



Dr Michael Scott

## 1 This algorithm converts an image into a greyscale version

---

### Algorithm 1 Greyscale

---

**Require:**

an image,  $image$ , with  $N$  channels,  $c$   
 $0 \leq c_{0..N} \leq 255$

```
1: procedure GREYSCALE(image)
2:   for  $x = 0$ , width,  $y = 0$ , height do
3:      $c \leftarrow \text{pixel}(x, y)$ 
4:      $c_{0..N} \leftarrow \frac{\sum_{i=0}^N c_i}{N}$ 
5:      $\text{pixel}(x, y) \leftarrow c$ 
6:   end for
7: end procedure
```

---