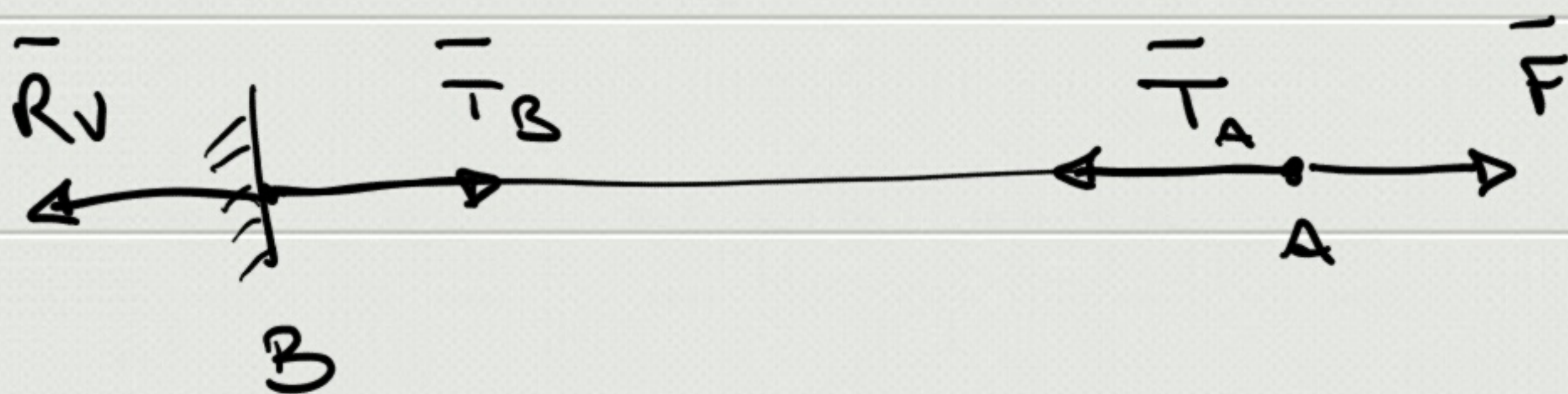
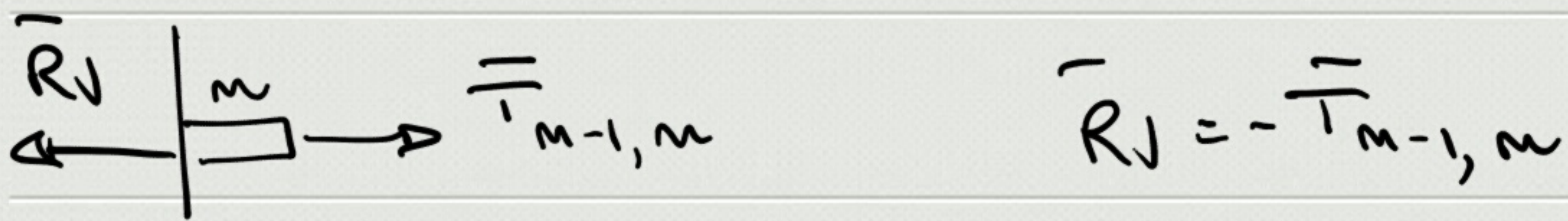
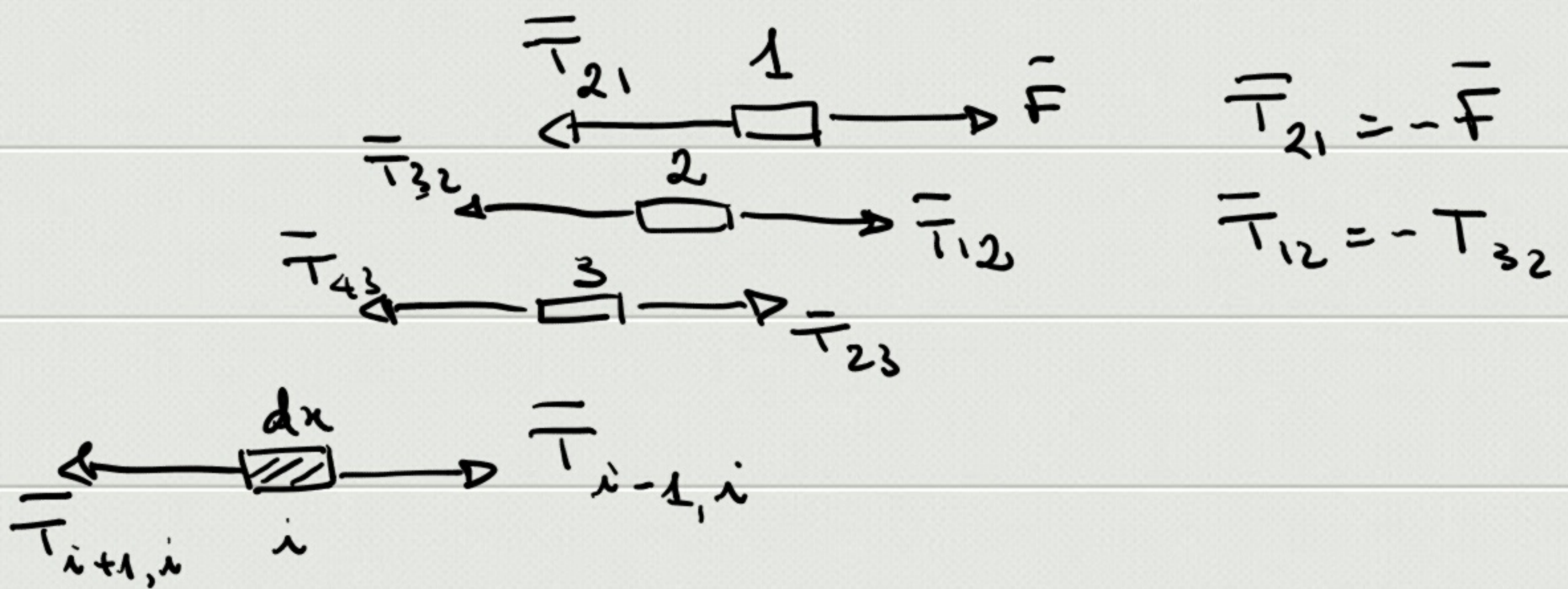
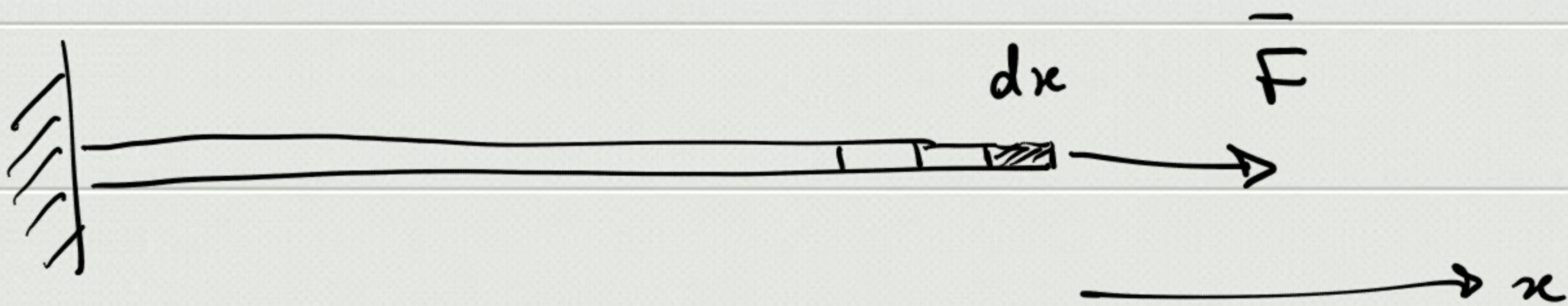
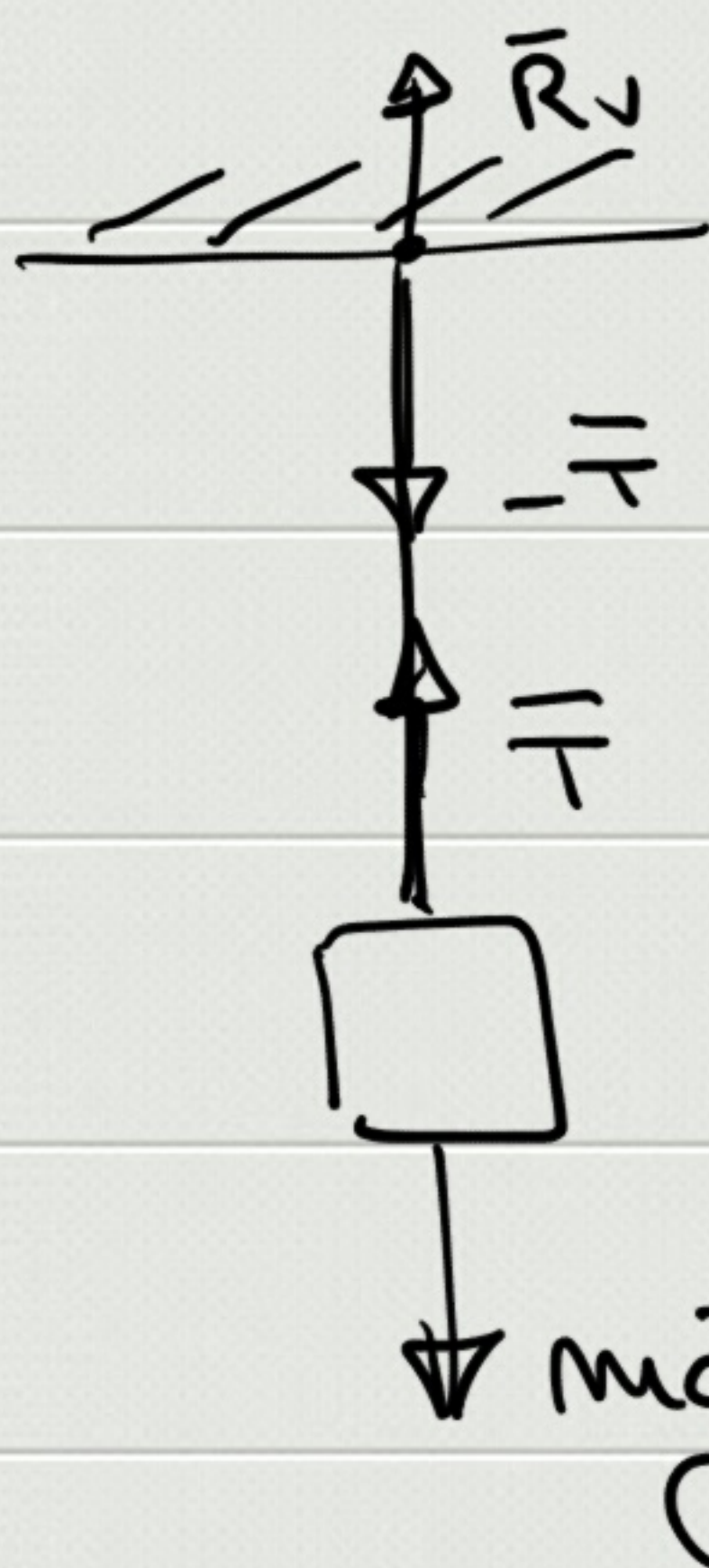


fili ideali : $m \approx 0$, inestensibili



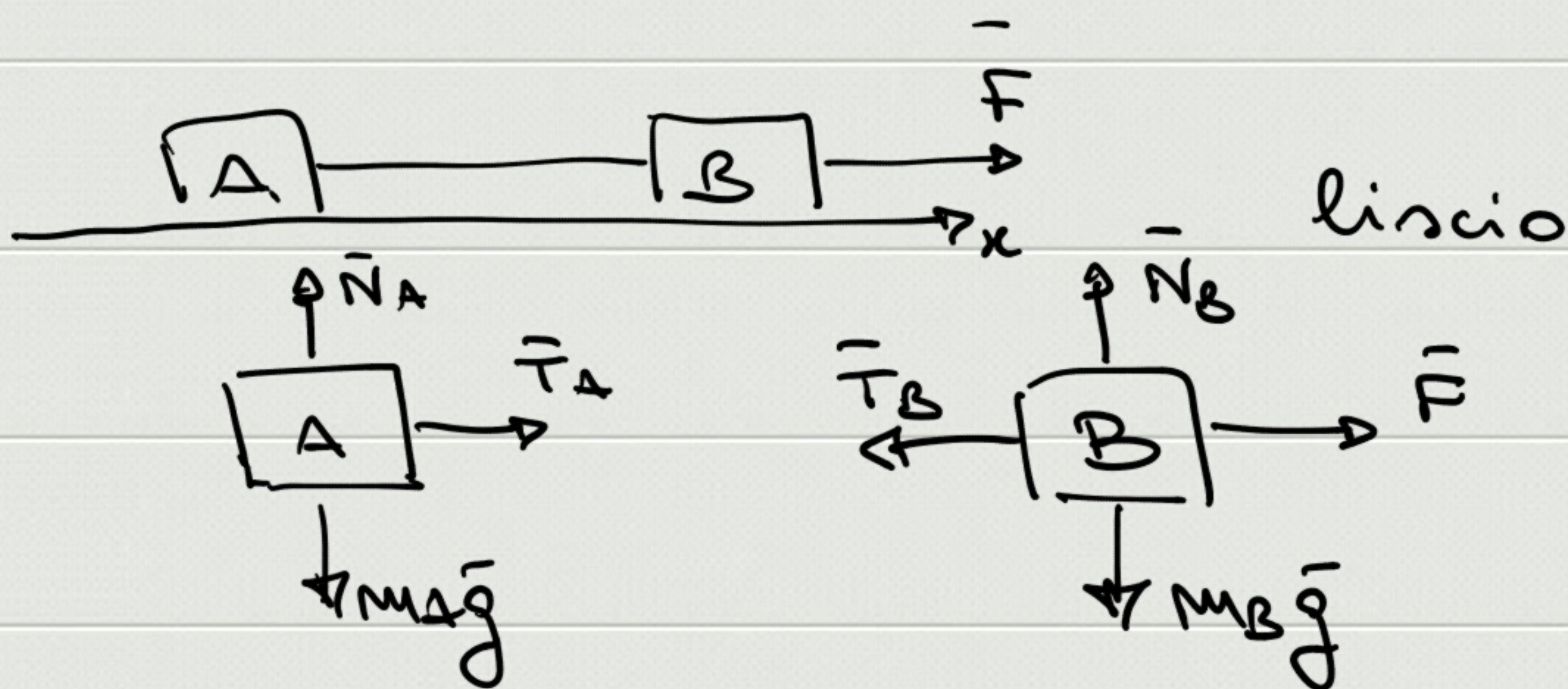
$$\bar{F} = -\bar{T}_A = \bar{T}_B = -\bar{R}_V$$



$$T = R_v$$

$$T = mg$$

$$mg = R_v$$



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

$$A: \begin{cases} T_A = m_A a_A \end{cases}$$

$$B: \begin{cases} -T_B + F = m_B a_B \end{cases}$$

$$T_A = T_B = T$$

$$a_A = a_B = a$$

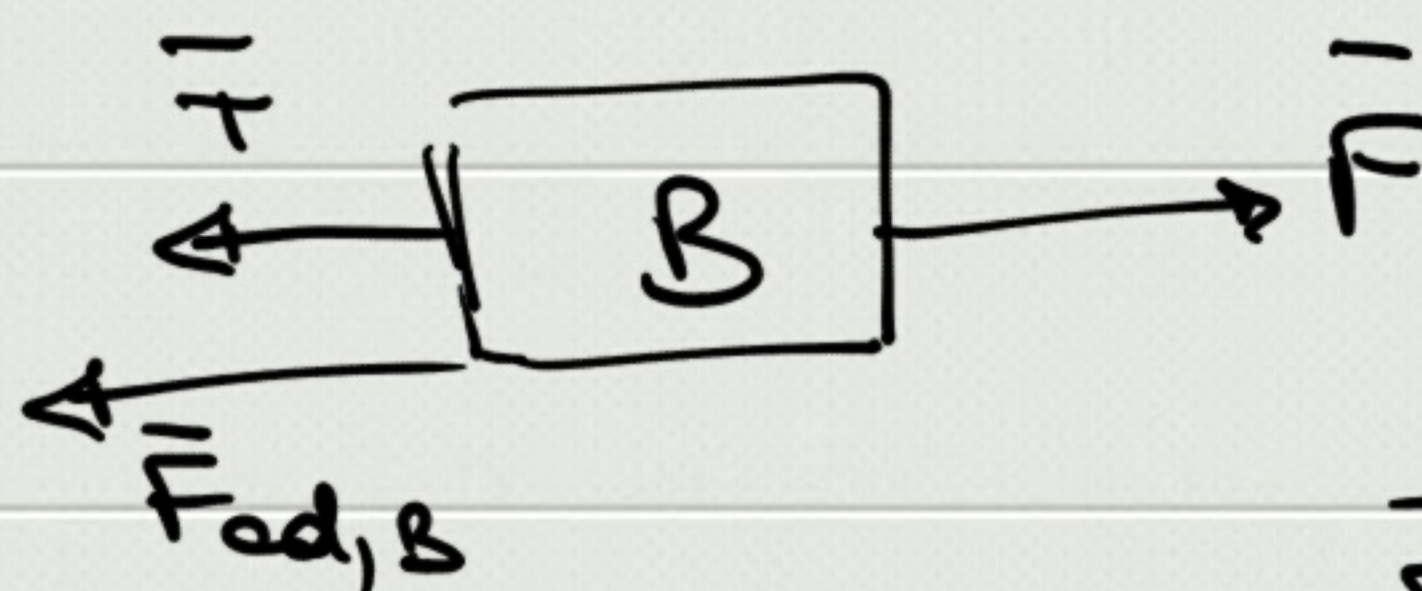
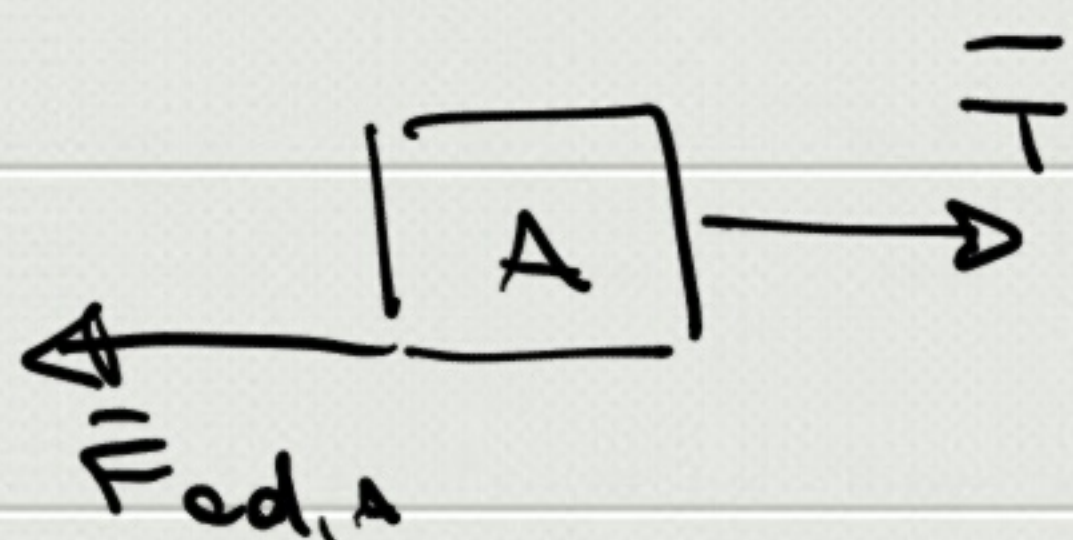
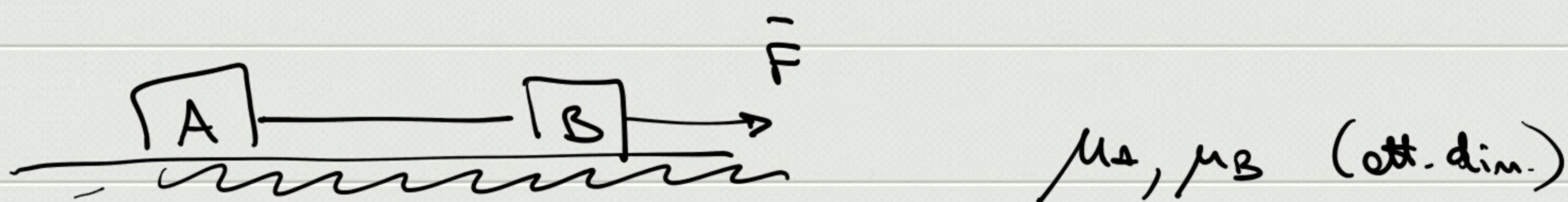
$$\begin{cases} T = m_A a \\ -T + F = m_B a \end{cases}$$

$$F = (m_A + m_B) a$$

$$\Rightarrow a = \frac{F}{m_A + m_B}$$

$$F_A = T = m_A a = \frac{m_A}{m_A + m_B} F$$

$$F_B = F - T_B = m_B a = \frac{m_B}{m_A + m_B} F$$



$$\vec{F}_{ed} = -\mu_d N \vec{v}_v$$

$$A: \begin{cases} T - \mu_A m_A g = m_A a \end{cases}$$

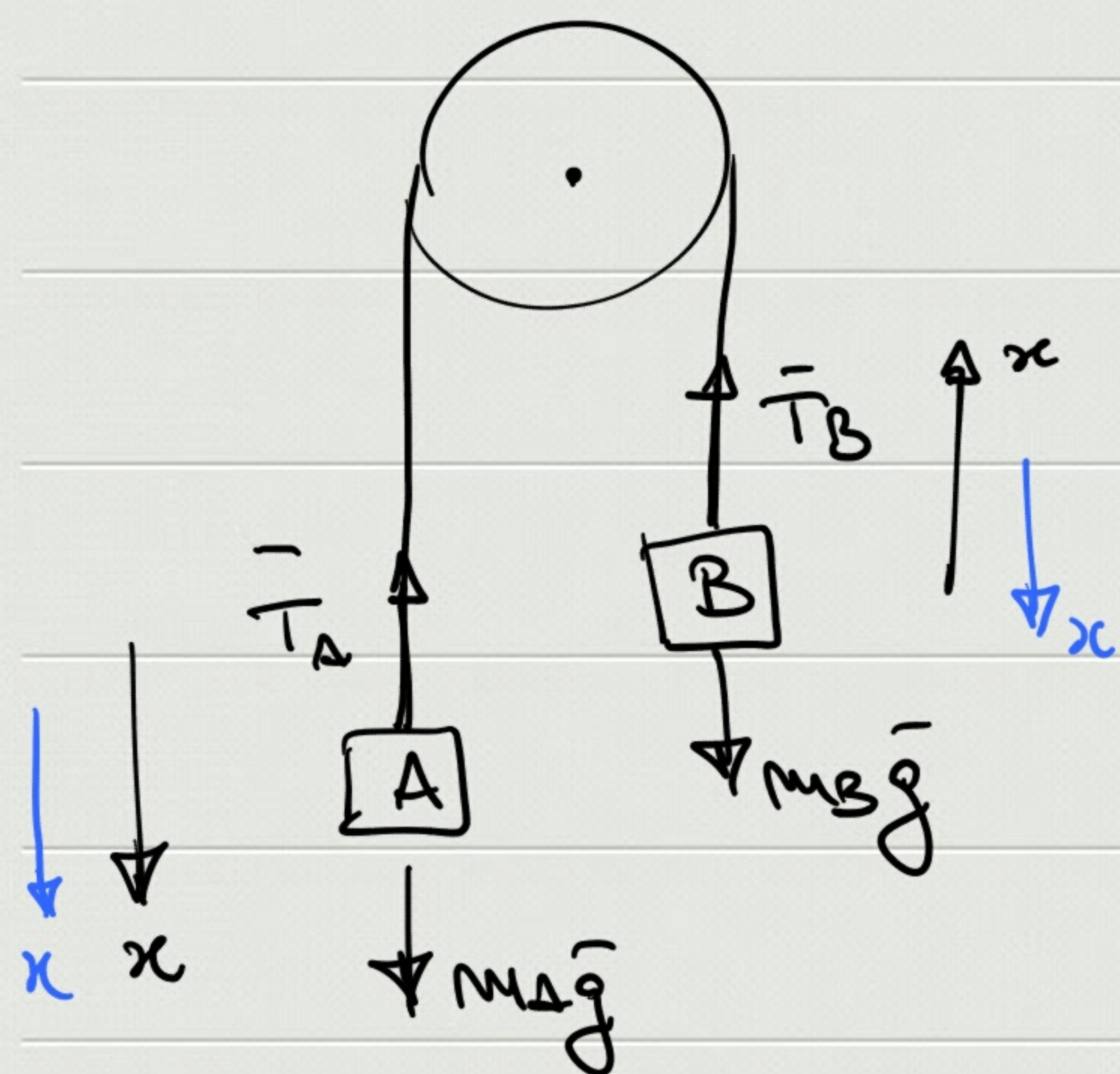
$$B: \begin{cases} F - T - \mu_B m_B g = m_B a \end{cases}$$

$$F - (\mu_A m_A + \mu_B m_B) g = (m_A + m_B) a$$

$$\Rightarrow a = \frac{F - (\mu_A m_A + \mu_B m_B) g}{m_A + m_B}$$

$$T = \frac{m_A}{m_A + m_B} [F + (\mu_A - \mu_B) m_B g]$$

Macchina di Atwood



$$m_c \approx 0$$

$$\begin{aligned} A: & \begin{cases} m_A g - T_A = m_A a_A \\ T_B - m_B g = m_B a_B \end{cases} \\ B: & \end{aligned}$$

$$T_A = T_B$$

$$a_A = a_B = a \quad *$$

$$a_A = -a_B = a$$

$$\begin{cases} m_A g - T = m_A a \\ T - m_B g = m_B a \end{cases}$$

$$(m_A - m_B)g = (m_A + m_B)a$$

 \Rightarrow

$$a = \frac{m_A - m_B}{m_A + m_B} g$$