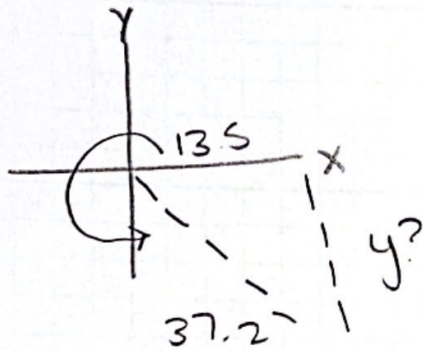given : $x_{com} = 13.5$ ft positive, magnitude $= 37.2$ ft.

Vector = downward movement

Find y_{com}.

Equation $= \sqrt{(13.5)^2 + (y)^2} =$ magnitude

$y_{com} = 34.6$ ft.

Find Beta (B)

$\tan^{-1}\left(\frac{34.6}{13.5}\right) = 68.68$

$360 - 68.68 = 291.32$ deg.