

1º Teste EO - LEGI e LEE
de 26 de Outubro de 2011

Formulário

$k = \frac{1}{4\pi\epsilon_0}$	$F = k \frac{q_1 q_2}{r^2}$	$\vec{F} = q \vec{E}$	$E = \frac{1}{4\pi\epsilon_0} \frac{q}{r^2}$
$\vec{p} = q\vec{d}$	$\vec{\tau} = \vec{p} \times \vec{E}$	$U = -\vec{p} \cdot \vec{E}$	$\int \vec{E} \cdot d\vec{S} = \frac{Q}{\epsilon_0}$
$E = \frac{1}{4\pi\epsilon_0} \frac{Q}{r^2}$	$E = \frac{\sigma}{2\epsilon_0}$	$V_b - V_a = -\int_a^b \vec{E} \cdot d\vec{l}$	$U = qV$
$dU = -\vec{F} \cdot d\vec{l}$	$V = k \frac{q}{r}$	$\vec{E} = -\nabla V$	$C = \frac{Q}{\Delta V}$
$C_{plano} = \frac{\epsilon_0 S}{d}$	$C = 4\pi\epsilon_0 \frac{R_1 R_2}{R_2 - R_1}$	$C_{cil} = \frac{2\pi\epsilon_0 L}{\ln(R_2/R_1)}$	$U = \frac{Q^2}{2C} = \frac{Q \Delta V}{2} = \frac{C \Delta V^2}{2}$
$\frac{1}{C_{série}} = \sum \frac{1}{C_i}$	$C_{paralelo} = \sum C_i$	$\epsilon = \epsilon_r \epsilon_0$	$p = \frac{\sigma^2}{2\epsilon_0}$
$I = \frac{dQ}{dt}$	$\Delta V = IR$	$R = \rho \frac{\ell}{S} = \frac{\ell}{\sigma S}$	$\sum I_{in} = \sum I_{out}$
$\sum_n \Delta V_n = 0$	$P = I \Delta V = I^2 R = \frac{\Delta V^2}{R}$	f.e.m. = $\int \vec{E} \cdot d\vec{r}$	$\Delta q(\text{f.e.m.}) = (U_f - U_i) + W_{Joule}$
$\Delta V = R_V I_V$	$R_s = \sum R_i$	$\frac{1}{R_p} = \sum \frac{1}{R_i}$	$Q = Q_0 (1 - e^{-t/\tau})$
$\vec{F} = \int I d\vec{l} \times \vec{B}$	$B = \frac{\mu_0 I}{4\pi x} (\text{sen}\alpha_1 + \text{sen}\alpha_2)$	$F = \frac{\mu_0 I_1 I_2 \ell}{2\pi x}$	$B = \frac{\mu_0 I}{2R}$
$\vec{\mu} = I\vec{S}$	$\vec{\tau} = \vec{\mu} \times \vec{B}$	$U = -\vec{\mu} \cdot \vec{B}$	$\int \vec{B} \cdot d\vec{S} = 0$
$B = \mu_0 NI$	$F_L = q(\vec{E} + \vec{v} \times \vec{B})$	$R = \frac{mv}{qB}$	$\omega = \frac{qB}{m}$