



$$\frac{d^2y}{dt^2} = -g$$

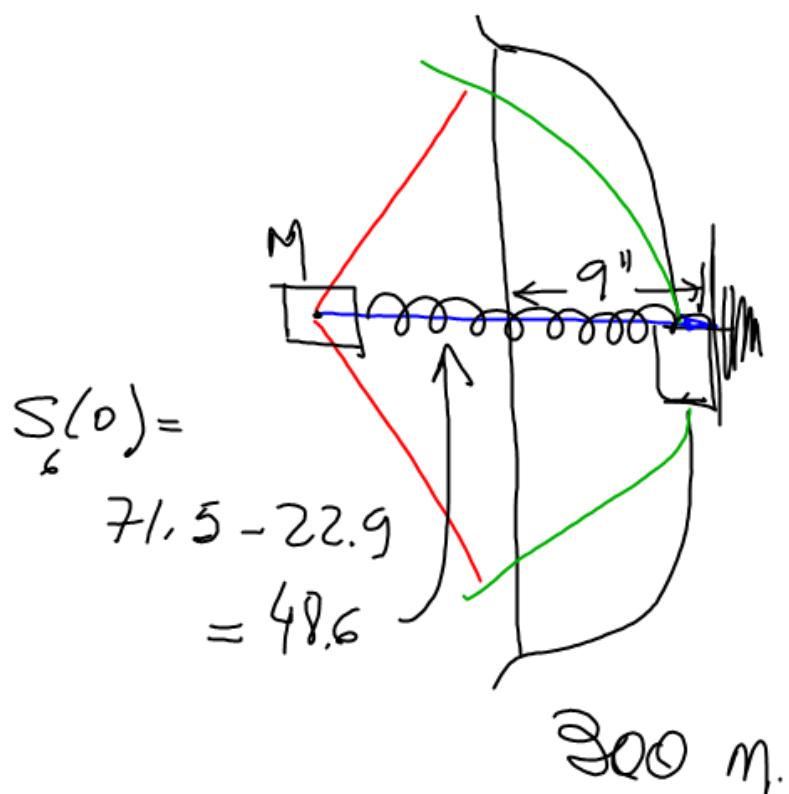
$$\frac{dx}{dt} = V_0 \cos\left(\frac{\pi}{4}\right)$$

$$x_0 \Big|_{t=0} = 5 \text{ [m]}$$

$$\frac{dy}{dt} \Big|_{t=0} = V_0 \sin\left(\frac{\pi}{4}\right) \text{ [m/s]}$$

$$y(t) \Big|_{t=0} = 2 \text{ [m]}$$

$$x_{\max}$$



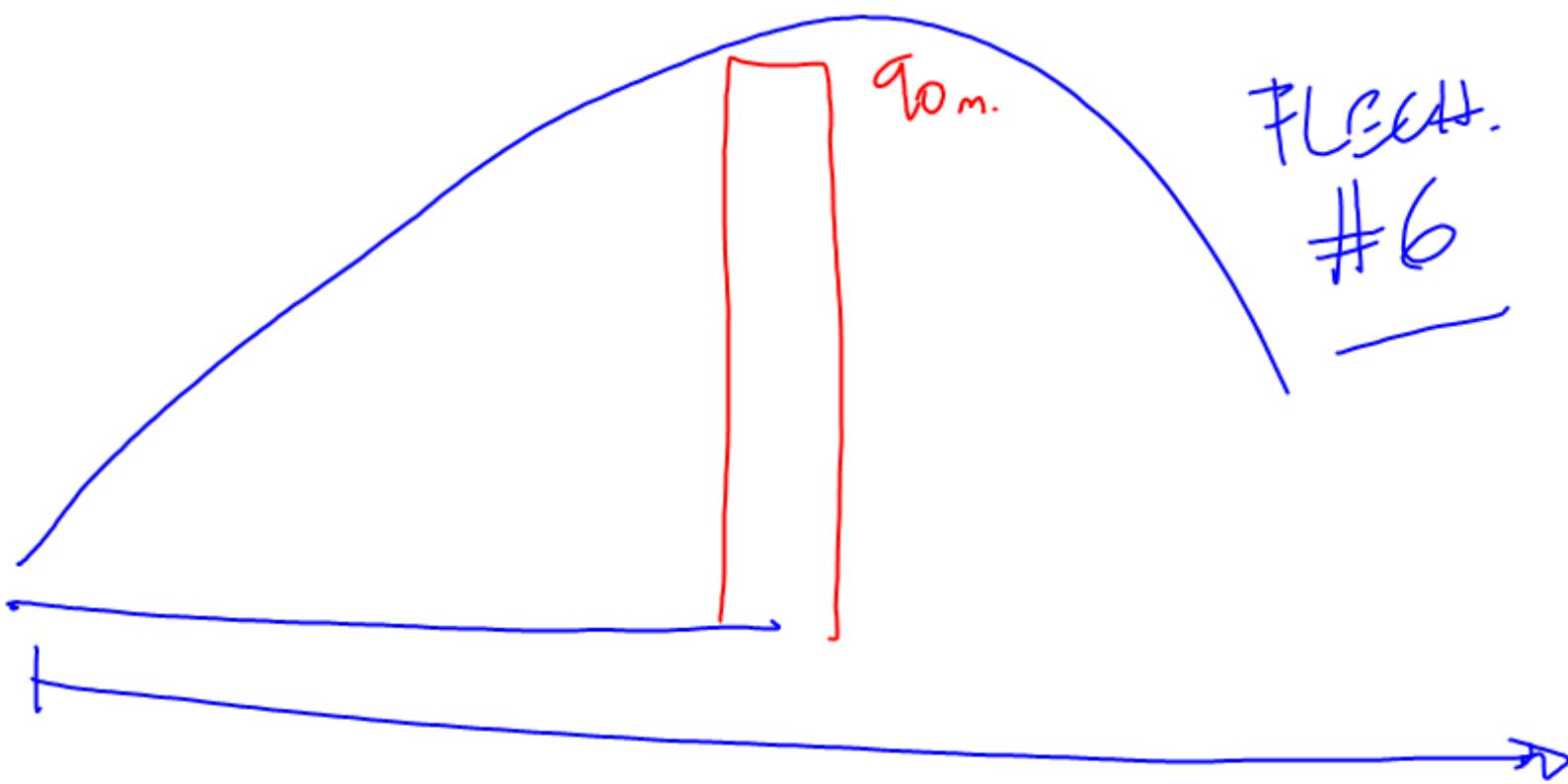
$$\sum F = M \frac{d^2 s}{dt^2}$$

$$-Hs = M \frac{d^2 s}{dt^2}$$

$$\boxed{M \frac{d^2 s}{dt^2} + Hs = 0}$$

$$H = \frac{11.43 \text{ kg}}{0.30 \text{ m}}$$

$$\text{Masa } \left(\frac{\text{kg}}{\text{m}^2}\right) \left(\frac{\text{m}}{\text{s}^2}\right) = \text{Hooke } \left[\frac{\text{kg}}{\text{m}}\right] \cdot s \quad [\text{m}]$$



	Peso kg	Largo Total. m
2	0,032	0.763
3	0.016	0.615
4	0.021	0.657
5	0.016	0.615
6	0.023	0.715
7	0.030	0.665

} - 22,9 cm.