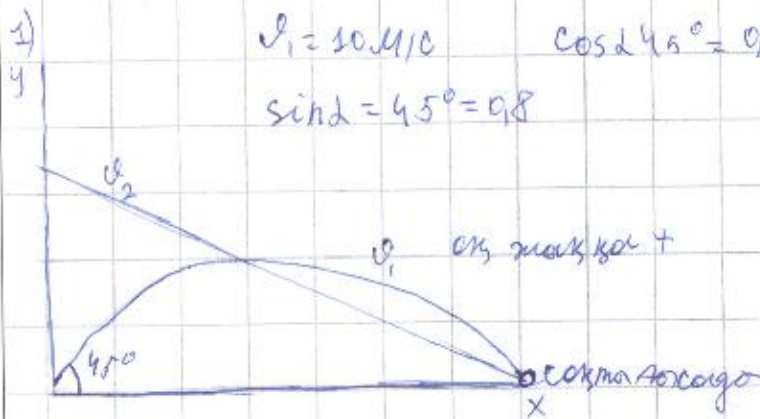




$$m_1 v_1 + m_2 v_2 = m_1 v_1 - m_2 v_2$$

$$v_1 + v_2 = v_1 - v_2$$

$$10 + v_2 = 10 - v_2$$

$$v_2 + v_2 = 10 - 10$$

$$2v_2 = 0 \quad v_2 = 2 \text{ м/с}$$

$$h_2 = \frac{v_2^2 \sin^2 \alpha}{2g} \quad h = \frac{2 \cdot 0,64}{20} = \frac{1,28}{20}$$

$$= 0,064 \text{ м}$$

$$\text{жауабы: } v_2 = 2 \text{ м/с}; h_1 = 0,32 \text{ м}; h_2 = 0,064 \text{ м}$$

2)



l, m - жазылмақ мәтін

$$m_2 l_2 = m_1 l_1$$

g - әсер етеді $m_2 l_2$

$$m_2 l_2 g = m_1 l_1$$

$$10 m_2 l_2 = m_1 l_1$$

$$t = 10 \text{ минут}$$

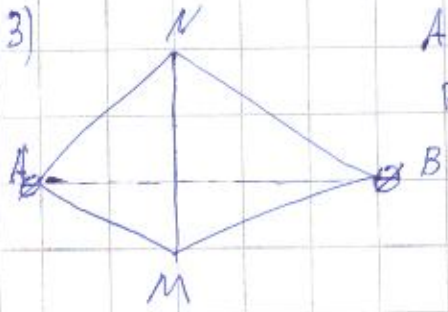
ХБЖ!

$$10 = \frac{m_1 l_1}{m_2 l_2}$$

$$10 \text{ минут} = 600 \text{ с}$$

Мауыда! $t = 600 \text{ с}$, мәлек қарай бағалмасладо.

3)



AMNB

$R = 6$ біріктірілген резисторлар

$U_0 = 12 \text{ В}$

$I = 3 \text{ мА}$ $R = ?$

ХТМ!

$3 \text{ мА} = 3 \cdot 10^{-3} \text{ А}$

$I_{AN} = I_{NB} = I_{BM} = I_{MA} = 6 \cdot 3 \cdot 10^{-3}$
 $= 18 \cdot 10^{-3} \text{ А}$

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

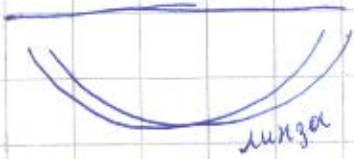
$$R = \frac{U}{I}$$

$$R = \frac{12}{18 \cdot 10^{-3}} = 600 \text{ Ом}$$

жауап: $R = 600 \text{ Ом}$

4)

$$R_1 = R_2$$



2 кесін

$$\frac{1}{F} = (n-1) \left(\frac{1}{R_1} + \frac{1}{R_2} \right)$$

$$\frac{1}{F} = (1,5-1) \left(\frac{1}{R_1} + \frac{1}{R_2} \right)$$

$$\frac{1}{F} = (0,5) \left(\frac{1}{R_1} + \frac{1}{R_2} \right)$$

$$\frac{1}{F} = (0,5) \left(\frac{R_2 + R_1}{R_1 R_2} \right)$$

$$\frac{1}{F} = \frac{0,5R_2 + 0,5R_1}{0,5R_1 0,5R_2} = \frac{1}{0,25}$$

$$\frac{1}{F} = \frac{1}{0,25}$$

$$F = \frac{0,25 \cdot 1}{1} = 0,25 \text{ м}$$

$$F = l \quad l = 0,25 \text{ м} = 250 \text{ мм}$$

Жауабы: $l = 250 \text{ мм}$ қашықтықта.