

Formulário 2 Física Geral 3

$$\begin{aligned}
 W &= \vec{F} \cdot \vec{d} \quad \Delta V = -\frac{W_{if}}{q_0} \quad V = -\frac{W_{\infty f}}{q_0} \quad V_f - V_i = -\int_i^f \vec{E} \cdot d\vec{s} \quad V = \frac{1}{4\pi\epsilon_0} \frac{q}{r} \quad V = \sum_{i=1}^n V_i \quad dV = \frac{1}{4\pi\epsilon_0} \frac{dq}{r} \\
 V &= \frac{p \cos \theta}{4\pi\epsilon_0 r^2} \quad E_s = -\frac{\partial V}{\partial s} \quad U = W = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r} \quad q = CV \quad C = \frac{\epsilon_0 A}{d} \quad C = 2\pi\epsilon_0 \frac{L}{\ln(b/a)} \\
 C &= 4\pi\epsilon_0 \frac{ab}{b-a} \quad C = 4\pi\epsilon_0 R \quad C_{eq} = \sum_{j=1}^n C_j \quad \frac{1}{C_{eq}} = \sum_{j=1}^n \frac{1}{C_j} \quad U = \frac{q^2}{2C} \quad u = \frac{1}{2} \epsilon_0 E^2 \quad C = kC_{ar} \quad i = \frac{dq}{dt} \\
 i &= \int \vec{J} \cdot d\vec{A} \quad \lambda = \frac{q}{l} \quad \vec{J} = ne\vec{v}_d \quad R = \frac{V}{i} \quad \vec{E} = \rho\vec{J} \quad \sigma = \frac{1}{\rho} \quad R = \rho \frac{L}{A} \quad P = Vi \quad P = \frac{dU}{dt} \quad \epsilon = \frac{dW}{dq} \\
 R_{eq} &= \sum_{i=1}^n R_i \quad \frac{1}{R_{eq}} = \sum_{i=1}^n \frac{1}{R_i} \quad q(t) = C\epsilon(1 - e^{-t/RC}) \quad q(t) = q_0 e^{-t/RC} \quad F = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r^2} \quad E = \frac{1}{4\pi\epsilon_0} \frac{q}{r^2} \\
 dE &= \frac{1}{4\pi\epsilon_0} \frac{dq}{r^2} \quad \rho = \frac{q}{V} \quad \sigma = \frac{q}{A} \quad \lambda = \frac{q}{l} \quad K = \frac{mv^2}{2} \quad \epsilon_0 \oint \vec{E} \cdot d\vec{A} = q_{enc} \quad \Phi = \oint \vec{E} \cdot d\vec{A} \quad q = ne \\
 \vec{F} &= q_0 \vec{E} \quad \epsilon_0 = 8.85 \times 10^{-12} \text{ C}^2/\text{Nm}^2 \quad m_p = 1.67 \times 10^{-27} \text{ kg} \quad m_e = 9.11 \times 10^{-31} \text{ kg} \quad e = 1.60 \times 10^{-19} \text{ C} \\
 g &= 9.81 \text{ m/s}^2
 \end{aligned}$$