

Pers. Karakteristik : $1 + G(s)H(s) = 0$

$$1 + \left(\frac{10}{s^2}\right) \left(\frac{K(s+1)}{(s+4)}\right) = 0$$

$$s^2(s+1) + 10K_1 + 10K = 0$$

$$s^3 + 2s^2 + 10Ks + 10K = 0$$

* Kriteria (1) $\rightarrow K > 0$

* Kriteria (2) Tabel Routh

s^1	1	$10K$
s^2	2	$10K$
s^3	$5K$	0
s^4	$10K$	0

$$5K > 0 \rightarrow K > 0$$

Coba untuk
 $H(s) = K \frac{s+2}{s+1}$
 Phase Lead
 Compensator

Jadi sistem Kendali akan stabil asal $K > 0$