

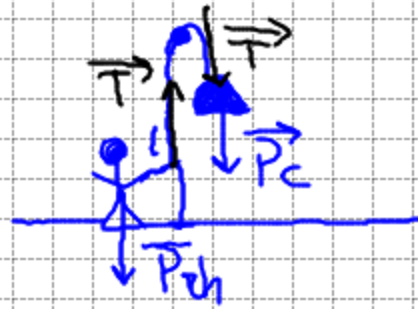
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$$P_c = m \cdot g \quad P_c = 135 \cdot 9,8 =$$

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$$m_c = 135 \text{ kg}$$

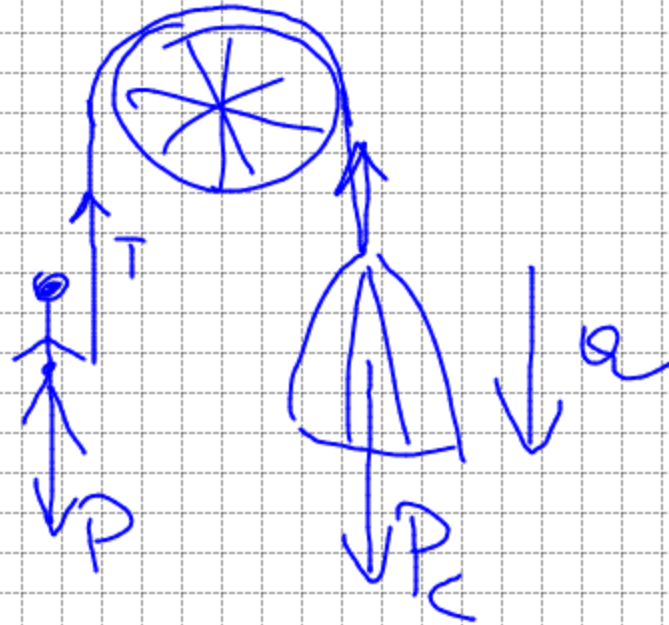
$$m_{ch} = 77 \text{ kg}$$



$$P_c - P_{ch} = \Sigma F$$

$$\Sigma \vec{F} = m \cdot a$$

$$\begin{cases} T - P_{RH} = m_{RH} a \quad a \uparrow \\ T - P_c = -m_c a \end{cases}$$



$$\parallel - P_{RH} + P_c = (m_{ch} + m_c) a$$

$$\begin{cases} T - 755 = 77 \cdot a \end{cases}$$

$$\begin{cases} -755 + 1313 = 272 \cdot a \end{cases}$$

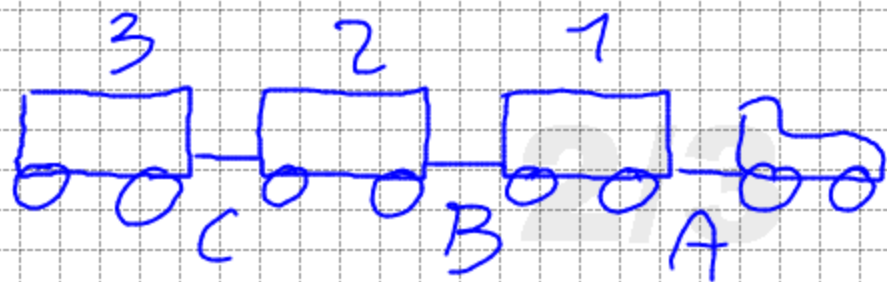
$$\begin{cases} T = (755 + 331,1) \text{ N} \end{cases}$$

$$\begin{cases} a = 4,3 \text{ m/s}^2 \end{cases}$$

$$\begin{cases} T = 1086 \text{ N} \end{cases}$$

$$\begin{cases} a = 4,3 \text{ m/s}^2 \end{cases}$$

$$a = 0,12 \text{ m/s}^2$$



$$a) \begin{matrix} m_2 - 39 \text{ Kg} \\ m_1 + 39 \text{ Kg} \end{matrix}$$

$$T_A = (m_1 + m_2 + m_3)(a)$$

$$T_B = (m_2 + m_3)(a)$$

$$T_C = m_3 \cdot a$$

$$\Delta T_A = (m_1 + \cancel{39 \text{ Kg}} + m_2 - \cancel{39 \text{ Kg}} + m_3)(a) - T_A$$

$$(m_1 + m_2 + m_3)a - (m_1 + m_2 + m_3)a = 0 \text{ N}$$

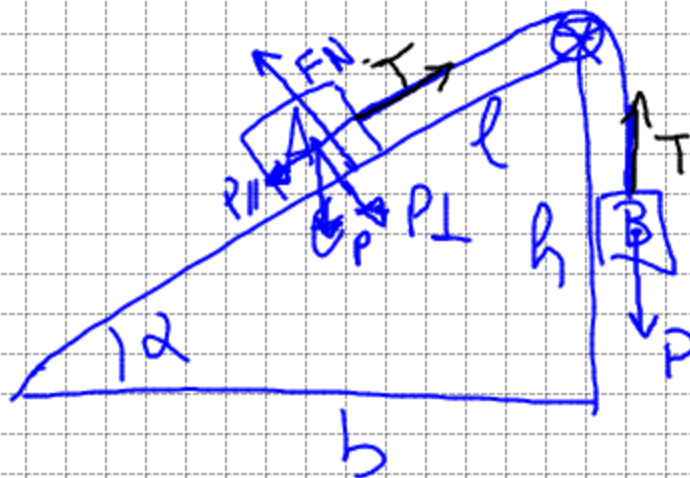
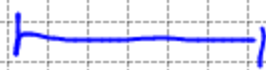
$$\Delta T_A = (\Delta m_1 + \Delta m_2 + \Delta m_3)a =$$

$$= (+39 \text{ Kg} - 39 \text{ Kg} + 0 \text{ Kg})a =$$

$$\Delta T_B = (\Delta m_2 + \Delta m_3)(a)$$

$$= (-39 \text{ Kg} + 0)(0,12 \text{ m/s}^2) = -4,7 \text{ N}$$

$$\Delta T_C = (\Delta m_3)(a) = 0 \text{ N}$$



$$T - P_{||} = m_A \cdot a$$

$$P_{||} = P \cdot \sin \alpha$$

$$P - T = m_B \cdot a$$

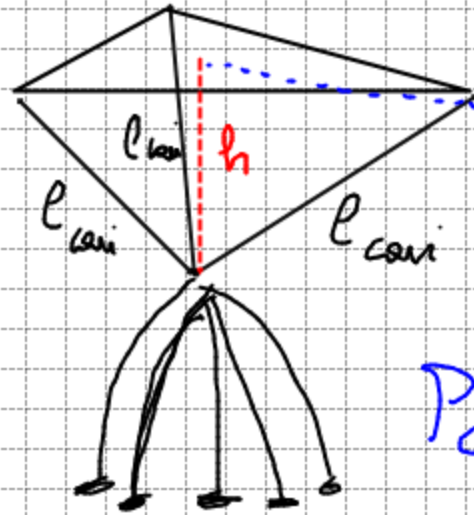
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$$m_c = 45 \text{ kg}$$

$$h = 1,5 \text{ m}$$

$$l_{\text{cavi}} = 2 \text{ m}$$

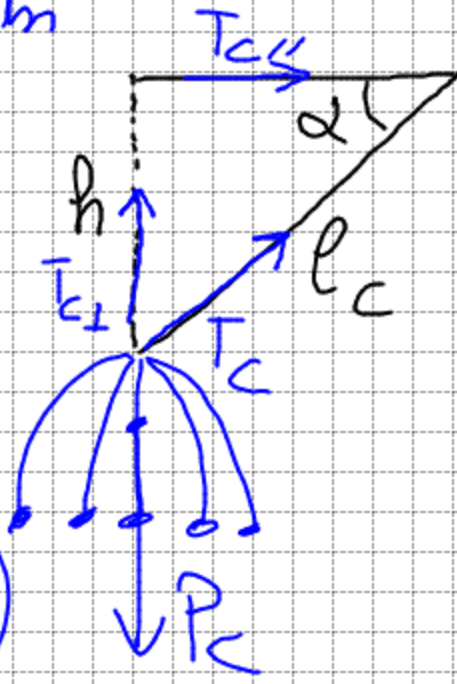


$$P_c = 45 \text{ kg} \cdot 9,81 \text{ m/s}^2 \\ = 432 \text{ N}$$

$$h = l_c \sin \alpha$$

$$\sin \alpha = \frac{h}{l_c}$$

$$\alpha = \sin^{-1}\left(\frac{h}{l_c}\right)$$



$$\begin{cases} T = 3T_{c\perp} \\ T_{c\perp} = T_c \sin \alpha \\ 3T_c \sin \alpha = P_c \end{cases}$$

$$T_c = \frac{P_c}{3 \sin \alpha} \\ = \frac{432}{3 \cdot 0,75}$$