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
Rainbow Colormap

Translate the C code to JavaScript

```c
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);
}
```