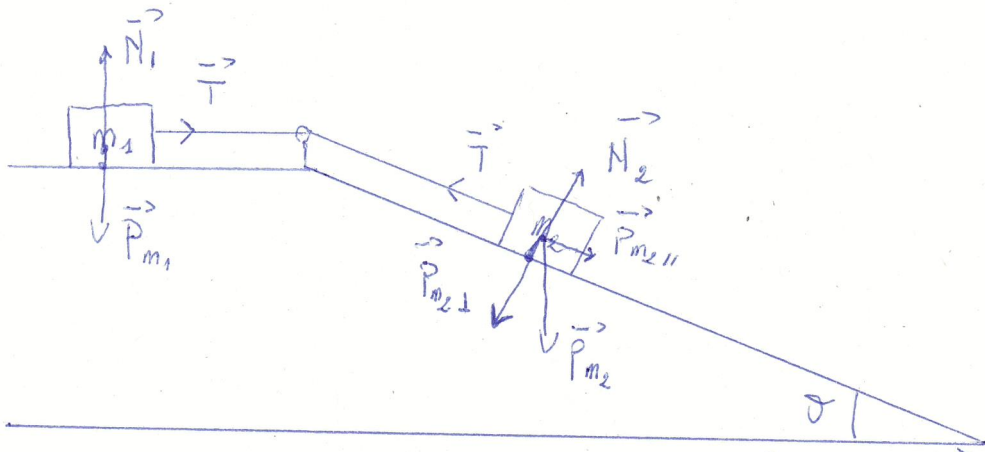


Problema 2



$$\vec{P}_{m_1} = \vec{N}_1$$

$$\vec{T} = m_1 \vec{a}_1$$

$$\vec{P}_{m_2 \perp} = \vec{N}_2$$

$$\vec{T} + \vec{P}_{m_2 \parallel} = m_2 \vec{a}_2$$

filo inestensibile $|\vec{a}_1| = |\vec{a}_2| = |\vec{a}|$

$$T = m_1 a$$

$$-T + m_2 g \sin \vartheta = m_2 a$$

$$\Rightarrow m_2 g \sin \vartheta = (m_1 + m_2) a$$

$$\Downarrow$$

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

Es numerico

$$m_1 = 3 \text{ kg}$$

$$m_2 = 4 \text{ kg}$$

$$\vartheta = 30^\circ$$

$$g = 9,81 \text{ m/s}^2$$

$$a = \frac{2}{7} g = 2,8 \text{ m/s}^2$$

$$T = 8,4 \text{ N}$$