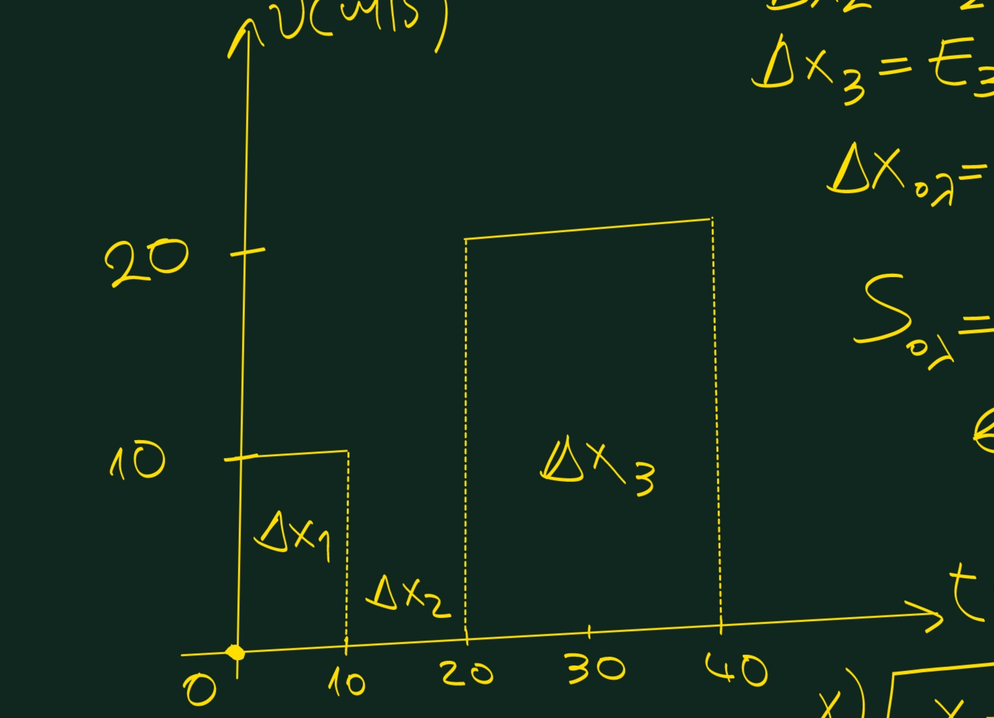
Ασκ. 3 σελ. 69)



α) $\Delta x_1 = E_1 = 10 \cdot 10 = 100\,m$

$\Delta x_2 = E_2 = 10 \cdot 0 = 0\,m$

$\Delta x_3 = E_3 = 20 \cdot 20 = 400\,m$

$\Delta x_{ολ} = \Delta x_1 + \Delta x_2 + \Delta x_3 = S_{ολ} \Rightarrow$

$S_{ολ} = 500\,m$

β) $U_μ = \frac{S_{ολ}}{t_{ολ}} = \frac{500}{40} = 12,5\,m/s.$

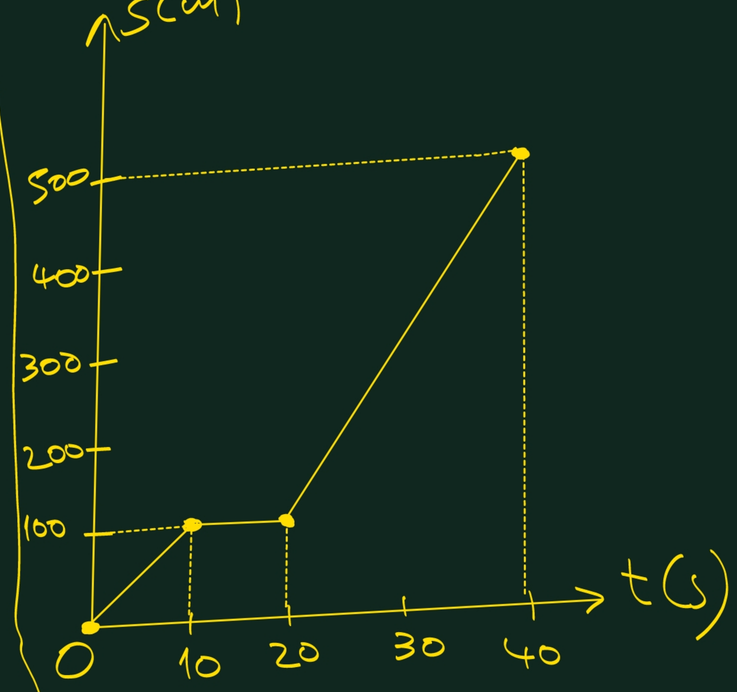
γ) $x = υ \cdot t$ εξίσωση κίνησης

$S = υt$ εξίσωση διαστήματος

$S_1 = |\Delta x_1| = 100\,m$

$S_2 = 0\,m$

$S_3 = |\Delta x_3| = 400\,m$



Διάγραμμα θέσης - χρόνου

$0 \rightarrow 10$

$\Delta x_1 = 100\,m$

$x(0) = 0\,m$

$\Delta x_1 = x(10) - x(0) \Rightarrow$

$100 = x(10) - 0 \Rightarrow$

$x(10) = 100\,m$

$10 \rightarrow 20$

$\Delta x_2 = 0\,m$

$\Delta x_2 = x(20) - x(10) \Rightarrow$

$0 = x(20) - 100 \Rightarrow x(20) = 100\,m$

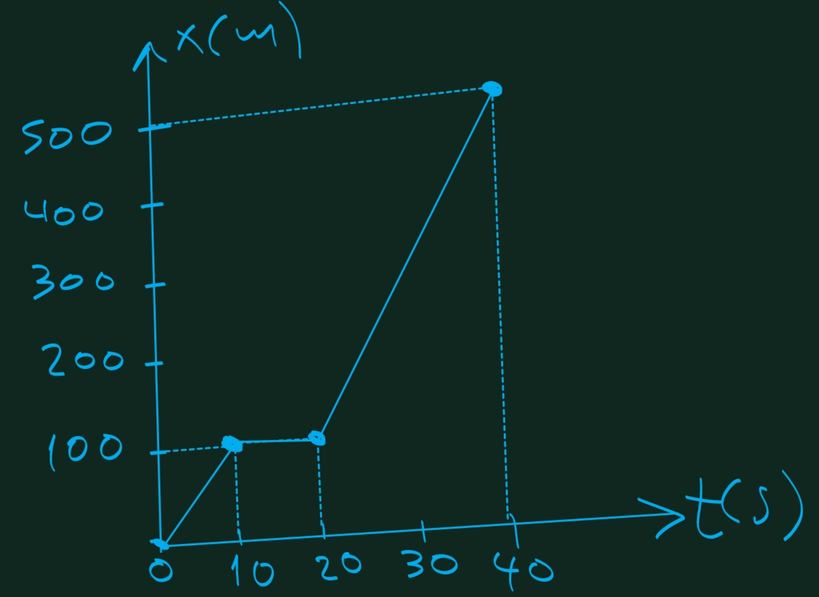
$20 \rightarrow 40\,sec$

$\Delta x_3 = 400\,m$

$\Delta x_3 = x(40) - x(20) \Rightarrow$

$400 = x(40) - 100 \Rightarrow$

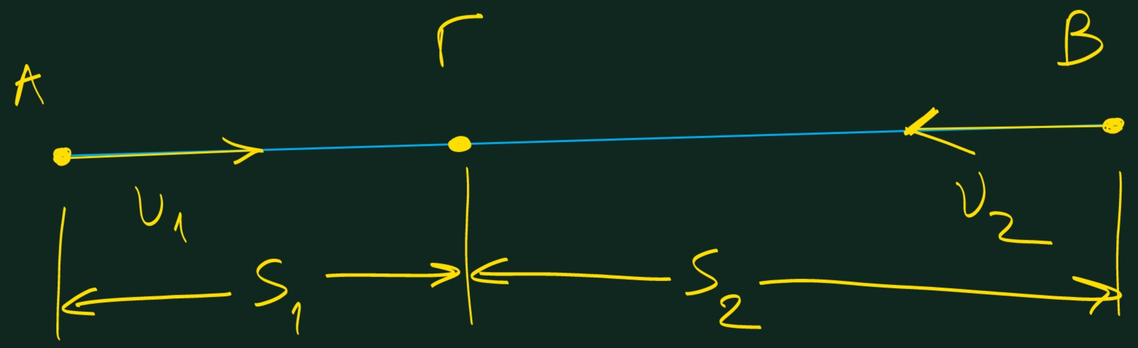
$x(40) = 500\,m$



Άσκ. 4 σελ. 69.

$$v_1 = 36\ \text{km/h} = \frac{36.000\ \text{m}}{3.600\ \text{sec}} = 10\ \text{m/s}.$$

$$v_2 = 54\ \text{km/h} = \frac{54.000\ \text{m}}{3.600\ \text{sec}} = 15\ \text{m/s}.$$



$$S_1 + S_2 = 1000\ \text{m}.$$