My favorite part of this semester was the constructions/my cutting board. It was fun and pretty easy once I got the hang of it. I constructed the image above using only a compass and straightedge. The main construction I used for this image was an equilateral triangle. I first constructed this by hand, and then remade it on the computer using Adobe Illustrator. I think Illustrator looked much better and was less time consuming than doing it by hand, but it was more fun doing it by hand. I also don’t think I could’ve come up with this design if I had started on the computer, since figuring out how to make an arc in Illustrator was a little difficult at first so I wouldn’t have done anything with an arc in the first place.

In this project I investigated how I could mathematically:

1. Show the changes in nutrition through each stage of bread making on a graph, using piecewise functions
2. Use bakers percentages and measurements to create various loaves of bread
3. Make precise and pretty designs using only a compass and straightedge

At first, our bread was a plain sourdough. The first few times that we made our bread, it never tasted much like sourdough and our salt percentages weren’t right. The bread was kind of flavorless. Slowly, the taste got better, but we decided that our bread was a little too plain and we wanted to add something different to it. We decided to do a braided chocolate sourdough bread.

This is the bread that we settled on making after a lot of versions. It’s sourdough bread with a chocolate bar on the inside, butter spread on top (to give it a golden crust), and almonds sprinkled on. The bread had a nice soft texture, tasted like sourdough, and the chocolate tasted great with it. This bread tasted the most like sourdough and was my favorite.
Vitamin A Over Time

From seed to grass, the slope is positive. This means that the amount of Vitamin A increases.

From grass to sheave, the slope is negative. This means the amount of Vitamin A goes down.

This graph is pretty weird, it only spikes up once, and it spikes up DRAMATICALLY. It's at a constant zero for most of the time, and then when it's grass, it goes up to 857%.

\[ t(s) = \begin{cases} 
0 & 0 \leq s \leq 1 \\
857s + -857 & 1 \leq s \leq 2 \\
-857s + 2571 & 2 \leq s \leq 3 \\
0 & 3 \leq s \leq 7 
\end{cases} \]