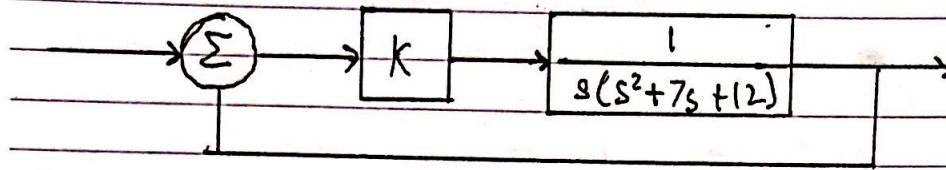


Sistem kontrol

Tugas 3



Tentukan daerah K!

$$* P(s) = \frac{k/s(s^2+7s+12)}{1+k/s(s^2+7s+12)}$$

$$= \frac{k}{s(s^2+7s+12)+k}$$

* Persamaan karakteristik

$$s^3 + 7s^2 + 12s + k = 0$$

* Kriteria kestabilan Routh

$$\begin{array}{r|rrrr} s^3 & 1 & 12 & 0 & \\ s^2 & 7 & k & & \\ s^1 & \frac{84-k}{7} & & & \\ s^0 & k & & & \end{array}$$

dimana $k > 0$ untuk stabil

$$= \frac{84-k}{7} > 0$$

$$\frac{84}{7} > \frac{k}{7}$$

$$84 > k$$

$$= 0 < k < 84 //$$