

Catatan : nilai $RC = \tau$, adalah "time constant"
(konstanta waktu)
↑
"tau"

Dari Pers. Differensial.

$$\int -RC \frac{dv_c(t)}{v_c(t)} = \int dt$$

$$\int \frac{dv_c(t)}{v_c(t)} = -\frac{1}{RC} \int dt = -\frac{t}{RC} + K$$

$$\ln[v_c(t)] = -\frac{t}{RC} + K$$

$$\log[v_c(t)] = -\frac{t}{RC} + K$$

$$\text{solusi umum: } v_c(t) = e^{\left[-\frac{t}{RC} + K\right]}$$

$$\int \frac{dx}{x} =$$

$$\int \left(\frac{1}{x}\right) dx =$$

$$\int x^{-1} dx = \ln x$$

$$\begin{aligned} \int x dx &= \frac{1}{2}x^2 \\ \int x^0 dx &= x \\ \int x^2 dx &= \frac{1}{3}x^3 \end{aligned}$$