P #6

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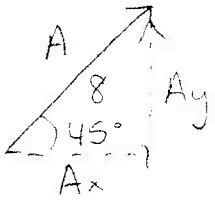
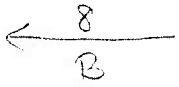




Find A_x & A_y:

$A_x = 8 \cdot \cos 45°$
$= 5.7$

$A_y = 8 \cdot \sin 45°$
$= 5.7$

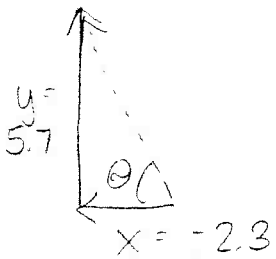
Find x component:

$A_x + B_x = (5.7) + (-8)$
$= -2.3$

Find y component:

$A_y = 5.7$

Find resultant:



$R^2 = x^2 + y^2$
$= (-2.3)^2 + (5.7)^2$

$R = 6$ units

$\tan \theta = \frac{y}{x}$

$\theta = \tan^{-1}\left(\frac{5.7}{2.3}\right)$

$\theta = 68°$
above negative x-axis