ARQUITECTURA

RESISTENCIA DE MATERIALES DE CONSTRUCCIÓN

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4TO CUATRIMESTRE

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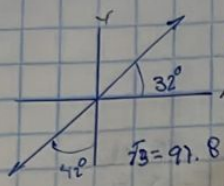
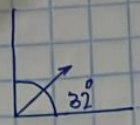


$F_1 = 200\ N$

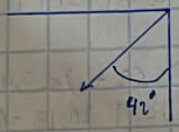
$\vec{F_3} = 97.8\ N$

F_2
128 N



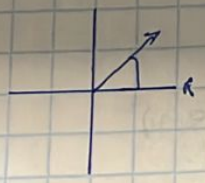
$\text{Sen}\theta\ F_1 = \text{Sen}\ 32(200)N = 105.983$

$\cos\theta\ F_1 = \text{Sen}\ 32(200)N = 169.609$



$\text{Sen}\theta\ F_2 = \text{Sen}\ 48(128) = 95.122$

$\cos\theta\ F_2 = \cos\ 48\ (128) = 85.648$

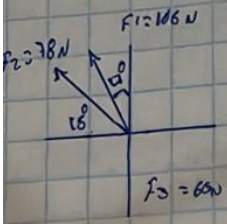


$\Sigma F_x = 169.609 - 85.648 + 97.8\ N = 181.761$

$\Sigma F_y = 105.983 - 95.122 = 10.861$

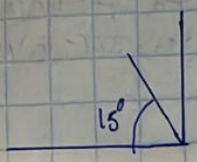
$\sqrt{(181.761)^2 + (10.861)^2} = 182.085$

$\theta = 3.414^\circ$



$\text{sen}\,\theta\,(69)\,(105) = 98.02$

$\cos(69)(105) = -37.62$

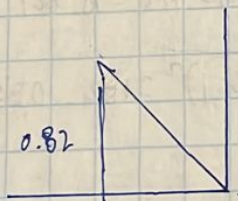


$\text{Sen}\,(15)\,(78) = 20.18$

$\cos(15)(78) = -75.35$

$\Sigma f_x = -37.62 + -75.34 = -112.96\ N$

$\Sigma f_y = 98.02 + 20.18 - 60 = 58.2\ N$



$h = \sqrt{(-112.96)^2 + (58.2)^2}$

$h = 127.071$

$\theta = \tan\theta = \dfrac{58.2}{-112.96}$

$\theta = -27.25$

$\theta = 152.74$