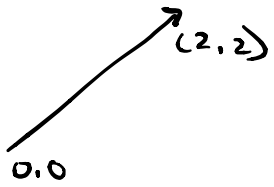
Goal of quiz is to become comfortable w- vector ops.

Given

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

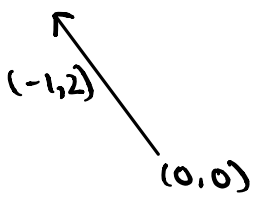
Problem #1

Draw $\vec{a}$.



Problem #2

Draw $[-1 \ 2]^T$



Problem #3

What is $2\vec{c}$

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

$$= \begin{bmatrix} 2 \\ 2 \end{bmatrix}$$

$$= \vec{a}$$

Problem #4

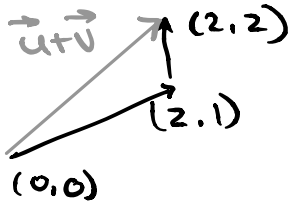
What is $-b$?

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

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

Problem #5

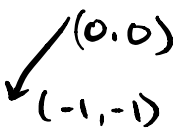
Draw $\begin{bmatrix}2 & 1\end{bmatrix}^T + \begin{bmatrix}0 & 1\end{bmatrix}^T$.



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!

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