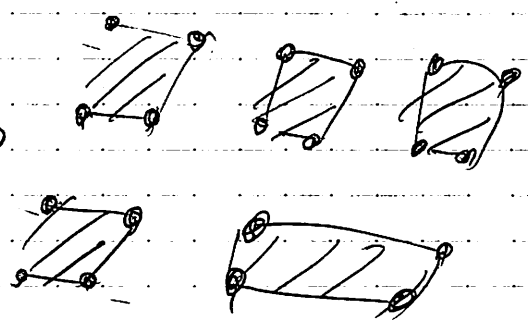
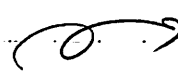
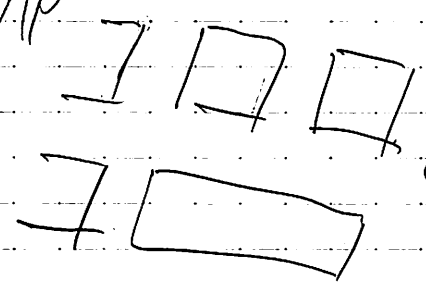


RGB Simulator

MAP



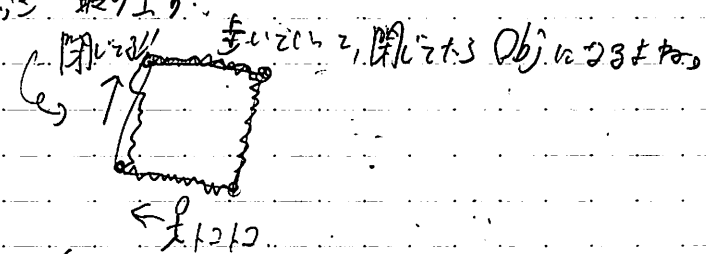
Map

Obj

白黒 Map の交換?

どっちの形状にする...? P-ハックの地図?

エッジ 取り出す



パターンマッチングがある...

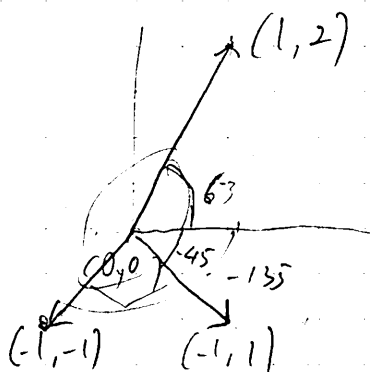
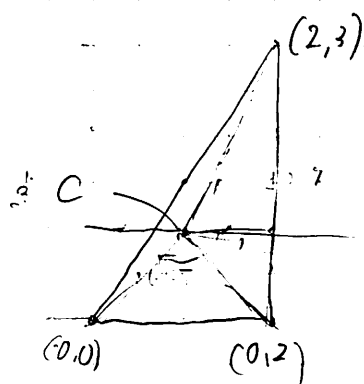
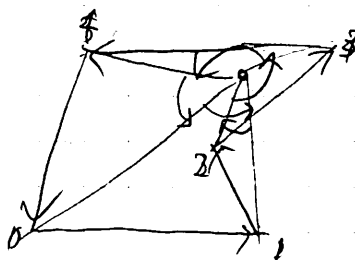
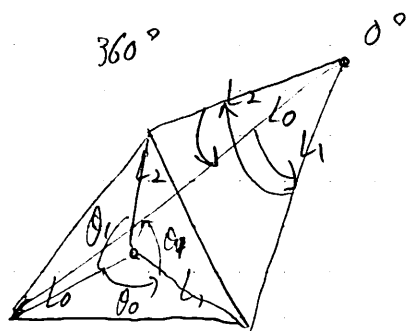
中の黒率が何%でとかやめずいいけろやばる

(ぬりこみはめとるってアカン)

点が中か外かで判定か?

直線にたけやでいいの?

RGB Simulator



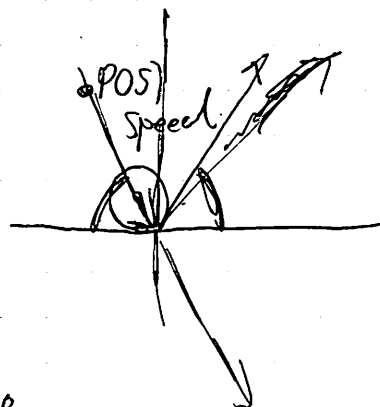
$$A(x_0, y_0) \quad \text{and} \quad \vec{d} = \begin{pmatrix} dx \\ dy \end{pmatrix}$$

$$y = \frac{dy}{dx} (x - x_0) + y_0$$

$$dx \cdot y = dy \cdot x - dy \cdot x_0 + dx \cdot y_0$$

$$0 = \underbrace{dy \cdot x}_a - \underbrace{dx \cdot y}_b - \underbrace{dy \cdot x_0 + dx \cdot y_0}_c$$

$$P(x, y) \text{ is a point} \quad d = \frac{|ax + by + c|}{\sqrt{a^2 + b^2}}$$



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$$d_0, \vec{d} \begin{pmatrix} d_x \\ d_y \end{pmatrix}, e_0, \vec{e} \begin{pmatrix} e_x \\ e_y \end{pmatrix}$$

$$\text{the } d_0 x + d$$

$$d_0 x - d_0 y - d_0 x + d_0 y = 0$$

$$d_0 x - d_0 y + d_0 x - d_0 y = 0$$

$$e_0 x - e_0 y + e_0 x - e_0 y = 0$$

$$a_0 x + b_0 y = -e$$

$$c_0 x + d_0 y = -f$$

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} -e \\ -f \end{pmatrix}$$

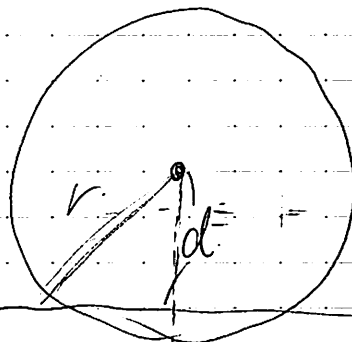
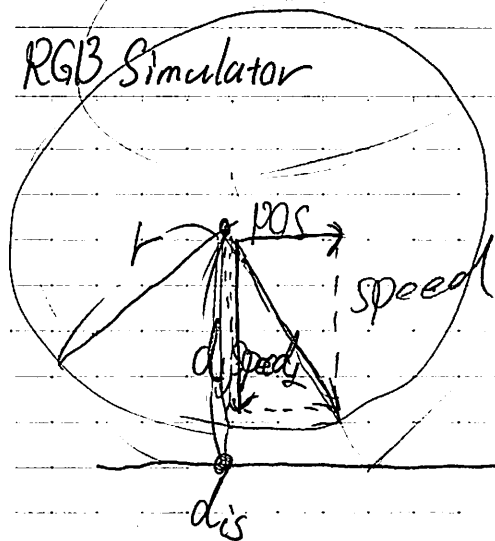
$$\begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} a & b \\ c & d \end{pmatrix}^{-1} \begin{pmatrix} -e \\ -f \end{pmatrix}$$

$$= \frac{1}{ad-bc} \begin{pmatrix} d & -b \\ -c & a \end{pmatrix} \begin{pmatrix} -e \\ -f \end{pmatrix}$$

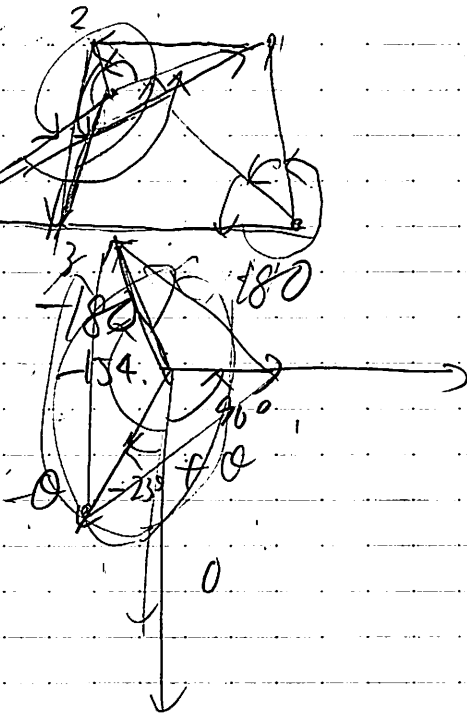
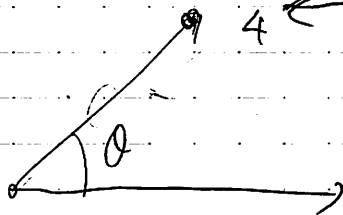
$$\begin{pmatrix} x \\ y \end{pmatrix} = \frac{1}{ad-bc} \begin{pmatrix} d \cdot (-e) + b \cdot (-f) \\ -c \cdot (-e) + a \cdot (-f) \end{pmatrix}$$

$$= \begin{pmatrix} \frac{-de-bf}{ad-bc} \\ \frac{ce-af}{ad-bc} \end{pmatrix}$$

RGB Simulator



speed₁



外側力と22
内側力と7

