



$$T_{1x} = T_1 \cos 10^\circ$$

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

$$T_{1y} = T_1 \sin 10^\circ$$

$$T_{1y} = 0.17$$

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

$$T_{2x} = 0.99$$

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

$$T_{2y} = 0.08$$

$$\sum T_x = 0$$

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

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

$$\sum T_y = 0$$

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

$$0.17T_1 + 0.08T_2 = 10 \text{ N}$$

$$(-0.98T_1 + 0.99T_2 = 0) \quad (0.17)$$

$$(0.17T_1 + 0.08T_2 = 10 \text{ N}) \quad (0.98)$$

$$T_1 = 361.15$$

$$T_2 = 357.51$$

Aplicando Eliminación

$$-0.1666 + 0.1683 = 0$$

$$0.1666 + 0.0784 = 88.2$$

$$0.2467T_2 = 88.2 \text{ N}$$

$$T_2 = 88.2 \text{ N}$$

$$0.2467$$

$$T_2 = 357.51$$

Substituyendo (T_2) en ecu 1

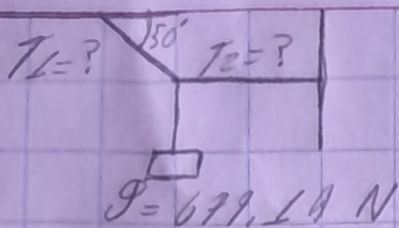
$$-0.98T_1 + 0.99(357.51 \text{ N}) = 0$$

$$-0.98T_1 + 353.93 \text{ N} = 0$$

$$T_1 = -353.93 \text{ N}$$

$$-0.98$$

$$T_1 = 361.15 \text{ NW}$$



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

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

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

$$T_{1y} = 0.76$$

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

$$T_{2x} = T_2$$

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

$$T_{2y} = 0$$

$$T_1 = 571.904$$

$$\sum F_x = 0$$

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

$$-0.64T_1 + T_2 = 0$$

$$T_2 = 893.60$$

$$\sum F_y = 0$$

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

$$0.76T_1 = 679.14 \text{ N}$$

$$T_1 = 679.14 \text{ N}$$

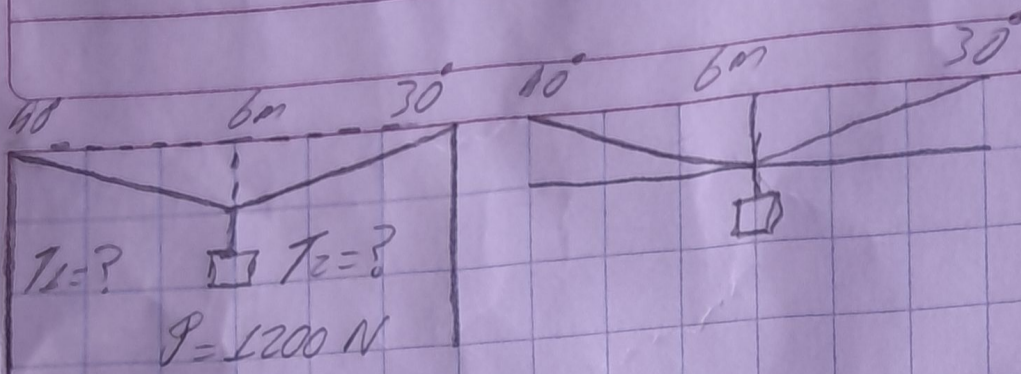
$$0.76$$

$$T_2 = 893.60$$

$$-0.64(893.60 \text{ N}) + T_2 = 0$$

$$-571.904 \text{ N} + T_2 = 0$$

$$T_2 = 571.904 \text{ N}$$



$$T_1 = ? \quad T_2 = ?$$

$$P = 1200 \text{ N}$$

$$T_{1x} = T_1 \cos 40^\circ$$

$$T_{1x} = -0.76$$

$$T_{1y} = T_1 \sin 40^\circ$$

$$T_{1y} = 0.64$$

$$T_{2x} = T_2 \cos 30^\circ$$

$$T_{2x} = 0.86$$

$$T_{2y} = T_2 \sin 30^\circ$$

$$T_{2y} = 0.5$$

$$\sum T_x = 0$$

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

$$-0.76 T_1 + 0.86 T_2 = 0$$

$$\sum T_y = 0$$

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

$$0.64 T_1 + 0.5 T_2 = W$$

$$\begin{cases} (-0.76 T_1 + 0.86 T_2 = 0) & (0.64) \\ (0.64 T_1 + 0.5 T_2 = 1200 \text{ N}) & (0.76) \end{cases}$$

Aplicando Eliminación

$$-0.4864 + 0.5504 = 0$$

$$0.4864 + 0.38 = 600 \text{ N}$$

$$0.9304 T_2 = 600 \text{ N}$$

$$T_2 = \frac{600 \text{ N}}{0.9304}$$

$$T_2 = 644.88$$

Sustituyendo (T_2) en ecu 1

$$-0.76 T_1 + 0.86 (644.88 \text{ N}) = 0$$

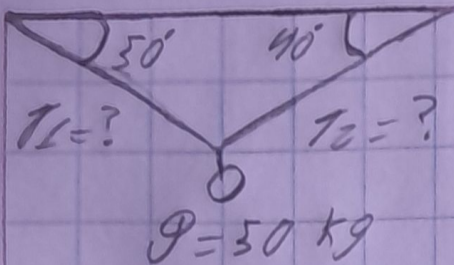
$$-0.76 T_1 + 554.59 \text{ N} = 0$$

$$T_1 = \frac{554.59}{-0.76}$$

$$T_1 = 729.72$$

$$T_1 = 729.72$$

$$T_2 = 644.88$$



$$T_{1x} = T_1 \cos 50^\circ$$

$$T_{1y} = -0.64$$

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

$$T_{2y} = 0.76$$

$$T_{1x} = T_2 \cos 40^\circ$$

$$T_{2y} = 0.76$$

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

$$T_{2y} = 0.64$$

$$\sum F_x = 0$$

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

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

$$\sum F_y = 0$$

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

$$0.76T_1 + 0.64T_2 = W$$

$$\begin{pmatrix} -0.64T_1 + 0.76T_2 = 0 \\ 0.76T_1 + 0.64T_2 = 50 \text{ kg} \end{pmatrix} \begin{pmatrix} 0.76 \\ 0.64 \end{pmatrix}$$

Aplicando eliminación

$$-0.4864 + 0.5796 = 0$$

$$0.4864 + 0.4096 = 32 \text{ kg}$$

$$0.9892T_2 = 32 \text{ kg}$$

$$T_2 = 32 \text{ kg}$$

$$0.9892$$

$$T_2 = 32.41$$

Substituyendo T_2 en ecu 1

$$-0.64T_1 + 0.76(32.41 \text{ N}) = 0$$

$$-0.64T_1 + 24.63$$

$$T_1 = -24.63$$

$$-0.64$$

$$T_1 = 38.48$$

$$T_1 = 38.48$$

$$T_2 = 32.41$$