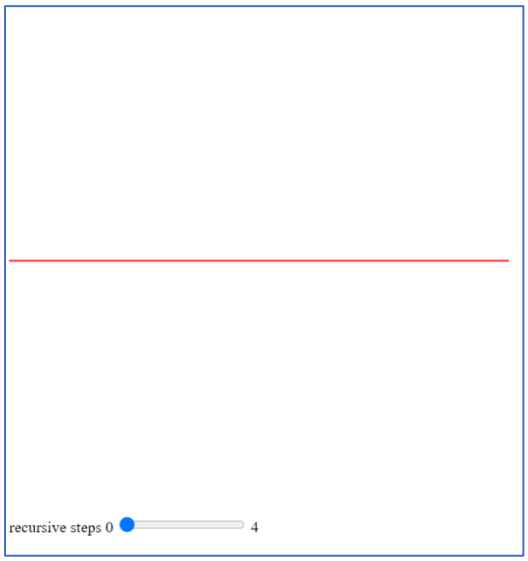
HW 02

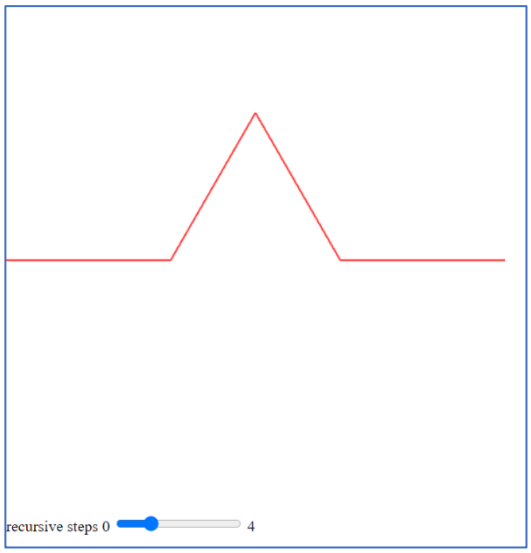
Write a WebGL application which will render “Koch-like Mountains” as a function of the value from a slider bar. This is reminiscent of the Sierpinski Gasket textbook code, particularly the recursive subdivision.

Here, the line is split in segments of 1/3 the total length of the line. On each recursive step, the middle “flat” third is replaced with a triangle. The height of the triangle is proportional to the length of the segment. A calculation based on a 30-60-90 triangle is given below.

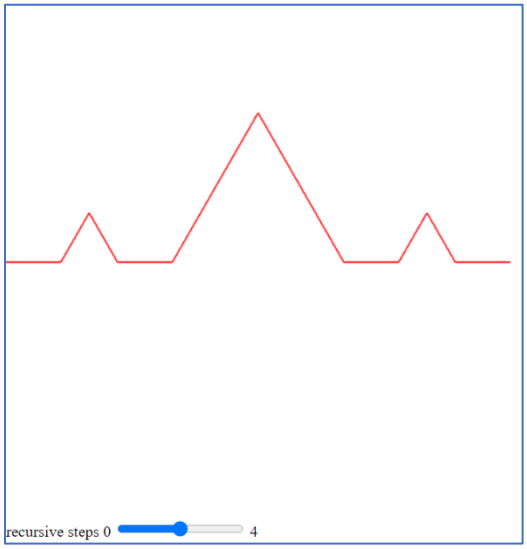
Initial page:



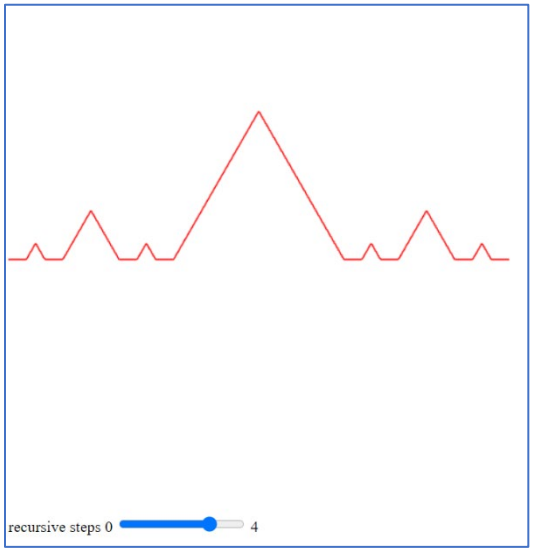
One recursive step:



Two recursive steps:



Three recursive steps:



Coordinates of Triangle
(assuming baseline is `y=0` in clip coordinates**):**

```
len = b - a
c.x = a + len
c.y = len * sqrt(3)/2
```