Root Locus

$$L(s) = \frac{s+1}{s(s-1)}$$

Rule A: 2 branches

Rule B: branches start at
$p_1 = 0, p_2 = 1$ (RHP!!)

Rule C: branches end at $z_1 = -1, \pm\infty$

Rule D: real locus $= [0,1], (-\infty, -1]$

Rule E: asymptote at $180°$

Rule F: $j\omega$-crossings:

$$a(s) + Kb(s) = 0$$
$$s(s-1) + K(s+1) = 0$$
$$s^2 + (K-1)s + K = 0$$
$$K_{\text{critical}} = 1 \implies \omega_0 = 1$$