PUERTO Y EL MELÓN MUTANTE MAYA

1] $a = 1{,}5\ \frac{m}{s^2}$ $x = 10m$

$x_F = x_0 + v_0 t + \frac{1}{2} a t^2$ (1m)

$= 0 + 0 + \frac{1}{2} 1{,}5 \cdot 2^2$

$\boxed{x = 3m}$ rm

2] $V = 6\ \frac{km}{h} = 1{,}667\ \frac{m}{s}$ (m)

$x_F = x_0 + vt \rightarrow\ = 1{,}667 \cdot t$ $\boxed{t = 1{,}8s}$

3] $20s$ $V = 80\ \frac{km}{h} = 22{,}222\ m/s$ (rr)

$V_F = V_0 + at$

$22{,}222 = 0 + a \cdot 20$ $a = 1{,}111\ m/s^2$

4] $V_{TREN} = 22{,}222\ m/s$ $x = 250m$

$x = x_0 + v_0 t$ (rc)

$250 = 0 + 22{,}222\ t$ $\boxed{t = 11{,}25s}$

5] $t = 5s$ $v_F = 0\ m/s$ (rv)

$V_F = V_0 + at$

$0 = 22{,}222 + a \cdot 5$ $\boxed{a = -4{,}444\ \frac{m}{s^2}}$

6] $x_F = x_0 + v_0 t + \frac{1}{2} a t^2$ (re)

$x_F = 0 + 22{,}222 \cdot 5 - \frac{1}{2}\ 4{,}444 \cdot 5^2$

$x_F = 111{,}111 - 55{,}55 = \boxed{55{,}561m}$

7] $x_F = x_0 + v_0 t + \frac{1}{2} a t^2$ (rl)

$x_F = 0 + 0 + \frac{1}{2}\ 9{,}8\ (3{,}912)^2$

$x_F = \underline{74{,}988\ m}$

8] $4\ \frac{km}{h} = 1{,}111\ m/s$ $x_F = 50m$ (ra)

$x_F = x_0 + vt \Rightarrow 50 = 0 + 1{,}111 \cdot t$ $\underline{t = 45s}$

9] $x_F = x_0 + v_0 t + \frac{1}{2} a t^2$ (rg)

$x_F = \frac{1}{2}\ 0{,}1 \cdot 48^2$ $\boxed{x_F = 115{,}2m}$

10] $60\ \frac{km}{h} = 16{,}667\ m/s$ RP (10)

$5000 = 16{,}667 \cdot t = 299{,}994s$

MN $x = \frac{1}{2}\ 0{,}05\ (302{,}994)^2$

$x = \underline{2295{,}134m}$

Escaneado con CamScanner