



Mi Universidad

Problematario

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Nombre del tema: Problematario

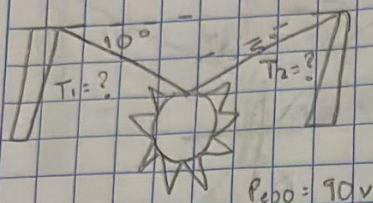
Parcial: Unidad 3

Nombre de la Materia: Física

Nombre del profesor: Juan Jose Ojeda

Nombre de la Licenciatura: Bachillerato en recursos humanos

Cuatrimestre: Cuarto



$$T_{1x} = T_1 \cos 170^\circ$$

$$T_{1x} = -0.98$$

$$T_{1y} = T_1 \sin 170^\circ$$

$$T_{1y} = 0.17$$

$$T_{2x} = T_2 \cos 5^\circ$$

$$T_{2x} = 0.99$$

$$T_{2y} = T_2 \sin 5^\circ$$

$$T_{2y} = 0.08$$

$$\sum T_{1x} = 0$$

$$T_{1x} + T_{2x} = 0$$

$$= 0.98 T_1 + 0.99 T_2 = 0$$

$$\sum T_{1y} = 0$$

$$T_{1y} + T_{2y} = W$$

$$(0.17 T_1 + 0.08 T_2 = (90)N) (0.98)$$

$$(0.98 T_1 + 0.99 T_2 = 0) (0.17)$$

$$0.16 T_1 + 0.67 T_2 = 38.7N$$

$$- 0.16 T_1 + 0.16 T_2 = 0$$

$$0.23 T_2 = 68.2N$$

$$T_2 = 88.2N$$

$$0.23$$

$$T_2 = 383.97$$

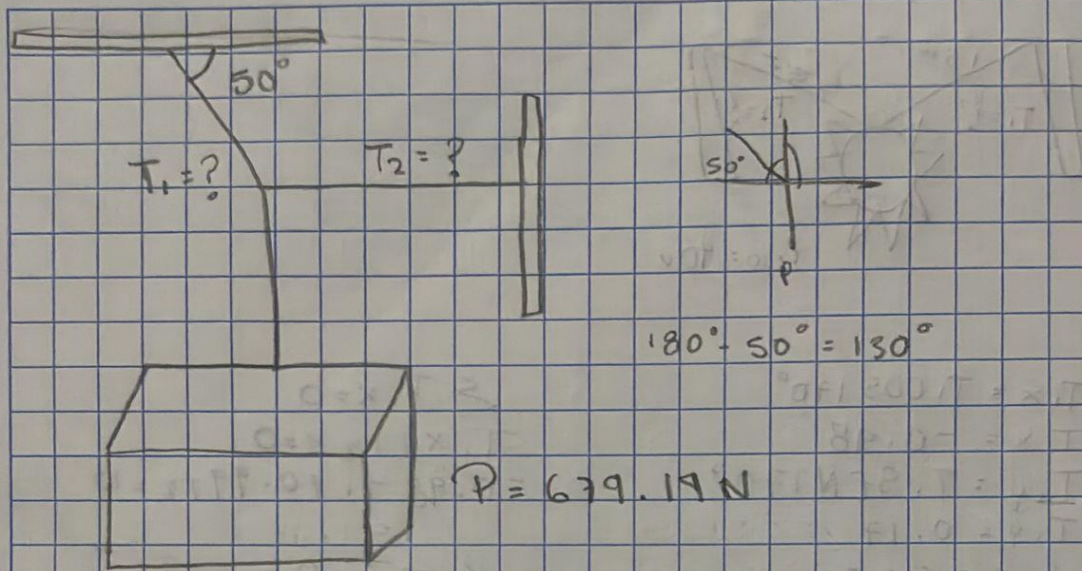
$$+ 0.98 T_1 + 0.99 (383.97) = 0$$

$$- 0.98 T_1 + 379.63 = 0$$

$$- 0.98 T_1 = -379.63$$

$$T_1 = \frac{-379.63}{-0.98} = 387.3$$

$$T_1 = 387.3N$$



$$T_{1x} = T_1 \times \cos 130^\circ$$

$$T_{1x} = -0.6 T_1$$

$$T_{1y} = T_1 \times \sin 130^\circ$$

$$T_{1y} = 0.7 T_1$$

$$T_{2x} = T_2 \times \cos 0^\circ$$

$$T_{2x} = T_2$$

$$T_{2y} = T_2 \times \sin 0^\circ$$

$$T_{2y} = 0$$

$$-0.6(970.2) T_1 + T_2 = 0$$

$$-582.12 + T_2 = 0$$

$$T_2 = 0 + 582.12$$

$$\sum T_x = 0$$

$$T_{1x} + T_{2x} = 0$$

$$-0.6 T_1 + T_2 = 0$$

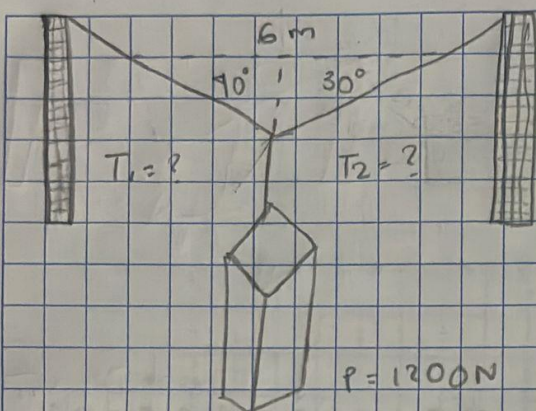
$$\sum T_y = 0$$

$$T_{1y} + T_{2y} = 679.19 \text{ N}$$

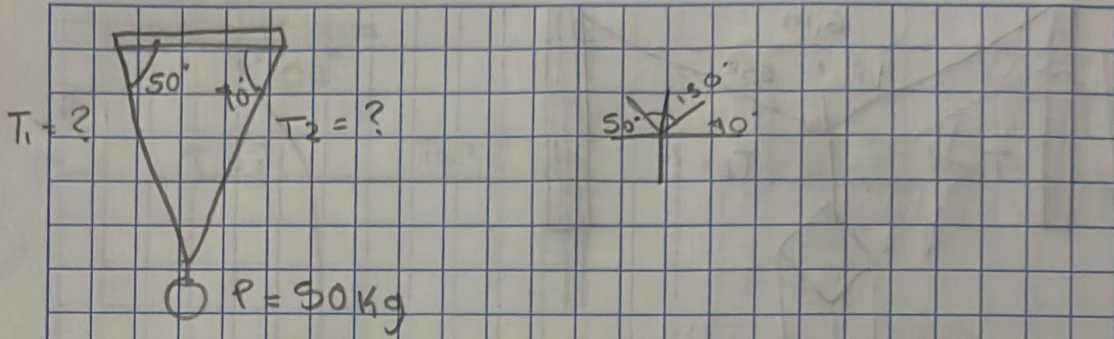
$$0.7 T_1 = 679.19$$

$$T_1 = \frac{679.19}{0.7}$$

Norma $T_1 = 970.2$



$$\begin{aligned}
 T_{1x} &= T_1 \cos 140^\circ & -0.7T_1 + 0.8T_2 &= 0 \quad (0.6) \\
 T_{1x} &= -0.7T_1 & 0.6T_1 + 0.5T_2 &= 1200 \text{ N} \quad (0.7) \\
 T_{1y} &= T_1 \sin 140^\circ & -0.42T_1 + 0.48 &= 0 \\
 T_{1y} &= 0.6T_1 & 0.42T_1 + 0.55 &= 890 \text{ N} \\
 T_{2x} &= T_2 \cos 30^\circ & T_2 &= 0.83 = 890 \text{ N} \\
 T_{2x} &= 0.8T_2 & T_2 &= 890 \\
 T_{2y} &= T_2 \sin 30^\circ & & 0.83 \\
 T_{2y} &= 0.5T_2 & & \\
 \sum T_x &= 0 & T_2 &= 1.012 \\
 T_{1x} + T_{2x} &= 0 & -0.7T_1 + 0.8(1.012) &= 0 \\
 -0.7T_1 + 0.8T_2 &= 0 & -0.7T_1 + 807.6 &= 0 \\
 \sum T_y &= 0 & T_1 &= -809.6 \text{ N} \\
 T_{1y} + T_{2y} &= 1200 \text{ N} & & -0.7 \\
 0.6T_1 + 0.5T_2 &= 1200 \text{ N} & T_1 &= 1156.5 \text{ N}
 \end{aligned}$$



$$T_{1x} = T_1 \times \cos 130^\circ$$

$$T_{1x} = -0.6 T_1$$

$$T_{1y} = T_1 \times \sin 130^\circ$$

$$T_{1y} = 0.7 T_1$$

$$T_{2x} = T_2 \times \cos 40^\circ$$

$$T_{2x} = 0.7 T_2$$

$$T_{2y} = T_2 \times \sin 40^\circ$$

$$T_{2y} = 0.6 T_2$$

$$-0.6 T_1 + 0.7 T_2 = 0 \quad (0.7)$$

$$0.7 T_1 + 0.6 T_2 = 50 \text{ Kg} (0.6)$$

$$-0.42 T_1 + 0.49 T_2 = 0$$

$$0.42 T_1 + 0.36 T_2 = 30 \text{ Kg}$$

$$0.85 T_2 = 30 \text{ Kg}$$

$$T_2 = \frac{30 \text{ Kg}}{0.85}$$

$$T_2 = 35.2$$

$$\sum T_x = 0$$

$$T_{1x} + T_{2x} = 0$$

$$-0.6 T_1 + 0.7 T_2 = 0$$

$$0.7 T_1 + 0.6 (35.2) T_2 = 50 \text{ Kg}$$

$$0.7 T_1 + 21.12 T_2 = 50 \text{ Kg}$$

$$\sum T_y = 0$$

$$T_{1y} + T_{2y} = 50 \text{ Kg}$$

$$0.7 T_1 + 0.6 T_2 = 50 \text{ Kg}$$

$$T_1 = \frac{50 \text{ Kg} - 21.12 T_2}{0.7}$$

$$T_1 = 91.2$$