

2013-2014

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1.

$$\begin{aligned} & : s = 36 - 3,6 = 32,4 \\ & : t = 0,5 - 3,6/72 = 0,45 \\ & : s = v t + v_2(t - t_д); \quad t_д = \frac{v_2 t - s}{v_2 - v_1}; \\ & t_д = \frac{90 \cdot 0,45 - 32,4}{90 - 54} = 0,225 \text{ ч} = 13,5 \text{ мин} \\ & \quad \quad \quad : \mathbf{13,5} \end{aligned}$$

2.

3/5

5,

2

$$\begin{aligned} m_1 \lambda &= P; \quad m_1 = \frac{P}{\lambda}; \quad m_1 = \frac{50 \cdot 2,6 \cdot 60}{330000} = 0,024 \text{ кг} \\ & : m_1 + m_2 = \frac{P \cdot \Delta t}{c \Delta t^0} = \frac{5 \cdot 6}{4 \cdot 5} = 0,143 \text{ кг} \\ m &= 143 - 24 = 119 \\ & \quad \quad \quad : \mathbf{119 ; 24} \end{aligned}$$

3. $V_{л} = \eta$; $p = \frac{m_{л} g}{S}$; $p = \frac{\rho}{\frac{V}{h}} = \rho h$; $\eta = \frac{p}{\rho h}$; $\eta = \frac{6}{9 \cdot 1 \cdot 0,7} = 0,1$
: **10%**

4.

$$\begin{aligned} & : \quad , \quad (\quad) , \quad . \\ & : \rho = m/V . \\ & , \\ & , \quad F = mg . \end{aligned}$$