CS 411 – HW2

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I misunderstood the submission criteria for the assignments. So, I did not submit a report with my homework. This report goes with assignment 2.

# **How to Run Code:**

To see the output for the math problems go into the Math Problems directory then open the mathProblems.html file using Google Chrome 53.0.2785.116.

To see the output for the coding problems open the cs411-assignment2-template.html file using Firefox 49.0.2. Click buttons on the screen to see the different functionalities.

# **Design Issues:**

1. To begin with there was a learning curve trying to figure out how to manipulate matrices and vertices using the provided libraries.
2. Then the math problems were easy to do by hand but to convert them to code was another obstacle.
3. In the coding part I was first confused how to make the triangle move.
4. Another difficult part was rendering the object path points.
5. The hardest part was making the object point in the orthogonal direction of its path.

# **Solutions:**

1. I read through the provided packet to figure out how to use the provided libraries to use shaders and compute matrices and vertices.
2. For the math problems I googled how to print the solutions to the webpage. Then I used the packet to convert my hand written problems into code.
3. After watching some lectures over again I saw that I needed to transform the matrix to make the object move.
4. For rendering the path points another friend gave me some advice on what array the path was being stored in. I used this array to get the past points then I changed the path points to show up in Yellow.
5. Lastly, for making the object point orthogonally to its path I computed the orthogonal to the path but it didn’t seem right because I didn’t compute the object’s orthogonal. I didn’t know how to compute the object’s orthogonal so I hard coded an angle based on the given path angle.

# **Sample Input / Output:**

