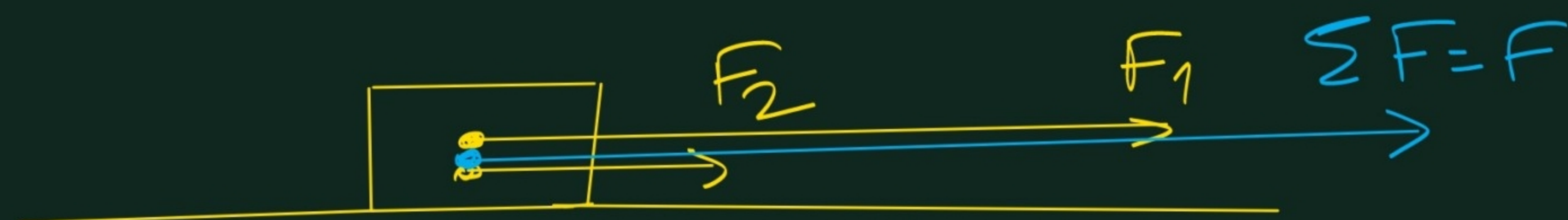


Α64. 3 ελ. 107)

α) Ομόρροπες και $F_1 = 4F_2$



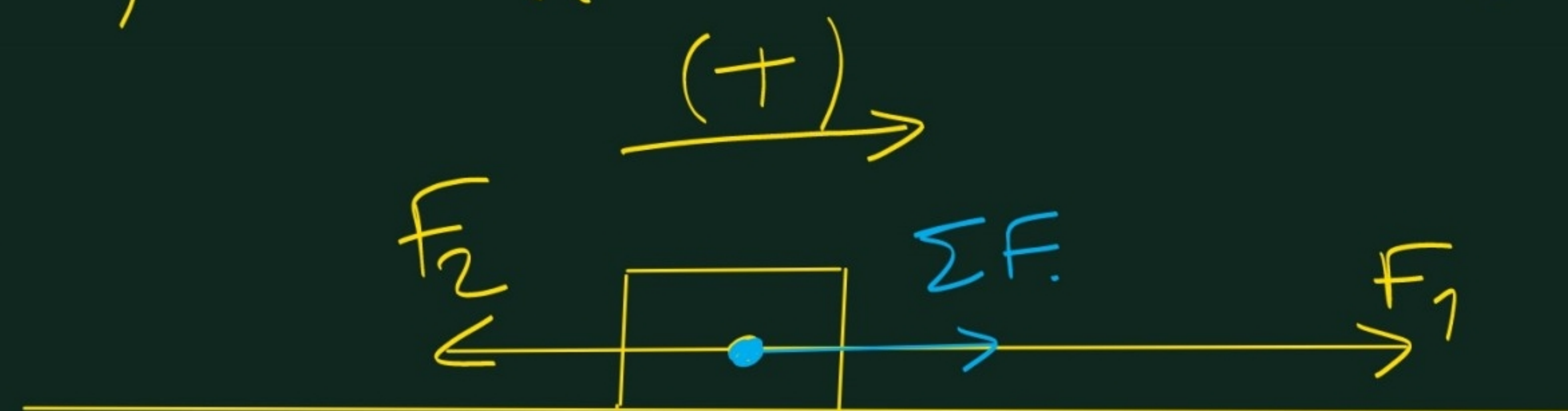
$$\Sigma F = F_1 + F_2 \Rightarrow F = F_1 + F_2 \Rightarrow$$

$$F = 4F_2 + F_2 \Rightarrow \frac{10}{5} = \cancel{4} \frac{F_2}{\cancel{5}} \Rightarrow$$

$$F_2 = 2\text{ N}$$

$$\text{και } F_1 = 4F_2 = 8\text{ N.}$$

β) Αντίρροπες και $F_1 = 3F_2$



$$\Sigma F = F_1 - F_2 \Rightarrow$$

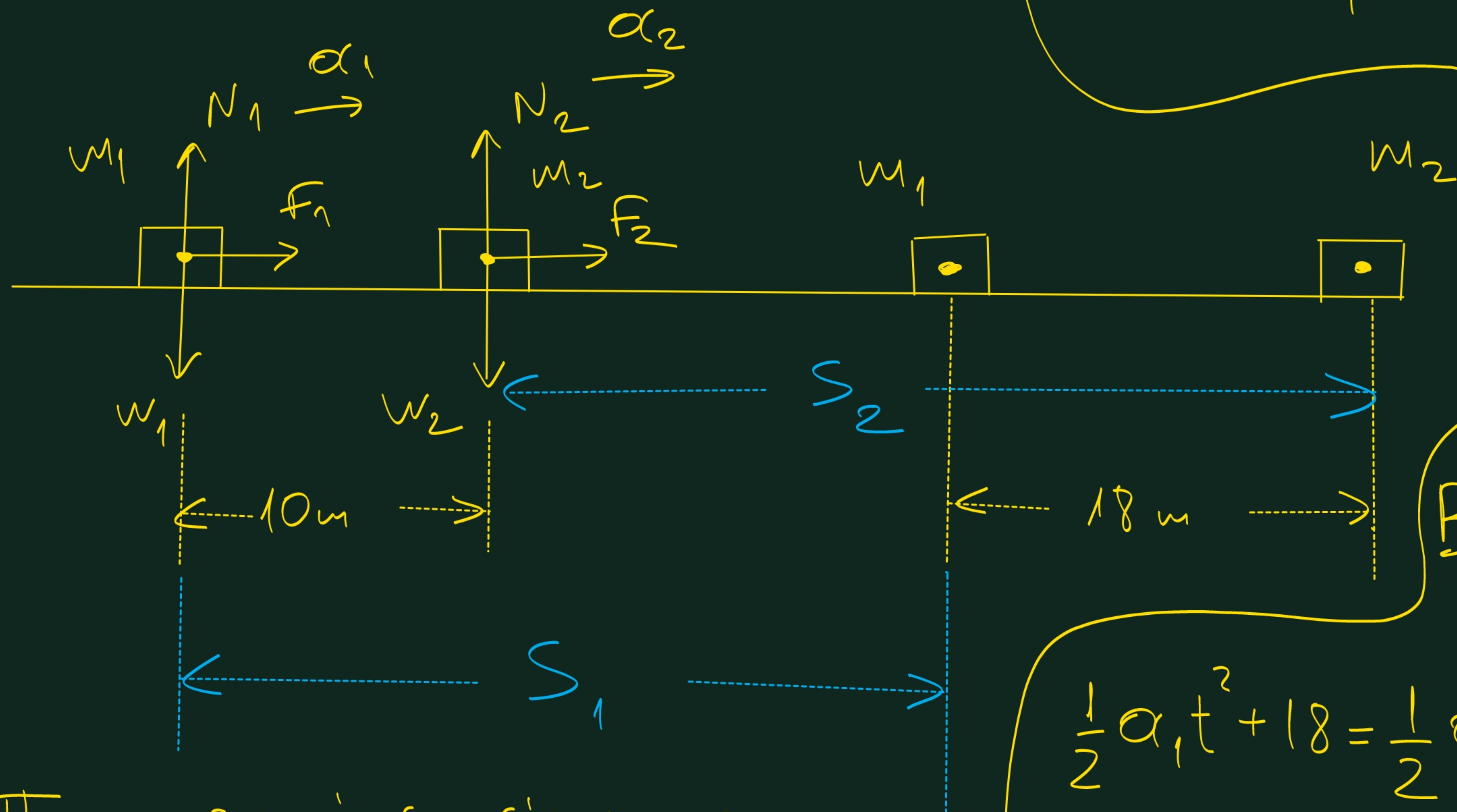
$$F = F_1 - F_2 \Rightarrow$$

$$F = 3F_2 - F_2 \Rightarrow \frac{10}{2} = \frac{2F_2}{2} \Rightarrow$$

$$F_2 = 5\text{ N}$$

$$\text{και } F_1 = 15\text{ N.}$$

Αδυν. 11 εε2. 107-8.



Προαπρεταμή εργασία για τη
 ζωή και το θάνατο του
 Giordano Bruno.

$$A. \Sigma F_1 = m_1 a_1 \Rightarrow F_1 = m_1 a_1 \Rightarrow a_1 = \frac{F_1}{m_1} \Rightarrow$$

$$a_1 = \frac{4}{1} \Rightarrow a_1 = 4 \text{ m/s}^2$$

$$\Sigma F_2 = m_2 a_2 \Rightarrow F_2 = m_2 a_2 \Rightarrow$$

$$a_2 = \frac{F_2}{m_2} \Rightarrow a_2 = \frac{15}{3} \Rightarrow$$

$$a_2 = 5 \text{ m/s}^2$$

B. Από το σχήμα έχουμε:

$$S_1 + 18 = S_2 + 10 \Rightarrow$$

$$\frac{1}{2} a_1 t^2 + 18 = \frac{1}{2} a_2 t^2 + 10 \Rightarrow \frac{1}{2} \cdot 4 \cdot t^2 + 18 = \frac{1}{2} \cdot 5 \cdot t^2 + 10 \Rightarrow$$

$$4t^2 + 36 = 5t^2 + 20 \Rightarrow 36 - 20 = 5t^2 - 4t^2 \Rightarrow$$

$$t^2 = 16 \Rightarrow t = 4 \text{ sec.}$$