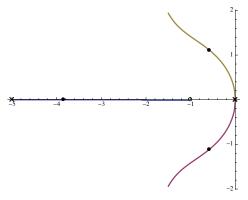
Double Integrator & Lead Compensator

$$L(s) = \frac{s+1}{s^2(s+p)}$$

Let's try p = 5:



— for this value of p, the root locus is different, not nearly as nicely damped as for p = 10.