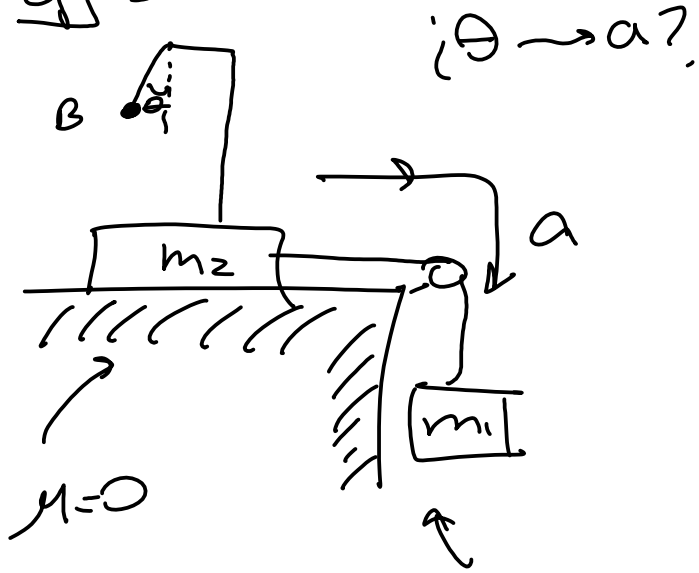
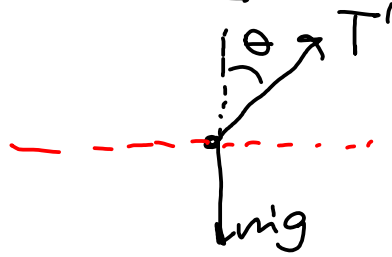


TALLER 6

Ej 5.100



DCL2:



$$\sum F_x = m_2 a$$

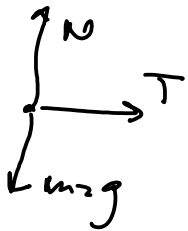
$$\sum F_y = 0$$

$$T' \sin \theta = m_2 a$$

$$T' \cos \theta = m_2 g$$

$$\frac{T' \sin \theta}{T' \cos \theta} = \frac{m_2 a}{m_2 g}$$

b) DCL2:



$$\sum F_x = m_2 a$$

$$T = m_2 a \quad (*)$$

DCL1:



$$\sum F_y = m_1 a$$

$$m_1 g - T = m_1 a \quad (**)$$

a) $\boxed{a = g \tan \theta}$

Substituir (*) a (**))

$$m_1 g - m_2 a = m_1 a$$

$$a = \frac{m_1}{m_1 + m_2} g$$

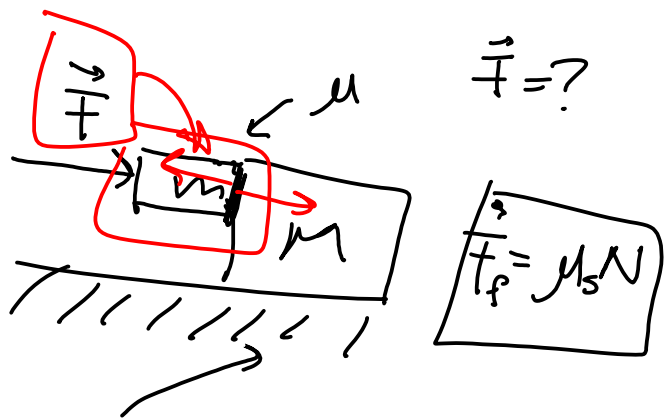
$$\therefore \boxed{\tan \theta = \frac{m_1}{m_1 + m_2}}$$

$$m_1 + m_2 \sim m_1$$

$$\Rightarrow \tan \theta = 1 \quad \theta = 45^\circ \quad m_1 \gg m_2$$



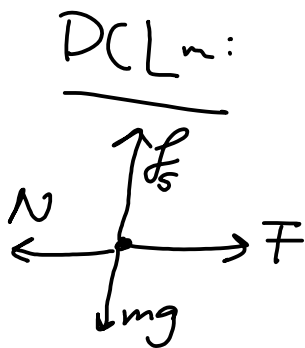
Ej 6.35 Resnik



$$F = (M+m)a \quad (1)$$

↳ Sistema Completo.

Sin fricción

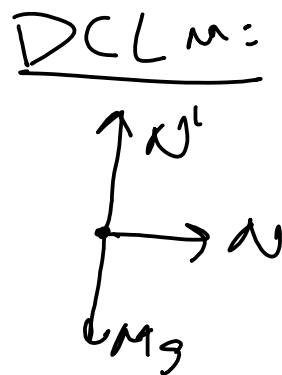


$$\sum F_y = 0$$

$$\mu_s N = mg \quad (2)$$

$$\sum F_x = ma$$

$$F - N = ma \quad (3)$$



$$\sum F_x = Ma$$

$$N = Ma \quad (4)$$

$$F = \frac{mg}{\mu_s \left(1 - \frac{m}{M+m}\right)}$$