

$$V_c(s) = \frac{1}{RCs} [V_s(s) - V_c(s)]$$

$$RCs V_c(s) = V_s(s) - V_c(s)$$

$$(RCs + 1) V_c(s) = V_s(s)$$

$$\rightarrow G(s) = \frac{V_c(s)}{V_s(s)} = \frac{1}{RCs + 1}$$

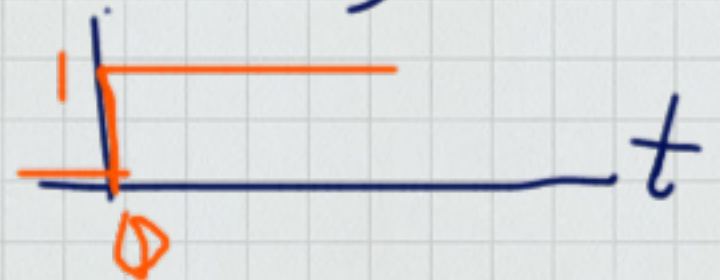
* $v_s(t) = 10u(t)$, $u(t)$: start undak satuan (unit step function)

$$* V_s(s) = \mathcal{L}\{v_s(t)\}$$

$$= \mathcal{L}\{10u(t)\}$$

$$= 10 \mathcal{L}\{u(t)\} = 10 \left[\frac{1}{s} \right] = \frac{10}{s}$$

$$u(t) \begin{cases} = 0, t < 0 \\ = 1, t \geq 0 \end{cases}$$



$$* V_c(s) = \mathcal{L}\{v_c(t)\}$$

$$= G(s) \cdot V_s(s) \rightarrow$$