

Unit 8 CAN YOU...

- Add and subtract vectors geometrically (drawing) to find the **magnitude**, and **direction** of the **resultant** using the tip-to-tail/parallelogram method
- Find the magnitude and directional angle of a vector.
- Determine the **vertical and horizontal components** of a two-dimensional vector
- Use two points to find the ordered pair representing the vector in component form
- Write a vector as the sum of **unit vectors (in terms of i and j)**
- Add, subtract, multiply by a **scalar** and find the magnitude of a vector algebraically
- Find the Dot Product of two vectors in component form
- Use the Dot Product to determine if two vectors are **perpendicular**
- Solve real world problems::
 - Set up an accurate vector drawing showing the given information and resultant (parallelogram method)
 - Determine a directional angle or navigational angle
 - Understand a problem involving wind
 - Understand a problem with two forces acting on an object
 - Use right triangle trig and/or the law of cosines and/or the law of sines
 - Write solutions with appropriate units