

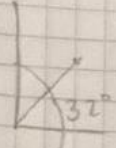
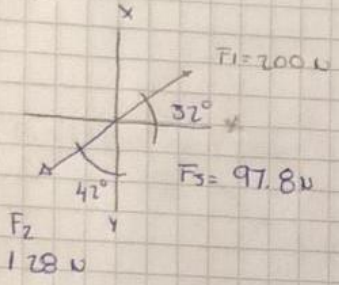


RESISTENCIA DE MATERIALES ENCONSTRUCCION

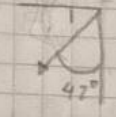
ALUMNA: LOPEZ PEREZ JESSICA YAZMIN

ACTIVIDAD: EJERCICIOS

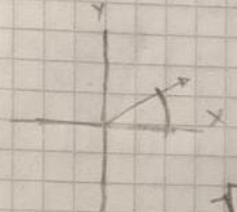
①



$$\begin{aligned} \text{Sen } \theta F_1 &= \text{Sen } 32 (200)\text{ N} = 105.983 \\ \text{Cos } \theta F_1 &= \text{Cos } 32 (200)\text{ N} = 169.609 \end{aligned}$$

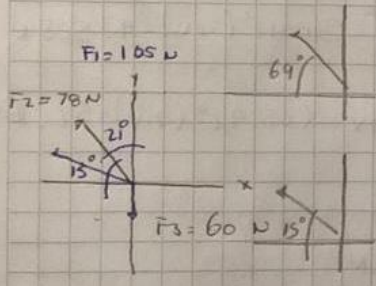


$$\begin{aligned} \text{Sen } \theta F_2 &= \text{Sen } 48 (128) = 95.122 \\ \text{Cos } \theta F_2 &= \text{Cos } 48 (128) = 85.648 \end{aligned}$$



$$\begin{aligned} \Sigma F_x &= 169.609 - 85.648 + 97.80 = 181.761 \\ \Sigma F_y &= 105.983 - 95.122 = 10.861 \end{aligned}$$

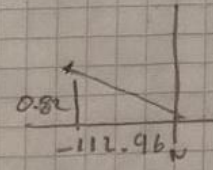
$$\begin{aligned} \sqrt{(181.761)^2 + (10.861)^2} &= 182.085 \\ \theta &= 3.414^\circ \end{aligned}$$



$$\begin{aligned} \text{Sen } (69)(105) &= 98.02 \\ \text{Cos } (69)(105) &= -37.62 \end{aligned}$$

$$\begin{aligned} \text{Sen } (15)(78) &= 20.18 \\ \text{Cos } (15)(78) &= -75.35 \end{aligned}$$

$$\begin{aligned} \Sigma F_x &= -37.62 - 75.34 = -112.96\text{ N} \\ \Sigma F_y &= 98.02 + 20.18 - 60 = 58.2\text{ N} \end{aligned}$$



$$\begin{aligned} h &= \sqrt{(-112.96)^2 + (58.2)^2} \\ h &= 127.071 \end{aligned}$$

$$\begin{aligned} \theta &= \text{Tan } \theta = \frac{58.2}{-112.96} \\ \theta &= -27.25^\circ \\ \theta &= 152.74^\circ \end{aligned}$$

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