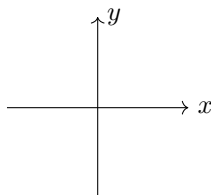


MATH 2D Prep: Vector Geometry

Facts to Know:

1. Drawing vectors:

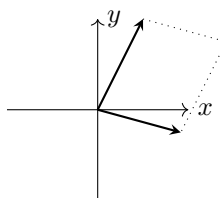
$$\vec{v} = (a, b)$$



2. Adding vectors:

$$\vec{u} = (a, b), \vec{v} = (c, d)$$

$$\vec{u} + \vec{v} =$$

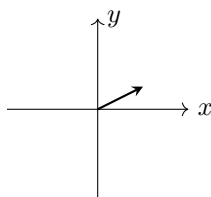


3. Scaling vectors: (Suppose $c > 0$)

$$\vec{v} = (a, b)$$

$$c\vec{v} =$$

$$-c\vec{v} =$$



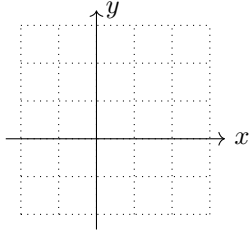
4. Length (magnitude) of vectors:

- $\vec{v} = (a, b), |\vec{v}| =$

- Fact: $|c\vec{v}| =$.

Examples:

1. Given $\vec{u} = (1, 3)$ and $\vec{v} = (-1, 1)$, draw $\vec{u} - 2\vec{v}$.



2. Compute the length of the vector $\vec{u} - 2\vec{v}$ from Question 1.