

QUANTITÀ DI MOTO :  $\vec{Q} = m\vec{v}$   
 ( $\vec{p} = m\vec{v}$ ) ALTRO MODO  
 DI ~~STABILIRE~~  
 STABILIRE  
 LA Q.D.M.

Fenomeni impulsivi:

$$\left. \begin{array}{l} \vec{v}_i \\ \vec{v}_f \end{array} \right\} \vec{a}_m = \frac{\Delta \vec{v}}{\Delta t} = \frac{\vec{v}_f - \vec{v}_i}{t_f - t_i}$$

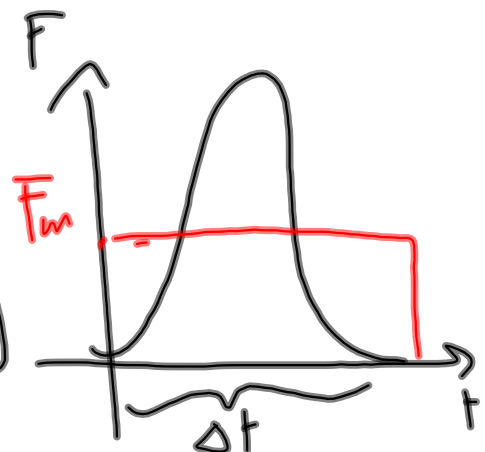
$$\vec{F}_m = m \cdot \vec{a}_m = m \frac{\Delta \vec{v}}{\Delta t}$$

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$$\vec{F}_m \cdot \Delta t = m \Delta \vec{v} = m\vec{v}_f - m\vec{v}_i = \vec{Q}_f - \vec{Q}_i = \Delta \vec{Q}$$

$$\vec{I} = \vec{F}_m \cdot \Delta t = \Delta \vec{Q}$$

Impulso  $\frac{kg \cdot m}{s}$



$$m = 45g$$

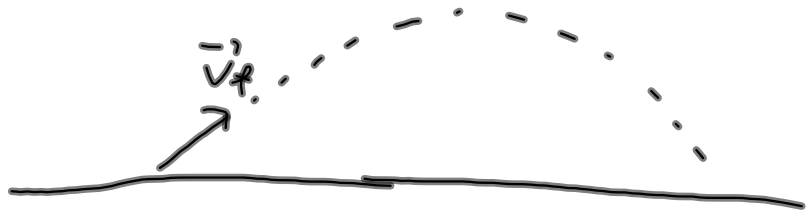
$$\Delta t = 6,0 \cdot 10^{-4} s$$

$$v_i = 0$$

$$v_f = 43 m/s$$

$$1) I = ?$$

$$2) F_m = ?$$



$$I = F_m \cdot \Delta t = \Delta Q$$

$$I = m \Delta v = 0 = (0,045 kg) \cdot (43 m/s) =$$

$$= 1,9 \frac{kg \cdot m}{s}$$

$$F_m = \frac{I}{\Delta t} = \frac{1,9 \frac{kg \cdot m}{s}}{6,0 \cdot 10^{-4} s} = 3,2 \cdot 10^3 N$$

