

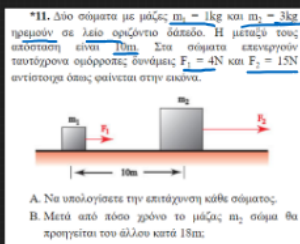
① $I = N \cdot m$

$\Sigma F = 0 \Leftrightarrow \left\{ \begin{array}{l} \text{ΕΟΚ} \\ \text{ΗΡΜΙΑ} \end{array} \right\} \rightarrow \vec{U} = \epsilon \tau A \theta$
 $\rightarrow U = 0$

② ΑΔΡΑΝΕΙΑ ΠΟΣΟΤΙΚΟ ΜΕΤΡΟ $\rightarrow m$

③ $2^{ος} N \cdot m$ $\Sigma F = m \cdot a$
 ΑΙΤΙΟ ΑΠΟΤΕΛΕΣΜΑ

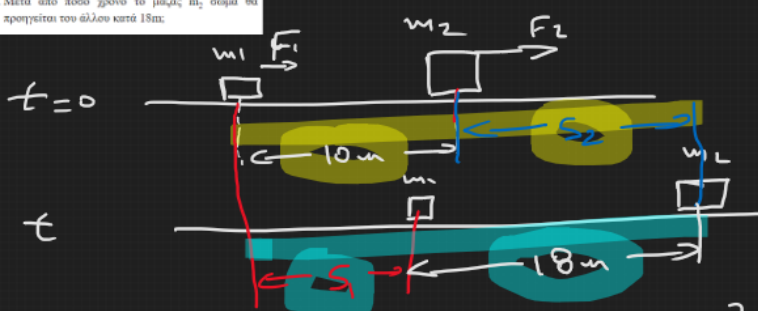
$a = \frac{\Sigma F}{m}$ ΣΥΝΙΣΤΑΜΕΝΗ ΔΥΝΑΜΗ



$v_0 = 0$ ΤΡΙΒΗ = 0

m_1 $a_1 = \frac{F_1}{m_1} \Rightarrow a_1 = 4 \text{ m/s}^2$

m_2 $a_2 = \frac{F_2}{m_2} \Rightarrow a_2 = 5 \frac{\text{m}}{\text{s}^2}$



m_1 $S_1 = \frac{1}{2} a_1 t^2$ m_2 $S_2 = \frac{1}{2} a_2 t^2$

ΑΝΟΙΧΗΜΑ ΒΑΛΕΙΣ ΟΤΙ: $10 + S_2 = 18 + S_1 \Rightarrow$

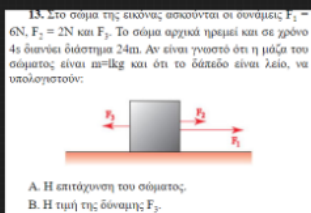
$S_2 - S_1 = 8 \text{ m} \Rightarrow \frac{1}{2} a_2 t^2 - \frac{1}{2} a_1 t^2 = 8 \Rightarrow$

$\frac{1}{2} 5 t^2 - \frac{1}{2} 4 t^2 = 8 \Rightarrow 3,5 t^2 - 2 t^2 = 8$

$\Rightarrow 0,5 t^2 = 8 \Rightarrow t^2 = 16 \Rightarrow t = 4 \text{ s}$

$S_1 = \frac{1}{2} a_1 t^2 \Rightarrow S_1 = \frac{1}{2} \cdot 4 \cdot 4^2 \Rightarrow S_1 = 32 \text{ m}$

$S_2 = \frac{1}{2} a_2 t^2 \Rightarrow S_2 = \frac{1}{2} \cdot 5 \cdot 4^2 \Rightarrow S_2 = 40 \text{ m}$



$v_0 = 0$ $t = 4 \text{ s}$
 $m = 1 \text{ kg}$ $S = 24 \text{ m}$

$F = \epsilon \tau A \theta \rightarrow a \rightarrow \epsilon \tau A \theta$

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$S = v_0 t + \frac{1}{2} a t^2 \Rightarrow$

$S = 0 \cdot 4 + \frac{1}{2} a \cdot 4^2 = 24 \Rightarrow 8a = 24 \Rightarrow$

$a = 3 \text{ m/s}^2$

$\Sigma F = m \cdot a \Rightarrow \Sigma F = 1 \cdot 3 \text{ N} \Rightarrow$

$\Sigma F = 3 \text{ N}$

$\Sigma F = F_1 + F_2 - F_3 \Rightarrow$

$\Sigma F = 6 + 2 - F_3 = 3 \text{ N} \Rightarrow F_3 = 5 \text{ N}$

$F_3 > F_1 + F_2 \Rightarrow \Sigma F = F_3 - F_1 - F_2 \Rightarrow$

$3 = F_3 - 6 - 2 \Rightarrow F_3 = 11 \text{ N}$