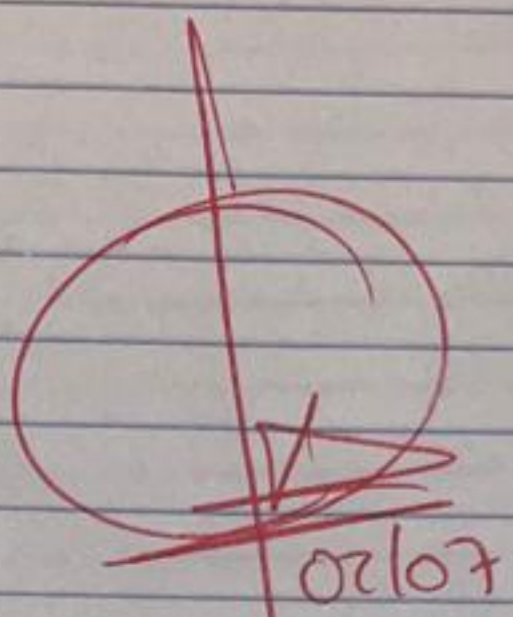


$$\text{sen } \theta = \frac{CO}{H}$$

$$\text{cos } \theta = \frac{CA}{H}$$

$$\text{tan } \theta = \frac{CO}{CA}$$



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

$$T_{2x} = T_2 (\text{cos } 53^\circ)$$

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

$$T_{1x} = T_1 (\text{cos } 37^\circ)$$

$$\sum F_x = 0$$

$$T_1 (\text{cos } 37^\circ) - T_2 (\text{cos } 53^\circ) = 0$$

$$T_1 (\text{cos } 37^\circ) = T_2 (\text{cos } 53^\circ)$$

$$T_2 = \frac{T_1 (\text{cos } 37^\circ)}{\text{cos } 53^\circ} = T_2 = 1.32 \cdot T_1$$

$$(1.32 \times 76.21 = 100.56N)$$

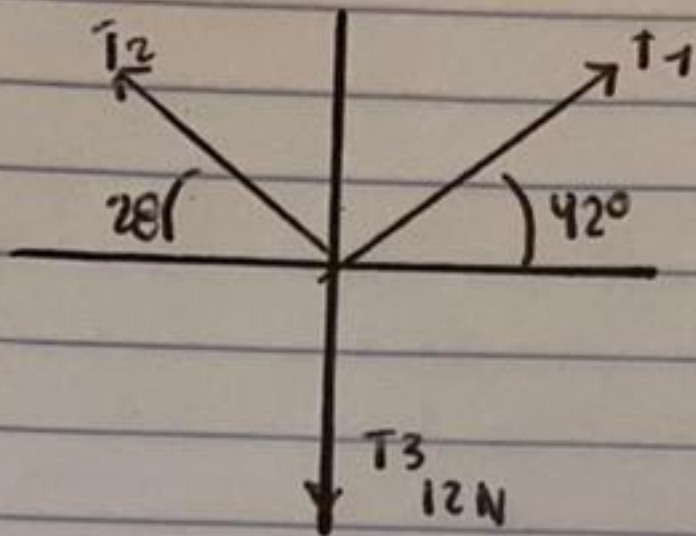
$$\sum F_y = 0$$

$$T_1 \cdot \text{sen } 53^\circ + 1.32 \cdot T_1 \cdot \text{sen } 37^\circ - 125N = 0$$

$$T_1 \cdot 0.798 + 1.32 \cdot T_1 \cdot 0.601 - 125N = 0$$

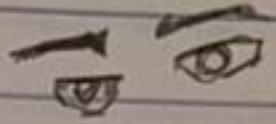
$$T_1 \cdot 1.64 - 125 = 0$$

$$T_1 = \frac{125}{1.64} = 76.21N$$



$$2+2=4$$

$$1+1=3$$



$$\text{sen } 42^\circ = \frac{T_{1y}}{T_1} \rightarrow T_{1y} = T_1 \cdot \text{sen } 42^\circ$$

$$\text{cos } 42^\circ = \frac{T_{1x}}{T_1} \rightarrow T_{1x} = T_1 \cdot \text{cos } 42^\circ$$

$$\text{sen } 28^\circ = \frac{T_{2y}}{T_2} \rightarrow T_{2y} = T_2 \cdot \text{sen } 28^\circ$$

$$\text{cos } 28^\circ = \frac{T_{2x}}{T_2} \rightarrow T_{2x} = T_2 \cdot \text{cos } 28^\circ$$

$$\sum F_x = 0$$

$$T_1 \cdot \text{cos } 42^\circ - T_2 \cdot \text{cos } 28^\circ = 0$$

$$T_2 = \frac{T_1 \cdot \text{cos } 42^\circ}{\text{cos } 28^\circ}$$

$$T_2 = 0.84 \cdot T_1$$

$$\sum F_y = 0$$

$$T_1 \cdot \text{sen } 42^\circ + T_2 \cdot \text{sen } 28^\circ - 12\text{N} = 0$$

$$T_1 \cdot \text{sen } 42^\circ + (0.84 \cdot T_1) \cdot \text{sen } 28^\circ - 12\text{N} = 0$$

$$T_1 \cdot 0.669 + (0.84 \cdot T_1) \cdot 0.469 - 12\text{N} = 0$$

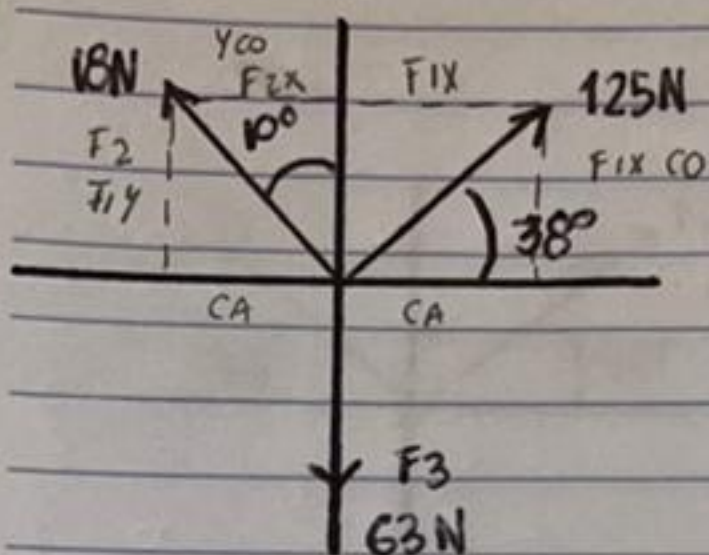
$$T_2 = 0.84 \cdot 11.331\text{N}$$

$$T_1 \cdot 0.669 + (0.39 \cdot T_1) - 12\text{N} = 0$$

$$T_1 \cdot 1.059 - 12\text{N} = 0$$

$$= \underline{\underline{9.51\text{N}}}$$

$$T_1 = \frac{12\text{N}}{1.059} = \underline{\underline{11.331\text{N}}}$$



$$\text{Sen } 38^\circ = \frac{F_{1y}}{125N} \rightarrow F_{1y} = 125N \cdot \text{Sen } 38^\circ = 76.95N$$

$$\text{Cos } 38^\circ = \frac{F_{1x}}{125N} \rightarrow F_{1x} = 125N \cdot \text{Cos } 38^\circ = 98.50N$$

$$\text{Sen } 10^\circ = \frac{F_{2x}}{18N} \rightarrow F_{2x} = 18N \cdot \text{Sen } 10^\circ = 3.12N$$

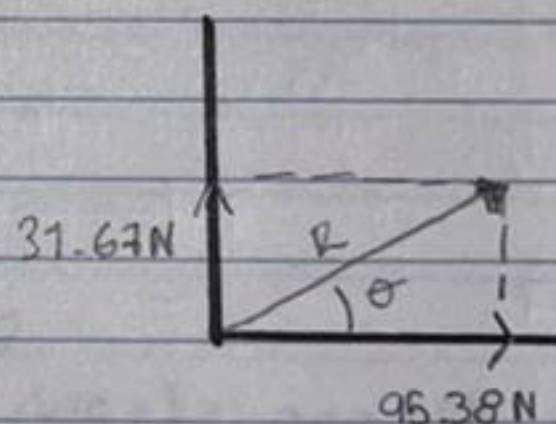
$$\text{Cos } 10^\circ = \frac{F_{2y}}{18N} \rightarrow F_{2y} = 18N \cdot \text{Cos } 10^\circ = 17.72N$$

$$\sum F_x = 0$$

$$98.50N - 3.12N = 95.38N$$

$$\sum F_y = 0$$

$$76.95N + 17.72N - 63N = 31.67N$$



$$c = \sqrt{a^2 + b^2}$$

$$R = \sqrt{95.38N^2 + 31.67N^2}$$

$$R = \sqrt{9097.34N^2 + 1002.98N^2}$$

$$R = \sqrt{10100.32N}$$

$$R = 100.50N //$$

$$\tan \theta = \frac{31.67N}{95.38N}$$

$$\theta = \tan^{-1} 0.33 = 18.36^\circ$$