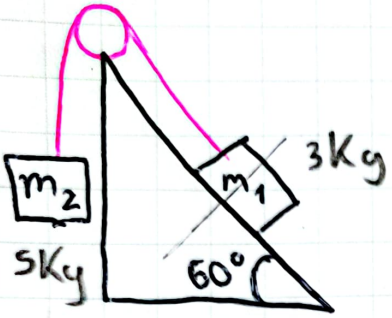
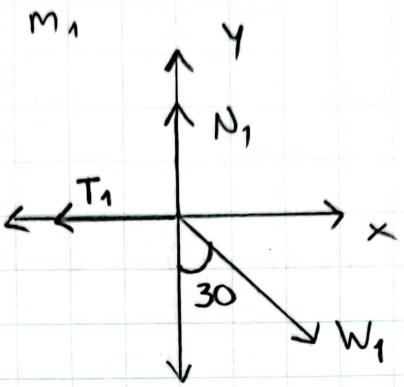
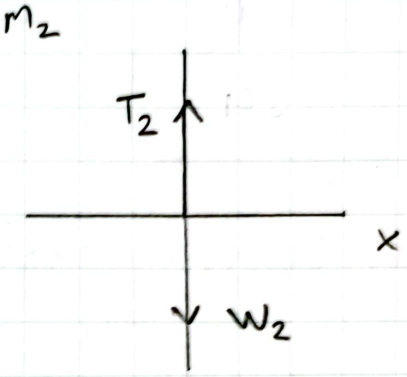
Laura Sofía Ortiz

QUIZ







m_1:

$\Sigma F_x: -T + m_1 g \operatorname{sen}(30) = ma$

$\Sigma F_y: N_1 - m_1 g \cos(30) = 0$

m_2:

$\Sigma F_y: T_2 - m_2 g = ma$

$-T + m_1 g \operatorname{sen}(30) = m_1 \cdot a$

$T - m_2 g = m_2 a$

$\rightarrow m_1 g \operatorname{sen}(30) - m_2 g = a(m_1 + m_2)$

- $a = \dfrac{3Kg \cdot 9.8 m/s^2 \cdot \operatorname{sen}(30) - 5Kg\ 9.8\ m/s^2}{8Kg} = [-5.51\ m/s^2]$

$-T = m_1 \cdot a - m_1 g \operatorname{sen}(30)$

$= 3Kg \cdot (-5.51 m/s^2) - 3Kg \cdot 9.8 m/s^2 \operatorname{sen}(30)$

$= -31.23$

- $[T = 31.23\ N]$