CISC3620 Spring 2021

## **Homework:** geometry

For this assignment, we will be modifying the basic shapes, triangle and a tetrahedra using Codepen. If you have not done so already, please go to Codepen and create an account.

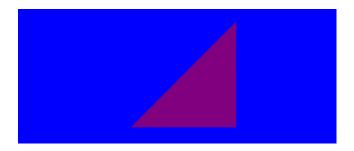
For the following programs, add documentation to your code explaining what you are doing, including any variables you are creating and design choices.

Submission instructions: Submit your URL's on Blackboard.

## Tasks:

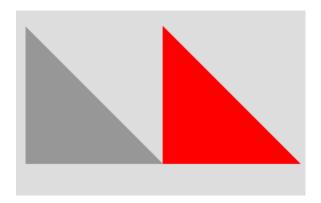
- 1. Triangle exercise:
  - a. Start from this <u>template pen</u>. Click on the "fork" button at the bottom of the screen to create your own copy.
  - b. Change the color of the triangle from blue to red.
  - c. Change the opacity to 0.5. Do this by adding 'opacity' and 'transparent' properties to the MeshBasicMaterial.
  - d. Change the background to blue.
  - 5. Change the triangle orientation along the "x" axis.

Your result should look similar to this:

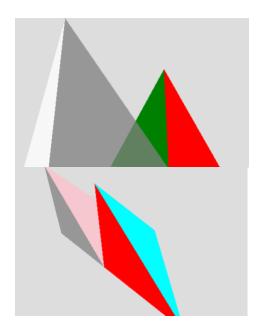


- 6. Save your URL for submission on blackboard.
- 2. Tetrahedra: start from this template pen

- a. Add a second tetrahedra with the following properties:
  - i. The second tetrahedra should have the same "y" and "z" coordinates. but should be placed right before the original tetrahedra along the "x" axis.
  - ii. Your tetrahedra should have the following colors:
    - 1. grey, white, pink, blue
  - iii. The opacity of the faces should be set to 0.75
- b. Your solution should look like this (from upfront):



And similar to this from other perspectives:



c. Save your work and submit the URL.