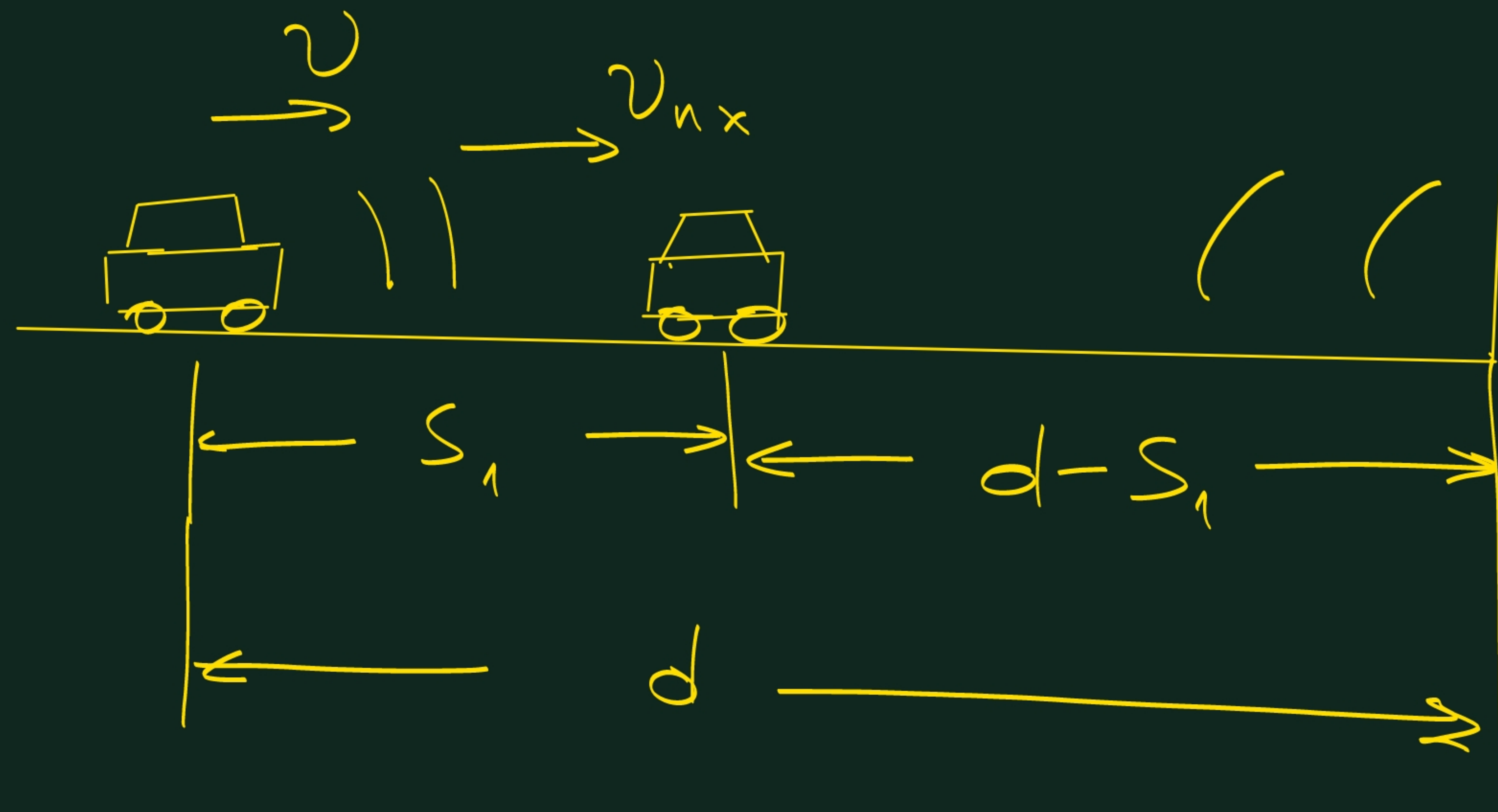


Αδ. 3.56 (Αεθνοφόρο)

$$v = 72 \text{ km/h} = \frac{72 \cdot 1000 \text{ m}}{3600 \text{ sec}} = 20 \text{ m/s}.$$



Για το αεθνοφόρο έχουμε:

$$s_1 = v \cdot \Delta t$$

Για τον ήχο έχουμε:

$$d + d - s_1 = v_{ux} \cdot \Delta t \Rightarrow$$

$$2d - v \cdot \Delta t = v_{ux} \cdot \Delta t \Rightarrow$$

$$\cancel{2} \cdot d - 20 \cdot \cancel{\Delta t} = 340 \cdot \cancel{\Delta t} \Rightarrow$$

$$d - 20 = 340 \Rightarrow d = 360 \text{ m}$$

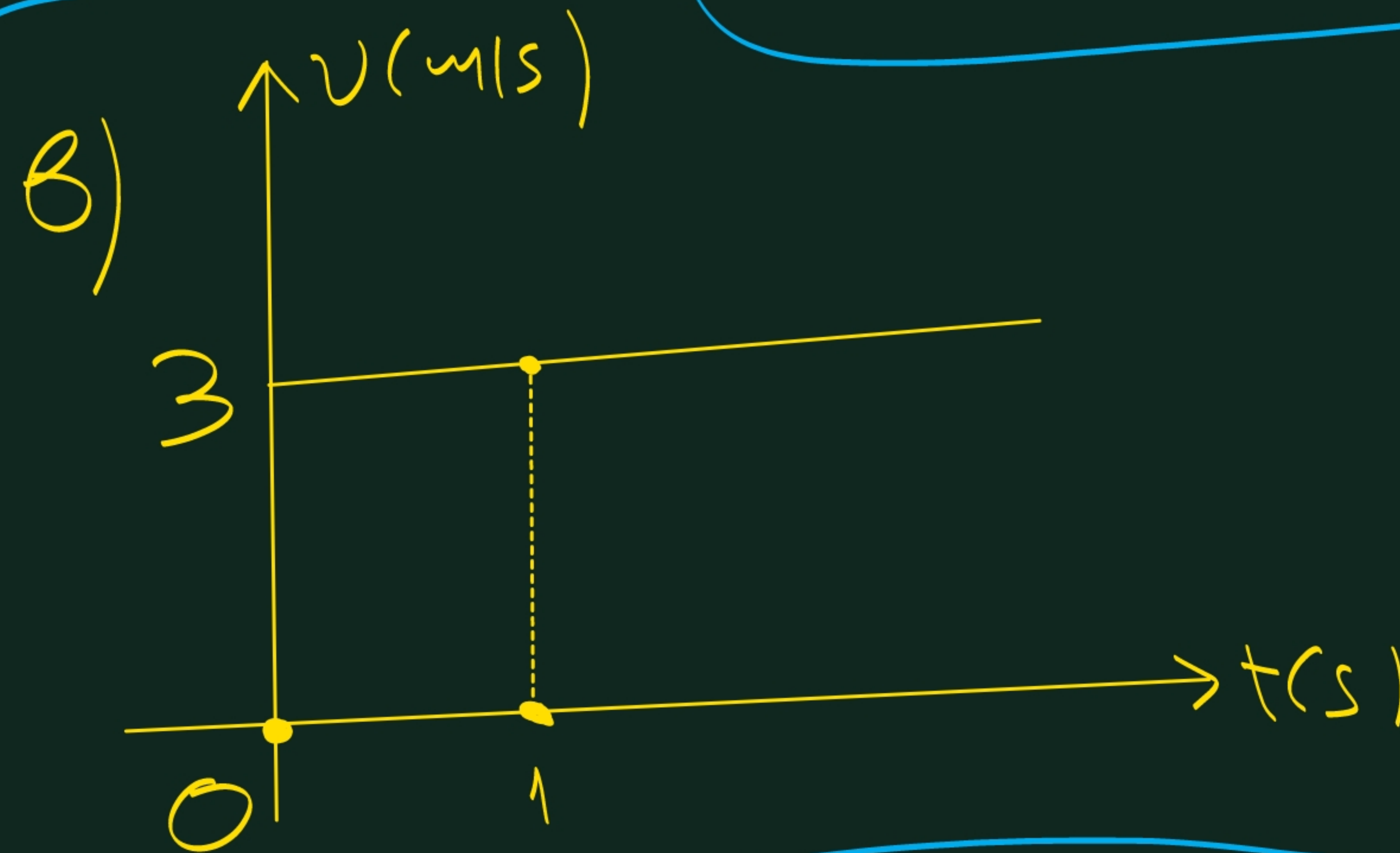
Αδλφ. 3.73

$$X = 5 + 3t \text{ (SI)} \quad \Rightarrow \quad \begin{aligned} X_0 &= 5 \text{ m} \\ v &= 3 \text{ m/s.} \end{aligned}$$
$$X = X_0 + v \cdot t$$

Επίσης:

$$X(t) = 5 + 3 \cdot t$$

$$X(0) = 5 + 3 \cdot 0 = 5 \text{ m}$$



α) $0 \rightarrow 1$
1^ο δευτερόλεπτο.

$$X(1) = 5 + 3 \cdot 1 = 8 \text{ m}$$

$$X(0) = 5 \text{ m}$$

$$\text{Από: } \Delta X = X(1) - X(0) = 8 - 5 = 3 \text{ m}$$

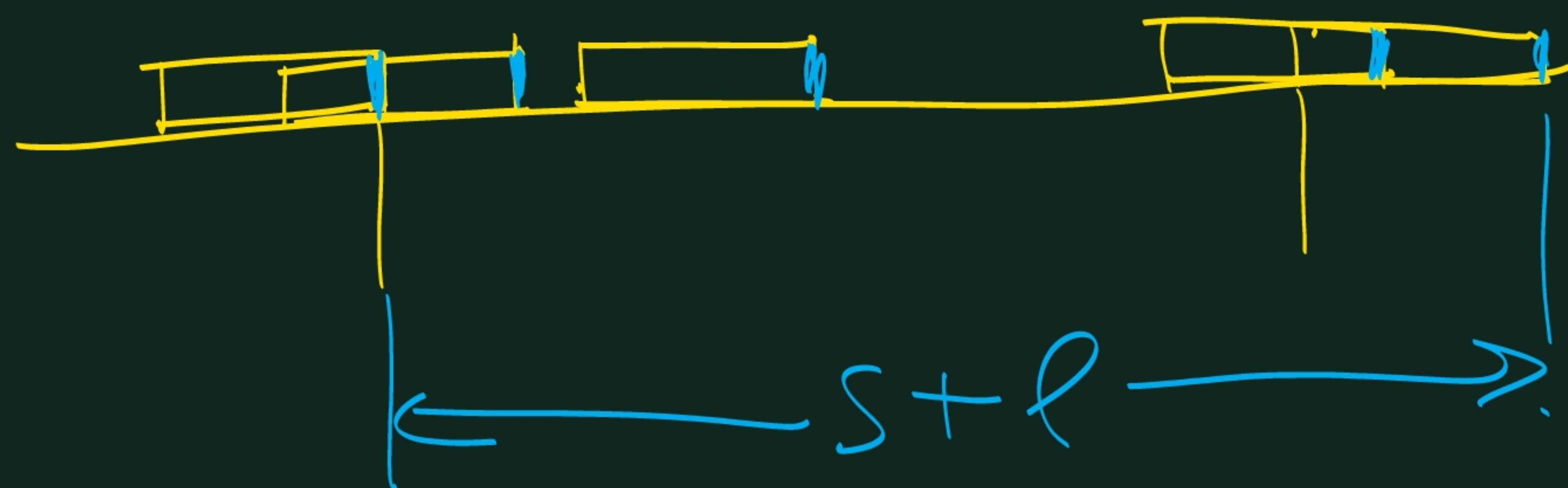
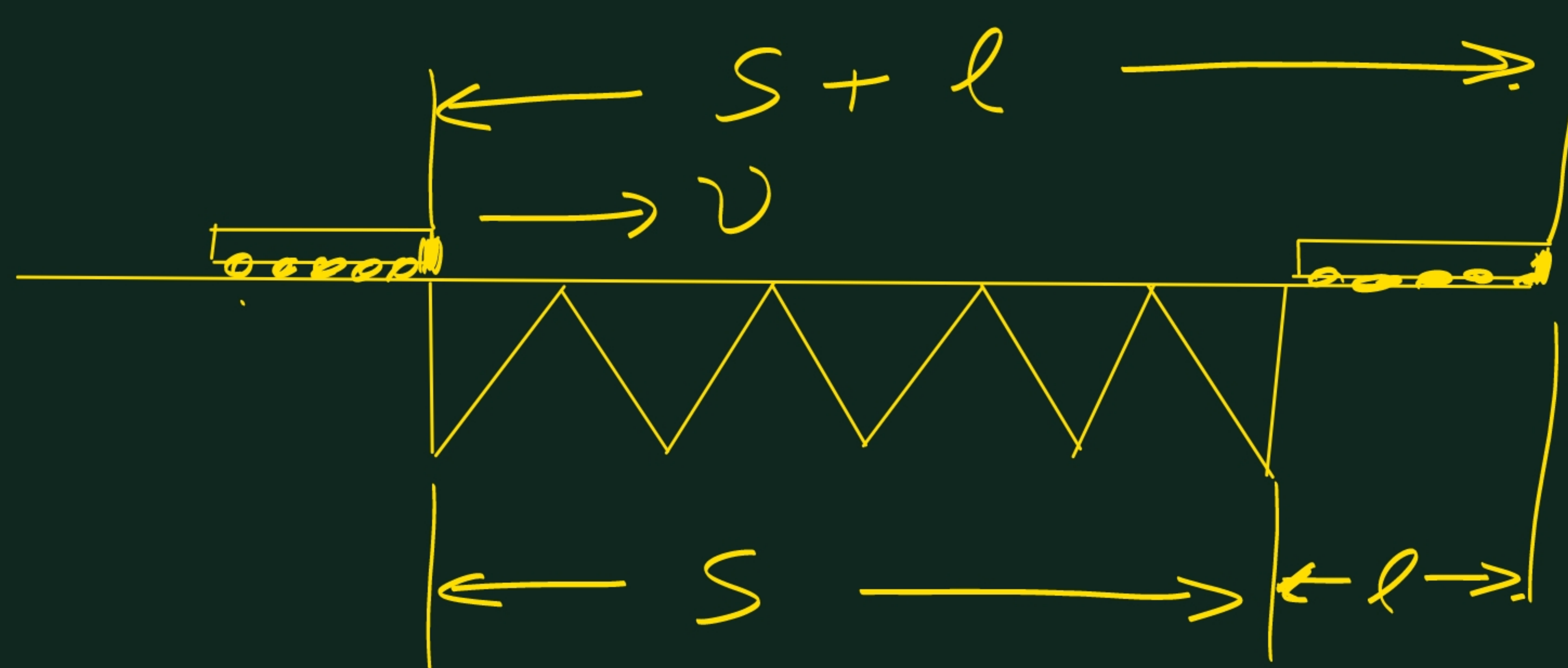
γ) Το άλλο υιούτο έχει
 $X_0 = 0 \text{ m}$ και
 $v = 2 \cdot 3 = 6 \text{ m/s.}$

$$\text{Από: } X = X_0 + v \cdot t \Rightarrow$$

$$X = 0 + 6 \cdot t \Rightarrow$$

$$\boxed{X = 6t} \quad \text{ή} \quad X(t) = 6t \text{ (SI)}$$

Αδ. 2 βελ. 69.



Για το χρόνο t έχουμε:

$$s + l = v \cdot t \Rightarrow t = \frac{s + l}{v} \Rightarrow$$

$$t = \frac{1980 + 20}{10} = \frac{2000}{10} = 200 \text{ sec.}$$

$$\underline{A_{60.462.69}}$$

$$A: v_1 = 36 \text{ km/h}$$

$$B: v_2 = 54 \text{ km/h}$$