

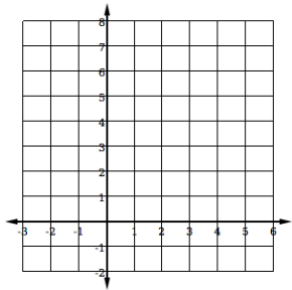
Lesson 9.4: Vector Definitions

Vectors

Examples:

1. The initial point of a vector is $(-1,3)$ and its terminal point is $(2,7)$.

- a. Graph the vector:



- b. Graph the vector in standard position on the same set of axes.
- c. Give the component form of the vector.
- d. Find the magnitude of the vector.
- e. Find the direction of the vector.

2. Find the direction of a vector given by $\langle -3, 5 \rangle$.

3. If the magnitude of a vector v is $\|v\| = 6$ and its direction is $\theta = \frac{2\pi}{3}$, write the vector in component form.