

$$p = \frac{F}{S} \quad \begin{matrix} \text{N} \\ \text{m}^2 \end{matrix}$$

$P_a \text{ (MPa)} \left(= \frac{\text{N}}{\text{m}^2} \right)$
 $\text{N kg} \quad \text{m/s}^2 \left(= \frac{\text{N}}{\text{kg}} \right)$

$$P = m \cdot g$$

$$P_{\text{atm moy}} = 1013 \text{ hPa} \approx 1 \text{ bar}$$

$$100000 \text{ Pa} = 1 \text{ bar}$$

$$10^5 \text{ Pa} = 1 \text{ bar} = 0,1 \text{ MPa}$$

$$m = \frac{P}{g}$$

$$P = \frac{F}{S}$$

$$F = p \cdot S$$

$$P = 10^5 \text{ Pa}$$

$$S = 1 \text{ m}^2$$

$$P = m \cdot g \quad \frac{\text{N}}{\text{kg}} \cdot \frac{\text{m}}{\text{s}^2} \quad \frac{\text{m}}{\text{s}^2} \quad 2/5$$

$$F = 10^5 \cdot 1 = 100\,000 \text{ N}$$

$$m = \frac{P}{g} \quad \frac{\text{N}}{\frac{\text{m}}{\text{s}^2}} = \text{kg}$$

$\rightarrow$ correspond à 10000 kg
 $\approx 10 \text{ T}$



$$E = P \cdot \Delta t$$

$$1h = 3600s$$

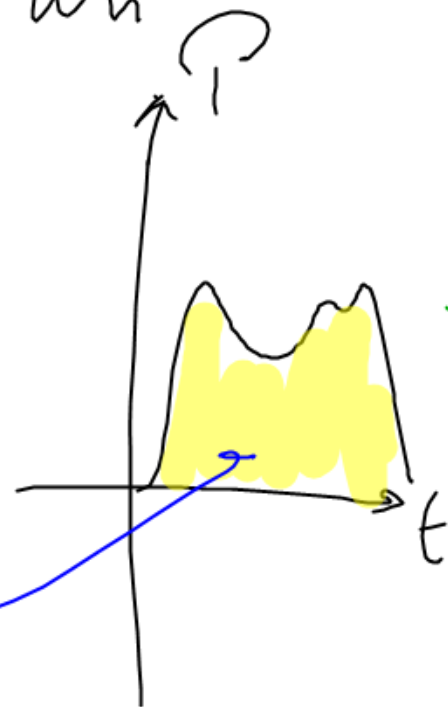
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$$E = 67 \cdot 0,5 \cdot 3600 = 120600 \text{ J} = 33,5 \text{ kWh}$$

J
kWh
 W
W
 s
h

$$E = \int_a^{a+h} P dt$$

aire de la courbe





$$f'(a) = \lim_{h \rightarrow 0^{+*}} \frac{\overbrace{f(a+h) - f(a)}^{\Delta}}{h}$$

