

KPL 4

Ex. $E_{\text{Pot}} = mgh$

$$= 25 \text{ kg} \cdot 9,81 \text{ m/s}^2 \cdot 0,7 \text{ m}$$

$$\approx 170 \text{ J}$$

$$P = \frac{\Delta E}{\Delta t} = \frac{170 \text{ J}}{4,5 \text{ s}} \approx 38 \frac{\text{J}}{\text{s}} = \underline{\underline{38 \text{ W}}}$$

KPL 4

Ex. a) $P_{\text{anto}} = 57 \text{ W}$

$$P_{\text{otto}} = 85 \text{ W}$$

$$\mu = \frac{P_{\text{anto}}}{P_{\text{otto}}}$$

$$= \frac{57 \text{ W}}{85 \text{ W}}$$

$$\approx 0,67 = \underline{\underline{67\%}}$$

b) hukkaan
menee

$$100\% - 67\% = \underline{\underline{33\%}}$$

c) $P_{\text{otto}} - P_{\text{anto}} = 85 \text{ W} - 57 \text{ W} = 28 \text{ W} = 28 \frac{\text{J}}{\text{s}}$

\rightarrow minuuttissa hukkaan kos. $28 \frac{\text{J}}{\text{s}} \approx \underline{\underline{1700 \text{ J}}}$