

Formulário 1 Física Geral 3:

$$F = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r^2} \quad E = \frac{1}{4\pi\epsilon_0} \frac{q}{r^2} \quad dE = \frac{1}{4\pi\epsilon_0} \frac{dq}{r^2} \quad \rho = \frac{q}{V} \quad \sigma = \frac{q}{A} \quad \lambda = \frac{q}{l} \quad K = \frac{mv^2}{2}$$

$$\epsilon_0 \oint \vec{E} \cdot d\vec{A} = q_{enc} \quad \Phi = \oint \vec{E} \cdot d\vec{A} \quad \vec{F} = q_0 \vec{E} \quad s = s_o + vt \quad s = s_o + v_o t + \frac{at^2}{2} \quad v^2 = v_o^2 + 2a\Delta s$$

$$v = v_o + at \quad \vec{F} = m\vec{a} \quad \vec{\tau} = \vec{p} \times \vec{E} \quad \epsilon_0 = 8.85 \times 10^{-12} \text{C}^2/\text{Nm}^2 \quad m_p = 1.67 \times 10^{-27} \text{kg}$$

$$m_e = 9.11 \times 10^{-31} \text{kg} \quad e = 1.60 \times 10^{-19} \text{C} \quad (x+a)^n = x^n + nx^{n-1}a + \left(\frac{n(n-1)}{2!}\right)x^{n-2}a^2 + \dots$$

$$\int \text{sen } x \, dx = -\cos x \quad \int \cos x \, dx = \text{sen } x \quad q = ne \quad \mu = 10^{-6} \quad p = 10^{-12} \quad f = 10^{-15} \quad 1\text{fC} = 10^{-15} \text{C}$$

$$\int \frac{x^2 dx}{(x^2 + a^2)^{3/2}} = \frac{-x}{\sqrt{x^2 + a^2}} + \ln(x + \sqrt{x^2 + a^2}) \quad \int \frac{dx}{(x^2 + a^2)^{3/2}} = \frac{x}{a^2 \sqrt{x^2 + a^2}}$$