

PUERTA Y EL CARACOL CARDINCO

(cm)

1)  $v_0 = 0 \text{ m/s}$   $t = 1.5 \text{ s}$   $v_f = 18 \frac{\text{km}}{\text{h}} = 5 \text{ m/s}$   
 $s = 0 + 0.5 \cdot 1.5 = 0.75 \frac{\text{m}}{\text{s}^2}$

2) PUERTA SE HA MOVIDO 3s A ESA a

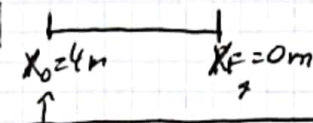
(mu)

$x = 0 + 2.32 \text{ cm}$

3)  $15 \text{ m}$   $4 \text{ s}$   $25 = 0 + 0 + \frac{1}{2} a 4^2$   $3.125$   
 $a = 3.125 \text{ m/s}^2$

4)  $v_0 = 45 \frac{\text{km}}{\text{h}} = 12.5 \text{ m/s}$   
 $x_f = x_0 + v_0 t + \frac{1}{2} a t^2$   
 $0 = 4 + 12.5 \cdot 0.125 + \frac{1}{2} a \cdot 0.125^2$   
 $a = -228 \text{ m/s}^2$

(fc)



5)  $t = 1.56 \text{ s}$   $a = 2 \text{ m/s}^2$   $v_0 = 1 \text{ m/s}$   $cc$   
 $x = 0 + 1 \cdot 1.56 + \frac{1}{2} 2 \cdot (1.56)^2$   
 $x = 3.998 \text{ m}$

6)  $t = 1.56 \text{ s}$   $v_f = 126 \frac{\text{km}}{\text{h}} = 35 \text{ m/s}$   
 $35 = 0 + a \cdot 1.56$   
 $a = 22.42 \text{ m/s}^2$   $re$

7)  $13.68 \frac{\text{km}}{\text{h}} = 3.8 \text{ m/s}$   $a = 0.15 \text{ m/s}^2$   $t = 15 \text{ s}$   
 $x = 0 + 13.68 \cdot 15 + \frac{1}{2} 0.15 \cdot 15^2 = 261.45 \text{ m}$   $sl$

8) POSICIÓN FINAL DEL CARACOL  $v_0 = 126 \frac{\text{km}}{\text{h}} = 35 \text{ m/s}$   
 $x = 35 \cdot 15 = 525 \text{ m}$   $ra$   
 DISTANCIA DE SEPARACIÓN  $261.45 - 52.5 = 208.95 \text{ m}$

9)  $t = 10 \text{ s}$   $x_f = 208.95 \text{ m} - \text{DISTANCIA}$   $es$   
 $x_f = x_0 + v_0 t + \frac{1}{2} a t^2$   
 $208.95 = 0 + \frac{1}{2} a \cdot 10^2$   $a = 4.179 \text{ m/s}^2$

10)  $t$  llegada del sueno desde  $208.95 \text{ m}$   
 $208.95 = 380 t$   $t = 0.615 \text{ s}$   $ro$   
 $t = 0.615 \text{ s}$