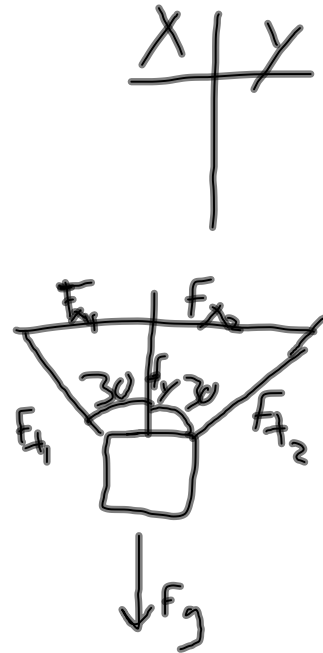
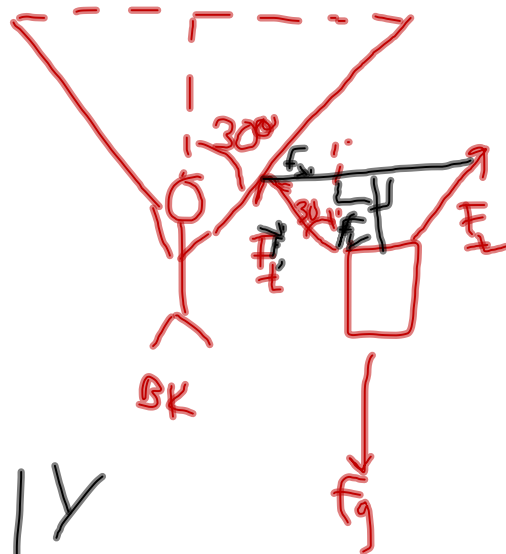


$$m = 310 \times 10^2 \text{ kg} = 310 \text{ kg}$$



X	Y
$F_t \cdot \sin 30$	$-F_g$
$-F_t \cdot \sin 30$	$F_t \cdot \cos 30$
0	$F_t \cdot \cos 30$

$$F_t \sin 30 - F_t \sin 30 = 0$$

$$\vec{F} = m\vec{a}$$

$$F_t \cos 30 + F_t \cos 30 - F_g = 0$$

$$2F_t \cos 30 = F_g$$

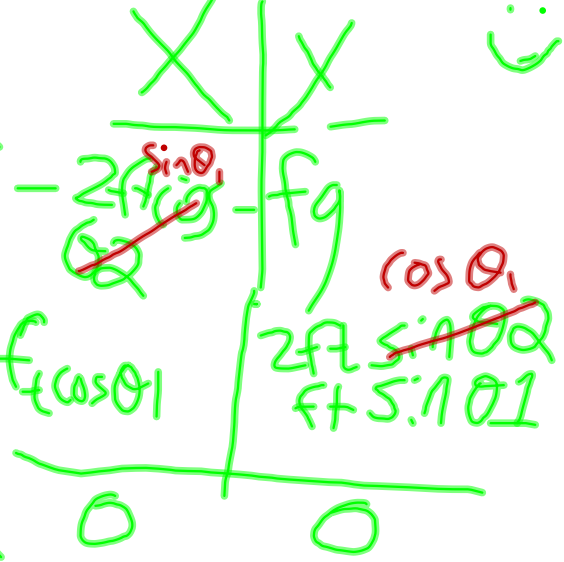
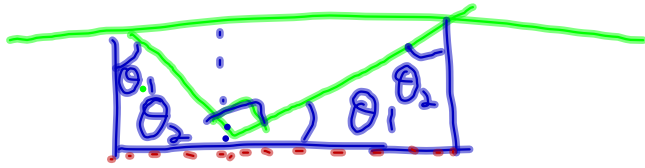
$$2F_t \cos 30 = 310(9.81) = 3041.1 \text{ N}$$


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$$2 \cos 30$$

$$F_t = \frac{3041.1}{1.73} = 1755.8 \text{ N}$$

$$m = 155 \text{ kg}$$



$$\frac{ft \cos \theta_1}{ft} = \frac{2ft \sin \theta_2}{ft}$$

$$\frac{\cos \theta_1}{\cos \theta_2} = \frac{2 \sin \theta_2}{\cos \theta_2}$$

$$\frac{1}{2} = \frac{2 \tan \theta_2}{1}$$

$$\frac{1}{4} = \tan \theta_2$$

$$\tan^{-1} \left( \frac{1}{4} \right) = \theta_2$$

$$ft \cos \theta_1 - 2ft \sin \theta_2 = 0$$

$$ft \sin \theta_1 + 2ft \cos \theta_2 - fg = 0$$

↑  
mg  
(155)(9.81)

$$\theta_1 = 26.57^\circ$$

$$ft \cdot 447 + 1.789ft - 1520.6 = 0$$

$$2.236ft = 1520.6$$

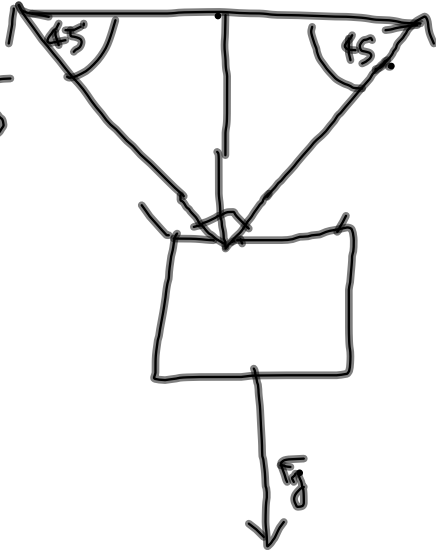
$$\frac{1520.6}{2.236}$$

$$680. \text{ N} = ft$$

$$M = 2.65 \text{ kg}$$

$$F_g = 26 \text{ N}$$

$$A = 2.55$$



X	Y
$F_t \cos 45$	$-F_g$
$-F_t \cos 45$	$F_t \sin 45$
	$F_t \sin 45$
0	$ma$ (2.65)(2.55)

$$2F_t \sin 45 - F_g = ma$$

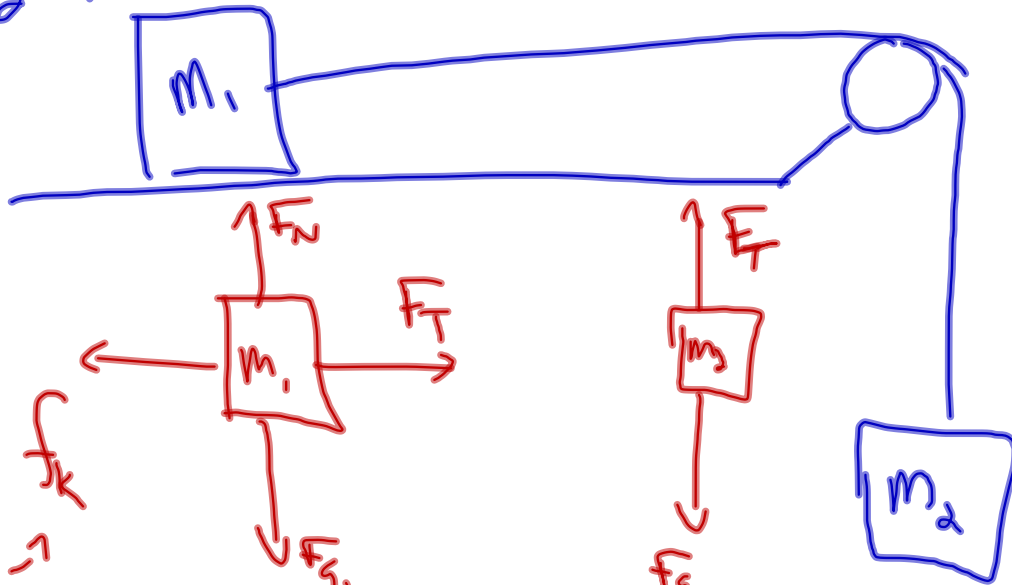
$$2F_t \sin 45 - 26 = 6.76$$

$$\frac{2F_t \sin 45}{1.4} = \frac{32.76}{1.4}$$

$$F_t = 23.4 \text{ N}$$

*Mishra*

$$m_2 \gg m_1$$



After starts moving

	X	Y
	$F_T$	$F_{g1}$
	$-f_k$	$F_N$
	$m_1 a$	0

	X	Y
		$F_{g2}$
		$-F_T$
		$m_2 a$