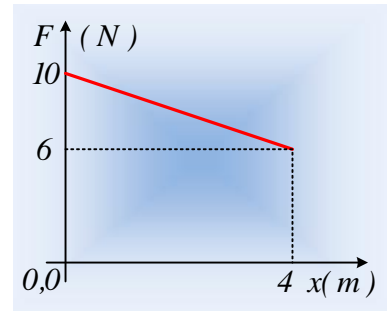


Κίνηση με την επίδραση μεταβλητής δύναμης.

μ μ 2kg μ , μ μ
 μ=0,4 μ μ

μ μ μ , μ μ ,
 μ μ x ,
 μ .



i) μ .

ii) μ μ μ μ

μ 4m.

iii) μ x=4m;

iv) μ μ μ x=4m.

v) μ μ ; μ

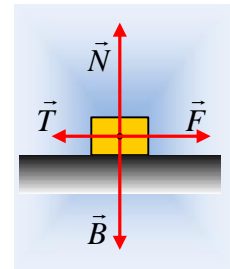
μ μ x=4m;

vi) μ μ .

$g=10\text{m/s}^2$.

:

μ μ μ ,
 μ μ μ , μ μ
 μ ! μ , = mg,
 μ , μ , μ :
 $=\mu \cdot =\mu \cdot mg=0,4 \cdot 2 \cdot 10 =8$.



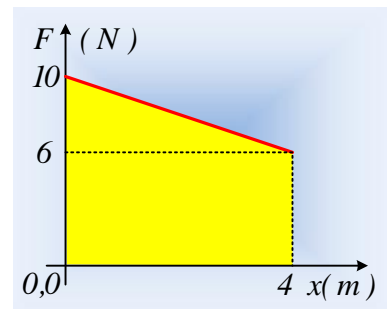
i) μ μ μ μ μ :

$$dF_x = ma_0 \rightarrow a_0 = \frac{dF_x}{m} = \frac{F - T}{m} = \frac{10\text{N} - 8\text{N}}{2\text{kg}} = 1\text{m/s}^2$$

ii) μ F, μ μ μ , μ μ ,

μ μ μ μ
 μ .

$$W_F = \frac{B+S}{2} \cdot \Delta x = \frac{10+6}{2} \cdot 4\text{J} = 32\text{J} .$$



iii) μ μ μ μ

μ (x=0), μ x=4m

μ :

$$K_{\text{t}\nu} - K_{\text{a.t}} = W_F + W_B + W_N + W_T$$

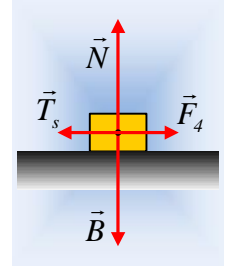
$$W_B = W_N = 0 \quad \mu \quad \mu \quad , \quad \mu$$

μ :

$$\frac{1}{2} m \hat{v}^2 = 32J + 0 + 0 - T \cdot x \rightarrow$$

$$\frac{1}{2} m \hat{v}^2 = 32J + 0 + 0 - 8N \cdot 4m = 0 \rightarrow \hat{v} = 0$$

iv) μ μ μ μ x=4m,
 μ . μ μ F μ μ F₄=6 ,
 μ μ , μ μ μ , μ
 8 (μ μ μ
). μ μ , μ
 , μ s=6 , μ μ μ F₄.
 = mg=2·10 =20 .



v) μ μ F μ μ x; μ
 , 1 μ μ :

$$F=kx+$$

$$x=0 \quad \mu \quad 10= \quad x=4 \quad 6=4k+10 \quad k=-1, \quad :$$

$$F=-x+10 \quad (\mu \quad S. \quad .)$$

μ μ F=0 F= -x+10=8 x=2m,
 μ μ μ . 0-2m μ , 2m-4m
 μ μ 8 , μ .

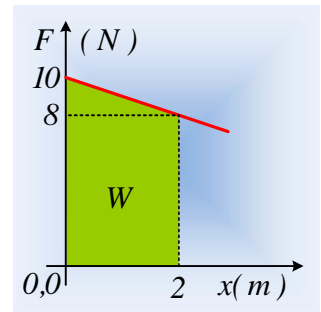
vi) μ μ μ
 x₁=2m ,

μ :

$$K_{\text{tv}} - K_{\text{a.t}} = W_F + W_B + W_N + W_T$$

$$K_2 - 0 = \frac{10+8}{2} 2J + 0 + 0 - 8N \cdot 2m = 2J$$

$$\mu \quad x_2=2m \quad \mu \quad \mu_{\text{max}}=2J.$$



:

μ μ μ μ , μ μ
 ...

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