Name ______________________________ Physics

Chapter 3 Vector Unit Review Activity

Directions: Draw scaled vector diagrams on graph paper using a pencil. Show all of your work for problems #1 and #2 on the graph paper.

A. Make a scale
B. Draw and label your coordinate axis system – set an origin
C. Draw and label your vectors
D. Make the final conversions to answer the problem

1. A plane flies 225 m/s at an angle of 40 degrees north of east. Find the components of this resultant velocity.

2. A person shoots a rocket up into the air and it travels 60 meters in the northern direction. A crosswind pushes the rocket 30 m to the West. Graphically determine the magnitude and direction of the resultant.

3. Mathematically determine component vectors for problem #1. Show all of your work below and circle your final answer.

4. Mathematically determine the magnitude and angle of the resultant for problem #2. Show all of your work below and circle your final answer.

Place your answer to problem #5 on the graph paper.

5. Force F_1 = 100 N acts at 100 degrees and Force F_2 = 220 N acts at 170 degrees. Graphically determine the magnitude and direction of the resultant. Don’t forget to set a scale!