

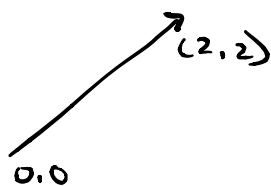
Goal of quiz is to become comfortable w- vector ops.

Given

$$\vec{a} = \begin{bmatrix} 2 \\ 2 \end{bmatrix}, \quad b = \begin{bmatrix} 1 \\ -2 \end{bmatrix}, \quad c = \begin{bmatrix} 1 \\ 1 \end{bmatrix}, \quad d = \begin{bmatrix} -1 \\ 2 \end{bmatrix}, \quad e = \begin{bmatrix} -2 \\ 1 \end{bmatrix}$$

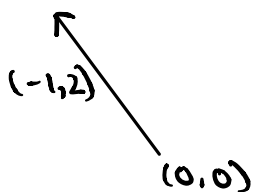
Problem #1

Draw \vec{a} .



Problem #2

Draw $\begin{bmatrix} -1 & 2 \end{bmatrix}^T$



Problem #3

What is $2\vec{c}$

$$\begin{aligned} 2\vec{c} &= 2 \begin{bmatrix} 1 \\ 1 \end{bmatrix} \\ &= \begin{bmatrix} 2 \\ 2 \end{bmatrix} \\ &= \vec{a} \end{aligned}$$

Problem #4

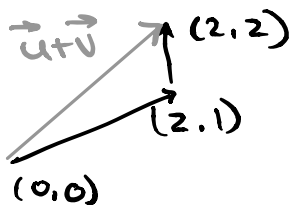
What is $-b$?

$$-b = -1 \begin{bmatrix} 1 \\ -2 \end{bmatrix}$$

$$= \begin{bmatrix} -1 & 2 \end{bmatrix}^T$$

Problem #5

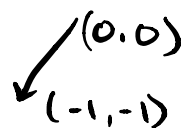
Draw $\begin{bmatrix} 2 & 1 \end{bmatrix}^T + \begin{bmatrix} 0 & 1 \end{bmatrix}^T$.



Problem #6

Draw $b + e$.

$$\begin{bmatrix} 1 \\ -2 \end{bmatrix} + \begin{bmatrix} -2 \\ 1 \end{bmatrix} = \begin{bmatrix} -1 \\ -1 \end{bmatrix}$$



Problem #7

$d - b$ draw!

$$\begin{bmatrix} -1 \\ 2 \end{bmatrix} - \begin{bmatrix} 1 \\ -2 \end{bmatrix} = \begin{bmatrix} -2 \\ 4 \end{bmatrix}$$

