Math 15300/14 Homework 5
Due date: Thursday, February 13, 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 6

Goals:

- Work with basic geometric objects in 3D

Section 13.1:

- 5, 11, 15, 17, 33, 35, 37, 47

Section 13.2:

- 7, 13, 17, 31 (Take a look at page 650 for the definitions of $\mathbf{i}, \mathbf{j}, \mathbf{k}$.)

February 11

Goals:

- Work with basic geometric objects in 3D

Section 13.2:

- 21, 27, 29, 34, 38

Section 13.3:

- 15, 29, 37, 39, 47 (Hint for 47: expand the left-hand side)

This is all for HW 5.