Impulso

$$I_F = \int_{t_0}^{t_f} \vec{F} \cdot dt = \int_{t_0}^{t_f} m \cdot a \, dt = m \int_{t_0}^{t_f} \frac{d\vec{v}}{dt} \cdot dt = \int_{t_0}^{t_f} m \cdot d\vec{v}$$

$$\vec{p} = m \cdot \vec{v} \Rightarrow d\vec{p} = m \cdot d\vec{v}$$

$$= \int_{p_0}^{p_f} d\vec{p} \Rightarrow \boxed{I = \vec{p}_f - \vec{p}_i}$$ Impulso