PRACT INI CINEMÁT MOV. SIMULT

[m]

PERRO $12 \frac{m}{s}$

CONEJO $10 \frac{m}{s}$ $(t+10)$

$12t = 10(t+10)$

$2t = 100 \rightarrow t = \underline{50s}$

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[u] → 14 m/s ... 10 m/s ← ; 0 ... 1000 m

$x = 14t$ $\quad$ $x = 1000 - 10t$

$14t = 1000 - 10t \rightarrow \underline{46 s}$

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[r] $12 \frac{m}{s}$ LADRÓN $(t+60)$

POLICÍA $a = 0{,}1 m/s^2$

$12(t+60) = \frac{1}{2} 0{,}1 t^2$

$12t + 720 = 0{,}05t^2$

$0{,}05t^2 - 12t - 720 = 0$

$t = 289{,}706 s$

$x = \frac{1}{2} 0{,}1 (289{,}706)^2 = \underline{4196{,}478 m}$

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[c] TÚ $7{,}2 \frac{km}{h} = 2 m/s$ $(t+300)$

PADRES $10{,}08 \frac{km}{h} = 2{,}8 m/s$

$2 \cdot (t+300) = 2{,}8t$; $2t + 600 = 2{,}8t$

$t = 750 s \rightarrow x = 2{,}8 \cdot 750 = 2100 m$

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[i] JUANITA ⇒ $20{,}16 \frac{km}{h} = 5{,}6 \frac{m}{s}$ $(t+240)$

BRUNILDA $a = 0{,}1 m/s^2$

$5{,}6(t+240) = \frac{1}{2} 0{,}1 t^2$

$0{,}05t^2 - 5{,}6t - 1344 = 0$

$t = 229{,}251 s$

$x = \frac{1}{2} 0{,}1 (229{,}251)^2 = \underline{2627{,}801 m}$

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[e] XX $V = 79{,}92 \frac{km}{h} = 22{,}2 \frac{m}{s}$

OVIEDO $V = 60{,}12 \frac{km}{h} = 16{,}7 \frac{m}{s}$

→ 22,2 m/s XX ... ← 16,7 m/s ; 28000 m

$22{,}2t = 28000 - 16{,}7t$

$t = 719{,}794 s - x = 15979{,}427 m$

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[l] → 3 m/s $(t+10)$ ... 0,02 m/s² ← ; n ... M 5000 m

$3(t+10) = \frac{1}{2} 0{,}02 t^2$

$0{,}01t^2 - 3t - 30 = 0$

$t = 309{,}687 s \rightarrow$

$x = 3(309{,}687+10) = \underline{959{,}061 m}$

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[a]

CABALLO $V = 7 \frac{m}{s}$ $(t+30)$ $\quad T = 10 m/s$

$7(t+30) = 10t$; $7t + 210 = 10t$

$t = 70 s \rightarrow x = \underline{700 m}$

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[s]

TÚ ... 10 m → BUS

$11{,}88 \frac{km}{h} = 3{,}3 m/s$

$a = 1 m/s^2$

$\frac{1}{2} 1 \cdot t^2 = 10 + 3{,}3t$

$0{,}5t^2 - 3{,}3t - 10 = 0$

$t = \underline{8{,}858 s}$

$x = \frac{1}{2} 1 (8{,}858)^2 = 39{,}232 m$

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[o]

TONTO $6 \frac{m}{s}$ $(t+30)$

$10t = 6(t+30)$

$10t = 6t + 180$ $\quad t = \underline{45 s}$

Escaneado con CamScanner