

Rafaela ortulla

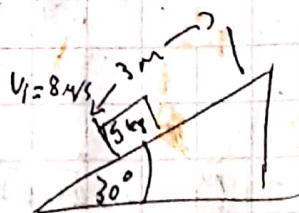
2º Eco

Problema 1

$$m_{sa} = 5 \text{ kg}$$

$$v_i = 8 \text{ m/s}$$

$$\theta = 30^\circ$$



$$U_g = m \cdot g \cdot h$$

$$0 = \frac{1}{2} \cdot 5 \cdot (8)^2 = 160$$

$$U_g = 5 \text{ kg} \cdot 10 \text{ m/s}^2 \cdot 3 \sin 30^\circ$$

$$U_g = 75$$

$$U_g - \frac{1}{2} m \cdot v^2 = -f \cdot d \cdot \cos(180^\circ)$$

$$75 - 160 = -(m \cdot m_g \cdot d \cdot \cos(180^\circ))$$

$$-85 = -(m \cdot 129)$$

$$\frac{-85}{129} = 0,65$$

$$\mu = 0,65$$

Sci

Primer mundo up fullu
20 Ew

Problema 2

$$2M \cdot 8 [M/s] = M \cdot 20 [M/s] \cdot \cos 37^\circ + M \cdot v \cdot \cos \theta$$

$$v = \frac{-20 \sin 37^\circ}{\sin \theta}$$

$$16 = 20 \cos 37^\circ - 20 \frac{\sin 37^\circ}{\sin \theta} \cdot \cos \theta$$

$$16 = 20 \cos 37^\circ - 20 \sin 37^\circ \cdot \tan \theta$$

$$\tan \theta = \frac{20 \sin 37^\circ}{16 - 20 \cos 37^\circ}$$

$$= 441,05$$

$$\text{Arctg}(441,05) = 89,87^\circ$$

$$v = -12,035 [M/s]$$

Ruimundo Urzúa

2º E

Problema 3

$$314 \text{ [m]}$$

$$30 \text{ [s]}$$

$$R_1 = 10 \text{ [m]}$$

$$R_2 = 4 \text{ [m]}$$

$$R_3 = 40 \text{ [m]}$$

$$4) \cdot R = 2\pi R$$

$$R_3 = 2\pi \cdot 40 \text{ [m]}$$

$$R_3 = 2\pi \cdot 0,4 \text{ [m]}$$

$$R_3 = 2,5 \text{ [m]}$$

$$\frac{314 \text{ [m]}}{2,5 \text{ [m]}} = 125,6$$

= 125 vueltas

~~Dio 125,6 vueltas la rueda~~

R : Dio 125 vueltas.

$$b) \omega = \frac{\theta}{t}$$

$$v_{tg} = \frac{314 \text{ [m]}}{30 \text{ [s]}} \quad v_{tg} = 10,46 \text{ m/s}$$

$$\omega = \frac{v}{R}$$

Ruix