19/nov/2021

Plan

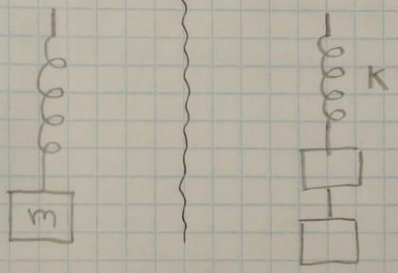
1 - Práctica de laboratorio (Ley de Hook)

Ley de Hook

$F_K = K(\Delta x)$ $\quad F_p = m \cdot g$

$F_K = K(x_0 - x_n)$ $\quad K = \frac{F}{\Delta x}$

① Experiencia ② Experiencia



m (kg)	l_0 (m)	l_f (m)	Δx (m)	K	
50gr	6,5cm	10,2cm	3,7cm		K_1
100gr	6,5cm	14,8cm	8,3cm		K_2
150gr	6,5cm	19,6cm	13,1cm		K_3
200gr	6,5cm	24,3cm	17,8cm		K_4

$F_1 = 0,05gr \cdot 9,8\ m/seg^2 = 0,49\ N$

$F_2 = 0,1gr \cdot 9,8\ m/seg^2 = 0,98N$

$F_3 = 0,15gr \cdot 9,8\ m/seg^2 = 1,47N$

$F_4 = 0,2gr \cdot 9,8\ m/seg^2 = 1,96N$

$K_1 = \frac{F_1}{\Delta x} = \frac{0,49N}{3,7cm} = 0,1324\ N/cm$

$K_2 = \frac{0,98N}{8,3cm} = 0,118\ N/cm$

$K_3 = \frac{1,47N}{13,1cm} = 0,1122\ N/cm$

$K_4 = \frac{1,96N}{17,8cm} = 0,1101\ N/cm$

$K_p = 0,118175\ N/cm$ //