

3 Бер:

$R = 200 \Omega$

$\eta = 80\% = 0,8$

$U = 220 \text{ В}$

$t = 25 \text{ мин} = 1500 \text{ с}$

$t_1 = 20^\circ \text{ C}$

$V_0 = 0,6 \quad \rho = 0,6 \cdot 10^{-3}$

$\rho_{\text{ж}} = 1000 \text{ кг/м}^3$

$C = 4200$

$\Delta m = ?$

$m_1 = \frac{220^2 \cdot 20}{0,8 \cdot 4200 (1500 - 20)} = \frac{44}{1880} = 42,7$

$m_2 = 1000 \cdot 0,6 = 6 \cdot 10^4 - 10^3 = 0,6$

$\Delta m = m_2 - m_1 = 0,6 - 42,7 = -42,1$

$Q_1 = I^2 R t = \frac{U^2}{R} t$

$Q_2 = c m_1 (t_2 - t_1)$

$t_2 = 100^\circ \text{ C}$

$t_1 = 20^\circ$

$m_2 = \rho_{\text{ж}} \cdot V = 6 \cdot 10^{-4} \cdot 10^{-3} = 0,6 \text{ кг}$

$\eta = \frac{Q_1}{Q_2} = \frac{\frac{U^2}{R} t}{c m_1 (t_2 - t_1)}$

$m_1 = \frac{\frac{U^2}{R} t}{2 \cdot C (t_2 - t_1)}$

$\Delta m = m_2 - m_1$

4.  $h_1 = 30 \text{ см}$

$h_2 = 60 \text{ см}$

$\rho_{\text{кер}} = 2700 \text{ кг/м}^3$

$\rho_{\text{ж}} = 900 \text{ кг/м}^3$

Тік: ?

~~хсж~~

$= 30 \cdot 10^{-3} \text{ м}$

$= 60 \cdot 10^{-3} \text{ м}$

20x  $h_1 + h_2$  биікке көтеріледі:

$\rho_{\text{ж}} g (2h_1 + h_2) = \rho_{\text{ж}} g h_1 (1)$

$\rho_{\text{к}} g (2h_1 + h_2) = \rho_{\text{к}} h_1 (2)$

~~$\rho_{\text{к}} g (h_1 + h_2) = \rho_{\text{к}} h_1$~~   $m: F_{\text{к}} = m_{\text{ж}}$

$m: m_{\text{ж}} g = m_{\text{к}} g$

$h_2 = 60 \cdot 10^{-3} \text{ м} - 30 \cdot 10^{-3} = 600 \cdot 10^{-3} - 300 = 300 \cdot 10^{-3} = 30 \text{ см}$

1. Бер:

$R = 20 \text{ Ом}$

$R_1 = 20 \text{ Ом}$

$R_2 = 20 \text{ Ом}$

$R_x = R + R_1 + R_2$

$R_x = 20 + 20 + 20 = 60 \text{ Ом}$

Т/к:  $R_x \rightarrow$ 

$R_x = 60 \text{ Ом}$

2. Бер:

$d_1 = 3,5 \text{ см}$

$L = 1,5 \text{ см}$