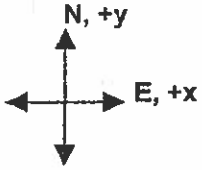
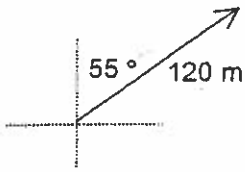
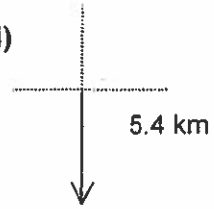
1.a) Find the x and y components of each displacement vector shown below using the given coordinate axes.



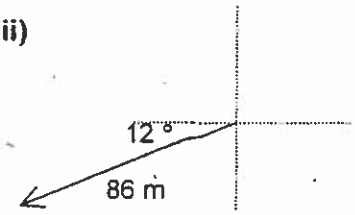
i)



ii)

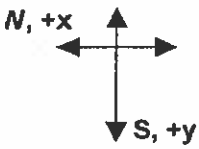


iii)

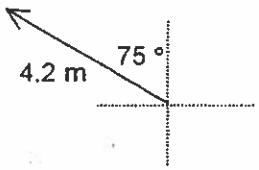


$\Delta d_x =$ $\Delta d_y =$	$\Delta d_x =$ $\Delta d_y =$	$\Delta d_x =$ $\Delta d_y =$

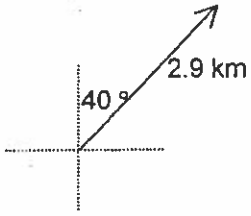
b) Find the x and y components of each displacement vector shown below using the given coordinate axes.



i)

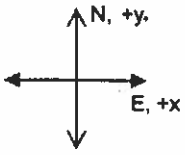


ii)



$\Delta d_x =$ $\Delta d_y =$	$\Delta d_x =$ $\Delta d_y =$

2. Perform the following vector operations using component analysis. Recombine the components of the resultant to express the resultant vector in magnitude and direction form. Use the x/y coordinate axes below for your analysis.



a) $\Delta\vec{d}_1$ = 85.0 km [N36.0°W], $\Delta\vec{d}_2$ = 122.0 km [W15.0°S], $\Delta\vec{d}_R = \Delta\vec{d}_1 + \Delta\vec{d}_2 = ?$

b) $\Delta\vec{d}_1$ = 250.0 m [E], $\Delta\vec{d}_2$ = 560.0 m [E35.0°S], $\Delta\vec{d}_3$ = 370.0 m [S18.0°W], $\Delta\vec{d}_R = \Delta\vec{d}_1 + \Delta\vec{d}_2 + \Delta\vec{d}_3 = ?$