.

1.

, , V$_1$= 72 / , 10

, V$_2$ = 32,4 / . .

:

,

.

$V = V_1 + V_2$ (1).

$l =(V_1 + V_2) t$ (2).

$V_1 = 20$ / , $V_2 = 9$ / . $l =290$.

:

1. (1) - 3 .

2 - 3 .

3. - 2 .

4. - 2 .

2.

,

m$_1$ =64 . m$_2$ =65 , ,

, ,

. t , h =3 ?

.

:

, ,

, . ,

m$_2$g.

:

$$m_1 a = m_2 g - m_1 g = (m_2 - m_1)g$$
$$a = g \frac{m_2 - m_1}{m_1}$$

.

$$t = \sqrt{\frac{2h}{a}}; t=6,26 \ .$$

:
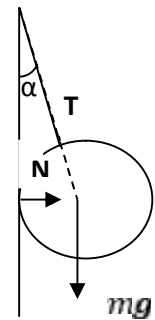
1. - 4 .

2. - 2 .

3. - 2 .

4. - 2 .

3.

l= 4 m = 300

r = 2,5 . .

:

N, ,

, .

N   mg   .   T   .

:

$$N - T \quad = 0$$

$$m \quad - T \quad = 0$$

$$N = \overline{m}$$

$$t_1 \quad = \frac{r}{\sqrt{(l+r)^2 - r^2}}; \ N = 1{,}25 \ H$$

.

:
1.   ,   - 3   .

2.   - 3   .

3.   - 3   .

4.   - 1   .

4.
                                                                            ,   ,
                          ? 0^0 ,

$c = 836 \frac{Дж}{кг*К}$, $\rho_1 = 9{,}2 * 10^2 \frac{кг}{м^3}$, $\rho = 2{,}7 * 10^3 \frac{кг}{м^3}$.

$\lambda = 3{,}3 * 10^5 \frac{Дж}{кг}$.   .

:
                          0^0 ,   ,   ,   ,

$$\rho V \ (t_1 - t_0) = \rho_1 V \lambda \qquad (1),$$

$t_1 -$,   ,
$t_0 -$,
$V -$.

$$t_1 = t_0 + \frac{\rho_1 \lambda}{\rho}; t_1 = 134°С.$$

:
1.   (1) -6
2.   - 2
3.   -2   .

5.
                                                          $R = 40$

$\Delta t_1 = 400°С$,   .
                  -   .
                                                              ,
$r = 10$?
                  .   .
                  :
                  ,   :

$$N_1 = k\Delta t_1 \qquad (1)$$

$$N_2 = k\Delta t_2 \qquad (2)$$

$$N_1 = \frac{U^2}{R} \qquad (3)$$

$$N_2 = \left(\frac{U}{R+r}\right)^2 R \qquad (4)$$

$$\frac{N_1}{N_2} = \frac{(R+r)^2}{R^2} = \frac{\Delta t_1}{\Delta t_2}$$

$$\Delta t_2 = \Delta t_1 \left(\frac{R}{R+r}\right)^2; \qquad \Delta t_2 = 256°C$$

:

1.   (1) -(2) - 2   .
2.   (3)   - 2   .
3.   (4)   - 2
4.
                    - 2   .
5.   -   2   .