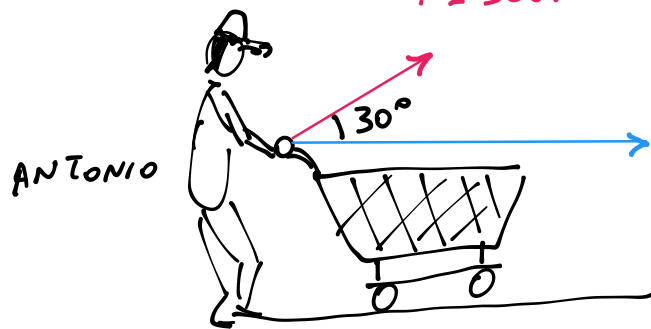


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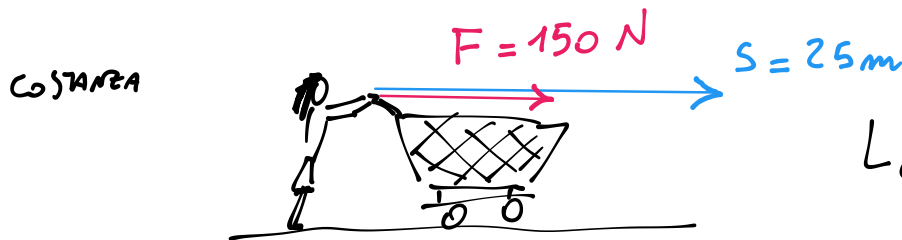


$$L_{\text{ANTONIO}} = F S \cos 30^\circ =$$

$$= (300 \text{ N}) (15 \text{ m}) \cdot \frac{\sqrt{3}}{2} =$$

$$= 3897, \dots \text{ J} =$$

$$\approx 3,9 \times 10^3 \text{ J}$$

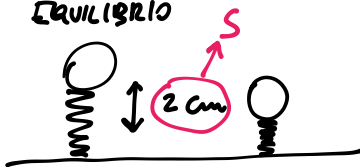


$$L_{\text{COSTANZA}} = F S \cos 0^\circ =$$

$$= F S = (150 \text{ N}) (25 \text{ m}) =$$

$$= 3750 \text{ J} \approx 3,8 \times 10^3 \text{ J}$$

N 17 / pos. di
EQUILIBRIO



$$L = 0,08 \text{ J}$$

↓
LAVORO PER COMPRIMERE
LA MOLLA

$$m = 250 \text{ g}$$

$$= 0,250 \text{ kg}$$

$$a = ? \quad K = ?$$

ACCELERAZIONE COSTANTE ELASTICA

$$L = \frac{1}{2} K s^2 \Rightarrow K = \frac{2L}{s^2} = \frac{2 \cdot (0,08 \text{ J})}{(0,02 \text{ m})^2} = \boxed{400 \frac{\text{N}}{\text{m}}}$$

$$F = m a \Rightarrow k s = m a \Rightarrow a = \frac{k \cdot s}{m} = \frac{(400 \frac{\text{N}}{\text{m}}) (0,02 \text{ m})}{0,250 \text{ kg}} =$$

$$= \boxed{32 \frac{\text{m}}{\text{s}^2}}$$

18) $F = 1200 \text{ N}$

$\Delta t = 20 \text{ min}$

$L = 4,8 \times 10^7 \text{ J}$

$v = ?$



$L = F s \Rightarrow$

$s = \frac{L}{F}$

$v = \frac{s}{\Delta t} = \frac{\frac{L}{F}}{\Delta t} =$

$= \frac{4,8 \times 10^7 \text{ J}}{(1,2 \times 10^3 \text{ N}) (20 \times 60 \text{ s})} =$

$= \frac{1}{3} \times 10^2 \frac{\text{m}}{\text{s}} = \frac{1}{3} \times 10^2 \times 3,6 \frac{\text{km}}{\text{h}} =$

$= \boxed{120 \frac{\text{km}}{\text{h}}}$