**Final Graphics Report**

Major developments/breakthroughs(reference specific code please):

The first major developmental breakthrough I encountered while making my calculator was getting the buttons to appear on the screen in the west and south panels. Next was when I discovered that my code was not broken, and that I actually had to maximize the screen to get anything to appear. That wasn’t really a breakthrough so much as a relief that my code was actually functional and hadn’t randomly broken. After that a large accomplishment was getting numbers to appear on the screen after pressing any of the number keys (Lines 71-81). Towards the end I realized that declaring the variables in the main panel allowed me to use them in the south and west panel which simplified almost everything (Lines 35 & 36). Finally getting the numbers and the answer to print on the stage was the last major development that I had gone through in creating my graphics project calculator.

Major Challenges/setbacks( reference specific code please):

The first challenge in making the calculator was the panels. Creating all the panels within the main panel made a lot of issues with brackets and syntax appear which took a while to get rid of. After creating the buttons it worked but shortly after they stopped appearing on the stage. It took roughly half an hour of fiddling around to accidentally maximize the window which got the buttons to appear. The next setback was the buttons event listeners reset the string being printed so only one digit appeared on the stage at a time, this was fixed when I declared the variables in the main panel. After that there were no large issues that occurred.

Any modifications to your planned steps:

The only changes I had to make to my initial goals were with the use of multiple numbers. I could never get it to work using more than two numbers and one mathematical function before having to clear entry. I see this as a success. No other changes had to be made.

With this report, you will be submitting EVERYTHING. Organization is key. When I go to the groupwork folder**, I should see your project submitted in the following format:**

YourLastName: Under this folder will be the following folders:

**Documents**: It will hold all of your documents: journal, WIP, Specs, Release schedule, list of sources, and all the other documents that will be submitted in your final project.

**Steps**: There will be a folder for each step, with one folder CLEARLY telling me that it is the latest, stable step.