

The majority of my troubles in assignment 3 had to do with the coordinate system that canvas was using, it took me some time before I realized that I needed to set my initial Y axis vector to be (0, -1). Coming up with the math to get the mouse to scale the way I wanted also took some time. After I got the Rectangle working with all the transformations, the rest was very straightforward, even calculating if the mouse clicked on the line was as simple as creating a Rectangle boundary around the line, and I had already created a rectangle class so I just re-used that. I've also found it to be easier to specify the coordinates relative to the center of the object rather than shifting it to the origin. So a lot of the difficulty for me was just coming up with the math to do what was needed.