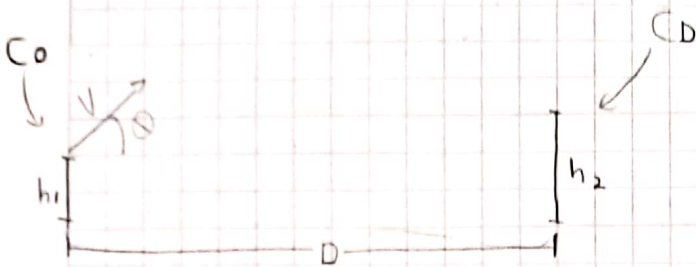


1.



$\theta$  sea un valor  
al azar dentro  
del dominio de  $\theta$

$$0 < \theta < 90^\circ$$

$$g = -9.8$$

$$D = V \cos(\theta) \cdot t$$

$$h_2 = V \sin(\theta) \cdot t + \frac{g}{2} (t^2) + h_1$$

$$t = \frac{D}{V \cos(\theta)}$$

$$h_2 = D \tan(\theta) + \frac{g}{2} \left( \frac{D}{V \cos(\theta)} \right)^2 + h_1$$

$$\sqrt{\frac{2(\Delta h - D \tan(\theta))}{D}} \cdot \cos(\theta) = \frac{1}{V}$$

$$\frac{D}{\sqrt{2(\Delta h - D \tan(\theta))}} \cdot \cos(\theta) = V$$

2

es equivalente pero  $\theta$ 

$$90 < \theta < 180$$

 $h_1$  = altura propia $h_2$  = altura del proximo

$$\Delta H = H_2 - H_1$$

se define  $d$  perspectivamente como

$$D = \Delta P = P_2 - P_1$$

 $P_1$  = mi pos $P_2$  = Pos proximo

$$\text{rad exp} = V$$

+ lim

$$\frac{-|D - r|}{| \cos(\theta) V |} = t$$

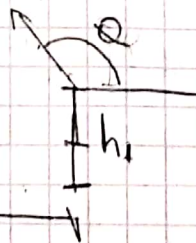
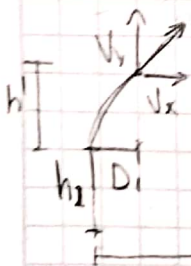
tiempo antes de la explosión

funciona en 1 y 2

$$\sqrt{2(\Delta H - D \tan \theta)^2 \cdot \cos \theta} = V$$

3

$$90 < \theta < 180$$



mismas aprox de proximo y propia

$$V_x(t+t') = V \cos(\theta) \cdot t$$

$$h_2 + V_y(t+t') + \frac{g}{2}(t+t')^2 = V \sin \theta t + \frac{g}{2}t^2 + h_1$$

Movimiento relativo