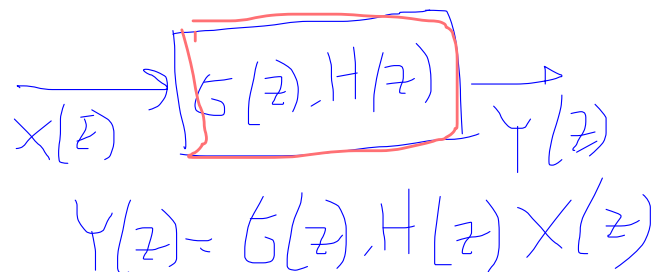
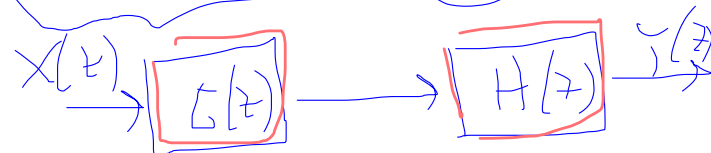
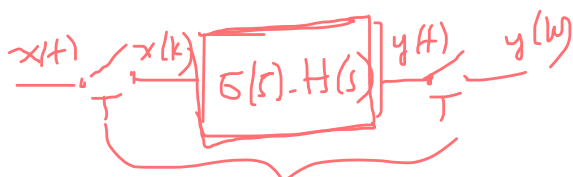
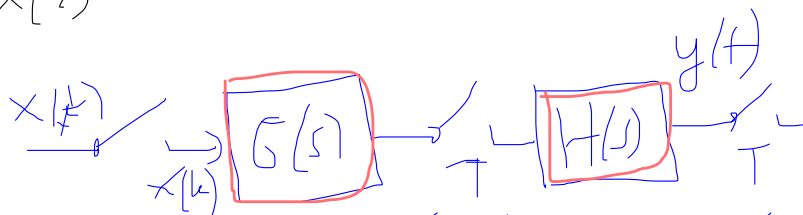
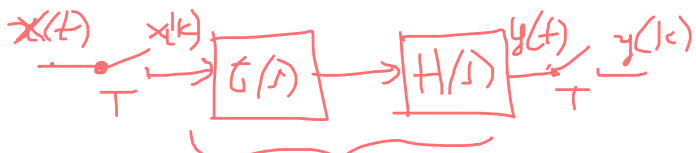
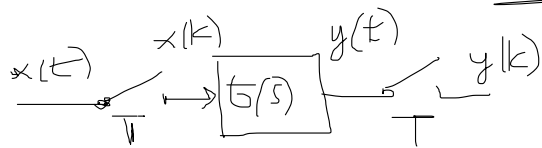


* Nisbah Alih (Transfer Function)



$$\begin{array}{r} z^2 - 1,67032z + 0,67032 \\ -z^2 + 1,67032z - 0,67032 \\ \hline - + 0,67032z \end{array}$$



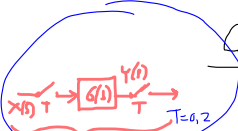
$$Y(z) = GH(z) X(z)$$

t	y(k)
0	0
1	0,32968
2	0,88032
3	0,88032

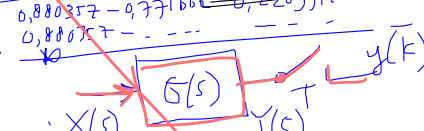
Metode pembagian untuk mencari $Z^{-1} Y(z) = y(k)$

$$\begin{array}{r} z^3 - 2,67032z^2 + 2,34064z - 0,67032 \\ - (z^3 - 2,67032z^2 + 2,34064z - 0,67032) \\ \hline 0,32968z^2 - 0,88032z + 0,77166z - 0,220991z^2 - 1 \end{array}$$

$$GH(z) \neq G(z) \cdot H(z)$$



$$\begin{aligned} X(s) = \frac{1}{s} &\rightarrow X(z) = \frac{1}{z-1} \\ G(s) = \frac{1}{s+2} &\rightarrow G(z) = \frac{1}{(z-1)(z-e^{-0,4})} \\ Y(z) = G(z) X(z) &= \frac{1}{(z-1)(z-e^{-0,4})} \\ y(k) &= Z^{-1} Y(z) \rightarrow \text{pembagian} \end{aligned}$$



$$\begin{aligned} X(s) &= \frac{1}{s} \\ G(s) &= \frac{1}{s+2} \\ Y(s) &= \frac{1}{s(s+2)} \\ y(t) &= \mathcal{L}^{-1} \frac{1}{s(s+2)} = \frac{1}{2}(1 - e^{-2t}) \end{aligned}$$

t	y(k)
0	0
0,2	0,16489
0,4	0,27536
0,6	0,34940