

Reading Assignments:

Shinnars: Chapters 6 & 7 (Sections 6.7.1, 7.4, and 7.6).

Doyle, Francis, and Tannenbaum: Chapter 5.

Please enter your answers using the D2L Quiz for Homework #9.

1. Exercise E10.14 (Dorf and Bishop).
2. Problem P10.8 (Dorf and Bishop).
3. Design a phase-lead controller for $G[s] = \frac{K}{s(s+50)}$ to yield a steady-state error to a unit ramp input of 0.01 and a phase margin of 70 degrees.
4. Problem P10.14. (Dorf and Bishop). You may want to think about a root locus based controller design while designing the controller for this system.

The Dorf and Bishop problems are from "Modern Control Systems," Thirteenth Edition, Richard C. Dorf and Robert H. Bishop, 2017.