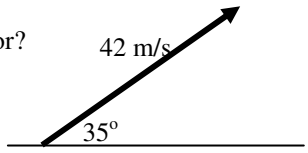
## Practice for Vector Components and Vector Graphing.

1) What is the magnitude of this vector?

2) What is the direction of this vector?

3) The vector is _____m/s at _____°.

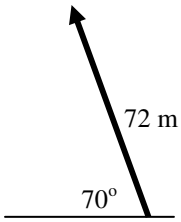
4) Find the x and y components for this vector.




5) For this vector:
Magnitude: _____
Direction: _____

6) The vector is _____ at _____.

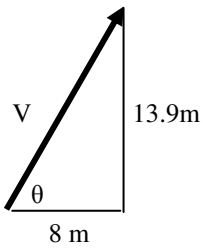
7) Find the x and y components of this vector.



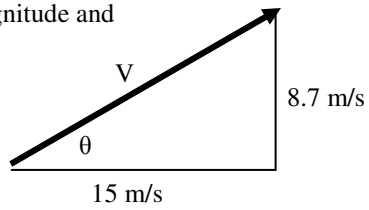

8) Label the triangle with: opp., adj., and hypo.

9) Label the triangle with x and y.

10) Find V and θ.




11) Find the vector's magnitude and direction.



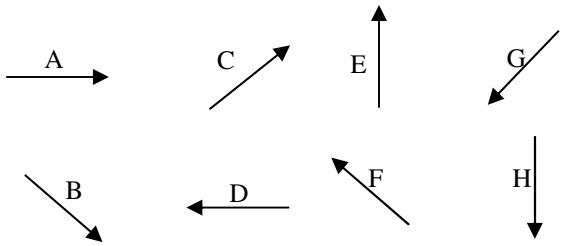

*Use the vectors at the right to answer the following:*

12) A = – ____ 16) C = – ____ 20) E = – ____

13) B + ___ = 0 17) A + D = ___ 21) C – ____ = 0

14) H = – ____ 18) –G = ____ 22) F + ____ = 0

15) A + ___ = 2A 19) D – ____ = 2D 23) B = – ___




24) Which vector/s have no y components?

25) Which vector/s have +X and –Y components?

26) Which vector/s have –X and +Y components?

27) Which vectors have no x components?

28) Which vector has +x and y = 0?

29) Which vector has x = 0 and -y ?

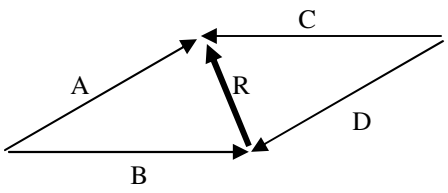
30) Draw the resultant of 2A + E—H.

32) Draw the resultant of 2G—A—E.

31) Draw the resultant of D—E + 2G.

33) Draw the resultant of F + G + H+ B.

34) Give four ways to make R on the diagram at the right.



35)A person walks 8 m East, 15 m North, 6 m South, 3 m West, and then 3 m East.

A) Find the total x-displacement.

B) Find the total y-displacement.

C) Draw the triangle at the right.

D) Find the total displacement's magnitude and direction.

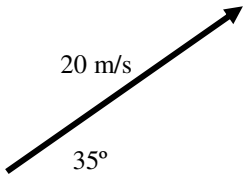
36)If $x_1 = 4$m/s, $y_1 = 6$m/s, $x_2 = 3.5$ m/s, $y_2 = -2$ m/s, find the total displacement's magnitude and direction (*using the same process as above*).

37)If $x_1 = 12$m/s, $y_1 = -5$m/s, $x_2 = -3$ m/s, $y_2 = 10$ m/s, find the total displacement's magnitude and direction

38)A car drives 20 m/s for 5 seconds at 35º.

A) How fast did they drive in the x-direction?

B) How fast did they drive in the y-direction?




C) How far did they drive at 35º?

D) How far did they drive in the x-direction?

E) How far did they drive in the y-direction?

F) Draw the triangle that shows the displacement of the car.