

Homework 4

Programming Problems:

1. Write a program to apply WebGL transformation to draw Figure (b) as shown below. Each twisted star should be drawn based on the vertex definition of one branch of the star, as shown in Figure (a). Name the program **wreath.html** and **wreath.js**.



Figure (a)

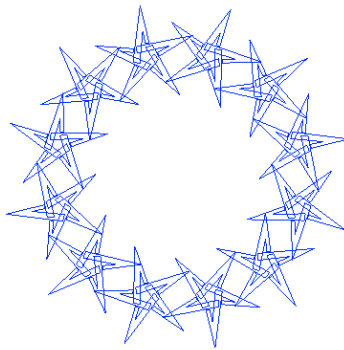


Figure (b)

- Write a WebGL program that performs the following animation: one scaled down **star** (1/10 of the original size along x and y axis) gradually moves from location (-.75, -.75) to location (0, .75) in 100 steps, and then moves to location (.75, -.75) in 100 steps, stops. Name the files **star.html** and **star.js**.

Here are the vertices for the branch in Figure (a):

```
vec2(0, 2);  
vec2(0.1, 1);  
vec2(0.4, 1);  
vec2(0, 4);  
vec2(-1, -0.3);  
vec2(-0.5, -0.5);
```

To submit the programs, log onto D2L and upload the programs in the Dropbox labelled “homework 4”.