

153

Colors of color



7: Δ nī ei tniog

12620 -

12820 -

12820 -

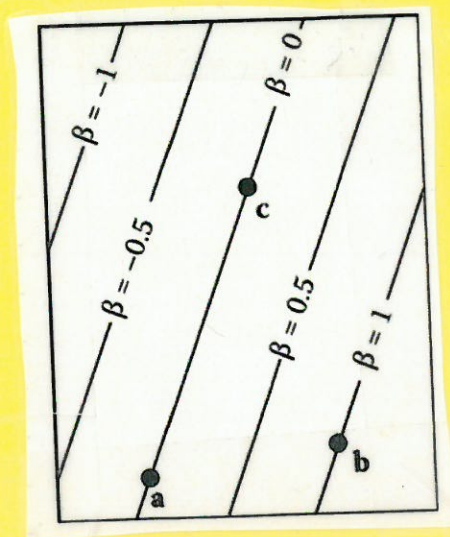
7: Δ nī ei tniog

at nīg st ei (x)st
the line through 68

$$\beta = \frac{f_{ac}(x, y)}{f_{ac}(b_x, b_y)}$$

$$\gamma = \frac{f_{ab}(x, y)}{f_{ab}(c_x, c_y)}$$

$$\alpha = 1 - \beta - \gamma$$



$$\frac{(Y, X)_{\text{top}}}{(Y, X)_{\text{bot}}} = q$$

$$\frac{(Y, Y)_{\text{top}}}{(Y, X)_{\text{bot}}} = r$$

$$r - q - 1 = b$$

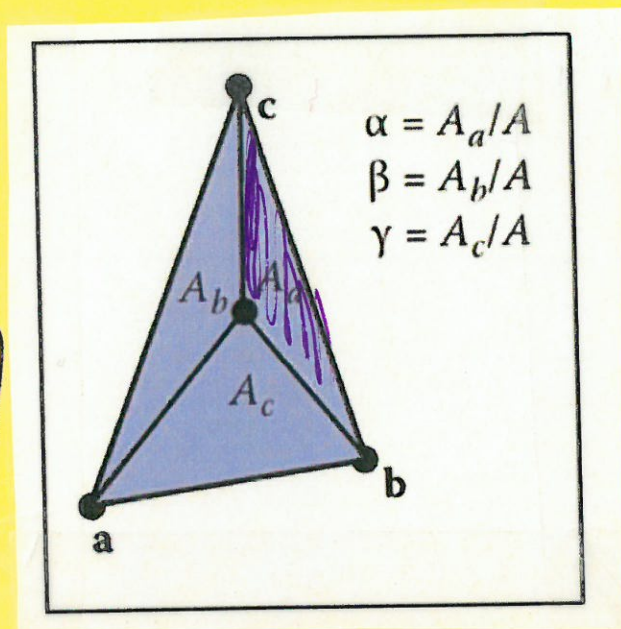
A_a is area
of purple shaded region

$$\text{area}(\Delta abc) = \frac{1}{2} \parallel (b-a) \times (c-a) \parallel$$



HW question

what does this formula mean
"geometrically"



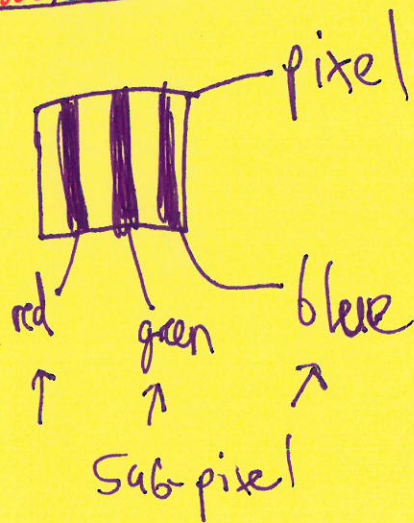
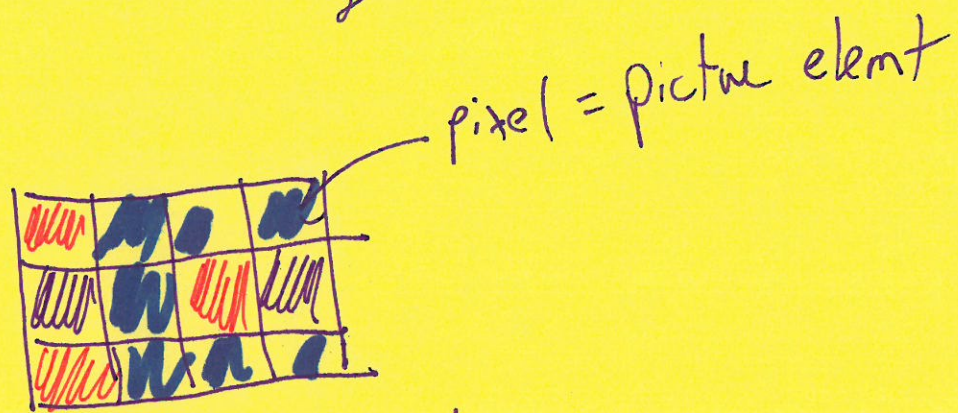
is a set of
 points lying on

$$\| (a-b)X(a-b) \|_2 = (a-b)_{\text{max}}$$

the question

What does this formula mean
 "practically"

Raster image



Vector images

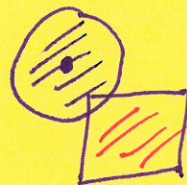
image described by collections of prims

Eg.

circle 0 0 0 1 purple

~~square~~

square 1 -1 1 red

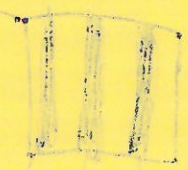


vector image

fixes = 1000



fixes

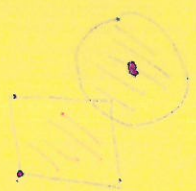


old
new
for

1000-1000

vector image

image details of pixels

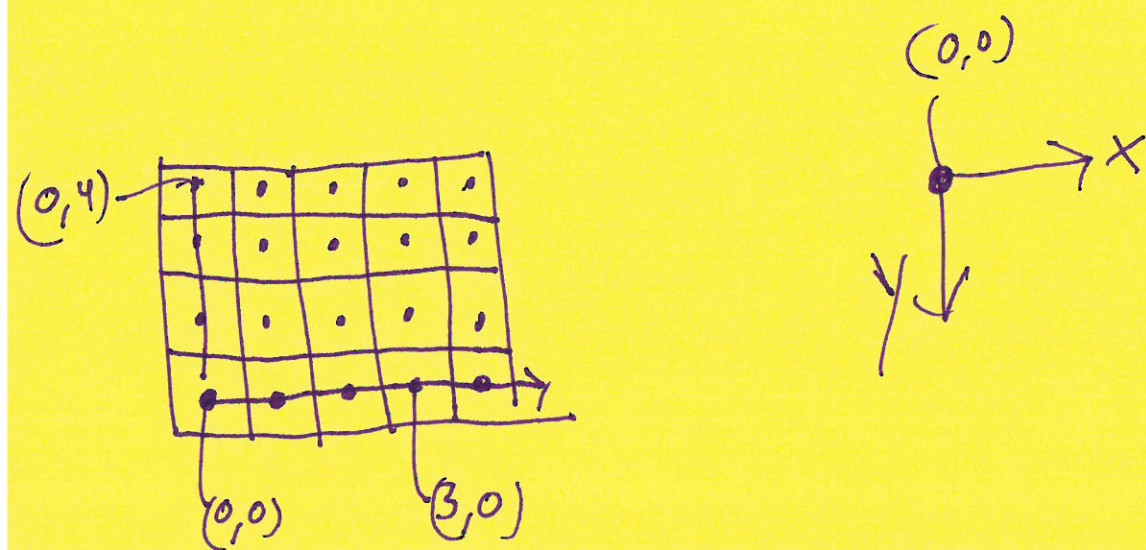


circle 1 0 0 0

~~square~~

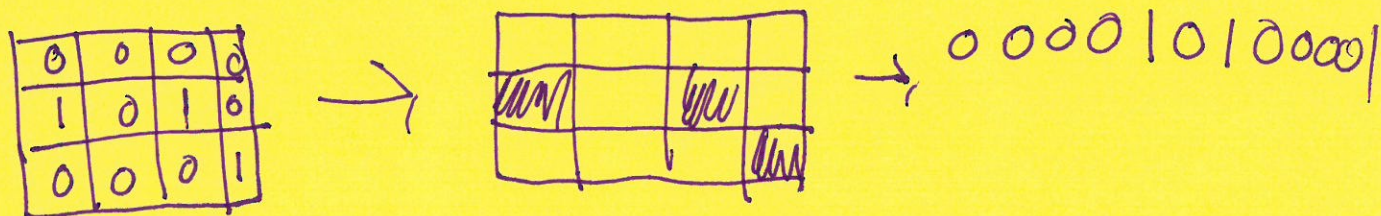
for 1 1 1

pixels & geometry



Colors revisited

1-bit grayscale



8-bit image

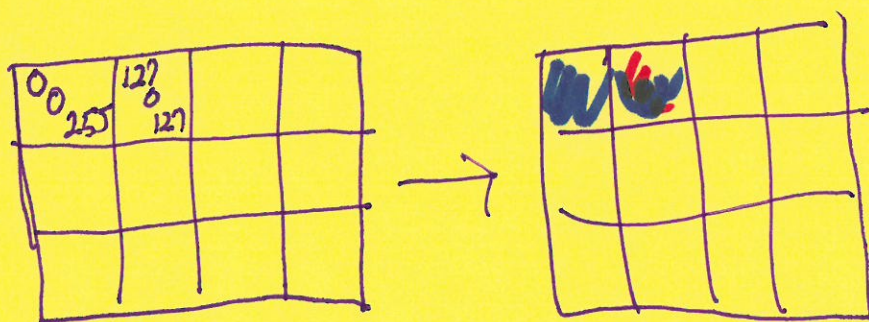
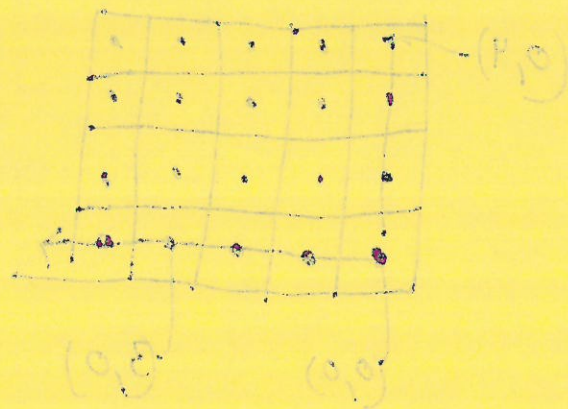


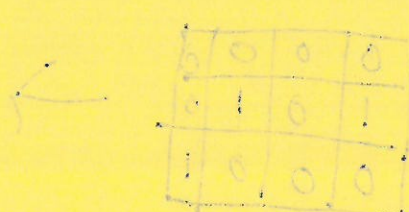
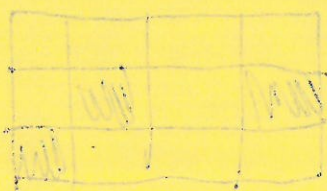
Figure 2/219



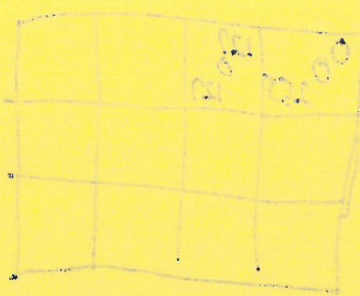
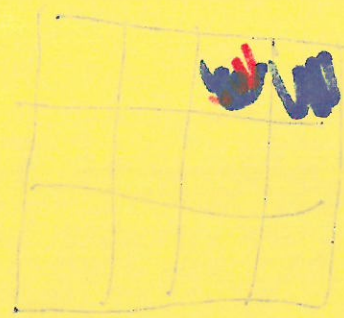
Color resolution

1-bit grayscale

00001010000

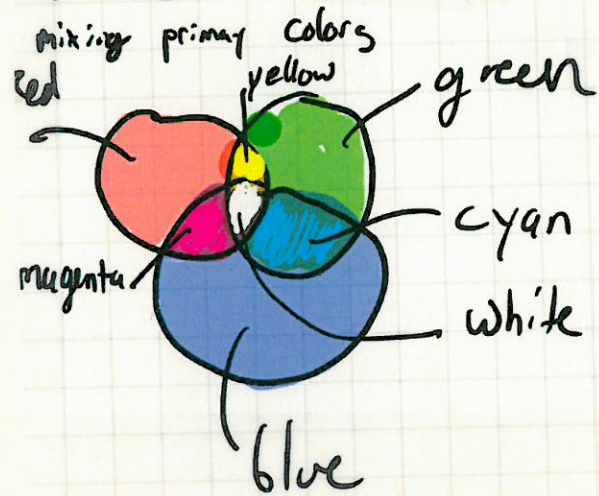


8-bit color



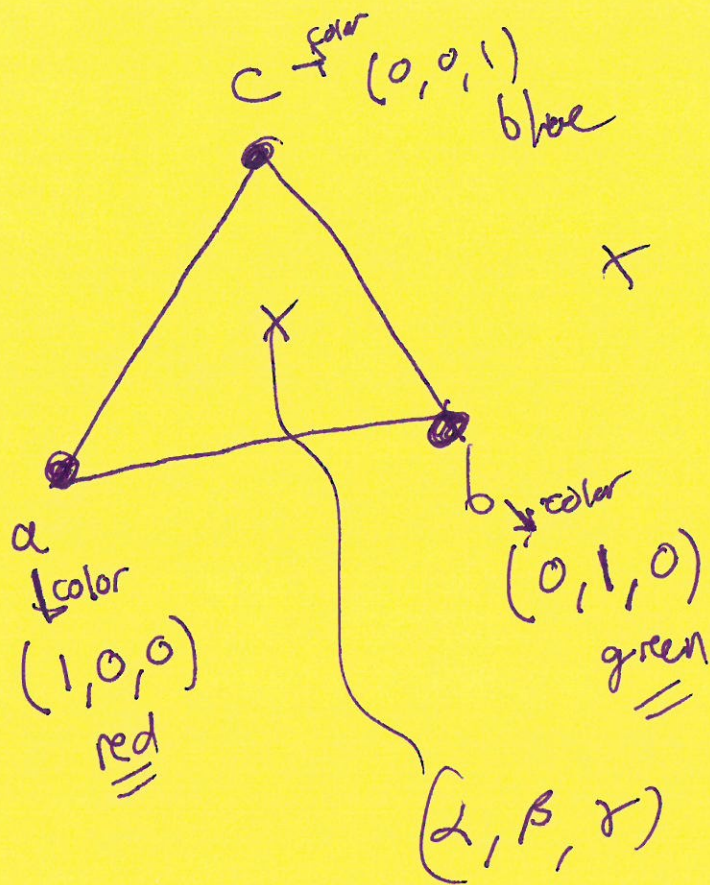
Color mixing

RGB Colors:



Color Mixing





$$\alpha * a.\text{color} + \beta * b.\text{color} + \gamma * c.\text{color}$$

$(0, 0, 0)$
 color

\times



$(0, 1, 0)$
 color

$(1, 0, 0)$
 color

$(1, 1, 0)$
 color

$(0, 0, 0) + (0, 1, 0) + (1, 0, 0) + (1, 1, 0)$