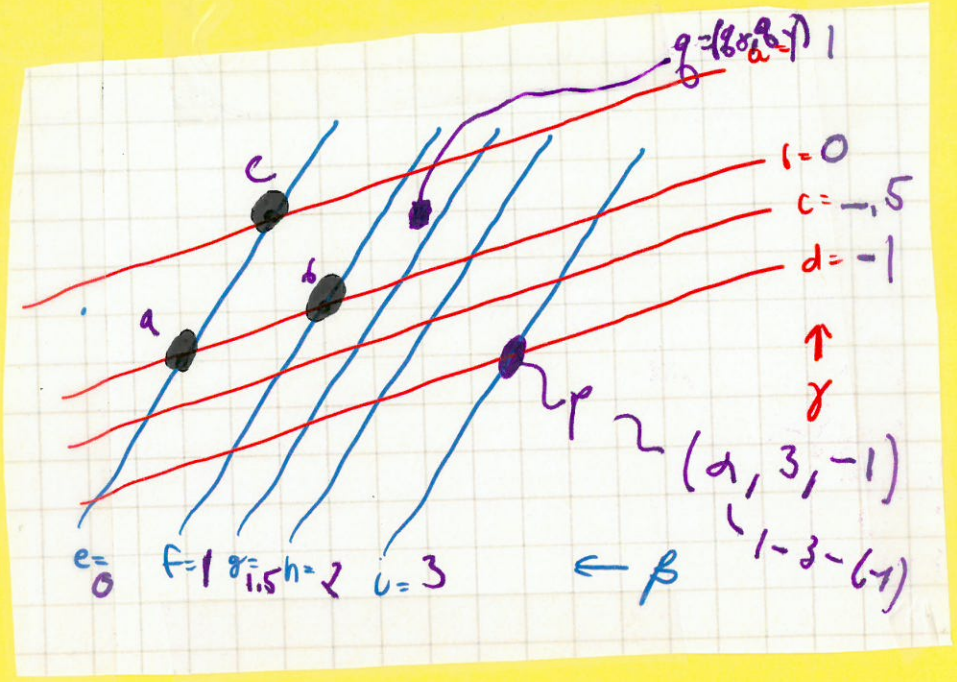
Coords & Color



point is in Δ if

- $0 < \alpha < 1$
- $0 < \beta < 1$
- $0 < \gamma < 1$

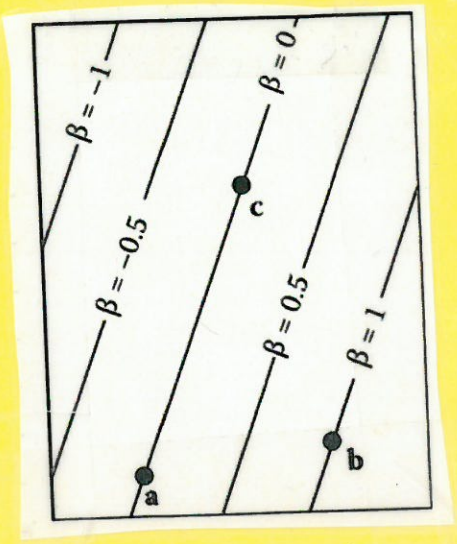
Computing α, β, γ

recall $t_{pq}(x,y)$ is the eqn for the line through pq

Cards & Color

V23

$$\beta = \frac{f_{ac}(X, Y)}{f_{ac}(b_X, b_Y)}$$

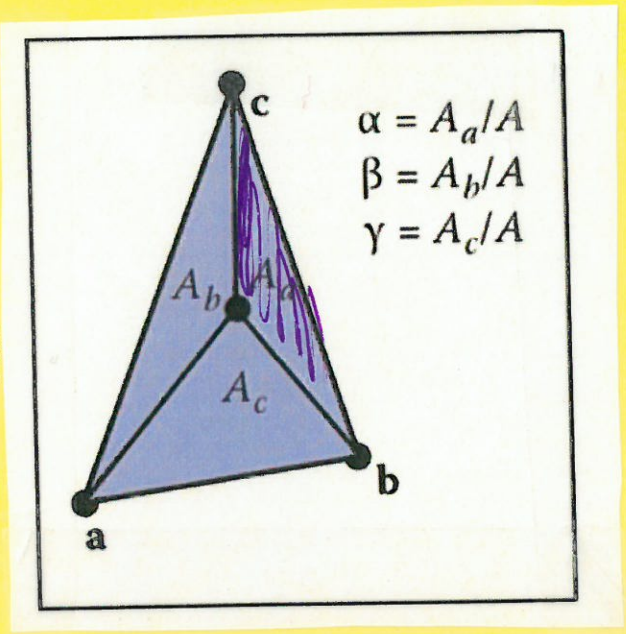


$$\gamma = \frac{f_{ab}(X, Y)}{f_{ab}(c_X, c_Y)}$$

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

A_a is area of purple shaded region

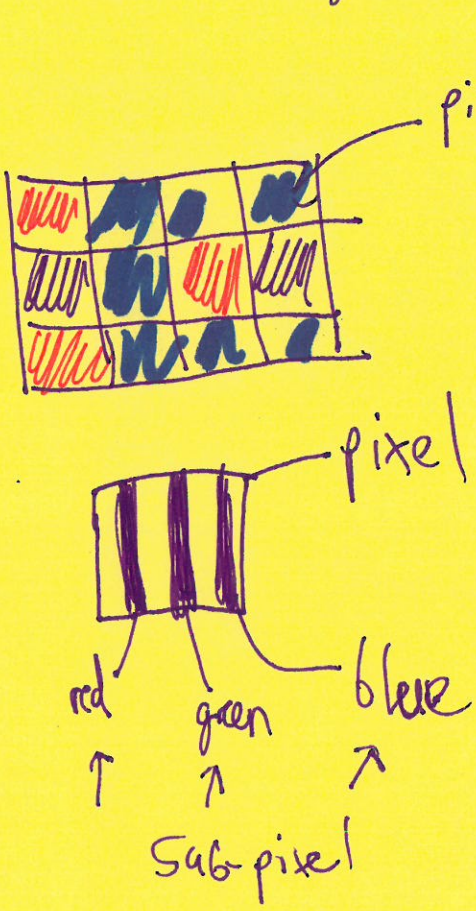
$$\text{area}(\Delta abc) = \frac{1}{2}\,\|(b-a)\times(c-a)\|$$



HW question

what does this formula mean "geometrically"

Raster image



Vector images

image described by collections of prims

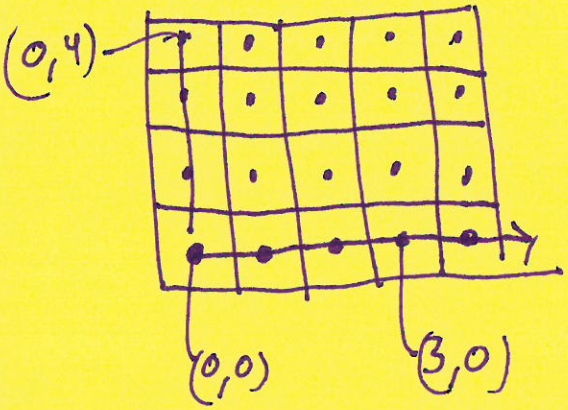
Eg.

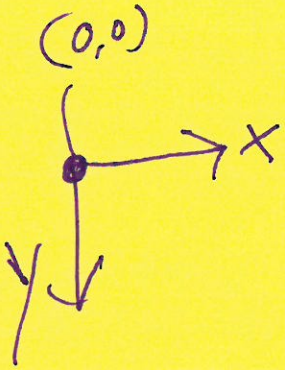
circle 0 0 0.1 purple

~~square~~

square 1 -1 1 red

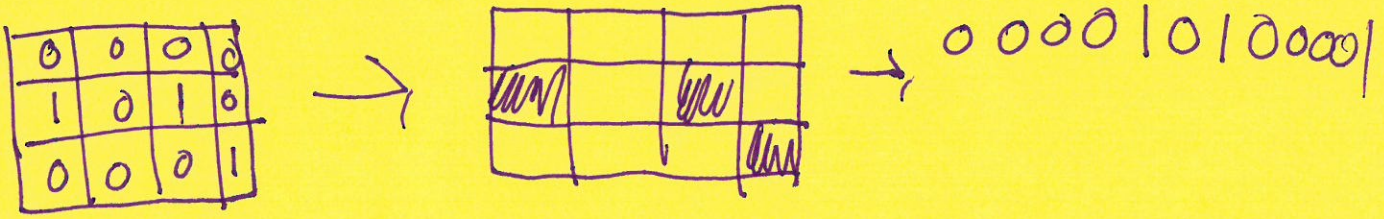
Pixels & geometry



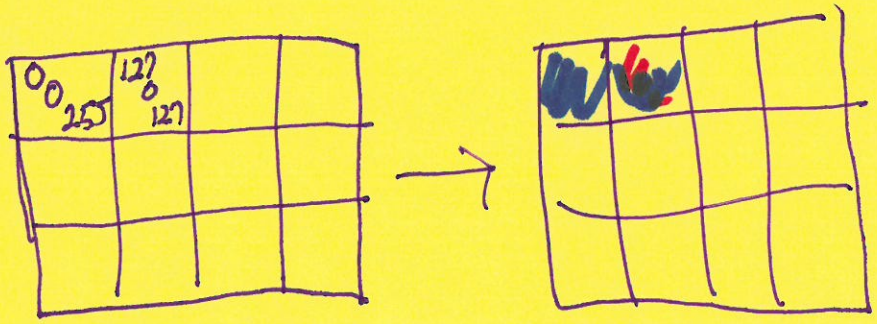


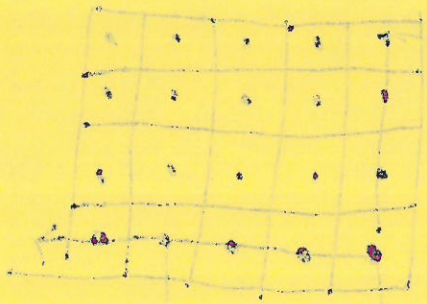
Colors revisited

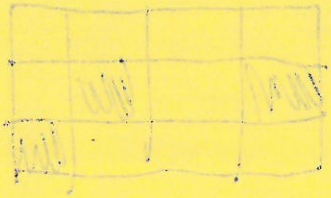
1-bit grayscale

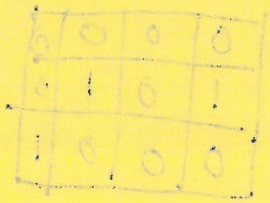


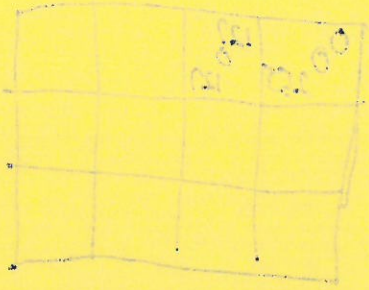
8-bit image



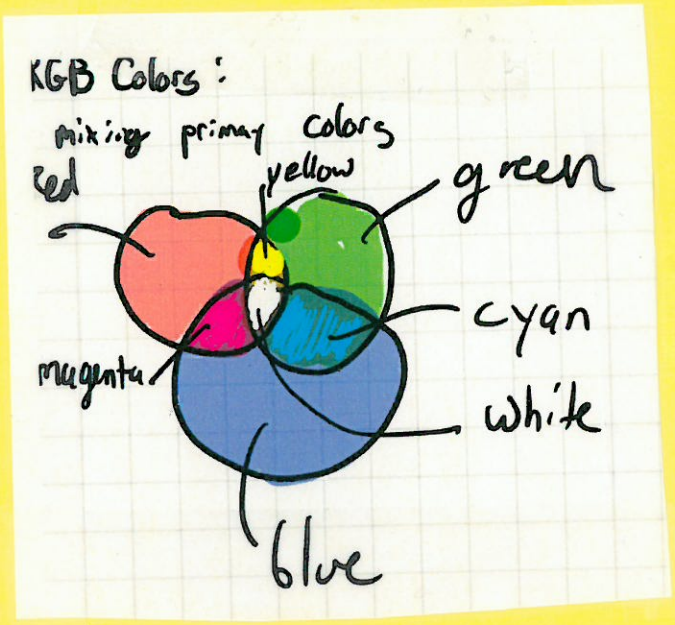


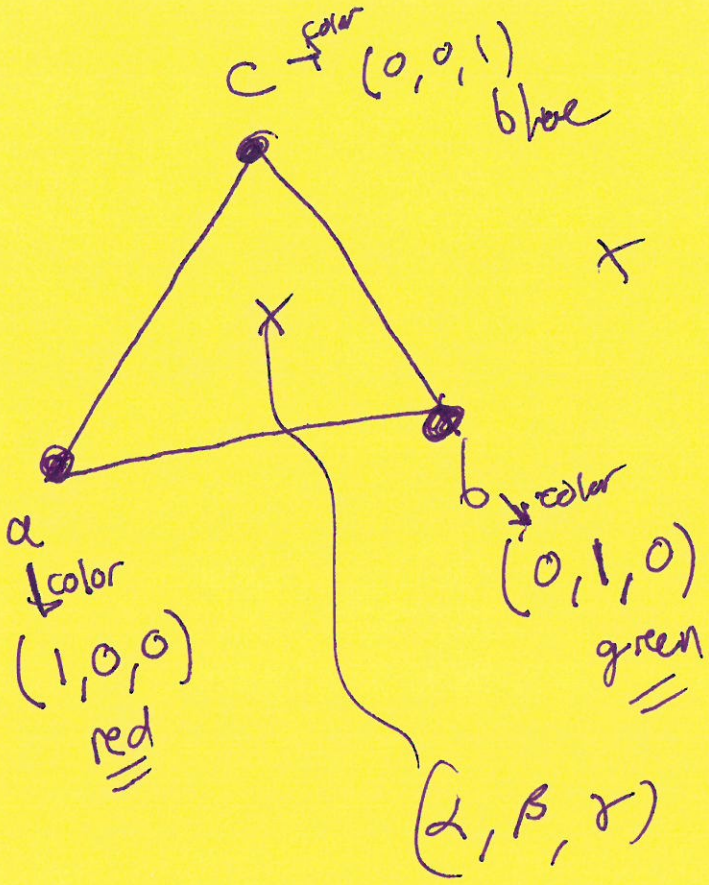






Color miting





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