

Homework 2

Ian Westrope

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1 Memo

In this assignment I was asked to build a basic API in Java to do simple 2D graphics.

Building the API was relatively simple once I understood what a frame, viewport, and window were. And how those three things worked together.

After building the API graphing the equations was fairly straight forward. Some parts were very tedious because I had to draw a lot of the lines on my own. The functions themselves were easy to draw because you could use a loop to draw them.

2 Programming Log

1. 2/12/14: Spent about an hour figuring out how the frame, viewport, and window work.
2. 2/13/14: Built the API in a few hours. Had to create the equations to move between window, viewport, and frame coordinates. Ended up making window it's own class since there will be multiple instances of a window. Also made a point class so I could easily pass points between functions.
3. 2/14/14: Spent 3 hours graphing the functions. First major problem I encountered was making sure the function stayed inside of it's window. Had to change the WindowToViewport function to check the bounds of the window points. The next problem I had was the polynomial function was even with the bound checking it was drawing outside of its window. Found that the function was creating imaginary numbers which gave Java a NaN or Not a Number. Added a step to check for NaN and skip over it.