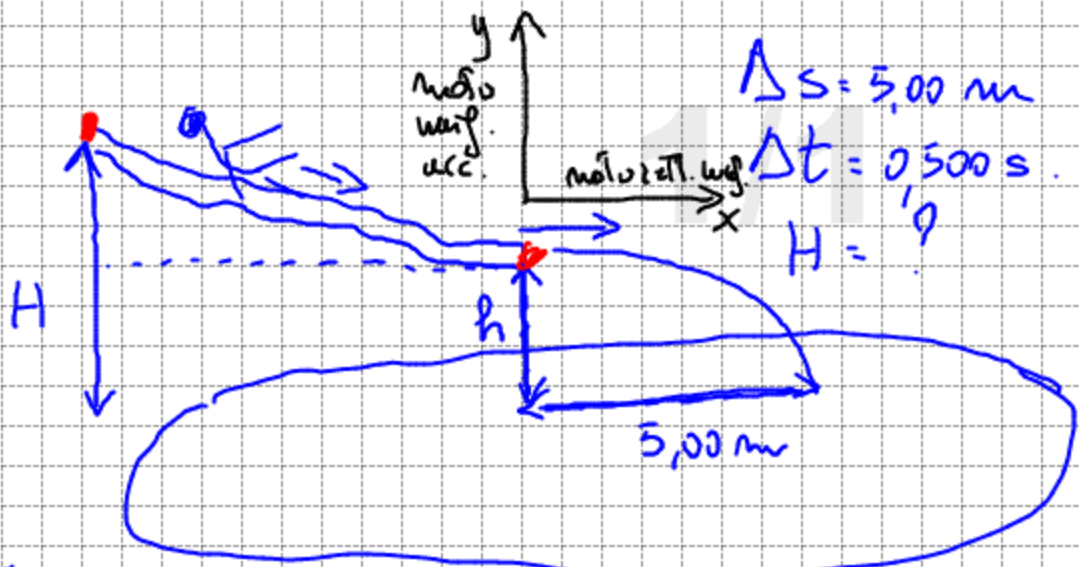


N 81



$$v_{fx} = \frac{\Delta s}{\Delta t} = \frac{5,00 \text{ m}}{0,5 \text{ s}} = 10,0 \frac{\text{m}}{\text{s}} \quad h = \frac{1}{2} g t^2 + v_{yL} t + h_0$$

$$h = \frac{1}{2} \cdot 9,81 \frac{\text{m}}{\text{s}^2} \cdot (0,5 \text{ s})^2 = 1,23 \text{ m}$$

$$E_i = E_f \quad K_i + U_i = K_f + U_f$$

$$\frac{1}{2} m v_i^2 + m g h_i = \frac{1}{2} m v_f^2 + m g h_f$$

$$h_i = H \quad h_f = h$$

$$v_i = 0$$

$$E_i \quad \downarrow \quad E_f$$
$$0 + gH = \frac{1}{2} v_f^2 + gh$$

$$H = \frac{\frac{1}{2} v_f^2 + gh}{g} = \frac{\frac{1}{2} \cdot 100 \frac{\text{m}^2}{\text{s}^2} + 9,81 \frac{\text{m}}{\text{s}^2} \cdot 1,23 \text{ m}}{9,81 \text{ m/s}^2}$$

$$= 6,33 \text{ m}$$