

* Penguat $A \rightarrow$ time invariant

Bukti :

$$\begin{array}{lcl} x_1(t) = x(t) & \longrightarrow & y_1(t) = Kx_1(t) = Kx(t) \\ \downarrow \text{ditunda} & & \downarrow \text{ditunda } \Delta \\ x_2(t) = x_1(t - \Delta) & \longrightarrow & y_1(t - \Delta) = Kx_1(t - \Delta) \\ = x(t - \Delta) & \longrightarrow & y_2(t) = Kx_2(t) \\ & & = Kx_1(t - \Delta) \\ & & = Kx(t - \Delta) \end{array} \left. \vphantom{\begin{array}{lcl} x_1(t) = x(t) \\ x_2(t) = x_1(t - \Delta) \\ = x(t - \Delta) \end{array}} \right\}$$
$$\frac{y_2(t) = y_1(t - \Delta)}{\text{q.e.d (terbukti)}}$$

Penundaan isyarat masukan hanya menghasilkan penundaan isyarat keluaran