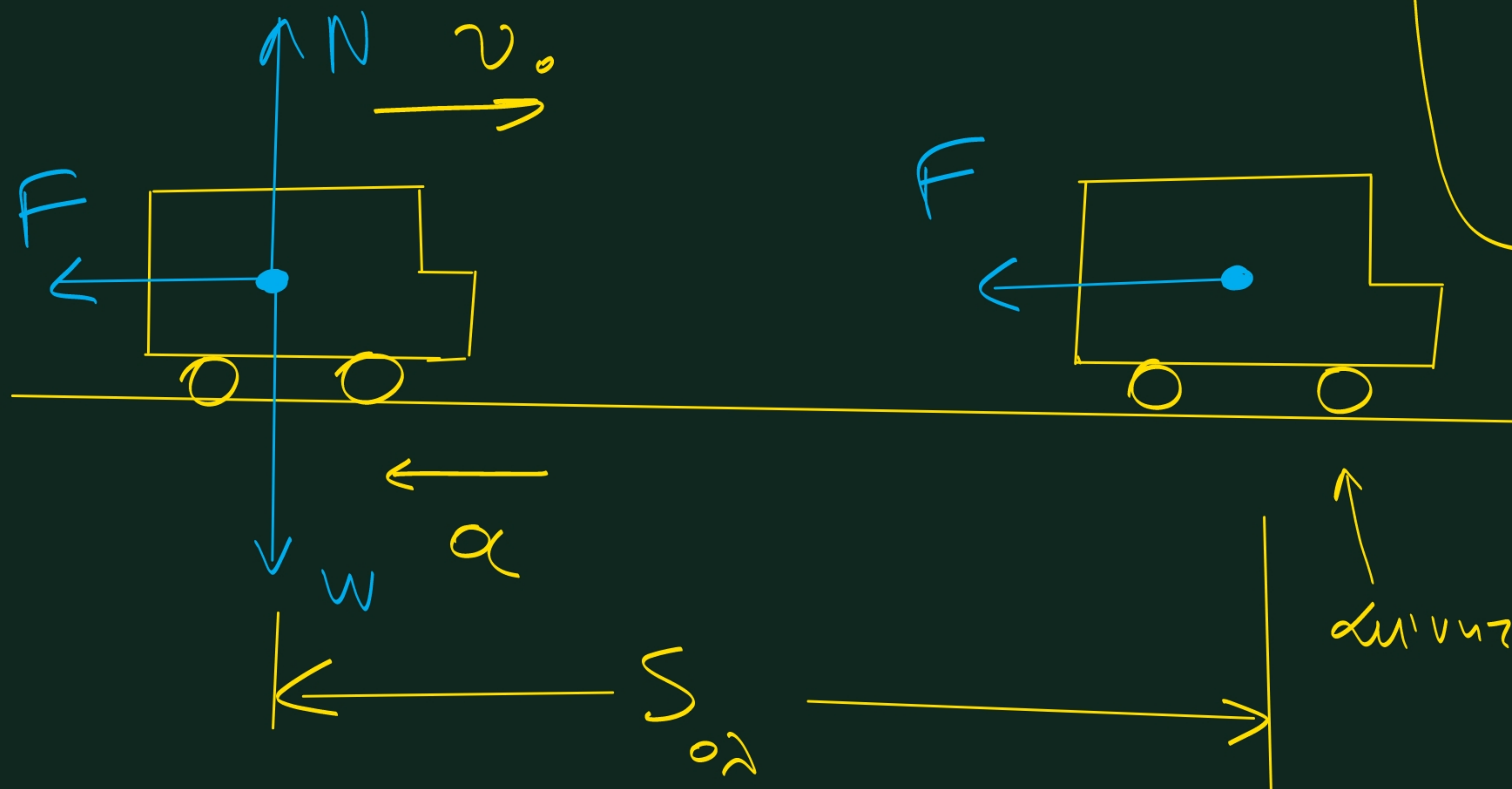


Α6α. 17 6ελ. 108.)



$$\Sigma F = ma \Rightarrow F = ma \Rightarrow$$

$$2 \cdot 10^4 = 4.000 \cdot a \Rightarrow 20. \phi \phi \phi = 4. \phi \phi \phi a \Rightarrow$$

$$20 = 4a \Rightarrow a = 5 \text{ m/s}^2$$

Η υίνηση είναι ευθύγραμμος με αρχική ταχύτητα v_0 . Άρα:

$$v = v_0 - at \Rightarrow 0 = v_0 - at_1 \Rightarrow v_0 = at_1 \Rightarrow$$

$$t_1 = \frac{v_0}{a} \text{ (χρόνος υίνησης)}$$

$$S = v_0 t - \frac{1}{2} at^2 \Rightarrow S_{ολ} = v_0 t_1 - \frac{1}{2} a \cdot t_1^2 \Rightarrow$$

$$S_{ολ} = v_0 \cdot \frac{v_0}{a} - \frac{1}{2} a \cdot \left(\frac{v_0}{a} \right)^2 \Rightarrow$$

$$S_{ολ} = \frac{v_0^2}{a} - \frac{1}{2} \cdot \frac{a \cdot v_0^2}{a^2} \Rightarrow S_{ολ} = \frac{v_0^2}{a} - \frac{v_0^2}{2a} \Rightarrow$$

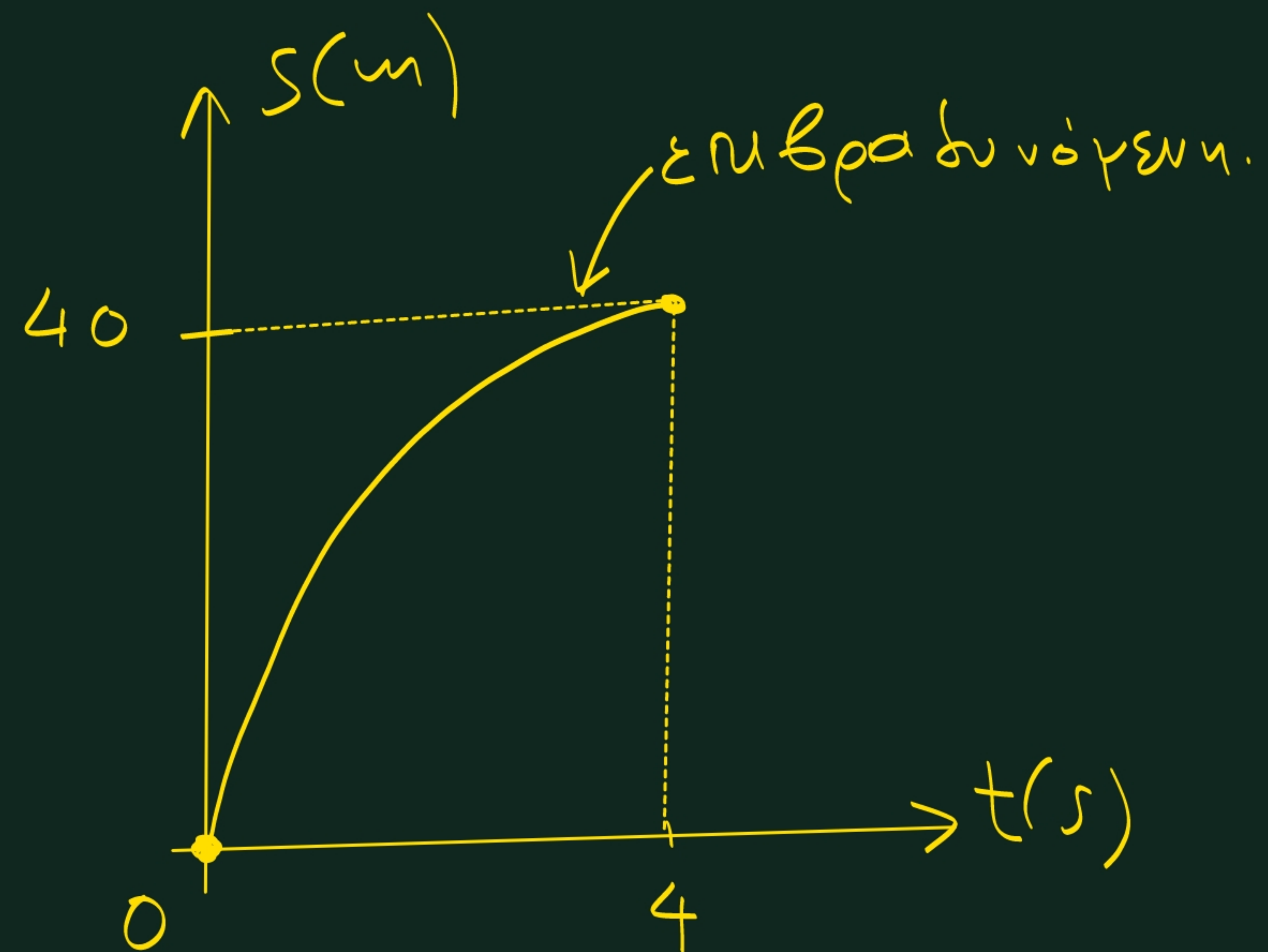
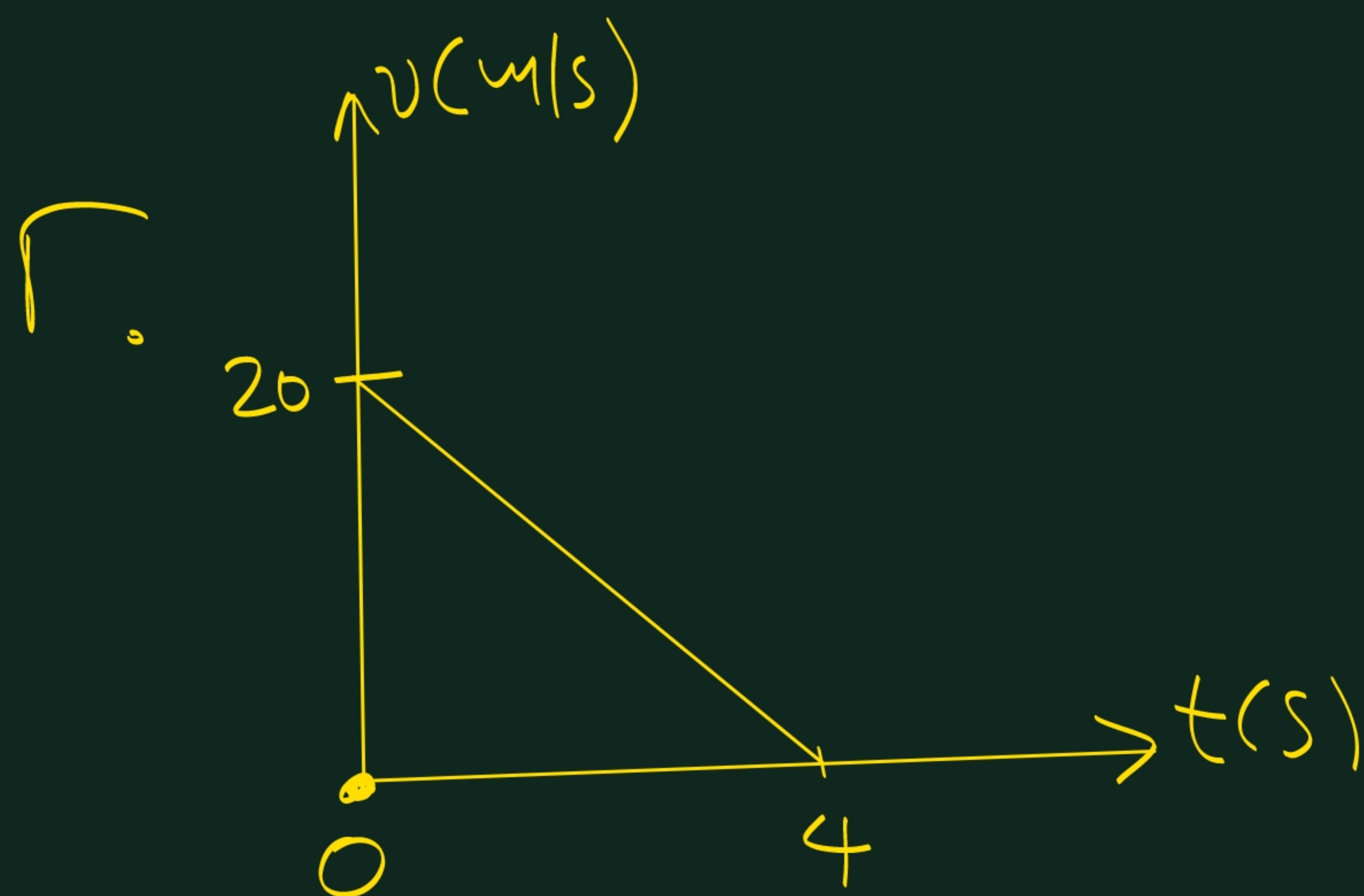
$$S_{ολ} = \frac{2v_0^2}{2a} - \frac{v_0^2}{2a} \Rightarrow S_{ολ} = \frac{v_0^2}{2a}$$

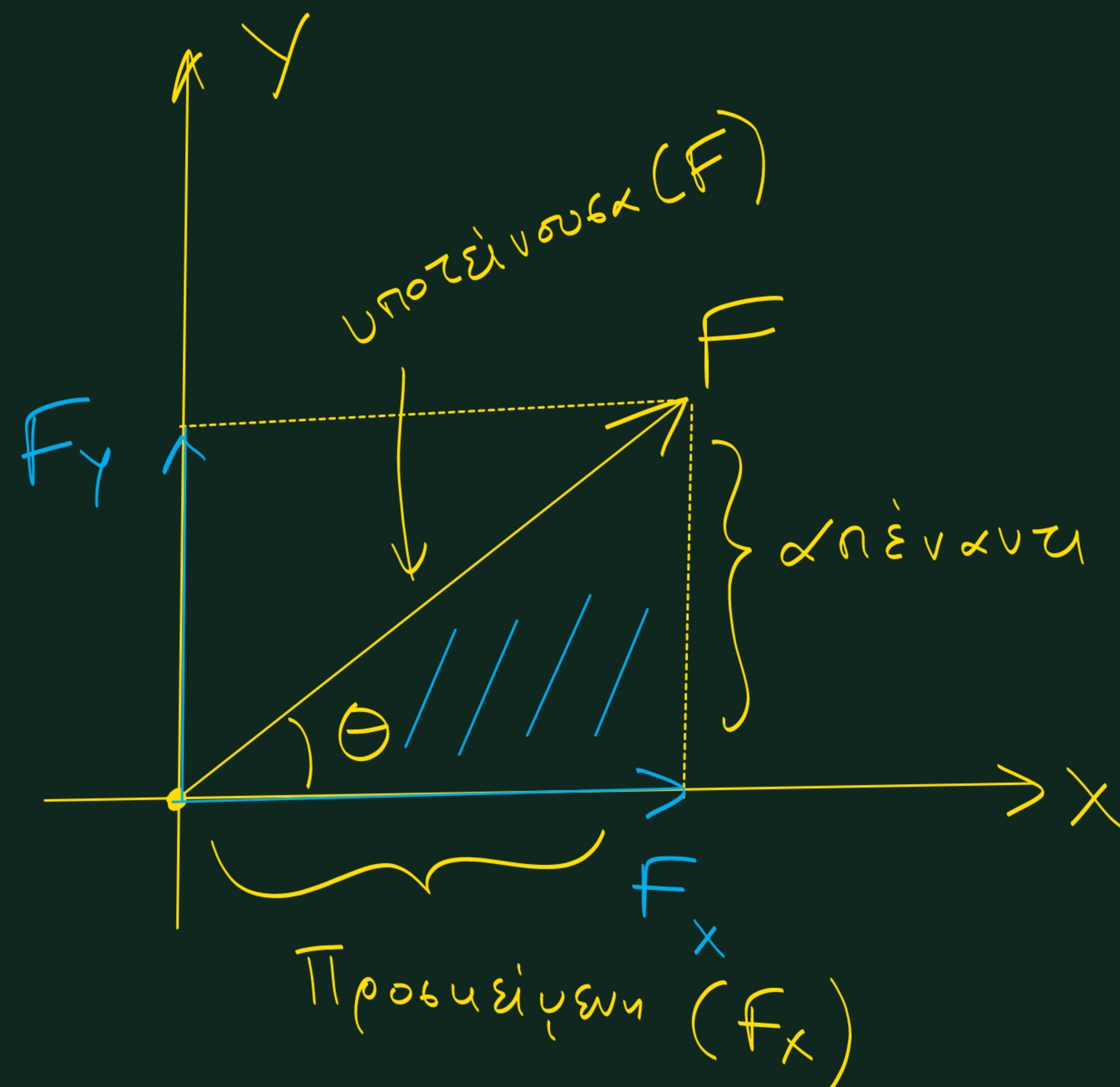
ακίνητο ποσειδάει.

$$A. \quad S_0 = \frac{v_0^2}{2a} \Rightarrow 40 = \frac{v_0^2}{2 \cdot 5} \Rightarrow$$

$$40 = \frac{v_0^2}{10} \Rightarrow v_0^2 = 400 \Rightarrow v_0 = 20 \text{ m/s}$$

$$B. \quad t_1 = \frac{v_0}{a} = \frac{20}{5} = 4 \text{ sec}$$





$$\sin \theta = \frac{F_y}{F} \Rightarrow F_y = F \cdot \sin \theta$$

$$\cos \theta = \frac{F_x}{F} \Rightarrow F_x = F \cdot \cos \theta$$

$$\tan \theta = \frac{F_y}{F_x}$$