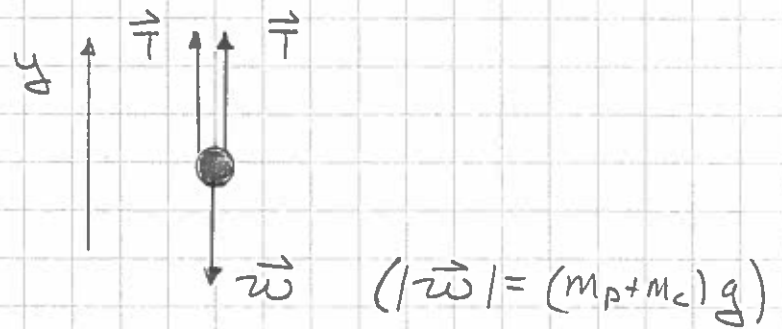


FBD
(of person and chair)



$$\sum F_y = T + T - w = m a_y$$

$$\text{So: } 2T - (m_p + m_c)g = (m_p + m_c)a_y$$

$$\therefore T = \frac{(m_p + m_c)(g + a_y)}{2}$$

$$\underline{T = 400 \text{ N}}$$