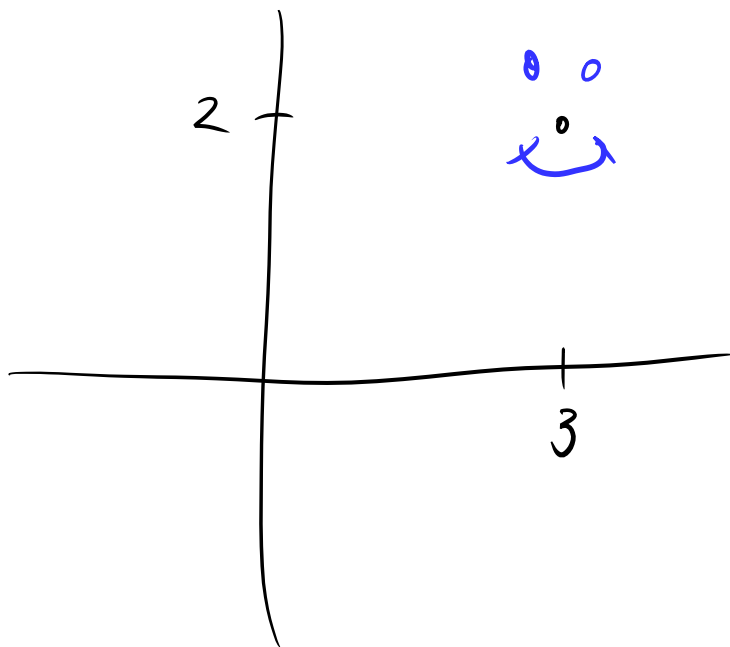
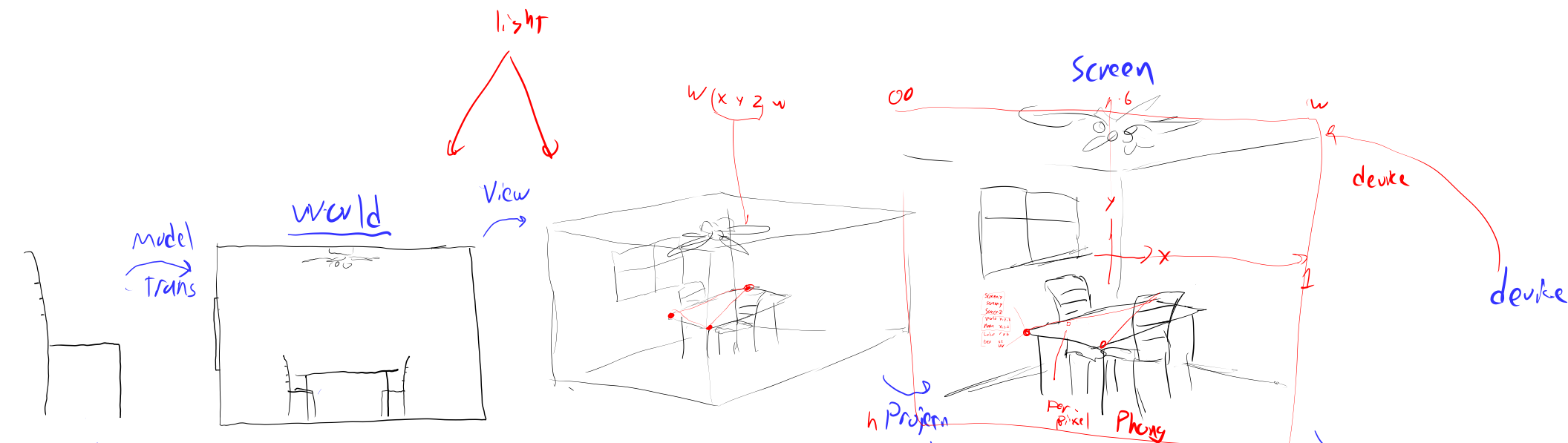




$$\begin{matrix} & F & & R & & T \\ \left[\begin{array}{c} 1 \\ 0 \\ 0 \end{array} \right] & \left[\begin{array}{c} 0 \\ 1 \\ 0 \end{array} \right] & \left[\begin{array}{c} 3 \\ 2 \\ 1 \end{array} \right] & \left[\begin{array}{cc} \sqrt{0.5} & -\sqrt{0.5} \\ \sqrt{0.5} & \sqrt{0.5} \\ 0 & 0 \end{array} \right] & \left[\begin{array}{c} 0 \\ 0 \\ 1 \end{array} \right] & \left[\begin{array}{ccc} 1 & 0 & -3 \\ 0 & 1 & -2 \\ 0 & 0 & 1 \end{array} \right]
 \end{matrix}$$





Model
 object space
 model space

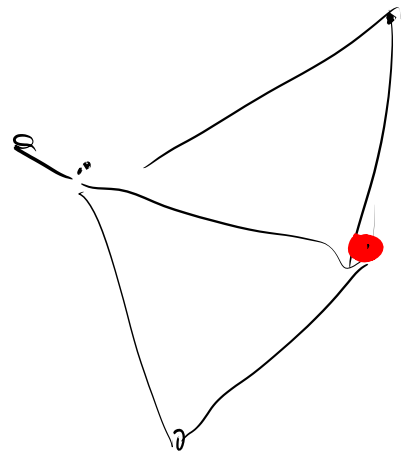
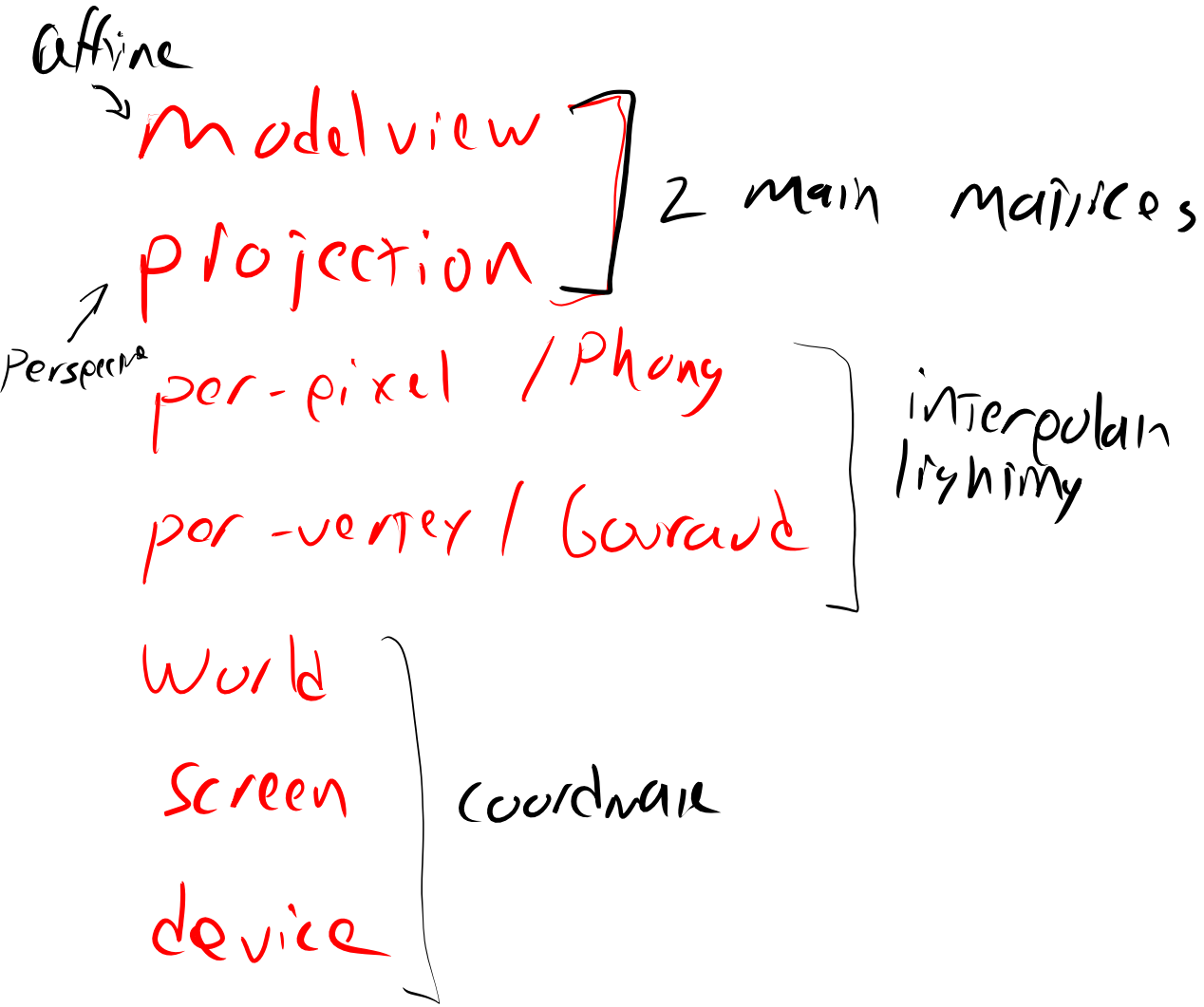
Origin = eye
 (camera)

Forward = aperture axis
 -Z

Model View

light
 Per vertex
 Gouraud

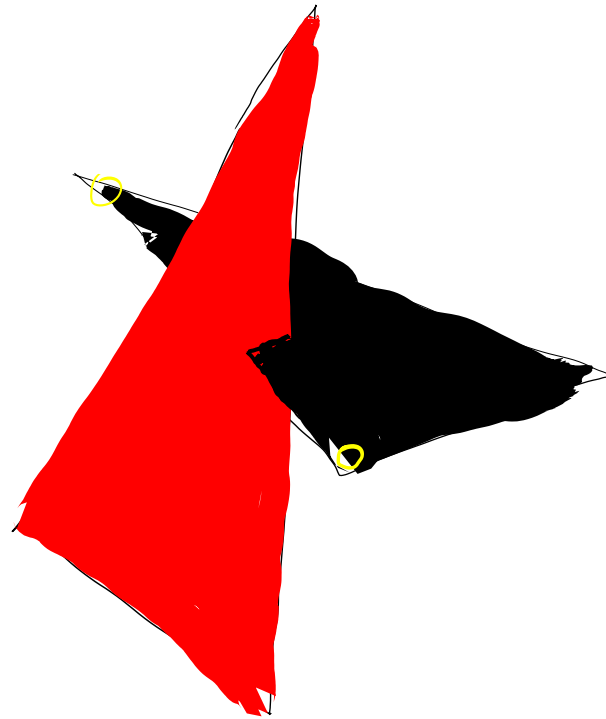
rasterize



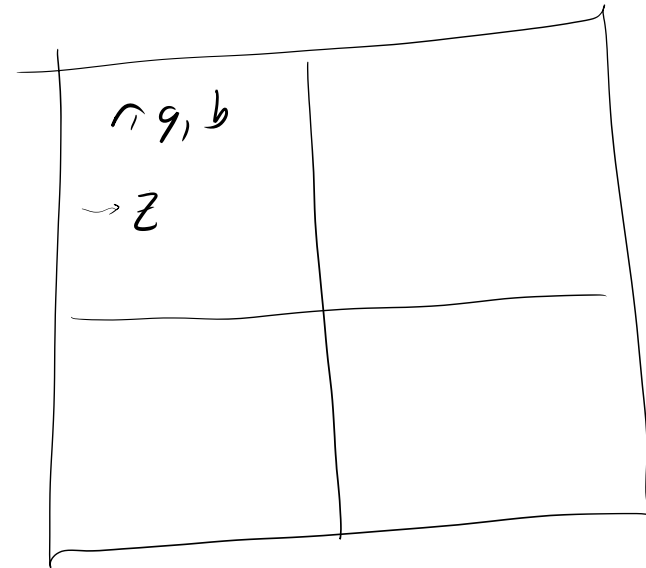
Painter's Alg

Sort by depth

Draw from near

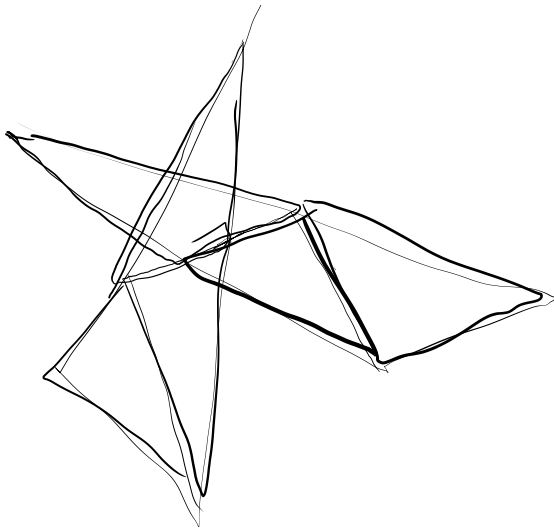


Depth Buffer



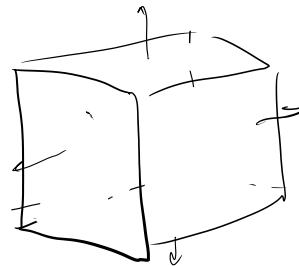
per-pixel painter-ish

Sub division



Transparency

↳ passes



Back-face culling

Clip

$$(x, y, z, w)$$

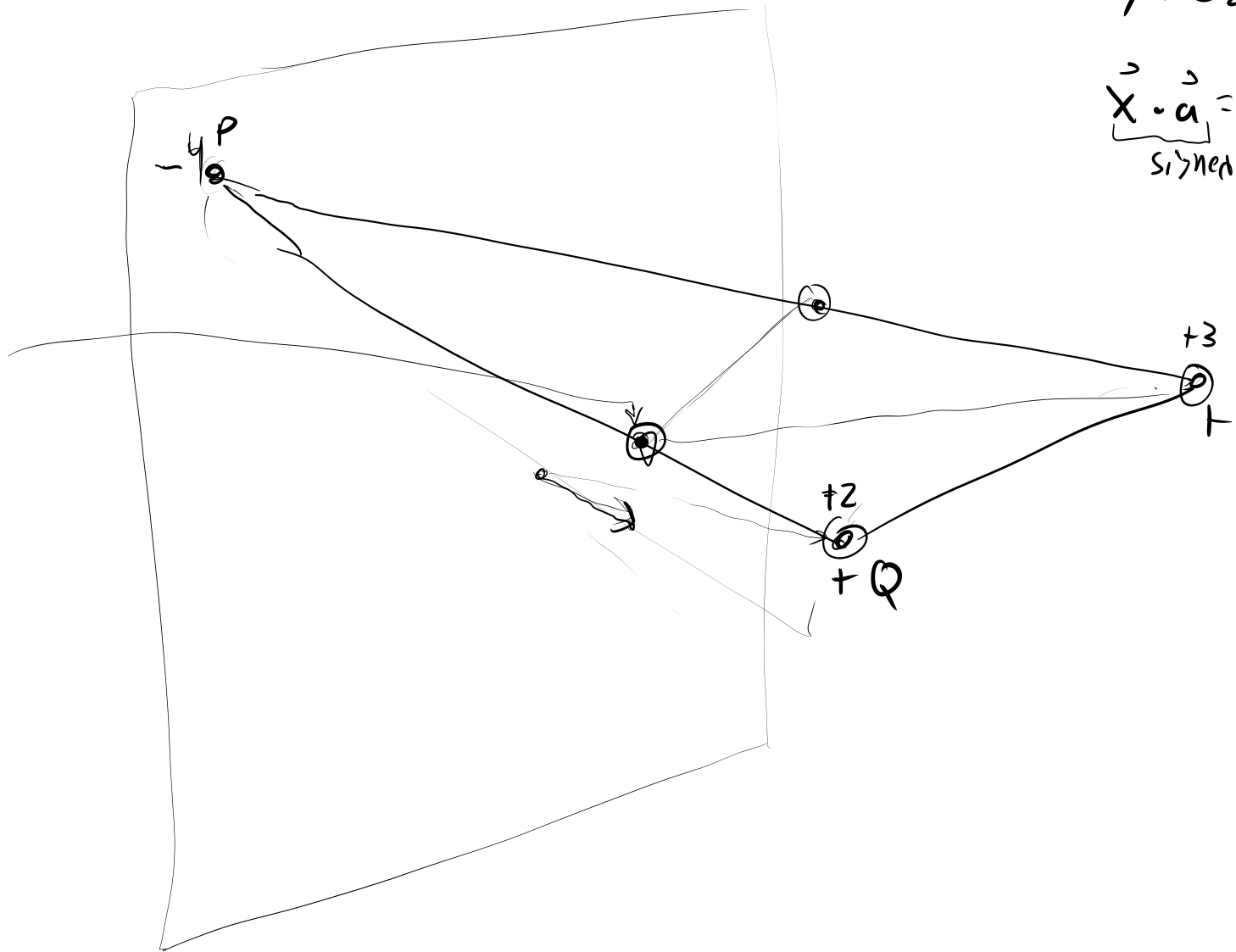
$$(a, b, c, d)$$

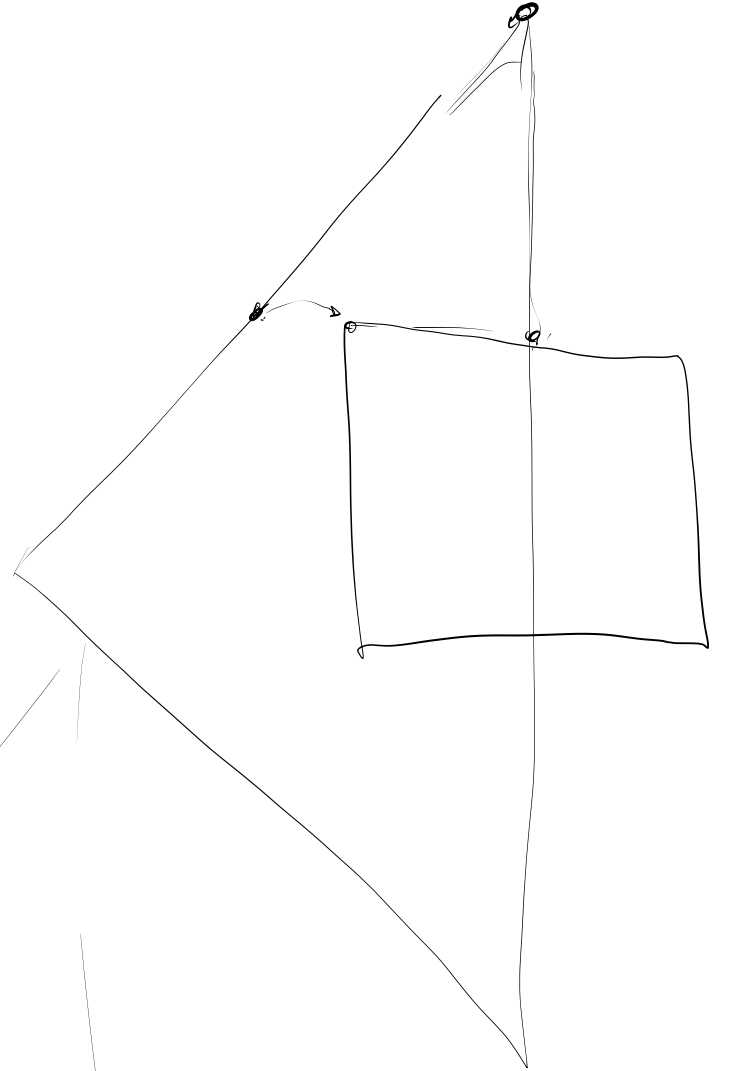
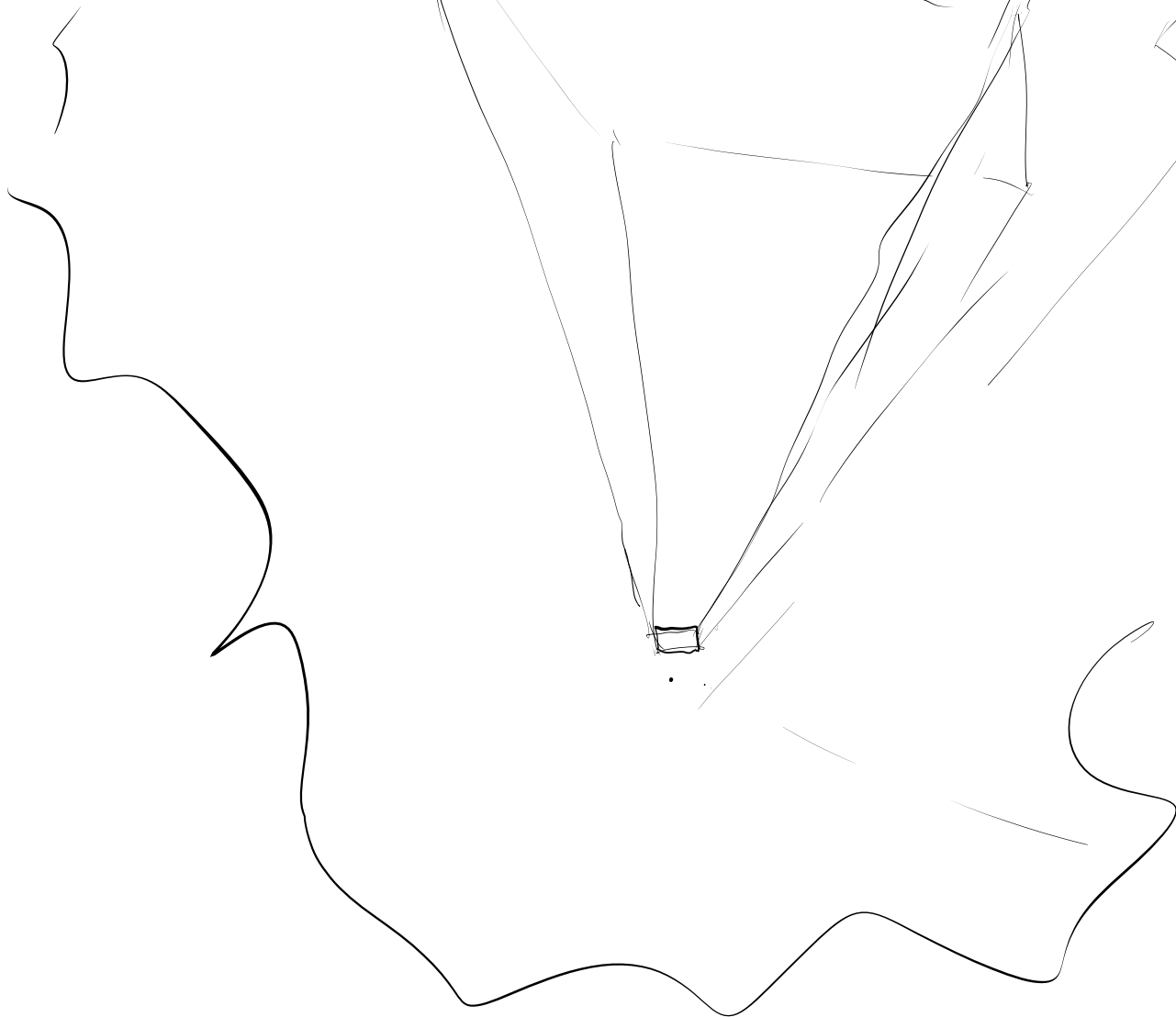
$$ax + by + cz + d = 0$$

$$\vec{x} \cdot \vec{a} = 0$$

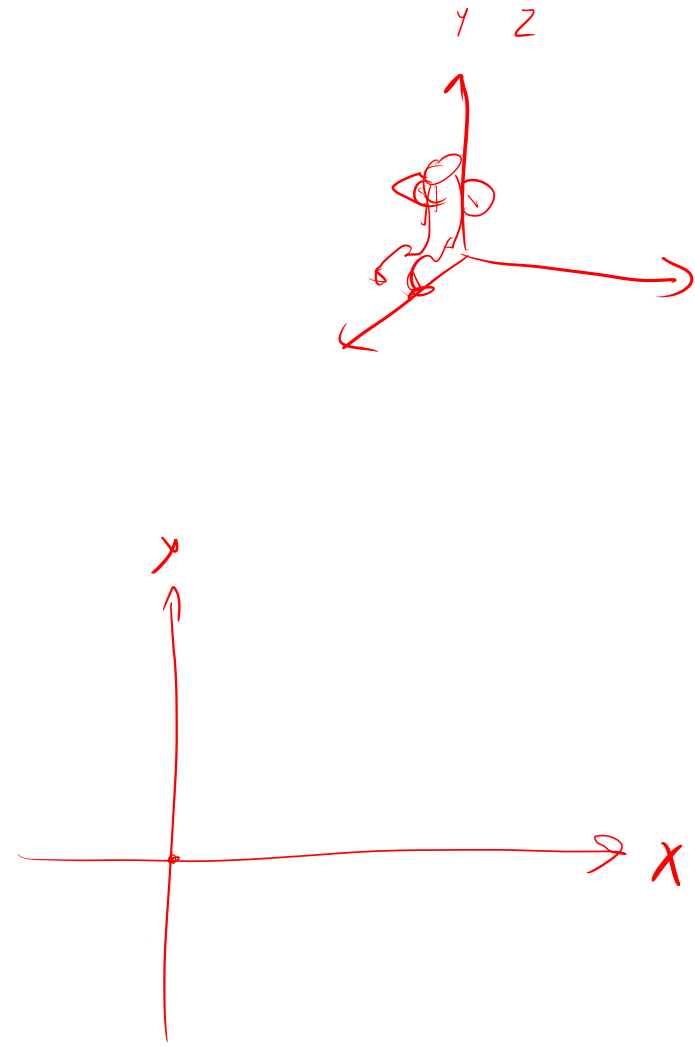
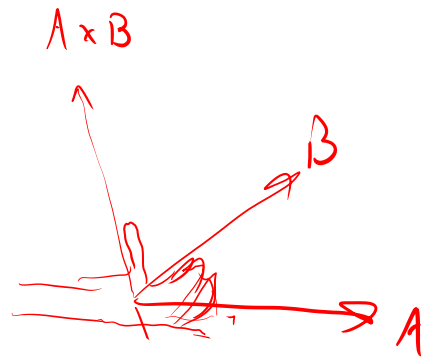
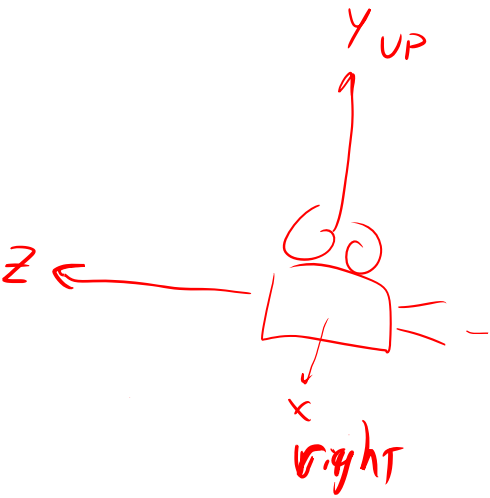
signed distance

$$\frac{2P + 4Q}{6}$$





right hand rule



$$x \div -2$$

$$y \div -2$$

z

