

Cornell Motes

## Solving Vector Problems

## Today's Standard

HSN.VM.A3 - (+) Solve problems involving velocity and other quantities that can be represented by vectors.

Cues	Notes
What is a vector?	A vector is a quantity that has both magnitude and direction.
How do you find the magnitude of a vector?	The magnitude of a vector can be found using the Pythagorean theorem if the components are known.
What is the direction of a vector?	The direction of a vector is the angle it makes with a reference axis, usually found using trigonometric functions.
How are vectors used in real life?	Vectors are used in various fields such as physics, engineering, computer science, and economics to represent quantities that have both magnitude and direction.
What are common misconceptions about vectors?	Common misconceptions include confusing magnitude with direction and thinking vectors only represent physical quantities.

## Summary

Vectors are essential in representing quantities with both magnitude and direction. They are widely used in various fields, and understanding them involves grasping both their magnitude and direction. Common misconceptions can be addressed through visual and interactive tools.