2e) $G(s) = \frac{20000}{s(s+100)(s+10)} = 20 \cdot \frac{1}{s} \cdot \frac{1}{\left(\frac{s}{100}+1\right)} \cdot \frac{1}{\left(\frac{s}{10}+1\right)}$

$20 \cdot \log(20) = 26.02\,dB$

Given that ϕ_m is the only requirement a $K_p < 1$

$\approx +12\,dB \Rightarrow K_p = 0.25$