Vectors

Draw the following vectors.

1. Initial point (3, 2) and terminal point (-4,5) 2. <5,-3>

3. -8i + 2j 4. 5 mph at 215o

5. 3N at 50o south of west

Find the a) component form b) linear combination form, c) magnitude and direction of each vector given the initial point and terminal point, respectively.

6. (1,11) and (9,3) 7. (-3,4) and (5,-1) 8.

Find the resultant vector

9. **u** = <3,1>, **v** = <-2,4> 10. **u** = <-1,-3>, **v** = <2,0> 11. **u** = 2i + j, **v** = 3i – 4j

**u** – 3**v** 2**u** + **v v –** 4**u**

Given **u** = <-3,8>, **v** = <6,-2>, and **w** = <-4,-3>, Find the following. Write answers in component form and linear combination form if the answer is a vector.

14. 3 -  15. **u** + **v** 16. 3**v**

17. 6**w** – ½ **v** + **u** 18**. ** 19. 

Find the component form

20.   21.   E of S 22.  

Find the magnitude and direction

23. <14, -18> 24. -7i + 9j 25. <-18, -25>