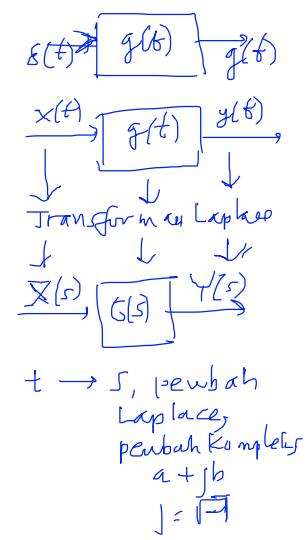
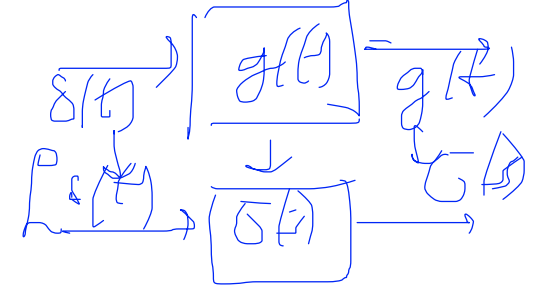


Contoh: Tentukan $\mathcal{L}\delta(t) = ?$

Jawab: $\mathcal{L}\delta(t) \cdot \frac{1}{\mathcal{L}\delta(t)} = 1$



~~$y(t) = g(t) * x(t)$~~ time domain

$y(t)$ konvolusi antara $x(t)$ dan $g(t)$

$y(t) = \int_{-\infty}^{\infty} g(\tau) x(t-\tau) d\tau$
 τ : tau
 integral konvolusi

$y(t) = \int_{-\infty}^{\infty} g(t-\tau) x(\tau) d\tau$

$t \rightarrow s$, pembah Laplace, pembah kompleks $a+jb$, $j = \sqrt{-1}$

untuk menghindari kerumitan integral konvolusi, digunakanlah Transf. LAPLACE

$\mathcal{L}x(t) = X(s) \Rightarrow x(t) = \mathcal{L}^{-1} X(s)$

$\mathcal{L}y(t) = Y(s) \Rightarrow y(t) = \mathcal{L}^{-1} Y(s)$

$\mathcal{L}g(t) = G(s) \Rightarrow g(t) = \mathcal{L}^{-1} G(s)$
 $s = \text{domain}$

$Y(s) = G(s) X(s)$

$G(s) = \frac{Y(s)}{X(s)}$

Lihat Table Laplace:

<http://www.unhas.ac.id/rhiza/arsip/kuliah/>

TRANSFORM.pdf