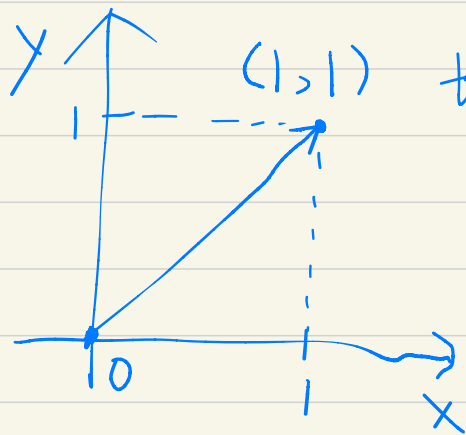


矩阵 Matrix

$$\begin{cases} 2x + 3y = 5 \\ 3x + 2y = -1 \end{cases} \Rightarrow \begin{pmatrix} 2 & 3 \\ 3 & 2 \end{pmatrix} \begin{pmatrix} 5 \\ -1 \end{pmatrix}$$

向量 Vector — 只有一行/列的矩阵

$$\begin{pmatrix} 5 \\ -1 \end{pmatrix} \leftarrow \text{列向量} \quad (1 \ 2) \leftarrow \text{行向量}$$



$(1,1)$ 长度: $\sqrt{2}$

方向: x 正半轴 和
 y 正半轴
 45° 夹角

$(1 \ 1)$

$\begin{pmatrix} 1 \\ 1 \end{pmatrix}$

$$\begin{cases} 2x + 3y = 5 \\ 3x + 2y = -1 \end{cases} \quad \left(\begin{array}{cc|c} 2 & 3 & 5 \\ 3 & 2 & -1 \end{array} \right)$$

$$\begin{cases} x + y + 3z = 4 \\ 2x + 3y - z = 1 \\ -x + 2y + 2z = 1 \end{cases} \quad \left(\begin{array}{ccc|c} 1 & 1 & 3 & 4 \\ 2 & 3 & -1 & 1 \\ -1 & 2 & 2 & 1 \end{array} \right)$$