

12.30 $t_0 = 0$

12.30 $\Delta t = t \rightarrow X_{\Pi} = X_{0_{\Pi}} - U_{\Pi} t, \quad X_A = U_A \cdot t$

13.30 $\Delta t = 2t \rightarrow X_M = X_{0_M} - U_M 2t, \quad X_A = 2U_A t$

13.45 $\Delta t = \frac{5t}{2} \rightarrow X_M = X_{0_M} - U_M \frac{5t}{2}, \quad X_{\Sigma} = \frac{5t}{2} U_{\Sigma}$

14.00 $\Delta t = 3t \rightarrow X_{\Pi} = X_{0_{\Pi}} - U_{\Pi} 3t, \quad X_M = \cancel{X_{0_M}} - U_M 3t$

$X_{0_A} = 0$	$X_{0_{\Pi}}$
$X_{0_{\Sigma}} = 0$	X_{0_M}

Πότε;

$X_{\Sigma} = X_{\Pi}$



Αυτοκίνητο

12.30: $X_A = X_{\Pi} \Rightarrow U_A \cdot t = X_{0_{\Pi}} - U_{\Pi} \cdot t \Rightarrow X_{0_{\Pi}} = (U_A + U_{\Pi}) \cdot t$ (I)

13.30: $X_A = X_M \Rightarrow U_A \cdot 2t = X_{0_M} - 2U_M t \Rightarrow X_{0_M} = 2(U_A + U_M) t$ (II)

13.45: $X_{\Sigma} = X_M \Rightarrow U_{\Sigma} \frac{5t}{2} = X_{0_M} - U_M \frac{5t}{2} \Rightarrow X_{0_M} = \frac{5}{2} (U_M + U_{\Sigma}) t$ (III)

14.00: $X_{\Pi} = X_M \Rightarrow X_{0_{\Pi}} - U_{\Pi} \cdot 3t = X_{0_M} - U_M \cdot 3t$ (IV)

Σ : Ξυοδέρ

A : Αυτοκίνητο

M : Μηχανή

Π : Ροδηφόρος

Γνωρίζουμε ότι περί ίδια

θέση : π.χ. $X_A = X_{\Pi}$

$t = 30 \text{ min}$

X_{0_A} : αρχική θέση αυτοκινήτου

X_A : υαλοία θέση αυτοκινήτου

$\textcircled{II} - \textcircled{III} : \text{Newton μέση } I \text{ και } 2 - 3$

$$2(U_A + U_M) \cancel{t} = \frac{5}{2} (U_M + U_E) \cancel{t}$$

$$4U_A + 4U_M = 5U_M + 5U_E$$

$$\boxed{4U_A = U_M + 5U_E} \quad \textcircled{V}$$

$\textcircled{I} - \textcircled{III} - \textcircled{IV}$ αντιμαρτυρῶν τα x_{O_n}, x_{O_M}

$$(U_A + U_M) \cancel{t} - 3U_n \cancel{t} = 2(U_A + U_M) \cancel{t} - 3U_M \cancel{t}$$

$$U_A + U_n - 3U_n = 2U_A + 2U_M - 3U_M$$

$$U_A - 2U_n = 2U_A - U_M \Rightarrow$$

$$\boxed{U_M = U_A + 2U_n} \quad \textcircled{VI}$$

αντιμαρτυρῶν το U_M στην $\textcircled{V}$

$$4U_A = U_A + 2U_n + 5U_E$$

$$3U_A = 2U_n + 5U_E$$

$$\boxed{U_A = \frac{2}{3} U_n + \frac{5}{3} U_E} \quad \textcircled{VII}$$

$$\underline{\text{Gel 3}} \quad t_x = ;$$

Βυθώνισμα Ευοδίες - 90δ. Διημέρι:

$$X_{\Sigma} = X_n \Rightarrow$$

$$U_{\Sigma} \cdot t_x = X_{on} - U_n \cdot t_x \Rightarrow$$

$$(U_{\Sigma} + U_n) \cdot t_x = X_{on} = (U_A + U_n) \cdot t \xRightarrow{\text{VII}}$$

$$(U_{\Sigma} + U_n) \cdot t_x = \left(\frac{2}{3} U_n + \frac{5}{3} U_{\Sigma} + \frac{U_n}{1} \right) \cdot t$$

$$(U_{\Sigma} + U_n) \cdot t_x = \left(\frac{5}{3} U_n + \frac{5}{3} U_{\Sigma} \right) \cdot t$$

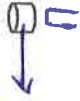
$$\cancel{(U_{\Sigma} + U_n)} \cdot t_x = \frac{5}{3} (\cancel{U_n} + \cancel{U_{\Sigma}}) \cdot t$$

$$t_x = \frac{5}{3} \cdot t = \frac{5}{3} \cdot 30 \text{ min} = 50 \text{ min}$$

$$12^{30} + 50 \text{ min} = (\text{δες το κείμενο})$$



12.30



O

13.00



13.30



13.45



14.00