

II ()

II

-3 20 .

1

L.

α

v_0 ,

?

$$mv_0 \cdot \cos \gamma = Mu,$$

u -

$$L - ut = t \cdot v_0 \cos \gamma,$$

t -

$$t = \frac{2v_0 \sin \gamma}{g}.$$

$$v_0 = \sqrt{\frac{gL}{\left(\frac{m}{M} + 1\right) \cdot \sin 2\gamma}}.$$

- 60.

40

30

15

2

$t_0 = 0^0$

= 2 40

$1^0 ?$
 20^0

$21^0 ?$

$t = 25^0$

= 4200 / (. .).

$\lambda = 3,2 \cdot 10^5 /$

t - t, t -

$$m\} = A(t_k - t_0) \cdot \ddagger \quad A = \frac{m\}}{(t_k - t_0) \cdot \ddagger}.$$

$$\frac{3}{2m} \frac{m-}{0^0} 1^0 \quad (t=1^0)$$

$$c \cdot 2m \cdot \Delta t = A(t_k - t_0) \cdot \Delta t_1 = m \frac{\Delta t_1}{t}$$

$$\Delta t_1 = \frac{c \Delta t \cdot 2t}{t_k - t_0} = 4,2$$

$$t = 20^0 \quad 21^0 \quad (t = 1^0)$$

$$\Delta t_2 = \Delta t_1 \frac{t_k - t_0}{t_k - t} = 21$$

- 80.

60
40

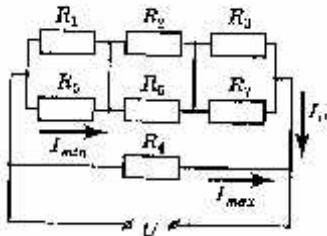
20

3

$$R_1 = 1, R_2 = 2, R_3 = 3, R_4 = 4, R_5 = 5, R_6 = 6, R_7 = 7$$

(. . 1). $U = 53,2$

?



$$R_{1,5} = \frac{R_1 R_5}{R_1 + R_5} = \frac{5}{6}$$

$$R_{2,6} = \frac{R_2 R_6}{R_2 + R_6} = \frac{3}{2}$$

$$R_{3,7} = \frac{R_3 R_7}{R_3 + R_7} = \frac{21}{10}$$

6

$$R = R_{1,5} + R_{2,6} + R_{3,7} = 4 \frac{13}{30}$$

$R > R_4$,

R_4 ,

$$I_{\max} = \frac{U}{R_4} = 13,3$$

$$I = \frac{U}{R} = 12$$

$$I_{min} = 2$$

$R_5,$

- 100.

80
40

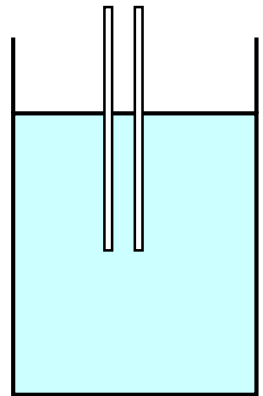
30

4

(. 2).
 $R.$

$2R/3.$

r



.2

$$R = \frac{R_0 R}{R_0 + R}$$

$$\frac{2}{3} R = \frac{R_0 \cdot \frac{1}{2} R}{R_0 + \frac{1}{2} R}$$

$$R_0 = R = 2R.$$

$$r = \frac{R_0 \cdot \frac{1}{4} R}{R_0 + \frac{1}{4} R} = \frac{2}{5} R.$$

- 80.

60
30

20

5

,
?

$$F = -k x.$$

$$m,$$
$$mg = k x,$$

$$\Delta x = \frac{mg}{k}.$$

$$\Delta x_1 = 2\Delta x = \frac{2mg}{k}.$$

$$\Delta x_1 = \frac{2mg}{k_1}.$$

$$\frac{2mg}{k} = \frac{2mg}{k_1} \quad k_1 = \frac{k}{2}.$$

$$k_2 = 2k.$$

$$T_1 = 2\pi \sqrt{\frac{m}{k_1}} \quad T_2 = 2\pi \sqrt{\frac{m}{k_2}}.$$

$$S = \sqrt{\frac{k_2}{k_1}} = 2.$$

- 80.

60
40

20

k T