

3770 pdf (ΑΠΑΝΤΗΣΗ)

ΘΕΜΑ Β

B<sub>1</sub>) A) γ)

B) Ορίζουμε ως εμβαδά των δύο τριγώνων  $E_1, E_2$   
 $x - x_0 = E_1 - E_2 = 75\text{m} \Rightarrow x = 75\text{m}$

B<sub>2</sub>) A) α)

B)  $E_2 = K + U \Rightarrow \Delta U = -\Delta K \Rightarrow$   
 $\Delta U = \frac{1}{2}mv^2 - \frac{1}{2}m4v^2 = -\frac{3}{2}mv^2 = -3\text{kJ}$

ΘΕΜΑ Δ

Δ<sub>1</sub>)  $\Sigma F = ma \Rightarrow F_1 = ma \Rightarrow a = 2\text{m/s}^2$

$$x = \frac{1}{2}at^2 \Rightarrow x = 100\text{m}$$

Δ<sub>2</sub>)  $W_{F_1} = F_1 \cdot x = 2000\text{J}$

Δ<sub>3</sub>)  $\Sigma F = ma_1 \Rightarrow a_1 = 4\text{m/s}^2$

$$x_1 = \frac{1}{2}a_1 t^2 = 200\text{m}$$

Δ<sub>4</sub>)  $W'_{F_1} = F_1 \cdot x_1 = 4000\text{J}$

$$\frac{W'_{F_1}}{W_{F_1}} = 2 \Rightarrow W'_{F_1} = 2 \cdot W_{F_1}$$