قلا Gizmos

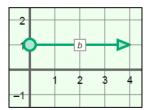
Vocabulary: Adding Vectors



- Component the projection of a vector in a given direction.
 - On a coordinate grid, a vector can be described by an x-component and a y-component.
 - For example, vector a shown to the right has an x-component of 3 and a y-component of 4.



- The initial point is found at the base of the arrow.
- Magnitude the length of a vector.
 - Magnitude is the distance from the initial point of a vector to its terminal point and is always positive.
 - For example, the magnitude of the vector shown to the right is 4 units.



- The magnitude of a vector that is not perfectly vertical or horizontal can be found using the Pythagorean Theorem.
- The expression ||b|| represents the magnitude of vector b.
- Resultant a vector representing the sum of two or more vectors.
- Scalar a quantity that has magnitude, but no direction.
 - Examples of scalars include speed, temperature, and volume.
- <u>Terminal point</u> the ending point of a vector.
 - The terminal point is at the tip of the arrow.
- <u>Vector</u> a representation that specifies the direction and magnitude of a quantity.
 - Vector a shown to the right has a length of 5 units and a direction that is northwest.
 - Vector a <-3, 4> has initial point (1, 1) and terminal point (-2, 5).
 - A vector with an initial point at the origin is in standard position.

