

## **freq.exe Exercises for Chapter freq**

## Frequency response design

The analytical techniques of [Chapter freq](#) allow us to develop design procedures for controllers in the frequency domain. There are few advantages to frequency response design over root locus design. Frequency response design proceeds primarily from the easily-sketched bode plot, which makes it easier to execute by-hand than root locus design. One clear advantage is that, when designing a lead controller, it is possible with frequency response design to not only tune %OS and response time, but desirable steady-state error can also be achieved, something for which root locus design is not conducive.