Mekanik

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Momentanhastighet

$$v = \frac{dx}{dt}$$

Momentanacceleration

$$a = \frac{dv}{dt} = \frac{d^2x}{dt^2}$$

Rörelsemängd

$$\mathbf{p} = \mathbf{m} \cdot \mathbf{v}$$

Kraft

$$\mathbf{F} = \frac{d\mathbf{p}}{dt} = m \cdot \mathbf{a}$$

Gravitation

$$F = C \cdot \frac{m_1 \cdot m_2}{r^2}$$

Centripetalacceleration

$$a_c = \frac{v^2}{r} = r\omega^2$$

Arbete

$$W = \int_{x_1}^{x_2} F(x)\,dx$$

Kinetisk energi

$$K = \frac{m \cdot v^2}{2}$$

Potentiell energi

$$W = -\Delta U,\ F = -\frac{dU}{dx}$$

Reducerad massa

$$\frac{1}{\mu} = \frac{1}{m} + \frac{1}{M}$$

Vinkelfrekvens

$$\omega = 2\pi f = \frac{2\pi}{T}$$