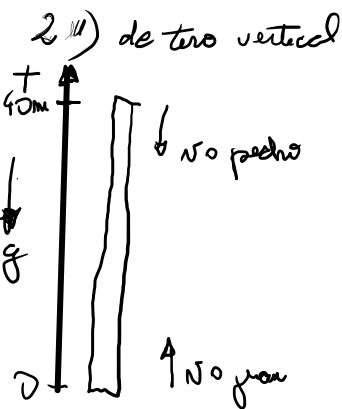




Juan

$$y(t) = 0 \text{ m} + 10 \frac{\text{m}}{\text{s}} \cdot t - 5 \frac{\text{m}}{\text{s}^2} t^2$$

Pedro

$$y(t) = 40 \text{ m} - 10 \frac{\text{m}}{\text{s}} t - 5 \frac{\text{m}}{\text{s}^2} t^2$$

Resuélves el encuentro igualando

$$10 \frac{\text{m}}{\text{s}} t - 5 \frac{\text{m}}{\text{s}^2} t^2 = 40 \text{ m} - 10 \frac{\text{m}}{\text{s}} t - 5 \frac{\text{m}}{\text{s}^2} t^2$$

$$20 \frac{\text{m}}{\text{s}} t = 40 \text{ m}$$

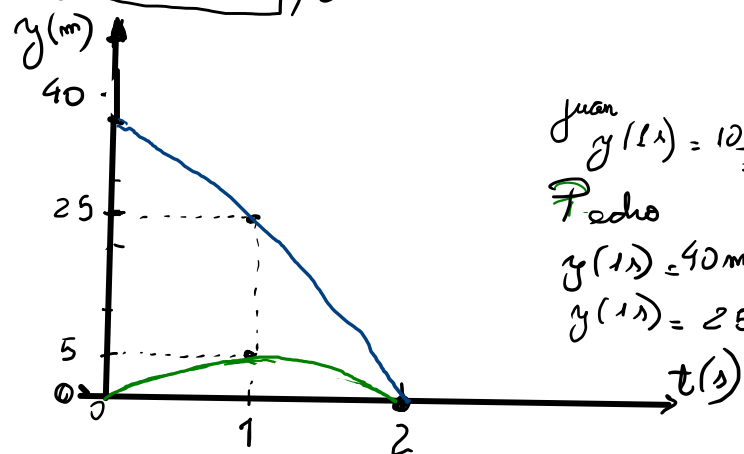
$$t = \frac{40 \text{ s}}{20}$$

¡QUÉ FÁCIL ERA! $\rightarrow t = 2 \text{ s}$

Reemplazo $t = 2 \text{ s}$ en una de las ec.

$$y(2) = 10 \frac{\text{m}}{\text{s}} \cdot 2 \text{ s} - 5 \frac{\text{m}}{\text{s}^2} (2 \text{ s})^2 = 20 \text{ m} - 5 \frac{\text{m}}{\text{s}^2} \cdot 4 \text{ s}^2$$

$y = 0 \text{ m}$, fo!



Juan

$$y(1) = 10 \frac{\text{m}}{\text{s}} \cdot 1 \text{ s} - 5 \frac{\text{m}}{\text{s}^2} \cdot 1 \text{ s}^2$$

Pedro

$$y(1) = 40 \text{ m} - 10 \frac{\text{m}}{\text{s}} \cdot 1 \text{ s} - 5 \frac{\text{m}}{\text{s}^2} \cdot 1 \text{ s}^2$$

$$y(1) = 25 \text{ m}$$

23) $x_A(t) = 3,2 t^2 - 6 t - 20$

$$x_B(t) = 29 + 8,5 t - 4,1 t^2$$

en el encuentro, $x_A(t_e) = x_B(t_e)$

$$3,2 t^2 - 6 t - 20 = 29 + 8,5 t - 4,1 t^2$$

$$7,3 t^2 - 14,5 t - 49 = 0$$

$$a = 7,3 \quad \left\{ \begin{array}{l} t_1 = 3,76 \text{ s} \\ t_2 = -1,78 \text{ s} \end{array} \right.$$

$$b = -14,5$$

$$c = -49$$