

$$\zeta_S = \omega = \frac{4.6}{\zeta \omega_n} \Rightarrow \zeta \omega_n = .46$$

$$\%OS = 20^2 \Rightarrow \zeta = \frac{-\ln(.2)}{\sqrt{\ln(.2)^2 + \pi^2}} = 0.46$$

choose $\underline{\omega_n = 1}$ $\underline{\zeta = 0.46}$