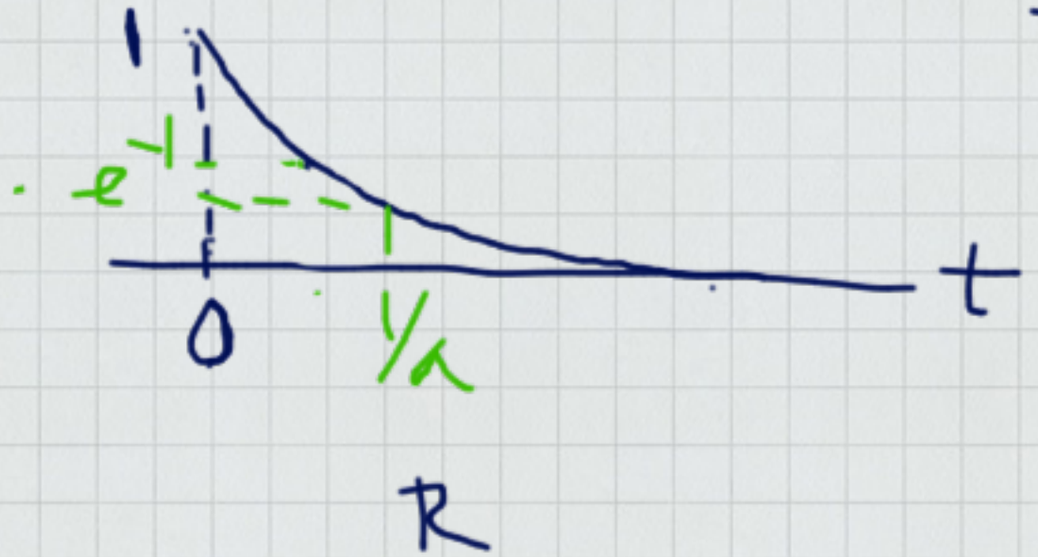
* Isyarat eksponensial

e^{-at}, $t \geq 0$

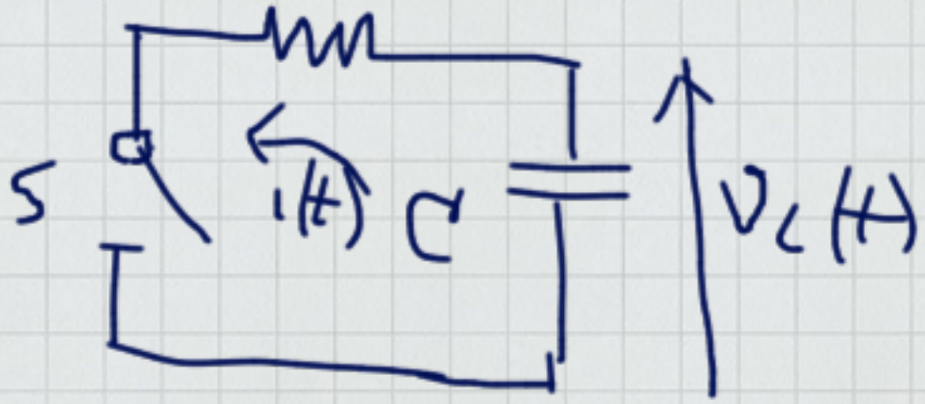


$t = 0 \rightarrow e^{-at} = 1$

$t = \frac{1}{a} \rightarrow e^{-1} = 0,3678$

$= \tau$ (tau), time constant

$t \rightarrow \infty \rightarrow e^{-\infty} = 0$



Pada $t = 0$, $v_c(0) = V_i$ simpanan awal

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

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

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