

Ecuación LINEAL HOMOGÉNEA 2º ORDEN

DEL ARCO IMPULSANDO LA FLECHA
AMARILLO AZUL

$$L = 62 \text{ cm} \quad A_p = 20.3 \text{ cm}$$

$$S(0) = -41.7 \text{ cm} \quad S'(0) = 0$$

$$Hooke = \frac{19.14}{0.50} \frac{\text{kg}}{\text{m}} \quad \text{Peso} = 0.016 \text{ kg}$$

$$g = 9.81 \frac{\text{m}}{\text{s}^2}$$

$$\frac{P}{g} \frac{d^2 S}{dt^2} = -Hooke \cdot S(t)$$

$$\frac{[\text{kg}]}{[\frac{\text{m}}{\text{s}^2}]} \cdot [\frac{\text{m}}{\text{s}^2}] = -[\frac{\text{kg}}{\text{m}}] \cdot [\text{m}]$$

$$kg = kg$$

$$\frac{8}{4905} \frac{d^2 s(t)}{dt^2} = - \frac{957}{25} s(t)$$

$$\frac{d^2 s(t)}{dt^2} = - \frac{\left(\frac{957}{25} \right)}{\left(\frac{8}{4905} \right)} s(t)$$

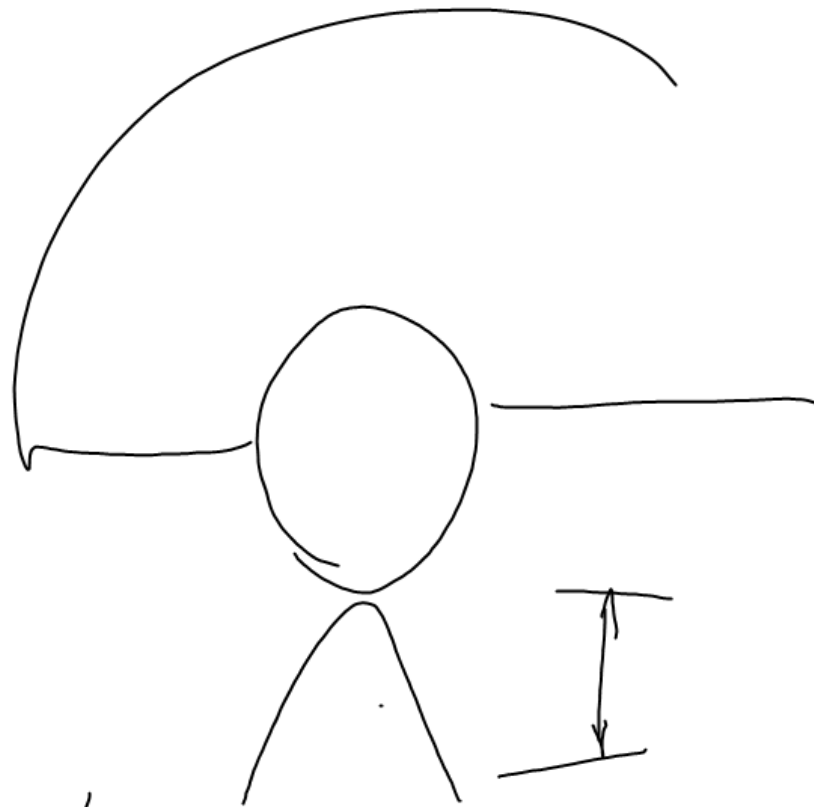
$$\frac{d^2 s(t)}{dt^2} + \frac{\left(\frac{957}{25} \right)}{\left(\frac{8}{4905} \right)} s(t) = 0 \quad \text{Ecuación CC H.}$$

Vehículo para un tope.



$$M \frac{d^2 s(t)}{dt^2} = \sum F_r$$

$$M \frac{d^2 s(t)}{dt^2} = -k s(t) - V \frac{ds}{dt}$$



$$s(0) = 0.10$$

$$s'(0) = 0$$

$$M = \frac{1000 \text{ kg}}{9.81 \frac{\text{m}}{\text{s}^2}}$$

$$H = 2 \quad V = 2$$

$$\frac{1000}{9.81} \frac{d^2 s}{dt^2} = -2s - 2 \frac{ds}{dt}$$

$$\frac{d^2 s}{dt^2} + \frac{2 \cdot (9.81)}{1000} \frac{ds}{dt} + \frac{2(9.81)}{1000} \cdot s = 0$$

