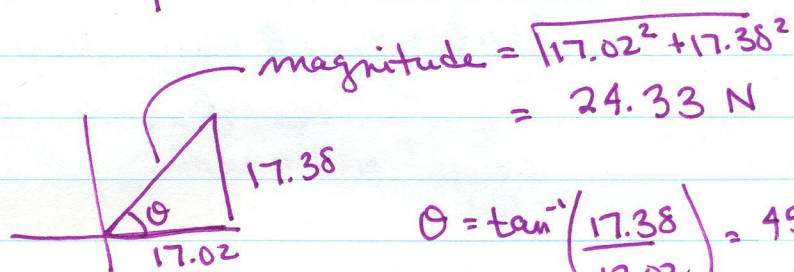


1.

	x	y
	25	0
$35 \cos 50^\circ \rightarrow$	22.50	$26.81 \leftarrow 35 \sin 50^\circ$
$27 \cos 165^\circ \rightarrow$	-26.08	$6.99 \leftarrow 27 \sin(165^\circ)$
$17 \cos 255^\circ \rightarrow$	-4.40	$-16.42 \leftarrow 17 \sin(255^\circ)$
Sum	17.02	17.38



$$\theta = \tan^{-1}\left(\frac{17.38}{17.02}\right) = 45.60^\circ$$

Quad I

$$\vec{F} = m\vec{a} \quad |a| = \frac{24.33}{.350} = 69.51 \text{ m/s}^2$$

same direction  
 $\theta = 45.60^\circ$  above x-axis  
 in Quad I