

$$w = \alpha u + \beta v \sim (\alpha, \beta) \in \mathbb{R}^2$$

Linear! Kombinieren $A: \begin{pmatrix} \alpha & \beta \\ \gamma & \delta \end{pmatrix} \cdot \begin{pmatrix} u \\ v \end{pmatrix} = f(w)$

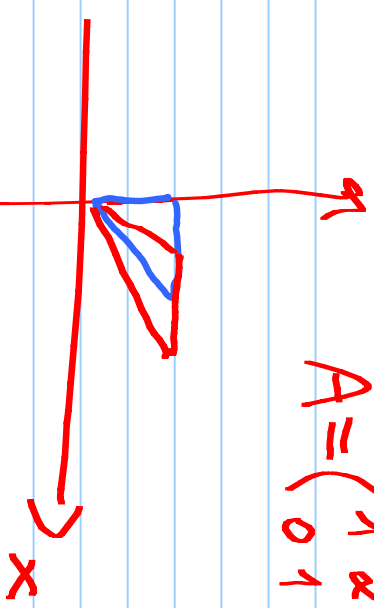
$$f(u) = (a, b) = \alpha u + \beta v$$

$$f(v) = (c, d) = \gamma u + \delta v \quad f(\alpha u + \beta v) = \alpha f(u) + \beta f(v)$$

$$F(x) = A \cdot \begin{pmatrix} x \\ x \end{pmatrix} + \begin{pmatrix} 2 \\ 1 \end{pmatrix}$$

Perubahan: " shrink " "

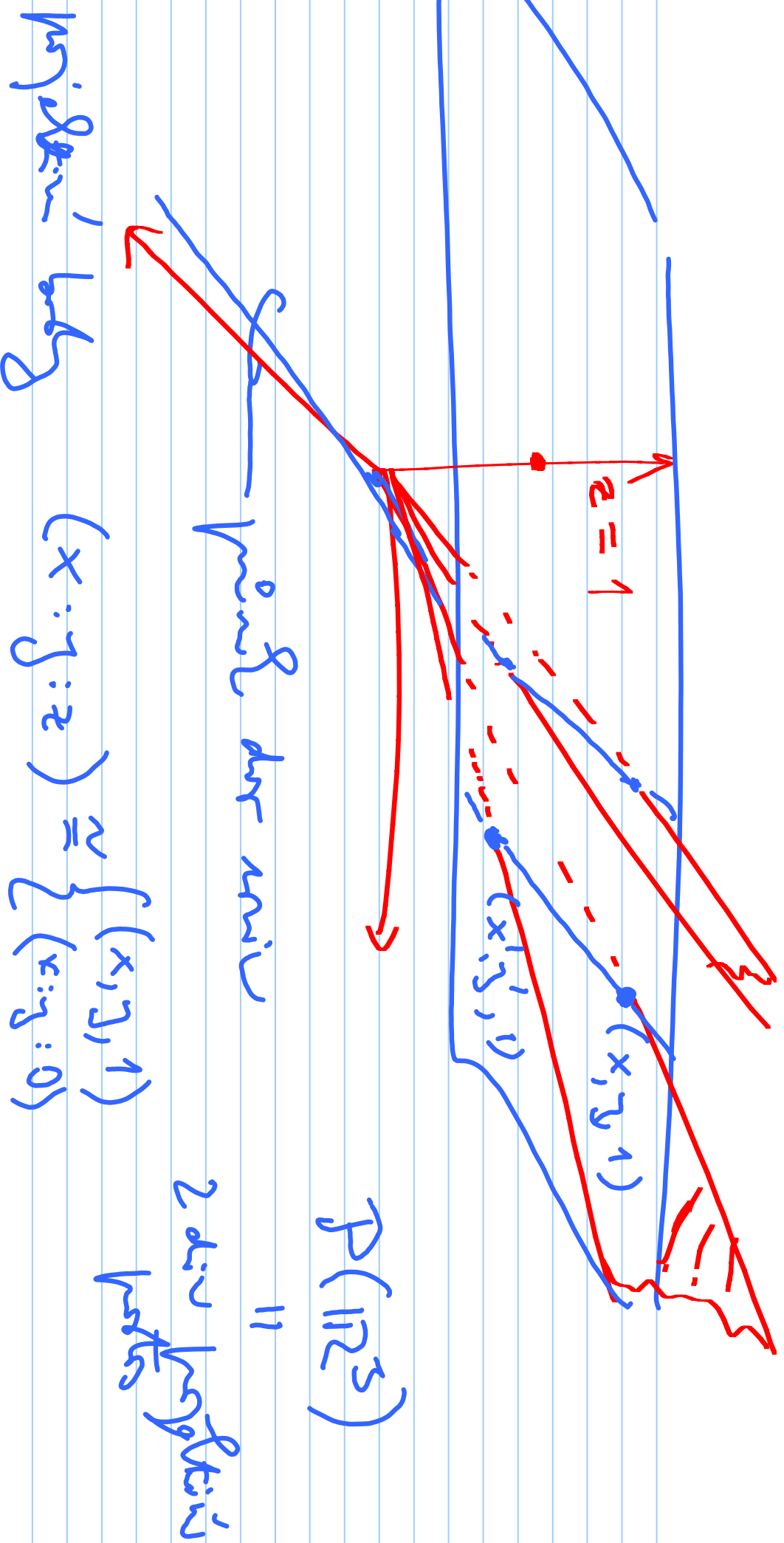
rotasi jika sistem koordinat shrun'k



$$\begin{pmatrix} 1 & \alpha \\ 0 & 1 \end{pmatrix} \cdot \begin{pmatrix} 1 & \alpha \\ 0 & 1 \end{pmatrix} \cdot \begin{pmatrix} x \\ y \end{pmatrix}$$

$$\begin{pmatrix} 1 & \alpha + \alpha \\ 0 & 1 \end{pmatrix}$$

shrink - shrink
shrink shrink



Projektion' beidg $(x:y:z) \approx \{ (x,y,1) (x,y,0) \}$

$$A = \begin{pmatrix} \boxed{1} & \boxed{0} & \boxed{0} \\ \boxed{0} & \boxed{0} & \boxed{0} \\ \boxed{0} & \boxed{0} & \boxed{0} \end{pmatrix} \begin{pmatrix} n \times n \end{pmatrix}$$