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COMP 5460

<center>Programming Assignment 5 Report</center>

I was able to finish assignment 5. The pdf was a little hard to understand so allow me to outline my interpretation of it: translate the provided C files into JavaScript functions as is, and then implement MidpointLine from the provided pdf in JavaScript AND give MidpointLine the functionality to work in all quadrants. A note for both line functions: they behave like a mathematical grid rather than a web-based grid (i.e. +x, +y places a point in Quadrant 1, not Quadrant 3. Otherwise put, as y gets bigger, it moves upward). This means that for MidpointLine only, negative values can be passed to the function. I tested with values 0, 100, and -100 for all textboxes in MidpointLine and it behaved as expected.

The assignment also said to compare the results from this assignment to canvas primitives. It was also unclear as to whether or not I was supposed to create canvas primitives for this assignment and compare them on the same grid, or just compare them to canvas primitives from assignment 3; I chose the latter. When I compared the results of this assignment to the primitives in assignment 3, they are definitely different. Even though both programs implement the "line" canvas object, they have different coordinate systems based on my two implementations. The circle primitive and the circle generated in AS5 look very different; the one in AS5 is based around squares. The ellipse, when given the same a and b values, looks like a circle primitive, but is filled in instead of empty.