**Unit 7 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 angle between two vectors.
* 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