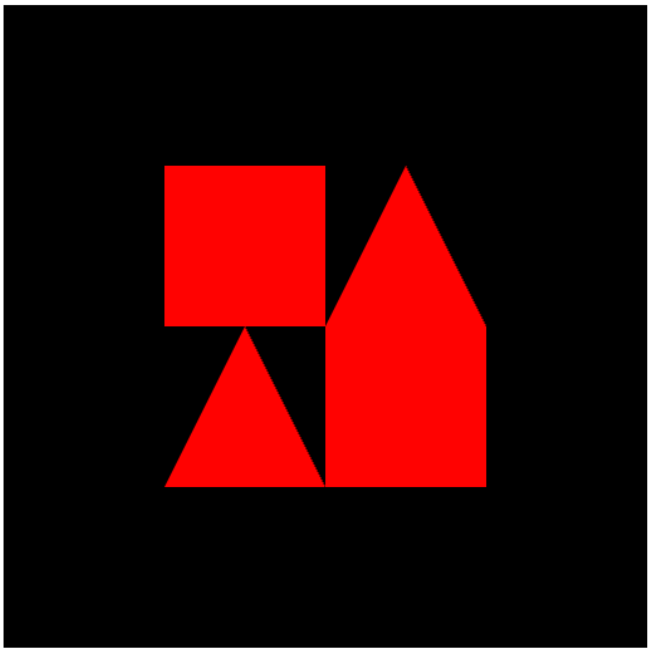
Homework 1

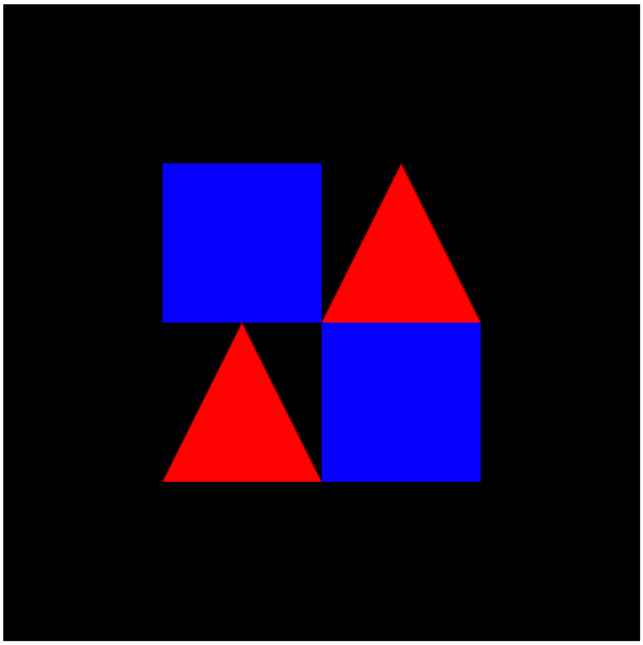
1. Modify the 7-square.html and 7-square.js programs to produce a graph as shown below. It consists of two squares and two triangles. You can choose your own color for the shapes. Each square is ¼ the size of the square in the original program, i.e., the length of each square is 0.5. Rename the programs to: **homework1.js** and **homework1.html**.



Special documentation requirement for this assignment: you are required to write a comment above every line of code.

To submit the programs: log into D2L, locate the page for this course, submit under the Dropbox named "Homework1".

2. Bonus (10 pts):
Create the figure with two different colors as shown below:



How to setup the directories to write your first WebGL program?

Each WebGL program consists of two files, for example "homework1.html" and "homework1.js". Homework1.html will access the javascript utility files stored in the "Common" directory (see how to establish this directory below). It also needs to refer to the "homework1.js" file.

- First, on your computer create a directory named "graphics". All the assignments for this class can be created under this "graphics" directory.

- In the "graphics" directory, create a directory named "Common". Download the utility javascript files from: https://www.cs.mtsu.edu/~cen/4250/private/webgl-code/Common/. Move the downloaded files into the "Common" directory. (Alternatively, you may download the Common.tar.gz file from the course web page, and unzip and untar the file under the "graphics" directory.)

- In the "graphics" directory, create another directory named "homework1". Create "homework1.html" and "homework1.js" files inside this directory. For homework 1, you may use the example code from the course website (e.g., "7-square.html" and "7-square.js") as templates for these two files.

How to run your WebGL program?

- Double click on "homework1.html" will bring up the browser displaying the graphics. Because when "homework1.html" is loaded into the browser, it calls the main function in "homework1.js" to start executing the javascript file.
- If your default browser is not Chrome, right click on "homework1.html", and choose Chrome.

- To run the programs on the course web page, simply double click the html file, or right click to choose Chrome. All the example code provided on the course page has both the .html and .js files included.

Additional notes:

- You do not need to submit the files in your Common directory when submitting homework or project programs. When grading your programs, I will assume the utility files can be found from the "Common" directory in the setup discussed above.
- Use Chrome to run and debug your program. To debug the program, use console.log() statements to print messages and the values of the variables. View Javascript console output by click on "View →Developer→Javascript Console" (on mac).