

16)

$$\approx T_d = 0,216$$

$$\frac{1}{T_i} = ?$$

$$K_i = \frac{1}{T_i}$$

$$\frac{2 \times 40 \left[1 + \frac{1}{T_i s} + 0,216 s \right]}{s^2 + 8s + 80} \times s$$

$$\frac{80 \left[s + \frac{1}{T_i} + 0,216 s^2 \right]}{s^3 + 8s^2 + 80s}$$

$$D(s) = s^3 + 8s^2 + 80s + 80 \left[0,216 s^2 + s + K_i \right]$$

FTMF

$$= s^3 + 25,28 s^2 + 160s + 80K_i$$

3	1	160
2	25,28	80K _i
1	c _{n-1}	
0	d _{n-1}	

$$c_{n-1} = \frac{(25,28 \cdot 160) - 80K_i}{25,28}$$

$$= 160 - \frac{80K_i}{25,28}$$

$$d_{n-1} = 80K_i$$

$$\begin{cases} 80K_i > 0 \\ 160 - \frac{80K_i}{25,28} > 0 \end{cases}$$

$$\begin{cases} K_i > 0 \\ \frac{80K_i}{25,28} < 160 \end{cases}$$

$$K_i < 160 \cdot \frac{25,28}{80}$$

$$K_i < 50,56$$