



Name : **Quiz Solution**

Student Id :

Quiz #1

1) A plane moves with a velocity of 60 m/s at 35 degrees South of East. Calculate the plane's horizontal and vertical velocity components.

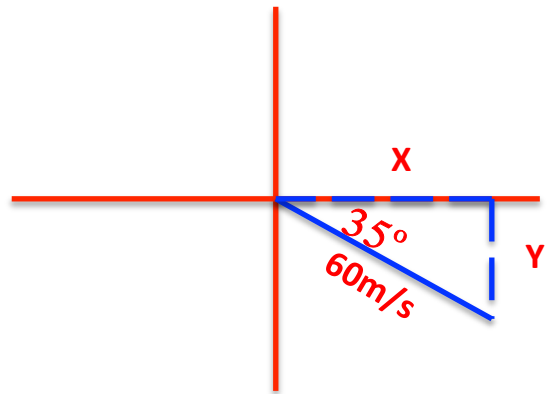
Given :

$$R = 60 \text{ m/s} \quad \theta = 35^\circ$$

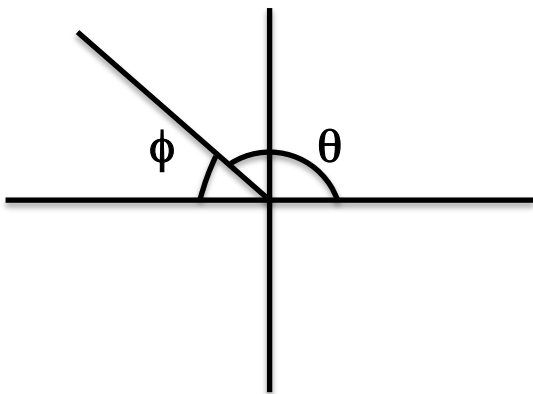
So..

$$X = 60 \cos 35 = 49.15 \text{ m/s}$$

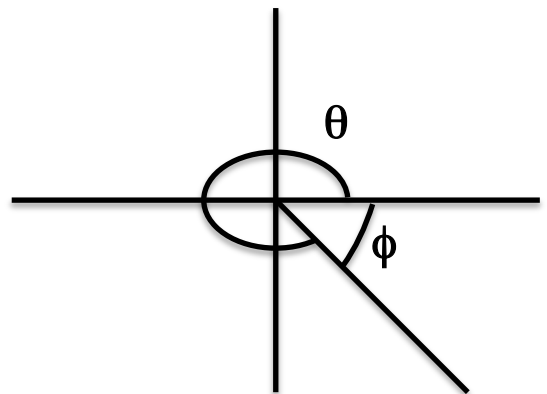
$$Y = 60 \sin 35 = 34.41 \text{ m/s}$$



2) If $\phi = 50^\circ$ at all of these graphs , what the value of θ at each conditions :



$$\theta = 180 - 50 = 130^\circ$$



$$\theta = 360 - 50 = 310^\circ$$