Component Vectors:

Example:

500

8 m/s

Vertical

Horizontal

Horizontal component vector  
Cos 500 = horizontal / 8m/s  
Vx= Vi cos Θ  
Vx = (8m/s)(cos500) = 5.14 m/s

Vertical Component vector  
Sin500 = vertical / 8m/s

Viy = Vi sin Θ  
Vertical = (8m/s)(sin500) = 6.13m/s

Example:

Vertical

13 m/s

660

Horizontal

Horizontal component vector  
Vx= Vi cos Θ  
Vx = (13m/s)(cos660) = 5.3 m/s

Vertical component vector  
Viy = Vi sin Θ  
Vertical = (13m/s)(sin660) = 11.9m/s