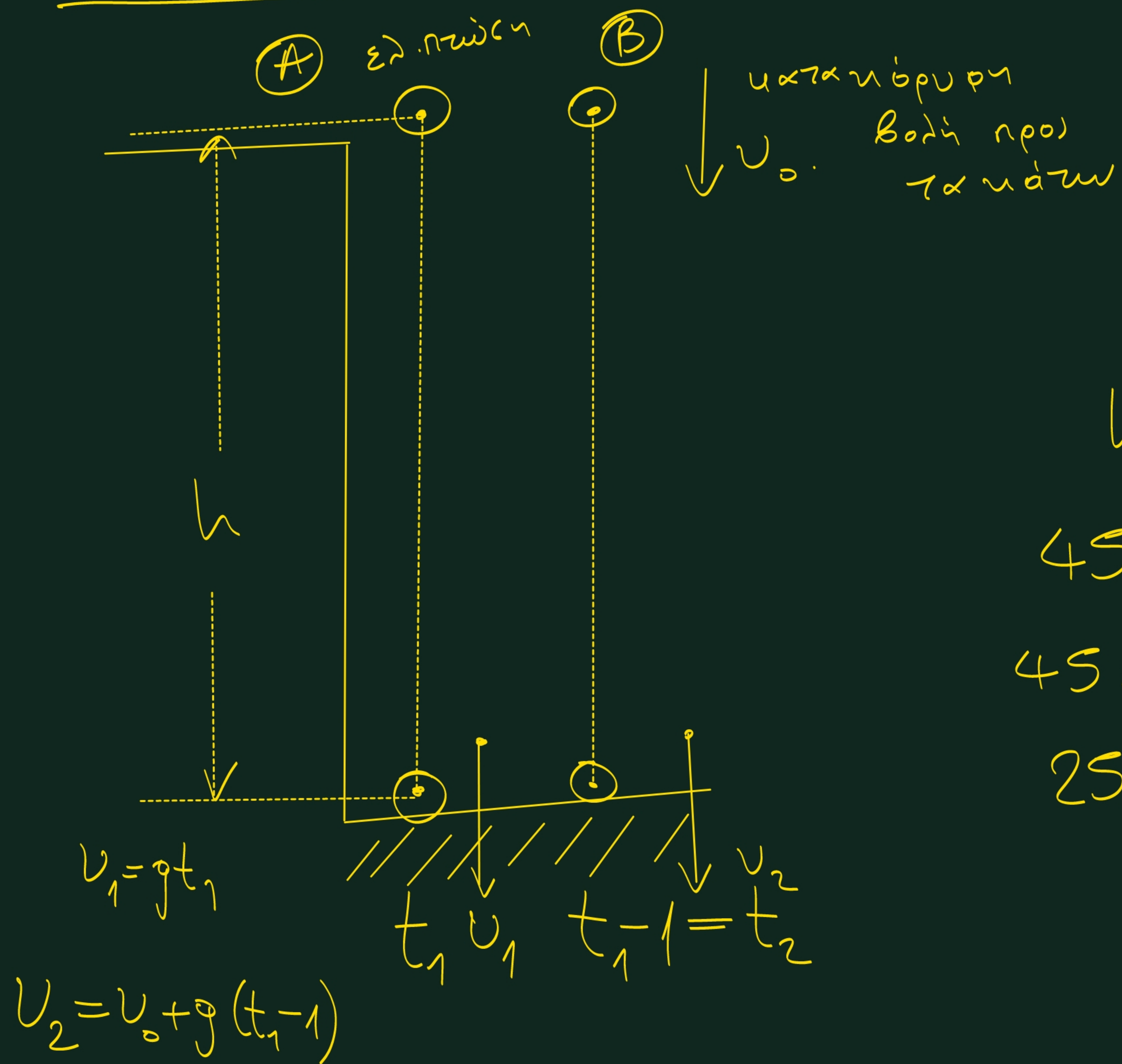


Α6 α. 18 σε 2. 108 -)



A. Για το (A) έχουμε:

$$h = \frac{1}{2}gt_1^2 \Rightarrow 45 = \frac{1}{2} \cdot 10 \cdot t_1^2 \Rightarrow$$

$$90 = 10t_1^2 \Rightarrow t_1 = 3 \text{ sec.}$$

Για το (B) έχουμε:

$$h = v_0 \cdot (t_1 - 1) + \frac{1}{2}g(t_1 - 1)^2 \Rightarrow$$

$$45 = v_0 \cdot 2 + \frac{1}{2} \cdot 10 \cdot 2^2 \Rightarrow$$

$$45 = 2v_0 + 20 \Rightarrow$$

$$25 = 2v_0 \Rightarrow v_0 = 12.5 \text{ m/s.}$$

$$\text{και } t_2 = t_1 - 1 = 2 \text{ sec}$$

B. $v_1 = gt_1 = 30 \text{ m/s}$.

$v_0 = 12,5 \text{ m/s}$.

$v_2 = v_0 + g(t_1 - 1) = 12,5 + 20 = 32,5 \text{ m/s}$.

