

5082 pdf (ΑΠΑΝΤΗΣΗ)

ΘΕΜΑ Β

B 1) A) α)

B) Από τα εμβαδά τραπεζίων έχουμε $\Delta x = 36\text{m}$

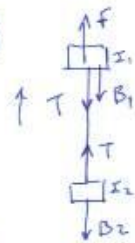
B 2) A) γ)

B) $\Delta K = W_T \Rightarrow \left. \begin{array}{l} K_T - K_A = -T_{A1} \cdot S_1 \\ \text{ομοίως} \quad K_T - K = -T_{A2} \cdot S_2 \end{array} \right\} \Rightarrow$

$\Rightarrow -T_{A1} \cdot S_1 = -T_{A2} \cdot S_2 \xrightarrow{T_{A1} = T_{A2}} S_1 = S_2$

ΘΕΜΑ Δ

Δ 1)



$\Sigma_1: F - B_1 - T = m_1 \alpha \quad (1)$

$\Sigma_2: T - B_2 = m_2 \alpha \quad (2)$

Δ 2) (1) + (2) $\Rightarrow F - B_1 - B_2 = (m_1 + m_2) \alpha \Rightarrow 30 = 6 \alpha \Rightarrow \alpha = 5 \text{ m/s}^2$

Δ 3) $W_g = W_{B1} + W_{B2} = -B_1 h - B_2 h = -600 \text{ J}$

Δ 4) $K_T - K_A = W_{B1} + W_{B2} + W_F \Rightarrow K_T = 300 \text{ Joule.}$