

Act. 1. pag 7. (T1)

Datos

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

$$F = 100 \text{ N}$$

$$t = 5 \text{ min}$$

$$S = 240 \text{ m}$$

$$5 \text{ min} \cdot \frac{60 \text{ s}}{1 \text{ min}} = 300 \text{ s}$$

$$a) W = \vec{F} \cdot \vec{s} = F \cdot s \cdot \cos \varphi = 100 \cdot 240 \cdot 1 = 24000 \text{ J}$$

$$W = \underline{\underline{24 \text{ kJ}}}$$

$$24000 \text{ J} \cdot \frac{1 \text{ kgm}}{9.8 \text{ J}} = \underline{\underline{24489.7 \text{ kgm}}}$$

b)

$$P = \frac{W}{t} = \frac{24000}{300} = \underline{\underline{80 \text{ W}}}$$