Unit 2 Review Sheet   Name_____

1. Give two examples of scalar quantities: _____; _____

2. Give two examples of vector quantities: _____; _____

3. _____ quantities have magnitude only. Magnitude is expressed by a _____ and a _____.

4. Vector quantities have _____ and _____

5. Vectors may be represented by _____, with the magnitude shown by the _____.

6. One vector having the same effect as two or more vectors combined is a _____ vector.

7. To find the resultant of two component vectors acting in the same direction, _____.

8. To find the resultant of two component vectors acting in opposite directions, _____.

9. Identify the following quantities as vector or scalar:

   a. 5.0 m/s South _____   c. 7.4 g   _____
   b. 32 n upward   _____   d. 132.4 ℃   _____

Use math to solve these problems:
   1. What is the resultant of two component vectors of 78.3 units W and 15.2 units N?
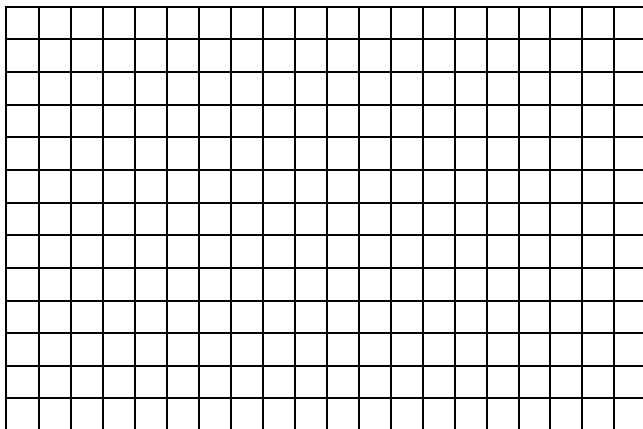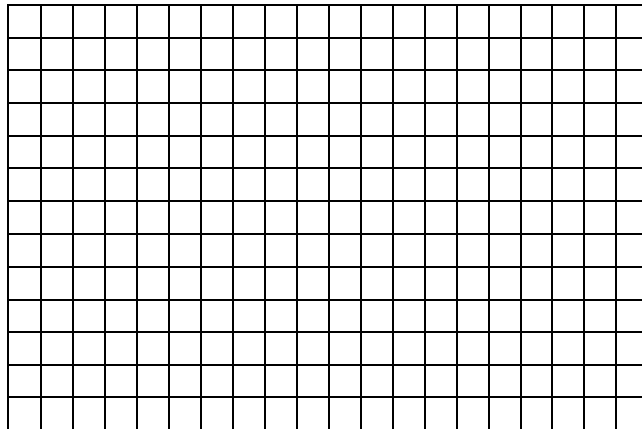
   2. An airplane flies southward with a velocity of 922 km/h. There is a brisk tailwind (meaning blowing on the tail of the plane) with a velocity of 25 km/h. What is the resultant velocity of the plane?

3. Calculate the components of a resultant vector of 804 units, 17° W of S.

4. A person can row a boat 6.93 km/h in still water. If the person rows directly west across a river that flows north at 5.00 km/h, what is the magnitude and direction of the resultant velocity?

Use the head-to-tail method to solve the following:

1. A car travels 150 km east before turning and traveling 275 km north. What is the car's displacement?

2. A student walks 15 paces West then 7 paces South then 8 paces East and finally 5 paces North. What is the resultant from the start to the finish?