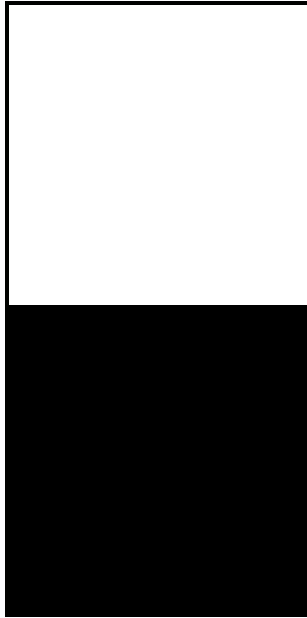# Information Layer

AP CSP @ SouthLake Christian Academy

Black & White Images

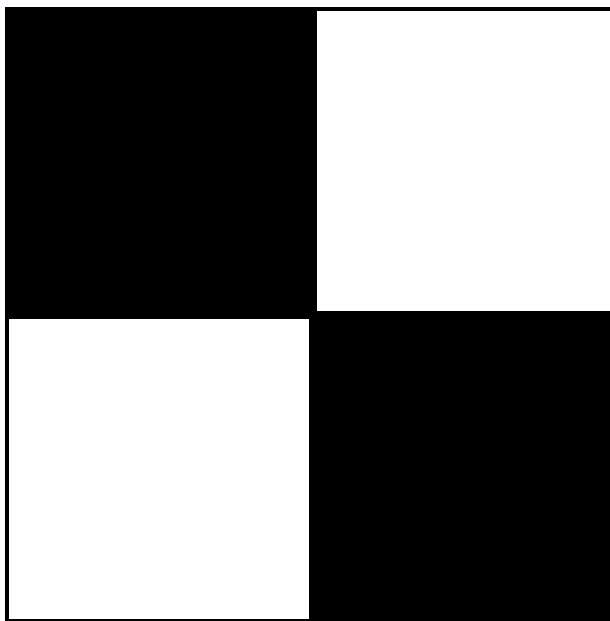*Remember*, `1` means "on", while `0` means "off"

1 means "white"

0 means "black"

The white and black squares above are both **pixels** (picture elements)
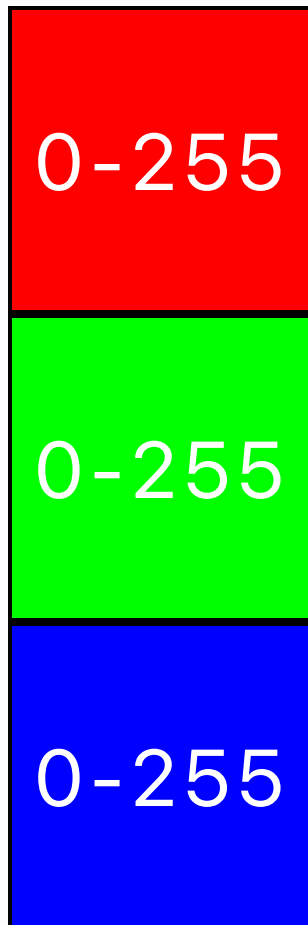
If height and width are both 2 pixels, `0b0110` is
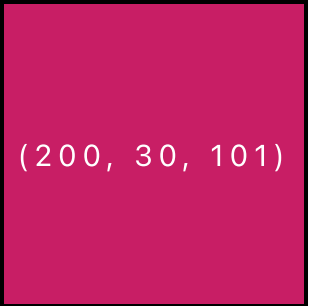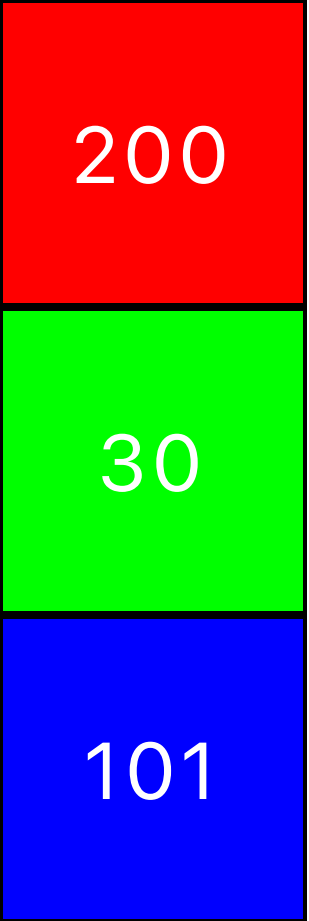
Black and White Images Activity

https://apcsp-slca.github.io/curriculum/information/images/bw_images_explore/

Color

- can be represented by its red, green, and blue parts
  - RGB format
  - RGBA includes alpha value, or transparency
- can be represented by hue, saturation, and brightness value
  - HSV format

RGB

200

30

101

(200, 30, 101)

Color Images

If height and width are both 2 pixels,

(172, 243, 157) (156, 255, 250)

(119, 51, 63) (227, 181, 164)

Key Take Away

Data can be interpreted **by humans** as numbers or as black and white images, colors, or color images.