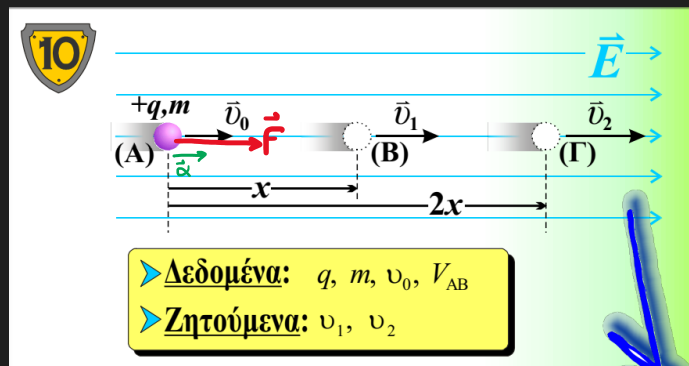


1η 26-3-2021

B+2

Γ' ΓΕΛ
ΣΑΛΑΜΙΝΑΣ



$$q > 0 \Rightarrow \vec{F} \parallel \vec{E}$$

$$\vec{a} = \frac{\vec{F}}{m} \xrightarrow{m > 0} \vec{a} \parallel \vec{F}$$

$$\left. \begin{array}{l} \vec{F} \parallel \vec{E} \\ \vec{a} \parallel \vec{F} \end{array} \right\} \vec{a} \parallel \vec{E}$$

$$\vec{v}_0 \parallel \vec{E} \xrightarrow{\quad} \vec{a} \parallel \vec{v}_0 \xrightarrow{\quad} \vec{a}: \text{Επιτάχυνση}$$

$$\left. \begin{array}{l} E \text{ } \forall x \text{ } k \\ \neq v_0 \end{array} \right\} \alpha = \frac{F}{m} = \frac{E \cdot q}{m} = 6.94 \frac{\text{m}}{\text{s}^2}$$

$$v = v_0 + \alpha t$$

$$\Delta x = v_0 t + \frac{1}{2} \alpha t^2$$

$$E = \frac{V_{AB}}{(AB)} \Rightarrow E = \frac{V_{AB}}{x} \quad (1)$$

$$E = \frac{V_{AG}}{(AG)} \Rightarrow E = \frac{V_{AG}}{2x} \quad (2)$$

$$\left. \begin{array}{l} (1)/(2): \frac{V_{AB}}{x} = \frac{V_{AG}}{2x} \Rightarrow \\ \Rightarrow V_{AG} = 2 \cdot V_{AB} \quad (3) \end{array} \right\}$$

$$\underline{\text{ΘΗΚΕ (A} \rightarrow \text{B)}}: \Delta K = W_{\text{ολ}} \Rightarrow K_B - K_A = W_{F_{\text{ολ}}} \Rightarrow \frac{1}{2} m v_1^2 - \frac{1}{2} m v_0^2 = q \cdot V_{AB} \Rightarrow$$

$$\Rightarrow \frac{1}{2} m v_1^2 = \frac{1}{2} m v_0^2 + q \cdot V_{AB} \Rightarrow$$

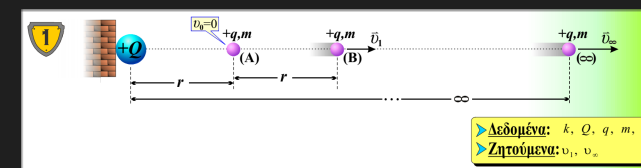
$$\cdot 2 \Rightarrow m v_1^2 = m v_0^2 + 2 \cdot q \cdot V_{AB} \Rightarrow$$

$$\xrightarrow{:\dot{m}} v_1^2 = v_0^2 + \frac{2 \cdot q \cdot V_{AB}}{m} \Rightarrow v_1 = \sqrt{v_0^2 + \frac{2 \cdot q \cdot V_{AB}}{m}}$$

$$\underline{\text{ΘΗΚΕ (A} \rightarrow \text{Γ)}}: \dots \text{ομοίως:}$$

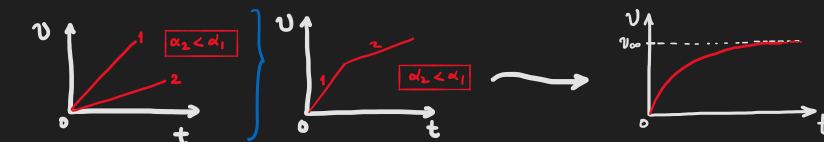
$$v_2 = \sqrt{v_0^2 + \frac{2 \cdot q \cdot V_{AG}}{m}} \quad (3) \Rightarrow$$

$$\Rightarrow v_2 = \sqrt{v_0^2 + \frac{4 \cdot q \cdot V_{AB}}{m}}$$



$$\underline{\text{Κίνηση 2ου } +q, m:} \quad v_0 = 0, F = k \frac{|Q \cdot q|}{r^2} \Rightarrow a = \frac{F}{m} = \frac{k |Q \cdot q|}{m r^2} \Rightarrow a = \frac{k |Q \cdot q|}{m r^2} \cdot \frac{1}{r^2} \sim a = A \cdot \frac{1}{r^2}$$

in κέντρο είναι επιταχυνόμενη (αυξάνει), με συνέπεια μεταβολή επιτάχυνσης
Έως 20 cm όπου α=0, τότε v=6.28 m/s (v_max = 6.28 m/s)



Συνεχίζω (2021 ...)