Design, First Attempt

$$R \xrightarrow{+} (KD(s)) \xrightarrow{} (G(s)) \xrightarrow{} Y$$

$$G(s) = \frac{1}{s^2}$$

Let's try proportional feedback:

$$D(s) = 1 \implies KD(s)G(s) = KG(s) = \frac{K}{s^2}$$



This is not a good idea: slope = -2 everywhere, so no PM.

We already know that P-gain alone won't do the job:

 $K + s^2 = 0$ (imag. poles)