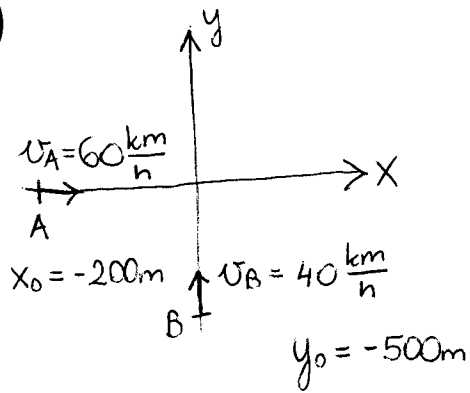


1.)



(i)  $t(d_{\min}) = ?$  (ii)  $d_{\min} = ?$

$$x = \frac{a_x}{2} t^2 + v_{0x} t + x_0$$

$$d_{PQ} = \sqrt{(x_P - x_Q)^2 + (y_P - y_Q)^2}$$

(i)  $x = x_0 + v_x t$

$y = y_0 + v_y t$

$d_{\min}$  amikor  $d^2$

$$d^2 = x^2 + y^2 = (x_0 + v_x t)^2 + (y_0 + v_y t)^2$$

$d^2$  minimális amikor  $\frac{d(d^2)}{dt} = 0$

$$d^2 = 5200t^2 - 64t + 0,29 \quad \frac{d(d^2)}{dt} = 10400t - 64 = 0 \Rightarrow \underline{\underline{t}}$$

(ii)

$$d^2 = (x_0 + v_x t)^2 + (y_0 + v_y t)^2 \leftarrow \text{beírni "t" - t (i)-ből}$$

$\Downarrow$   
 $\underline{\underline{d_{\min}}}$