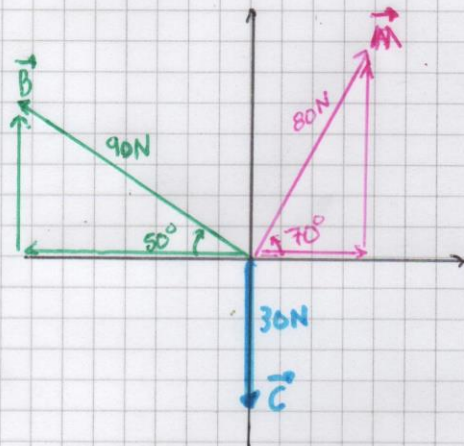


EJERCICIO

Scribe

Hallar la Fuerza resultante:



$$\vec{M}_x = 80 \cdot \cos 70^\circ$$

$$80 \cdot 0,34$$

$$27,2$$

$$\vec{M}_y = 80 \cdot \sin 70^\circ$$

$$80 \cdot 0,94$$

$$75,2$$

$$\vec{B}_x = 90 \cdot \cos 50^\circ$$

$$90 \cdot 0,64$$

$$-57,6$$

$$\vec{B}_y = 90 \cdot \sin 50^\circ$$

$$90 \cdot 0,77$$

$$69,3$$

$$\vec{C}_x = \text{No existe}$$

$$\vec{C}_y = -30$$

COMPONENTE RESULTANTE X

$$\vec{R}_x = 27,2 - 57,6 = -30,4$$

$$\vec{R}_x = -30,4 \approx -30$$

COMPONENTE RESULTANTE Y

$$\vec{R}_y = 75,2 + 69,3 - 30$$

$$\vec{R}_y = 114$$

VECTOR RESULTANTE \vec{R}

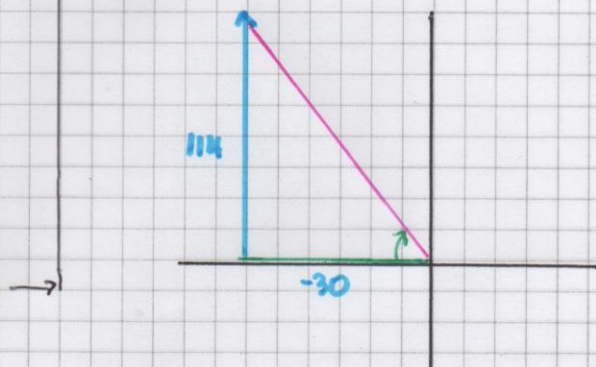
$$\vec{R} = \sqrt{R_x^2 + R_y^2}$$

$$\vec{R} = \sqrt{(-30)^2 + 114^2}$$

$$\vec{R} = \sqrt{900 + 12996}$$

$$\vec{R} = \sqrt{13896}$$

$$\vec{R} = 118$$



ANGULO DEL VECTOR RESULTANTE

$$\theta = \tan^{-1} \frac{114}{30}$$

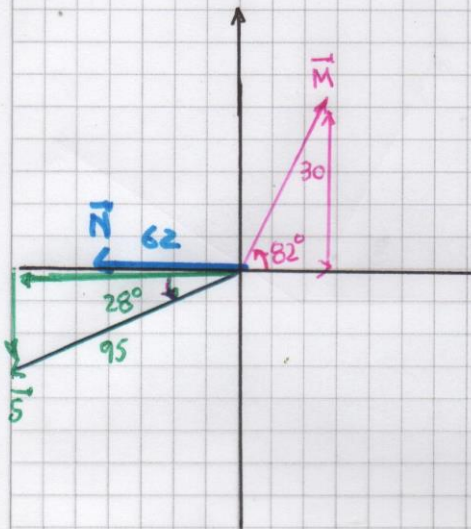
$$\theta = \tan^{-1} 3,8$$

$$\theta = 75^\circ$$

EJERCICIO

Scribe

Hallar la fuerza resultante



$$\vec{M}_x = 30 \cdot \cos 82^\circ$$

$$30 \cdot 0,14^\circ$$

$$4,2$$

$$\vec{M}_y = 30 \cdot \sin 82^\circ$$

$$30 \cdot 0,99^\circ$$

$$29,7$$

$$\vec{N}_x = -62$$

$$\vec{N}_y = \text{No existe}$$

$$\vec{S}_x = 95 \cdot \cos 28^\circ$$

$$95 \cdot 0,88$$

$$-83,6$$

$$\vec{S}_y = 95 \cdot \sin 28^\circ$$

$$95 \cdot 0,47$$

$$-44,65$$

COMPONENTE RESULTANTE X

$$\vec{R}_x = 4,2 - 62 - 83,6$$

$$\vec{R}_x = -141,4 \approx -141$$

COMPONENTE RESULTANTE Y

$$\vec{R}_y = 29,7 - 44,65$$

$$\vec{R}_y = -14,95 \approx -15$$

VECTOR RESULTANTE \vec{R}

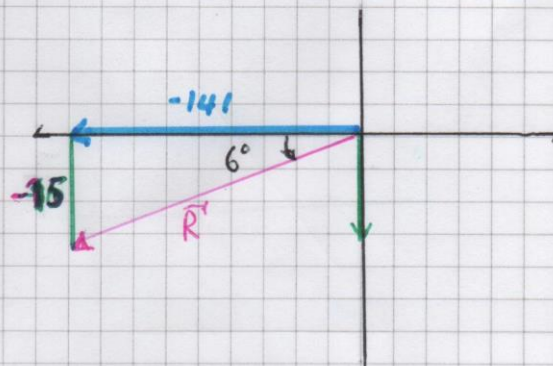
$$\vec{R} = \sqrt{R_x^2 + R_y^2}$$

$$\vec{R} = \sqrt{(-141)^2 + (-15)^2}$$

$$\vec{R} = \sqrt{19881 + 225}$$

$$\vec{R} = \sqrt{20106}$$

$$\vec{R} = 141,79 \approx 142$$



ANGULO VECTOR RESULTANTE

$$\theta = \tan^{-1} \frac{-15}{-141}$$

$$\theta = \tan^{-1} 0,11$$

$$\theta = 6^\circ$$