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Ojeda**

**Nombre Del Trabajo: Problemario**

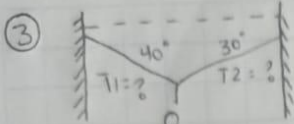
**Materia: Física**

**Grado: 4 Semestre**

**Grupo: A**

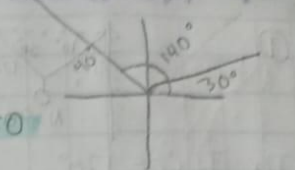


# PROBLEMARIO



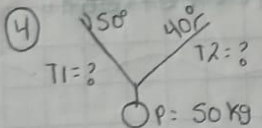
$P = 1200N$   
 $T_{1x} = T_1 \cos 140^\circ$   
 $T_{1x} = -0.76 T_1$   
 $T_{1y} = T_1 \sin 140^\circ$   
 $T_{1y} = 0.64 T_1$   
 $T_{2x} = T_2 \cos 30^\circ$   
 $T_{2x} = 0.86 T_2$   
 $T_{2y} = T_2 \sin 30^\circ$   
 $T_{2y} = 0.5 T_2$

$\sum F_x = 0$   
 $T_{1x} + T_{2x} = 0$   
 $-0.76 T_1 + 0.86 T_2 = 0$   
 $\sum F_y = 0$   
 $T_{1y} + T_{2y} = P$   
 $0.64 T_1 + 0.5 T_2 = 1200$



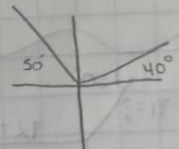
$-0.76 T_1 + 0.86 T_2 = 0$   
 $0.64 T_1 + 0.5 T_2 = 1200$   
 $0.64 T_1 (1.13 T_2) + 0.5 T_2 = 1200$   
 $0.72 T_2 + 0.5 T_2 = 1200$   
 $1.22 T_2 = 1200$   
 $T_2 = \frac{1200}{1.22}$

$T_1 = 1.13 T_2$   
 $T_1 = 1.13(983.60N)$   
 $T_1 = 1,111.46$   
 $T_2 = 983.60N$



$P = 50kg$   
 $T_{1x} = T_1 \cos 130^\circ$   
 $T_{1x} = -0.64 T_1$   
 $T_{1y} = T_1 \sin 130^\circ$   
 $T_{1y} = 0.76 T_1$   
 $T_{2x} = T_2 \cos 40^\circ$   
 $T_{2x} = 0.76 T_2$   
 $T_{2y} = T_2 \sin 40^\circ$   
 $T_{2y} = 0.64 T_2$

$\sum F_x = 0$   
 $-0.64 T_1 + 0.76 T_2 = 0$   
 $\sum F_y = 0$   
 $T_{1y} + T_{2y} = P$   
 $0.76 T_1 + 0.64 T_2 = 50$



$-0.64 T_1 + 0.76 T_2 = 0$   
 $0.76 T_1 + 0.64 T_2 = 50$   
 $0.76 T_1 (1.18 T_2) + 0.64 T_2 = 50$   
 $0.89 T_2 + 0.64 T_2 = 50$   
 $1.53 T_2 = 50$

$T_1 = 1.18 T_2$   
 $T_2 = \frac{50}{1.53}$   
 $T_1 = 1.18(32.67)$   
 $T_1 = 38.55kg$   
 $T_2 = 32.67kg$