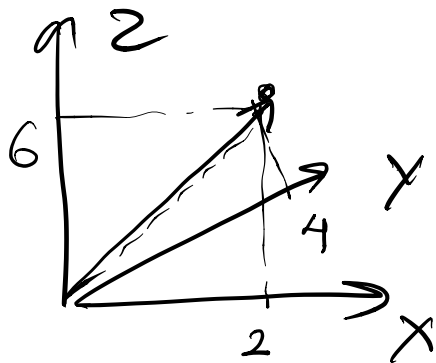


- Vector intro for linear Algebra



$$\begin{bmatrix} 2 \\ 4 \\ 6 \end{bmatrix}$$

$$\vec{v} = (2, 4, 6)$$

- Real Coordinate space

$\mathbb{R}^2 \Rightarrow$ 2D real coordinate space.

\Rightarrow all possible real valued 2-tuple

\mathbb{R}^n

$$x = \begin{bmatrix} x \\ y \end{bmatrix} \text{ Any real number}$$

$$x \in \mathbb{R}^2$$

$\therefore x$ is a member of \mathbb{R}^2 .

- Adding vectors algebraically & graphically.

$$\vec{a} = \begin{bmatrix} 6 \\ 2 \end{bmatrix} \quad \vec{b} = \begin{bmatrix} -4 \\ 4 \end{bmatrix}$$

$$\vec{a} + \vec{b} = \begin{bmatrix} 6 \\ 2 \end{bmatrix} + \begin{bmatrix} -4 \\ 4 \end{bmatrix} = \begin{bmatrix} 2 \\ 6 \end{bmatrix}$$

$$\vec{a}, \vec{b} \in \mathbb{R}^2$$

