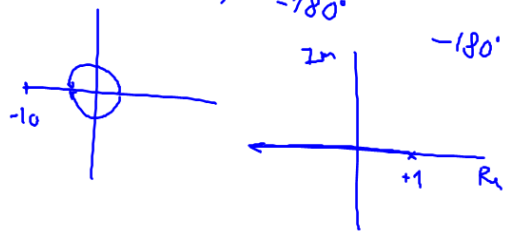
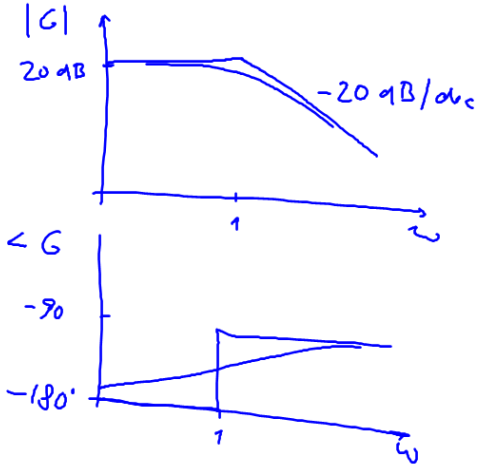
$$G(s) = \frac{10}{s-1}$$

$$G(j\omega) = \frac{10}{j\omega - 1}$$

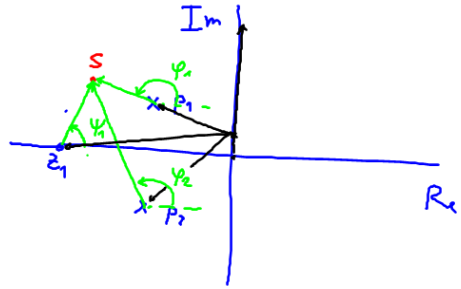
$\omega = 0 \quad |G(j\omega)| = 10$

$\angle G(j\omega) = -180°$



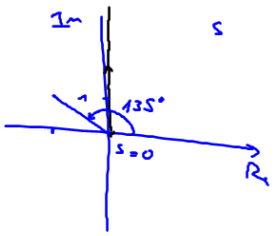


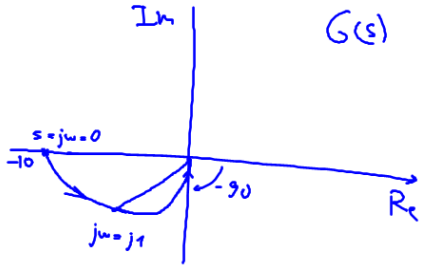
$$G(s) = \frac{s - z_1}{(s-p_1)(s-p_2)}$$



$$G(s) = \underbrace{\frac{|s-z_1|}{|s-p_1|\,|s-p_2|}}_{M} \cdot e^{j\underbrace{(\psi_1 - \varphi_1 - \varphi_2)}_{\text{fase}}}$$

$$G(s) = \frac{10}{s-1}$$



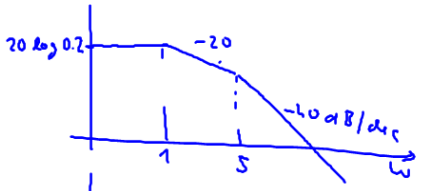


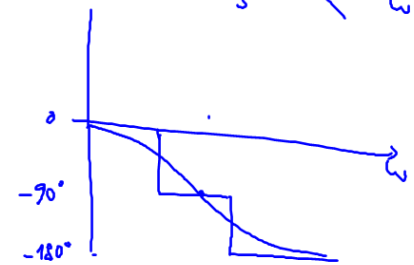
$j\omega = 1j \quad G(j1) = \frac{10}{j-1}$

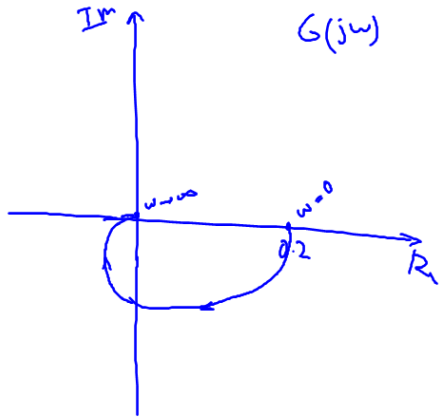
$= G(j1) = \angle 10 - \angle(j-1)$

$= 0 \quad -135° = -135°$

$$G(s) = \frac{1}{(s+1)(s+5)} = \frac{1}{5(s+1)\left(\frac{s}{5}+1\right)}$$







$$1 + K\,G(s) = 0$$

$$1 + K\,\frac{b(s)}{a(s)} = 0$$

$$\boxed{G(s) = \frac{b(s)}{a(s)}}$$

$$\frac{a(s) + K\,b(s)}{a(s)} = 0$$

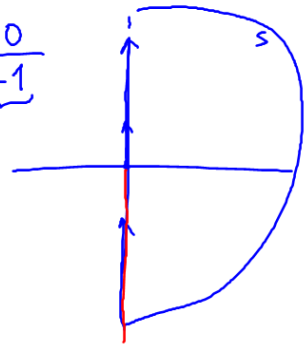
← poles G_{cl}

↑ poles van G

$$\frac{K \cdot \frac{b(s)}{a(s)}}{1 + K\,\frac{b(s)}{a(s)}} = G_{cl}(s)$$

$$= \frac{\frac{K\,b(s)}{a(s)}}{\frac{a(s) + K\,b(s)}{a(s)}}$$

$\frac{10}{s-1}$

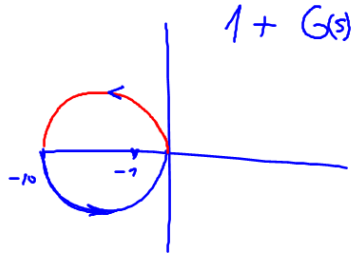


$N = Z - P$

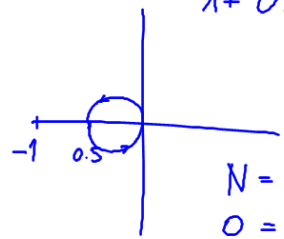
$-1 = Z - 1$

$Z = 0$

$1 + G(s) = 0$



$1 + 0.05\,G(s)$

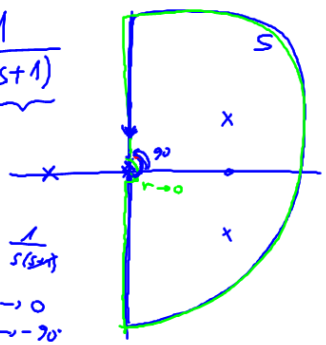


$N = Z - P$

$0 = Z - 1$

$Z = 1$

$\frac{1}{s(s+1)}$



$\lim_{s \to 0} \frac{1}{s(s+1)}$

$|1| \to 0$

$\angle \to -90°$