 9, 21, 23, 27, 31

February 25

Goals:

- Practice calculating partial derivatives and gradients

Section 15.6:

- 1, 11

Section 16.1:

- 1, 9, 17, 23, 33 (you can do 33 by trial and error)

This is all for HW 7.