**8-1 Finding the Resultant of Two Vectors**

**For the following problems all degree measurements are counterclockwise from horizontal.**

**Make sure to use appropriate scales. For each problem add the two vectors together, draw the resultant vector, and find its length. State the magnitude (speed) and direction of the resultant vector relative to the horizontal.**

**1.**Add the following vectors and determine the resultant.

3.0 m/s, 45 deg and 5.0 m/s, 135 deg

**2.** Add the following vectors and determine the resultant.

5.0 m/s, 45 deg and 2.0 m/s, 180 deg

**3.** Add the following vectors and determine the resultant.

6.0 ft/s, 225 deg and 2.0 ft/s, 90 deg

**4**. Add the following vectors and determine the resultant.

4.0 in/min, 135 deg and 4.0 in/min, 315 deg

**5.** Add the following vectors and determine the resultant.

5.0 mi/hr, 45 deg and 2.5 mi/hr, 135 deg

**6.** Add the following vectors and determine the resultant.

7.0 yd/min, 0 deg and 2.0 yd/min, 90 deg

**7.** Add the following vectors and determine the resultant.

8.0 Newtons/s, 330 deg and 4.0 Newtons/s, 45 deg

**8.** Add the following vectors and determine the resultant.

2.0 cm/s, 150 deg and 4.0 cm/s, 225 deg

**9.** Add the following vectors and determine the resultant.

3.0 m/s, 45 deg and 5.0 m/s, 135 deg and 2.0 m/s, 60 deg

**10.** Add the following vectors and determine the resultant.

2.0 m/s, 315 deg and 5.0 m/s,180 deg and 2.0 m/s, 60 deg

**11.** Add the following vectors and determine the resultant.

4.0 m/s, 90 deg and 2.0 m/s, 0 deg and 2.0 m/s, 210 deg

**12.** Add the following vectors and determine the resultant.

2.5 m/s, 45 deg and 5.0 m/s, 270 deg and 5.0 m/s, 330 deg

Visit:

<http://www.physicsclassroom.com/morehelp/vectaddn>

to check your work! (don’t forget to compare scale!)