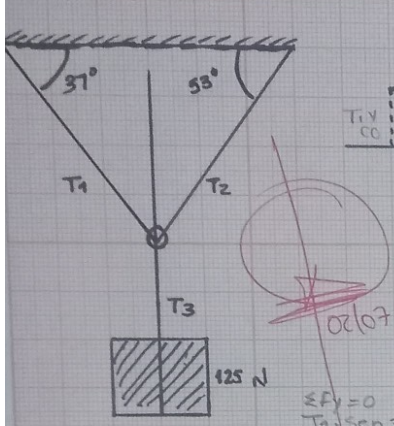
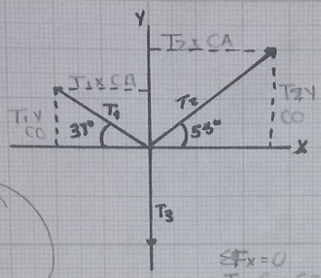




$\text{Sen } 37° = \frac{T_{1y}}{T_1} \rightarrow T_{1y} = T_1(\text{sen } 37°)$

$\text{Cos } 37° = \frac{T_{1x}}{T_1} \rightarrow T_{1x} = T_1(\cos 37°)$

$\text{Sen } 53° = \frac{T_{2y}}{T_2} \rightarrow T_{2y} = T_2(\text{sen } 53°)$

$\text{Cos } 53° = \frac{T_{2x}}{T_2} \rightarrow T_{2x} = T_2(\cos 53°)$

$\Sigma F_x = 0$

$T_2 \cdot \cos 53° - T_1 \cdot \cos 37° = 0$

$T_2 \cdot \cos 53° = T_1 \cdot \cos 37° = 0$

$T_2 = T_1 \cdot \cos 37° / \cos 53°$

$T_2 = 1.32 \cdot T_1$

$\Sigma F_y = 0$

$T_1 \cdot \text{Sen } 37° + T_2 \cdot \text{Sen } 53° - 125N = 0$

$T_1 \cdot \text{Sen } 37° + (1.32 \cdot T_1) \text{Sen } 53° - 125N = 0$

$T_1 \cdot 0.60 + (1.32 \cdot T_1) 0.79 - 125N = 0$

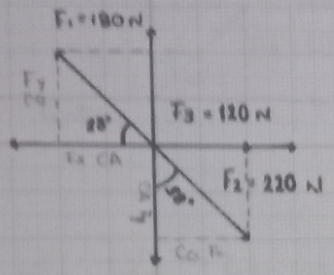
$T_1 \cdot 0.60 + 1.04 \cdot T_1 - 125N = 0$

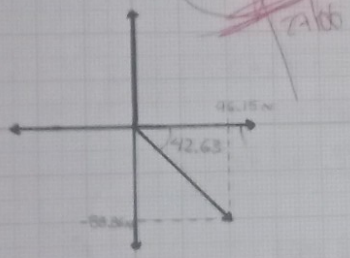
$T_1 \cdot 1.64 - 125N = 0$

$T_1 = 125N / 1.64 = 76.21 N$

$T_2 = 1.32 \cdot T_1$

$T_2 = 1.32 \cdot 76.2 N = 100.5 N$





① $\text{Sen } 28° = \frac{F_y}{180\,N}$

$F_y = 180\,N\,(\text{Sen } 28°) = 84.50\,N$

$\text{Cos } 28° = \frac{F_x}{180\,N}$

$F_x = 180\,N\,(\text{Cos } 28°) = 158.93$

② $\text{Sen } 38° = \frac{F_x}{220\,N}$

$F_x = 220\,N\,(\text{Cos } 38°) = 173.36\,N$

$\text{Cos } 38 = \frac{F_x}{220\,N}$

$F_x = 220\,N\,(\text{Sen } 38°) = 135.48\,N$

③ 120 N

$\Sigma F_y = 84.50\,N - 173.36\,N = -88.86\,N$

$\Sigma F_x = -158.93 + 135.48\,N + 120\,N = 96.55\,N$

$C = \sqrt{a^2 + b^2}$ $\quad C = \sqrt{(96.51)^2 + (88.86)^2}$

$C = \sqrt{9,314.18 + 7896.09}$

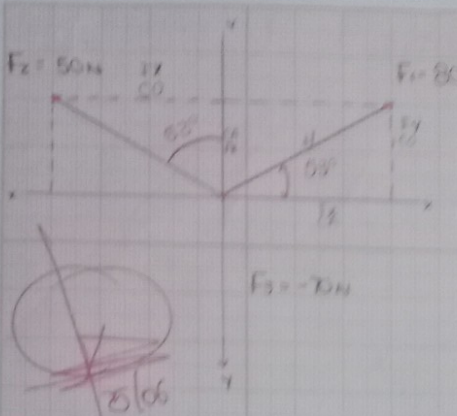
$C = \sqrt{17,210.27}$

$C = 131.18\,N$

$\tan\theta = \frac{88.86}{96.51}$

$\theta = \tan^{-1}\frac{88.86}{96.51}$

$\theta = 42.63$



① $\sin 55° = \frac{F_y}{80N}$

$F_y = 80N \cdot \sin 55° = 63.89N$

$\cos 55° \frac{F_x}{80N}$

$F_x = 80N \cdot \cos 55° = 45.89N$

② $\sin 55° = \frac{F_y}{50N}$

$F_y = 50N \cdot \sin 55° = 30.89N$

$\cos 55° = \frac{F_x}{50N}$

$F_x = 50N \cdot \cos 55° = 28.68N$

③ $-70N$

① $\Sigma F_y = 63.89N + 30.89N - 70N = 24.78N$

$\Sigma F_x = 45.89N - 28.68N = 17.21N$