



$$\vec{F}_{T1} + \vec{T} = m_1 \vec{a}$$

$$-F_{T1} + T = m_1 a$$

$$\vec{F}_{T2} + \vec{T} = m_2 \vec{a}$$

$$-F_{T2} + T = -m_2 a$$

$$\left\{ \begin{array}{l} -F_{T1} + T = m_1 a \\ -F_{T2} + T = -m_2 a \end{array} \right.$$

$$a = \frac{g(m_2 - m_1)}{m_1 + m_2}$$

