

Олимпиада по
физике

ученика 10 класса Б

МБОУСОШ № 32.

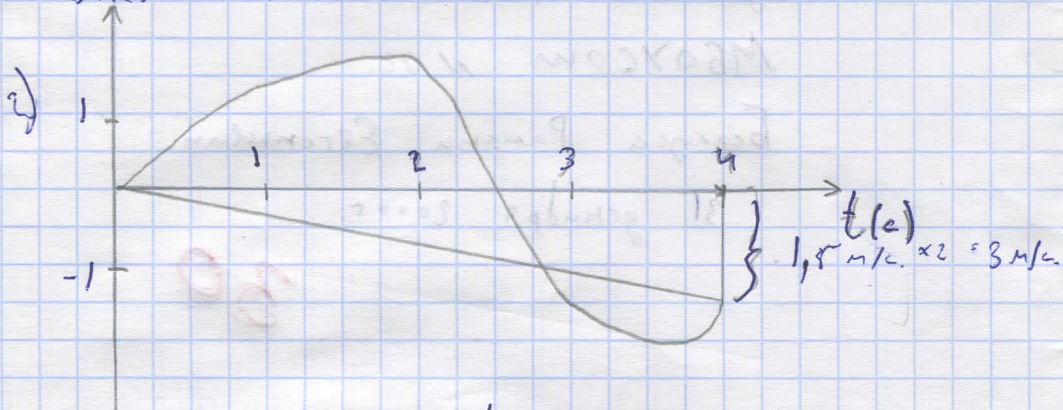
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31 декабря 2000 г.

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Dano:	CU	Pemilihan:
$V = 256 \text{ m/s}$	6 m/s	T.K. $F_{TP} = F_{Tg}$
$k_{TP} = 0,8$		$mg \sin \alpha = \frac{m v^2}{2R}$
$g = 10 \text{ m/s}^2$		$0,8 \times 10 \text{ m/s}^2 \times 6 = \frac{v^2}{2R}$
$F = \frac{6mg}{\mu \sin \alpha}$		$R = \frac{3600 \text{ m}^2}{0,8 \times 10 \text{ m/s}^2 \times 6} = 90 \text{ m}$
$R_{\min} = ?$		

Jawab: $R_{\min} = 90 \text{ m}$



T.K. $y_{\max} = t = 2v \Rightarrow$

$$v = 3 \text{ m/s}$$

$$\vec{s} = \sqrt{3^2 + 4^2} = \sqrt{25} = 5 \text{ m}$$

3)

4) Dano:

$I_0 = 200 \text{ mA}$

$I = 1 \text{ mA}$

$R_1 = 80 \text{ } \Omega$

$d = 0,4 \text{ mm}$ to $0,2 \text{ mm}$

Maxim:

$L = ?$

$\rho = 1,7 \text{ } \Omega \cdot \text{mm}^2 / \text{m}$

Pemecene:

1) $n = \frac{I}{I_0} = \frac{1 \times 10^{-3}}{200 \times 10^{-6}} = 5$

$\frac{7 \times 10^3}{0,2 \times 10^{-8}} = 5$

2) $R_2 = \frac{R_1}{n-1} = \frac{800 \text{ m}}{4} = 200 \text{ m}$

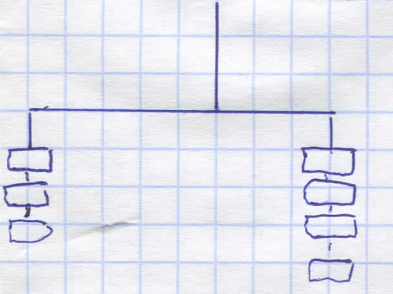
3) $S = 3,14 \times (0,2)^2 = 0,1256 \text{ mm}^2$

4) $L = \frac{R_2 \times S}{\rho} = \frac{200 \text{ m} \times 0,1256 \text{ mm}^2}{1,7 \text{ } \Omega \cdot \text{mm}^2 / \text{m}} =$

$= 2 \text{ m}$

5) Dano:

Pemecene:



$F_{\downarrow} = m$, $2L_1 = 3mL_2 = 2L_1 = 3L_2$

eglar halen. $\Rightarrow L_1 = \frac{3}{2} L_2$

$3m(L_1 - 1) = 4m(L_2 + 1) = 3(L_1 - 1) = 4(L_2 + 1)$

$3(\frac{3}{2}L_2 - 1) = 4(L_2 + 1)$

$\frac{9}{2}L_2 - 3 = 4L_2 + 4 = \frac{1}{2}L_2 = 10$

$\frac{1}{2}L_2 = 7 \Rightarrow L_2 = 14 \text{ cm}$

$L_1 = \frac{3}{2} \times 14 = \frac{3}{2} \times \frac{14}{1} = \frac{3 \times 14}{2} = 21 \text{ cm}$

$L_{\text{oduy}} = 21 \text{ cm} + 14 \text{ cm} = 35 \text{ cm}$

OTker: $L_{\text{oduy}} = 35 \text{ cm}$

