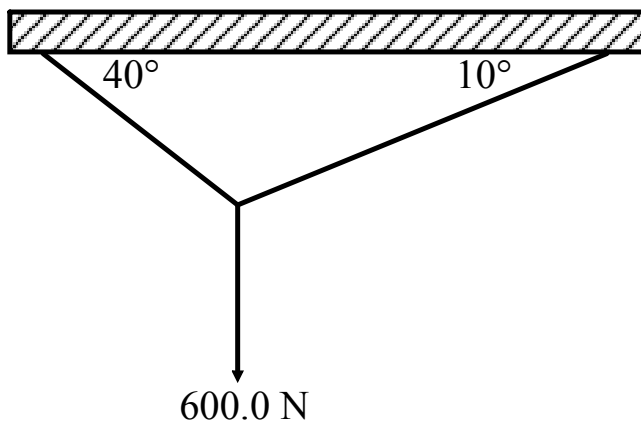
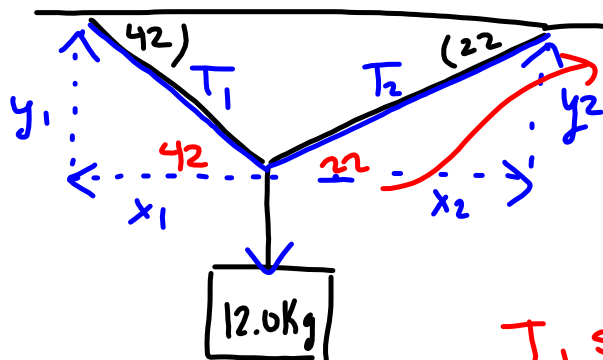


## Static Equilibrium with Unequal Angles

Ex: Calculate the tension in each string.





$$T_1 \cos 42 = T_2 \cos 22$$

$$T_1 = \frac{T_2 \cos 22}{\cos 42}$$

$$T_1 = T_2 (1.2476)$$

$$T_1 \sin 42 + T_2 \sin 22 = 117.6$$

$$T_2 (1.2476) \sin 42 + T_2 \sin 22 = 117.6$$

$$T_2 \cdot 1.209 = 117.6$$

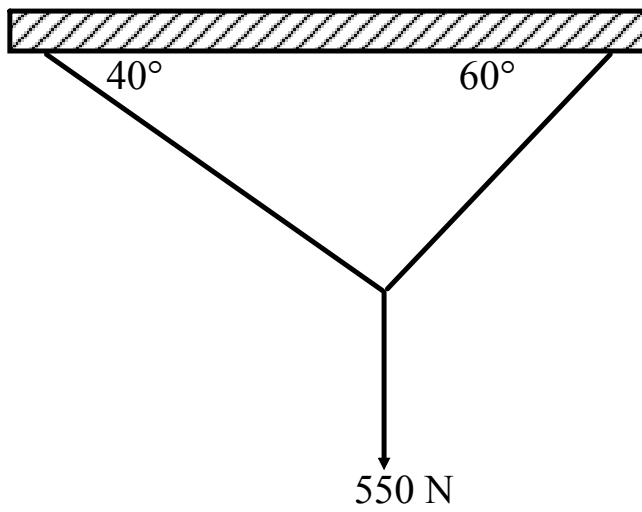
$$T_2 = 97.23 \text{ N}$$

$$T_1 = 121 \text{ N}$$

$$x_1 = x_2$$

$$y_1 + y_2 = 117.6$$

Ex 2:





**HWK: Homework set #6**  
**Static Equilibrium**