Your Tasks
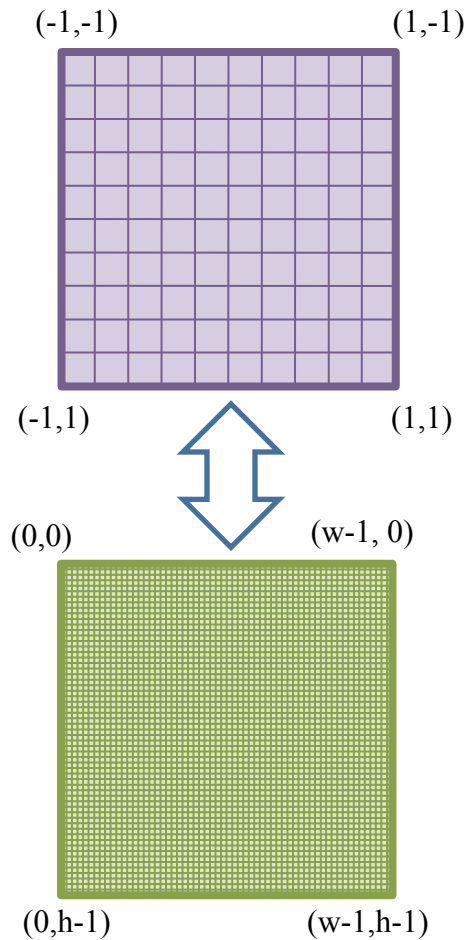
- We have screen coordinates (0,0) to (width,height)

- We have canvas coordinates (-1,-1) to (1,1)

- For each pixel:
  - map pixel coords to canvas coords
  - evaluate function at canvas coords
  - map function value to color
  - store color at that pixel

- Once you do it for the grayscale map try to implement a rainbow colormap

(-1,-1)   (1,-1)

(-1,1)   (1,1)

(0,0)   (w-1, 0)

(0,h-1)   (w-1,h-1)

Rainbow Colormap

Translate the C code to JavaScript
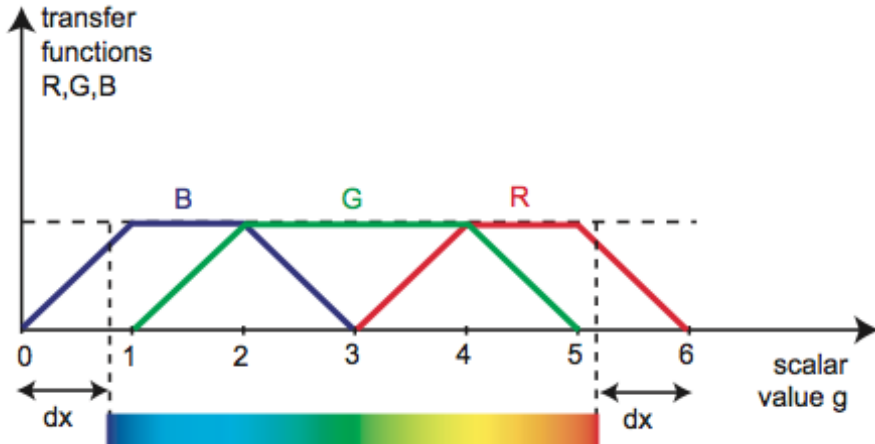
```
void c(float f, float& R, float& G, float& B)
{
    const float dx = 0.8;
    f = (f<0)? 0 : (f>1)? 1 : f;                      //clamp f in [0,1]
    g = (6-2*dx)*f + dx;                              //scale f to [dx, 6-dx]
    R = max(0,(3-fabs(g-4)-fabs(g-5))/2);
    G = max(0,(4-fabs(g-2)-fabs(g-4))/2);
    B = max(0,(3-fabs(g-1)-fabs(g-2))/2);
}
```