

Exercício nº 16. T.J.

Dados

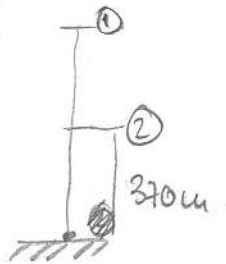
$$m = 1000 \text{ kg}$$

$$h_1 = 800 \text{ m}$$

$$h_2 = 800 - 430$$

$$= 370 \text{ m}$$

a) $E_{c1} = 0$; $E_m = \cancel{E_c} + E_p = E_p = mgh =$
 $= 1000 \cdot 9,8 \cdot 800 = 7840000 \text{ J}$



b) $E_{m1} = E_{m2}$

$$E_{p2} = mgh_2 = 1000 \cdot 9,8 \cdot 370 =$$

$$= 3626000 \text{ J}$$

$$E_{m1} = E_{m2}$$

$$\cancel{E_{c1}} + E_{p1} = E_{c2} + E_{p2} \Rightarrow E_{c2} = E_{p1} - E_{p2} = 7840000 - 3626000$$
$$= 4214000 \text{ J}$$

$$E_{m2} = E_{c2} + E_{p2} = 4214000 + 3626000 = 7840000 \text{ J}$$