

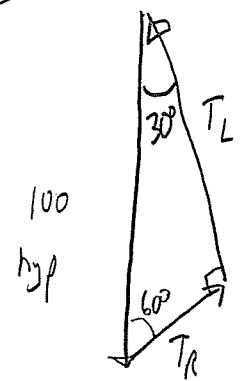
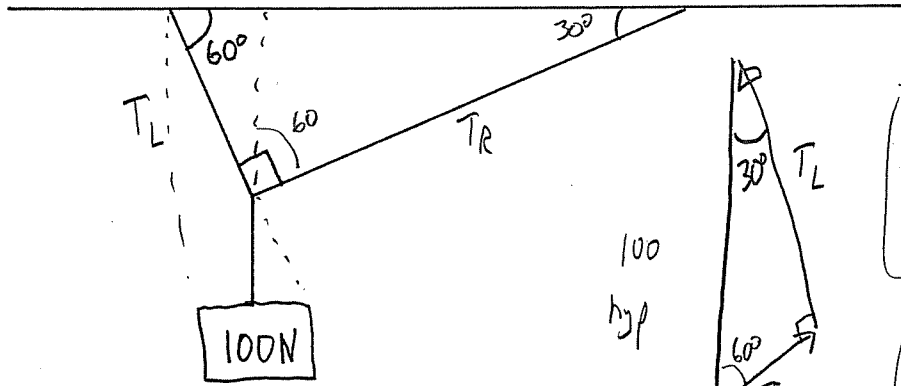
Key

Physics 12 Ch 9 1st Condition Sheet #1

Name: _____

➤ Right angles

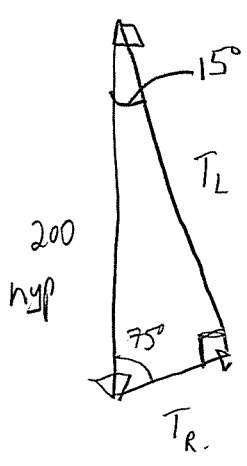
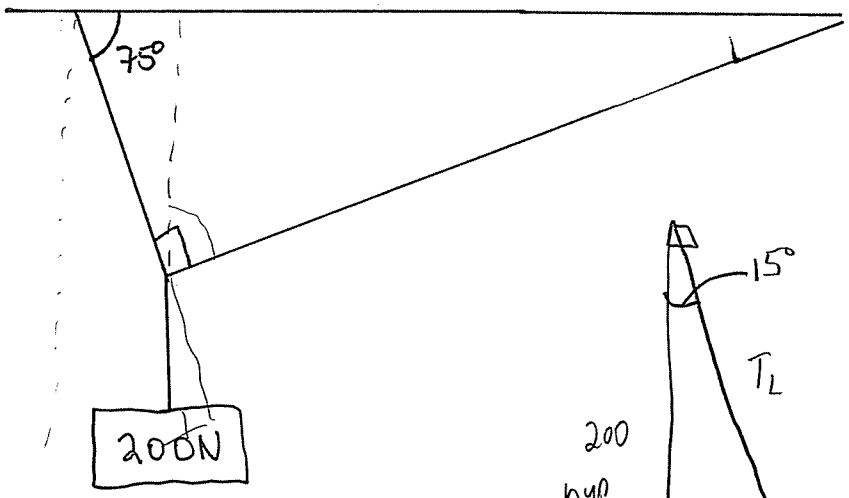
1. Find the tension in the cables. $T_L =$ _____ $T_R =$ _____



$$\cos 30^\circ = \frac{T_L}{100}$$
$$T_L = 86.6 \text{ N}$$

$$\cos 60^\circ = \frac{T_R}{100}$$
$$T_R = 50$$

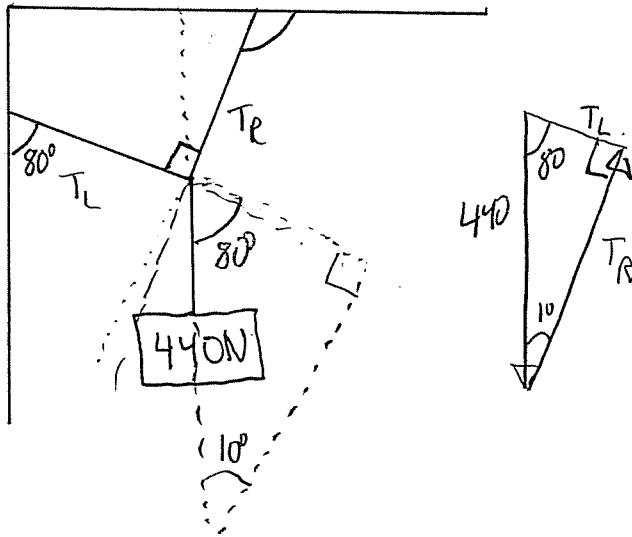
2. Find the tension in the cables. $T_L =$ _____ $T_R =$ _____



$$\cos 15^\circ = \frac{T_L}{200}$$
$$T_L = 193.2$$

$$\cos 75^\circ = \frac{T_R}{200}$$
$$T_R = 51.8$$

3. Find the tension in the cables.



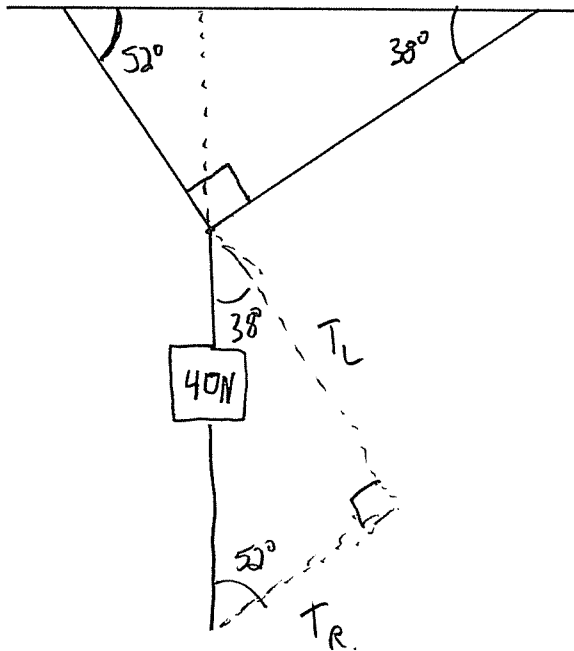
$$\cos 80 = \frac{T_L}{440}$$

$$T_L = 76.4 \text{ N}$$

$$\cos 10 = \frac{T_R}{440}$$

$$T_R = 433 \text{ N}$$

4. Find the tension in the cables.



$$\cos 38 = \frac{T_L}{40} \quad T_L = 31.5 \text{ N}$$

$$\cos 52 = \frac{T_R}{40} \quad T_R = 24.6$$