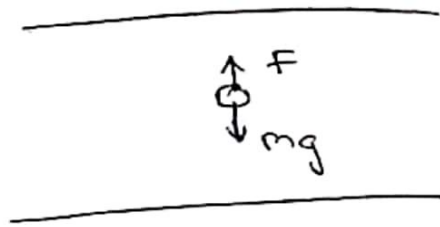
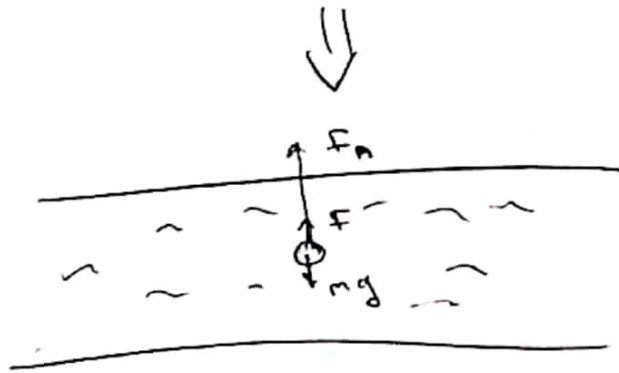


ЗАДАЧА 2.



$$F_1 = mg$$

$$F_1 = \text{СИЛА КУЛОНА}$$



$$F_A + \frac{F_1}{\epsilon} = mg$$

$$F_A = mg - \frac{mg}{\epsilon}$$

$$F_A = \rho_1 V g$$

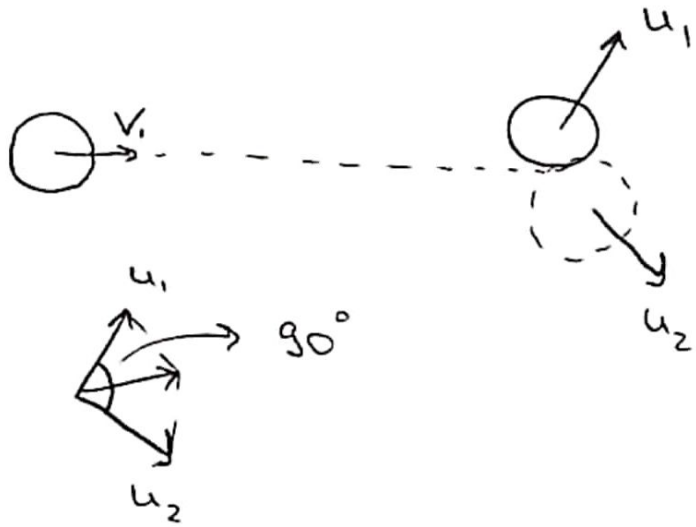
$$m = \rho_0 V$$

$$\rho_1 V g = mg \frac{\epsilon - 1}{\epsilon}$$

$$\rho_1 V g = \rho_0 V g \frac{\epsilon - 1}{\epsilon}$$

$$\frac{\rho_0}{\rho_1} = \frac{\epsilon}{\epsilon - 1} = \frac{3}{2} = 1,5$$

ЗАДАЧА 1.



$$m_1 = m_2 = m$$

$$mV_1 = m u_1 + m u_2 \quad [1]$$

$$V_1 = u_1 + u_2$$

$$V_1^2 = (u_1 + u_2)^2$$

$$V_1^2 = u_1^2 + 2u_1 u_2 \cos \alpha + u_2^2$$

$$\frac{mV_1^2}{2} = \frac{m u_1^2}{2} + \frac{m u_2^2}{2} \quad [2]$$

$$\leftarrow V_1^2 = u_1^2 + u_2^2$$

$$0 = V_1^2 - u_1^2 - u_2^2 = 2u_1 u_2 \cos \alpha$$

$$0 = 2u_1 u_2 \cos \alpha$$

$$\alpha = 90^\circ$$

ЗАДАЧА 3

$$N = UI$$

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

$$N_1 = \frac{U^2}{R}$$

$$N_1 = 1210 \text{ [Вт]}$$

$$N_0 = 300 \text{ [Вт]}$$

$N_0 < N_1$ А ЭТО ЗНАЧИТ ЧТО ДИ СМОЖЕТ
РАЗВУТЬ.