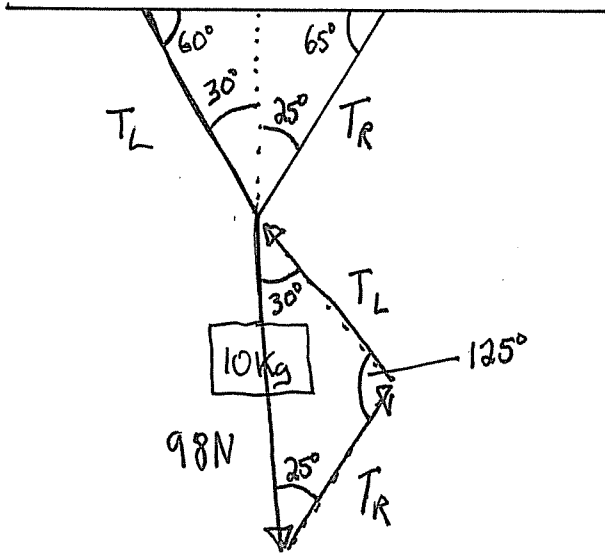


Physics 12 Ch 9 1st Condition Sheet #2

Name: _____

➤ Non right angles

1. Find the tension in the cables.

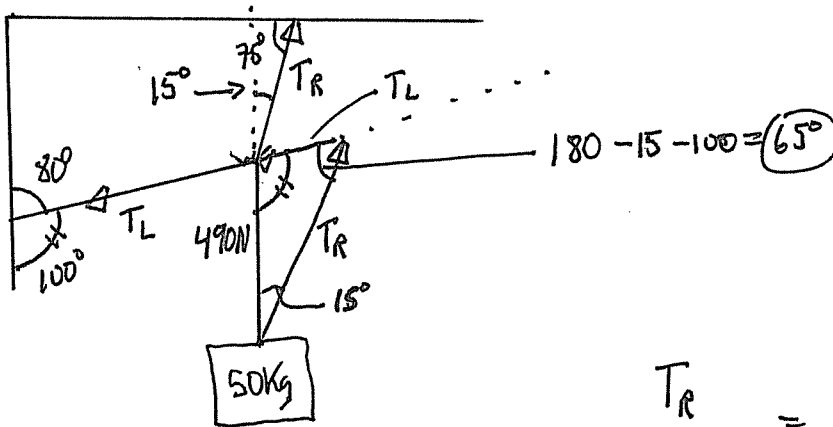


Use sin Law.

$$\frac{T_L}{\sin 25} = \frac{98}{\sin 125} \quad T_L = 50.6 \text{ N}$$

$$\frac{T_R}{\sin 30} = \frac{98}{\sin 125} \quad T_R = 59.8 \text{ N}$$

2. Find the tension in the cables.

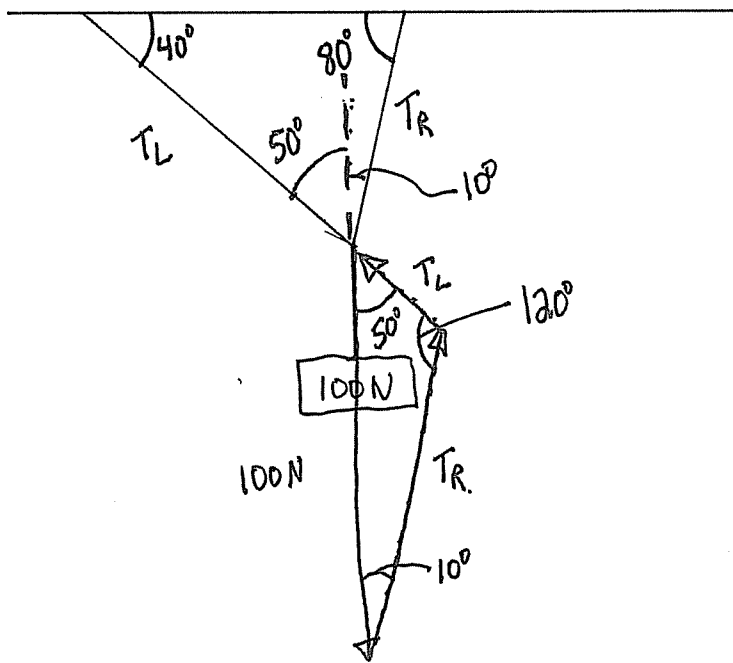


$$\frac{T_R}{\sin 100} = \frac{490}{\sin 65} \quad T_R = 532 \text{ N}$$

$$\frac{T_L}{\sin 15} = \frac{490}{\sin 65} \quad T_L = 140 \text{ N}$$

Solutions

3. Find the tension in the cables.

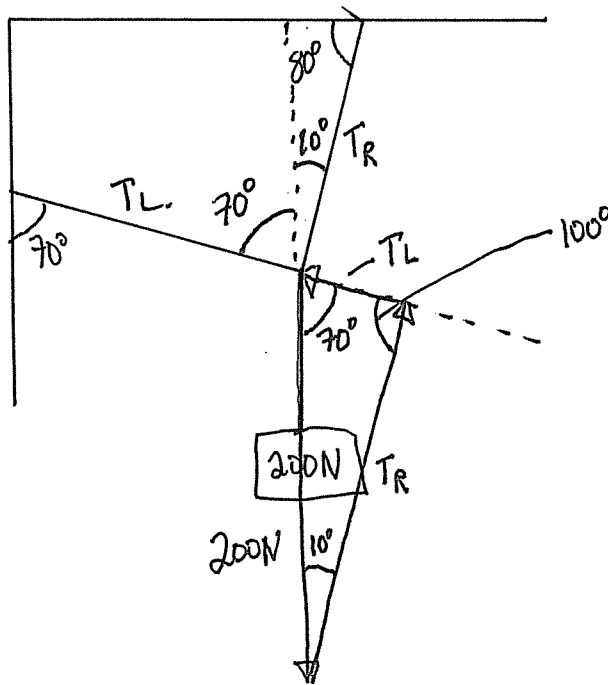


Use sin law

$$\frac{T_L}{\sin 10^\circ} = \frac{100}{\sin 120^\circ} \quad \boxed{T_L = 20.1\text{ N}}$$

$$\frac{T_R}{\sin 50^\circ} = \frac{100}{\sin 120^\circ} \quad \boxed{T_R = 88.5\text{ N}}$$

4. Find the tension in the cables.



$$\frac{T_L}{\sin 10^\circ} = \frac{200}{\sin 100^\circ} \quad \boxed{T_L = 35.3\text{ N}}$$

$$\frac{T_R}{\sin 70^\circ} = \frac{200}{\sin 100^\circ}$$

$$\boxed{T_R = 191\text{ N}}$$