

PROBLEMARIO

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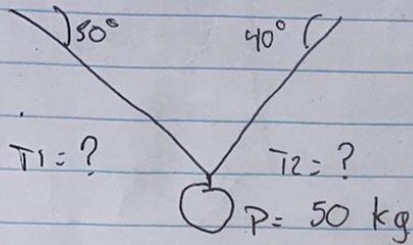
Nombre del tema: problemario

Nombre de la Materia: Física

Nombre del profesor: Juan Jose Ojeda
Trujillo

Nombre de la Licenciatura: Bachillerato

①



$$\sum T_x = 0$$

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

$$-0.64 T_1 + 0.76 T_2 = 0$$

$$\sum T_y = 0$$

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

$$0.76 T_1 + 0.64 T_2 = 0$$

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

$$T_{1x} = -0.64 T_1$$

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

$$T_{1y} = 0.76 T_1$$

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

$$= 0.76 T_2$$

$$T_{2x} = 0.76 T_2$$

$$= 0.64 T_1 = 0.76 T_2 = 0$$

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

$$= 0.64 T_1$$

$$T_{2y} = 0.64 T_2$$

$$0.04 T_1$$

$$T_1 = 1.18 T_2$$

$$0.76 T_1 + 0.64 T_2 = 0$$

$$0.76 T_1 (1.18 T_2) + 0.64 T_2 = 0$$

$$0.89 T_2 + 0.64 T_2 = 50 \text{ kg}$$

$$1.53 T_2 = 50 \text{ kg}$$

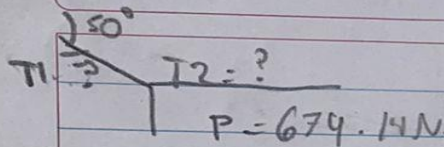
$$1.53 T_2$$

$$T_2 = 32.67 \text{ kg}$$

$$T_1 = 1.18 T_2 + 32.67 \text{ kg}$$

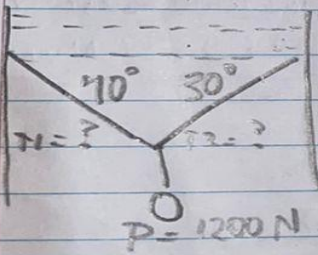
$$T_1 = 38.55 \text{ kg}$$

(2)



$T1x = T1 \cos 130^\circ$
 $T1x = 0.64 T1$
 $T1y = T1 \sin 130^\circ$
 $T1y = 0.76 T1$
 $T2x = T2 \cos 0^\circ$
 $T2x = 1 T2$
 $T2y = T2 \sin 0^\circ$
 $T2y = 0 T2$

$\sum T_x = 0$
 $T1x + T2x = 0$
 $-0.64 T1 + 1 T2 = 0$
 $T2 = 0.64 T1$
 $\sum T_y = 0$
 $T1y + T2y = P$
 $0.76 T1 + 0 T2 = 674.14$
 $T1 = 887.02 \text{ N}$
 $T2 = 568.57 \text{ N}$
 $r = 1.56$

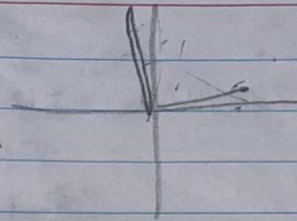
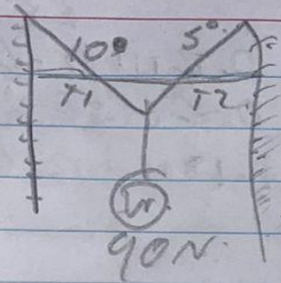


$\sum T_x = 0$
 $-0.96 T1 + 0.86 T2 = 0$
 $\sum T_y = 0$
 $0.64 T1 + 0.5 T2 = 1200 \text{ N}$

$T1x = T1 \cos 170^\circ$
 $T1x = -0.96 T1$
 $T1y = T1 \sin 170^\circ$
 $T1y = 0.64 T1$
 $T2x = T2 \cos 30^\circ$
 $T2x = 0.86 T2$
 $T2y = T2 \sin 30^\circ$
 $T2y = 0.5 T2$

$-0.96 T1 + 0.86 T2 = 0$
 $-0.96 T1 = -0.86 T2$
 $0.86 T2 = 0.96 T1$
 $0.64 T1 + 0.5 T2 = 1200$
 $0.64 (1.13) T2 + 0.5 T2 = 1200$
 $0.72 T2 + 0.5 T2 = 1200$
 $1.22 T2 = 1200$
 $T2 = \frac{1200}{1.22}$
 $T2 = 983.60 \text{ N}$
 $T1 = 1,111.46 \text{ N}$
 $T2 = 983.60 \text{ N}$

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$$T_{1x} = T_1 \cos 100$$

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

$$T_{1y} = -0.98 T_1$$

$$T_{2y} = 0.99 T_2$$

$$T_{1y} = T_1 \sin 100$$

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

$$T_{1y} = 0.17$$

$$T_{2y} = 0.08$$

$$\sum T_x = 0$$

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

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

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

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

$$T_1 = 0.98 T_2$$

$$\sum T_y = 0$$

$$T_1 = -10.10 T_2$$

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

$$0.17 T_1 + 0.08 T_2 = 90$$

$$0.17 T_1 + 0.08 T_2 = 90$$

$$0.17 T_1 (10.10 T_2) + 0.08 T_2 = 90 \text{ N}$$

$$1.71 T_2 + 0.08 T_2 = 90 \text{ N}$$

$$1.79 T_2 = 90 \text{ N}$$

$$T_2 = 90 \text{ N} / 1.79 T_2$$

$$T_2 = 50.27 \text{ N}$$

$$\left. \begin{aligned} T_2 &= 10.10 (50.27 \text{ N}) \\ T_1 &= 507.72 \text{ N} \end{aligned} \right\}$$