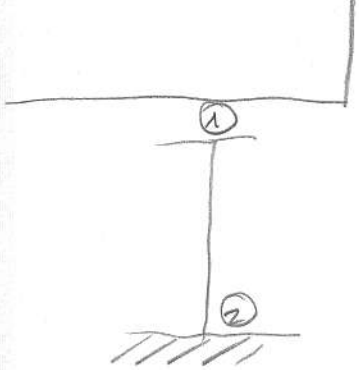


# Ejercicio n° 6 . T1 .

## Datos

$$m = 5 \text{ kg}$$

$$h = 200 \text{ m}$$



$$a) \quad E_{p_1} = mgh = 5 \cdot 9.8 \cdot 200 = 9800 \text{ J} = E_m$$

$$b) \quad E_{p_1} = E_{c_2} = 9800 \text{ J} = E_m$$

$$c) \quad E_{p_{50\text{m}}} = mgh = 5 \cdot 9.8 \cdot 50 = 2450 \text{ J}$$

$$E_m = E_c + E_p \Rightarrow E_c = E_m - E_p = 9800 - 2450 \\ = 7350 \text{ J}$$

$$d) \quad E_{c_2} = \frac{1}{2} m v^2 \Rightarrow v = \sqrt{\frac{2 E_{c_2}}{m}} = \sqrt{\frac{2 \cdot 9800}{5}} \\ = \sqrt{3920} = 62.60 \text{ m/s}$$