$$V_c(s) = T(s)\cdot V_s(s) = \left(\frac{1}{RCs+1}\right)\left(\frac{10}{s}\right) = \frac{10}{s(RCs+1)}$$

Misalnya: $R = 100\ K\Omega$, $C = 100\ \mu F$ $\Big\}$ $RC = 100\times10^{3}\times100\times10^{-6}$

$\tau = 10$ sec (time constant) — $\tau$ = "tau"

$$* \quad V_c(s) = \frac{10}{s(10s+1)} = \frac{10}{s(\tau s+1)}$$

$$* \quad v_c(t) = \mathcal{L}^{-1}V_c(s) = \mathcal{L}^{-1}\frac{10}{s(10s+1)} =$$

$$= \mathcal{L}^{-1}\frac{10}{10s(s+0.1)} = \mathcal{L}^{-1}\frac{1}{s(s+0,1)}$$

$$\frac{1}{s(s+a)} = \frac{1}{a}(1-e^{-at})$$

$$= \frac{1}{0,1}(1-e^{-0,1t})$$