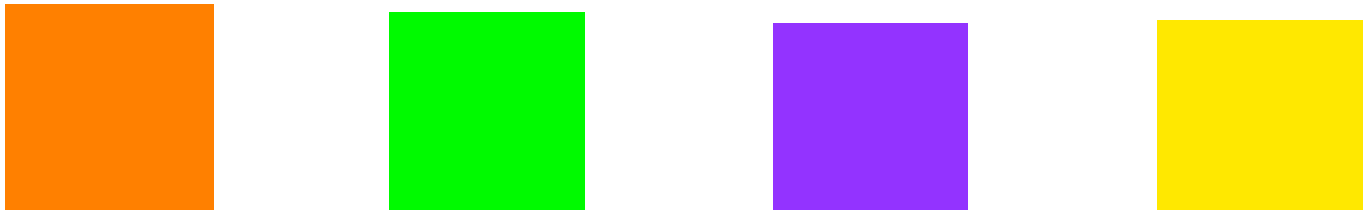
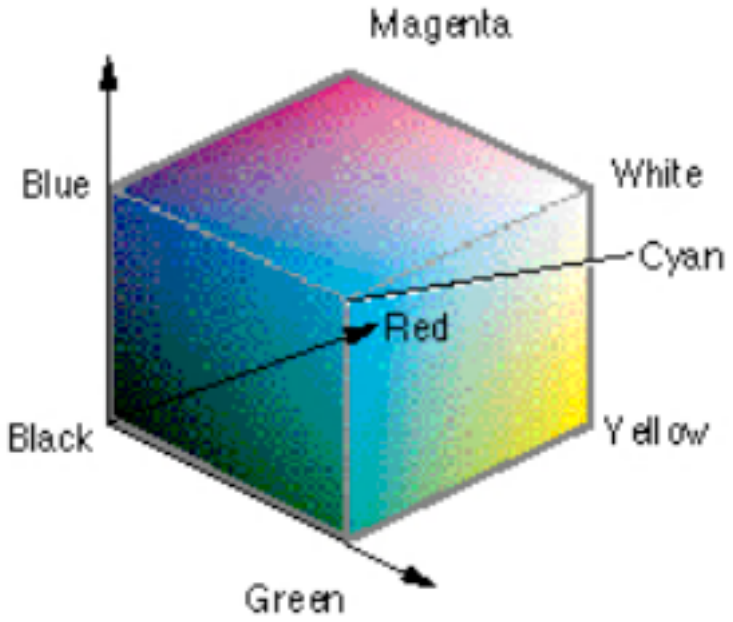
Last time we saw that we can create an RGB color object by:

```
new Color( red, green, blue )
```

Select the red, green, and blue values you think we'd need to make these colors:



Encoding Color: RGB



Color "Closeness"

$$\sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

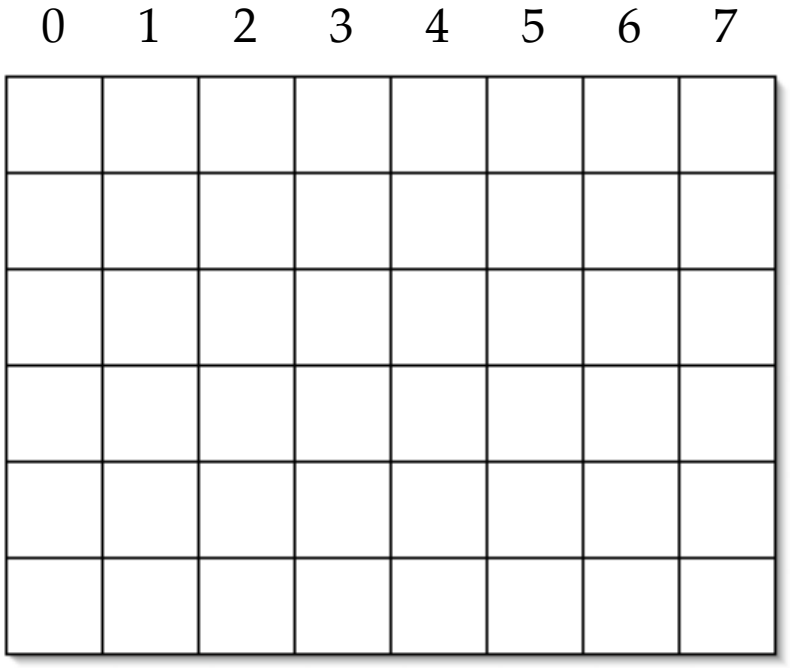
$$\left| \sqrt{(red_1 - red_2)^2 + (green_1 - green_2)^2 + (blue_1 - blue_2)^2} \right.$$

`Pixel`

consists of a `Color`:

int red, green, blue

Picture



`for` loops "by hand" and "for-each"

```
Pixel[] pixels = this.getPixels();


for (int i = 0; i < pixels.length; i++ )
{
  // ACT ON pixels[i]
}


for ( Pixel pixel : pixels )
{
  // ACT ON pixel
}
```

Choosing a for-loop:

use "for each" **if**
you are processing
every pixel

Messages to Pictures

```
getPixel( int x, int y )
getPixels()

show()
repaint()

getWidth()
getHeight()

< new methods we added in class >

new Picture( String filename )
```

Messages to Pixels

```
getRed()      setRed  ( int value )
getGreen()    setGreen( int value )
getBlue()     setBlue ( int value )

getColor()    setColor( Color newColor )


SOURCE:    from a Picture --
           getPixel( x, y )
           getPixels()
```