

2015/2016

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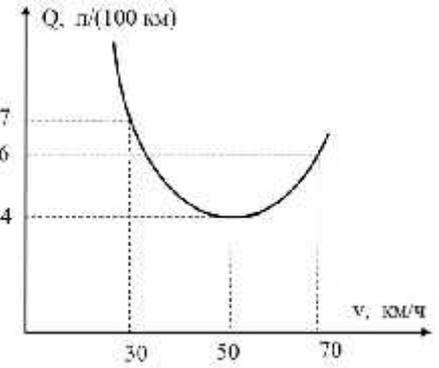
8

10

1

70 / , 50 / ,
(100) ,

30 / , 5
?



1
2 ,

7 Q :
Q = Q₁ + Q₂ + Q₃.

$$S_1 = v_1 \cdot t_1 = 30 \text{ км/ч} \cdot 2 \text{ ч} = 60 \text{ км}.$$

$$Q_1 = 7 \text{ л} \cdot \frac{60 \text{ км}}{100 \text{ км}} = 4,2 \text{ л}.$$

$$Q_2 = 4 \text{ л} \cdot \frac{50 \text{ км/ч} \cdot 1 \text{ ч}}{100 \text{ км}} = 2 \text{ л}.$$

$$Q_3 = 6 \text{ л} \cdot \frac{70 \text{ км/ч} \cdot 4 \text{ ч}}{100 \text{ км}} = 16,8 \text{ л}.$$

$$Q = 50 - (Q_1 + Q_2 + Q_3) = 50 - (4,2 + 2 + 16,8) = 27.$$

: Q = 27

1:

1	Q ₁	3
2	Q ₂	3
3	Q ₃	3
4	Q	1

2.

10

0,5

t₁ = 100

t = 1°C.

t , $t_2 = 200$? $c = 4,2 \cdot 10^3$
 / (K),
 2

P , (,)

$$P \cdot t = cm \Delta t + w \cdot t_1, \quad (1)$$

$$cm \Delta t = w \cdot t_2. \quad (2)$$

$$P = \frac{cm \Delta t (t_1 + t_2)}{t_1 \cdot t_2}.$$

$$P = 13,5$$

: 13,5

2:

1	(1)	3
2		3
3	(1) (2)	3
4	Q	2

3.

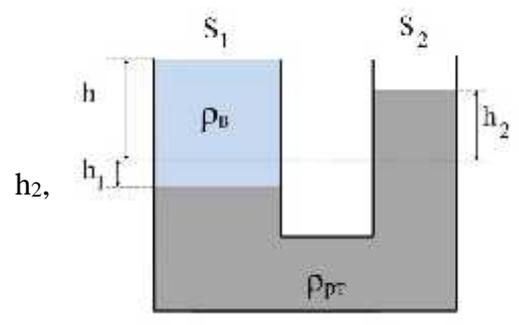
$$h = 39,8$$

$$13,6$$

3:

$$h + h_1, \quad h_1 -$$

$$h_2.$$



$$h_1 S_1 = h_2 S_2, \quad (1)$$

$$S_1 / S_2 = 2, \quad h_2 = 2h_1.$$

$$g(h + h_2/2) = \rho_P g(h_2/2 + h_2). \quad (2)$$

$$\rho_B h + \rho_B \frac{h_2}{2} = \frac{3\rho_P h_2}{2} \quad (3)$$

$$h_2 = \frac{\rho_B h}{\frac{3\rho_P}{2} - \frac{\rho_B}{2}}$$

h₂:

$$h_2 = \frac{\rho_B h}{\frac{3}{2} \cdot 13,6\rho_B - \frac{\rho_B}{2}} = \frac{2h}{39,8} = 2 \text{ (cm)} .$$

: 2 .

3:

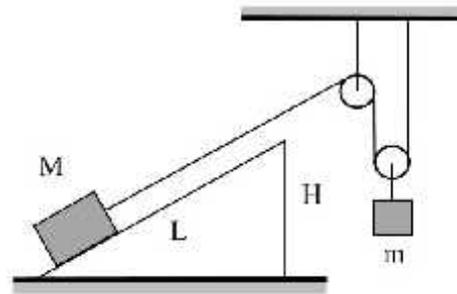
1	(1) $h_1 S_1 = h_2 S_2$	2
2	$h_1 \quad h_2$	1
3	(2)	3
4	(3)	3
5	h_2	1

4.

10

(.).
m

H, ? L.



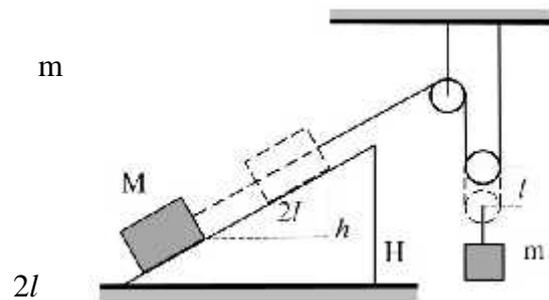
4

F - ,

$A = Fl, (1)$

$F = mg.$

h,
:



$$h = \frac{2l \cdot H}{L} \quad (2)$$

$$A = Mgh \quad (3)$$

$$Fl = Mg \frac{2l \cdot H}{L}$$

$$m = M \frac{2H}{L} \quad (4)$$

$$: m = M \cdot \left(\frac{2H}{L} \right)$$

4:

1	,	m (1)	2
2		h (2)	3
3		(3)	3
4		m (4)	2