

$$G \approx 6,6743 \times 10^{-11} \text{ N m}^2 \text{ kg}^{-2}$$

$$K \approx 8,9876 \times 10^9 \text{ N m}^2 \text{ C}^{-2}$$

$$e \approx -1,6022 \times 10^{-19} \text{ C}$$

$$m_e \approx 9,1094 \times 10^{-31} \text{ kg}$$

$$m_p \approx 1,6726 \times 10^{-27} \text{ kg}$$

$$\mu_0 \approx 4 \pi 10^{-7} \text{ N A}^{-2}$$

$$c = 299\,792\,458 \text{ m/s}$$

$$h = 6,62607015 \times 10^{-34} \text{ J s}$$

$$\mathbf{F} = -G \frac{m_1 m_2}{r^2} \hat{\mathbf{r}}$$

$$E_p = -G \frac{M m}{r} \quad E_c = \frac{1}{2} m v^2$$

$$1 \text{ ua} = 149\,597\,871 \text{ km}$$

$$\mathbf{F} = K \frac{q_1 q_2}{r^2} \hat{\mathbf{r}}$$

$$V = K \frac{q}{r}$$

$$B_l = \frac{\mu_0 I}{2 \pi r} \quad B_\odot = \frac{\mu_0 I}{2 R}$$

$$B_{\text{m}} = \mu_0 n I$$

$$\mathbf{F} = q \mathbf{v} \times \mathbf{B}$$

$$a_c = \frac{v^2}{R}$$

$$\frac{F}{L} = \mu_0 \frac{I_1 I_2}{2 \pi d}$$

$$\text{fem} = - \frac{d\phi(t)}{dt}$$

$$\psi(x, t) = A \sin(kx \pm \omega t + \delta)$$

$$P(r, t) = \frac{A_0}{r} \sin(kr - \omega t)$$

$$k = \frac{2 \pi}{\lambda} \quad \omega = \frac{2 \pi}{T}$$

$$f = \frac{1}{T} \quad v = \frac{\lambda}{T} = \frac{\omega}{k}$$

$$I(\text{dB}) = 10 \log \frac{I}{10^{-12} \text{ W m}^{-2}}$$

$$I_1 4 \pi r_1^2 = I_2 4 \pi r_2^2$$

$$n_1 \sin(\theta_1) = n_2 \sin(\theta_2)$$

Criteri DIN lents primes

$$\frac{1}{s'} - \frac{1}{s} = \frac{1}{f'}$$

$$M_T = \frac{y'}{y} = \frac{s'}{s}$$

Criteri DIN miralls esfèrics

$$\frac{1}{s'} + \frac{1}{s} = \frac{2}{R}$$

$$M_T = \frac{y'}{y} = - \frac{s'}{s}$$

$$E = h f$$

$$f = \frac{c}{\lambda}$$

$$A(t) = A_0 \exp(-\lambda t)$$

$$\lambda = \frac{\ln(2)}{T_{1/2}}$$

$$T_{1/2}({}^{14}\text{C}) = 5730 \text{ a}$$

Nom	Unitats
Coulomb (C)	A s
Joule (J)	N m
Newton (N)	kg m s ⁻²
Tesla (T)	kg s ⁻² A ⁻¹
Volt (V)	J A ⁻¹ s ⁻¹
Weber (Wb)	T m ²

Element	W (eV)
Cesi	1,94
Rubidi	2,13
Sodi	2,28
Silici	3,59
Alumini	4,08
Coure	4,70
Plata	4,73
Or	5,10

