Design, Second Attempt (PD-Control)
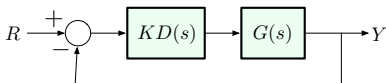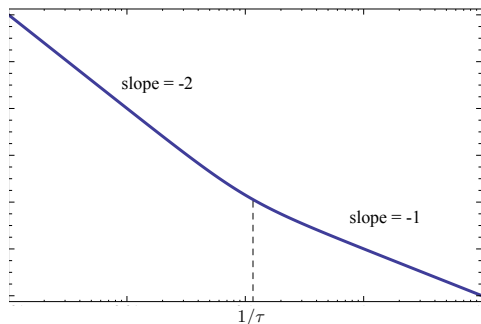

Open-loop transfer function: $KD(s)G(s) = \dfrac{K(10s+1)}{s^2}$

- Want $\omega_c \approx 0.5$
- This means that

$$M(j0.5) = 1$$
$$|KD(j0.5)G(j.05)|$$
$$= \frac{K|5j+1|}{0.5^2}$$
$$= 4K\sqrt{26} \approx 20K$$
$$\implies K = \frac{1}{20}$$