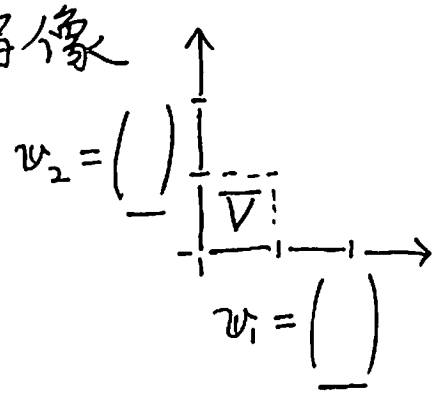
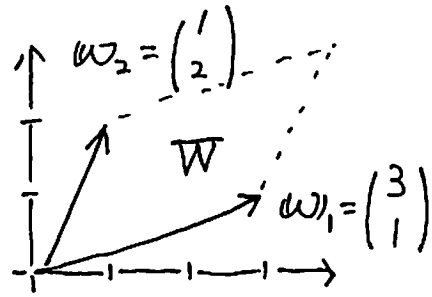
# 線形代数 演習-IV

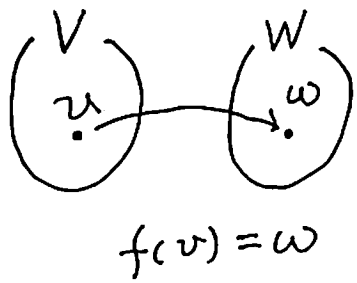


○ 写像

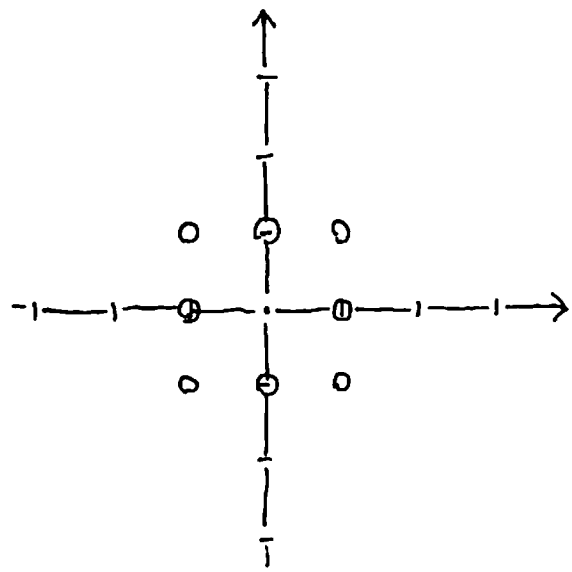



$A = \begin{pmatrix} & \\ & \end{pmatrix}$




$$\begin{pmatrix} a & b \\ c & d \end{pmatrix}\begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} \quad \end{pmatrix}$$



○ 固有値 (Eigen Value)

$$A\boldsymbol{v} = \lambda \boldsymbol{v}$$

$$A = \begin{pmatrix} 2 & 1 \\ 1 & 2 \end{pmatrix}$$

$$|A - \lambda E|$$

$$= \left| \begin{pmatrix} 2 & 1 \\ 1 & 2 \end{pmatrix} - \lambda \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \right|$$

$\lambda =$ ＿, ＿

○ 固有ベクトル (Eigen Vectors)

$\lambda_1 =$ ＿　　$\lambda_2 =$ ＿

$v_1 = \begin{pmatrix} \\ \end{pmatrix}$　　$v_2 = \begin{pmatrix} \\ \end{pmatrix}$

検算？ ＿＿＿＿