```
1 import sympy
2 \ {\it from PIL import Image}
3 im = Image.open('IMAGE HERE')
4 rgb_im = im.convert('RGB')
5 width, height = im.size
6 x = sympy.symbols('x')
7 z = x - x
8 \circ = z + 1
9 def linterpolation(y, xs=None):
       if xs is None:
10
11
           xs = list(range(1, len(y) + 1))
12
       assert len(y) == len(xs)
13
       result = z
14
       for j, (xj, yj) in enumerate(zip(xs, y)):
15
           polynomial = o
16
           for m, xm in enumerate(xs):
17
               if m != j:
18
                    polynomial *= (x - xm) / (xj - xm)
           result += yj * polynomial
19
20
       return sympy.expand(result).evalf()
21 def color(1):
22
       if len(str(l)) == 1:
23
           1_2 = zero + zero + str(1)
24
           return str(1_2)
       elif len(str(1)) == 2:
25
           1_3 = zero + str(1)
26
           return str(1_3)
27
28
       else:
           return 1
29
30 \text{ def total(d,y,z)}:
31
       total_1 = str(d) + str(y) + str(z)
32
       return total_1
33 \text{ set1} = []
34 for t in range(0, int(height)):
       for v in range (0, int(width)):
35
36
           r, g, b = rgb_im.getpixel((v, t))
```

```
37     initial = total(str(color(r)), str(color(g)), str(color(b)))
38     set1.append(int(initial))
39 print(linterpolation(set1))
```