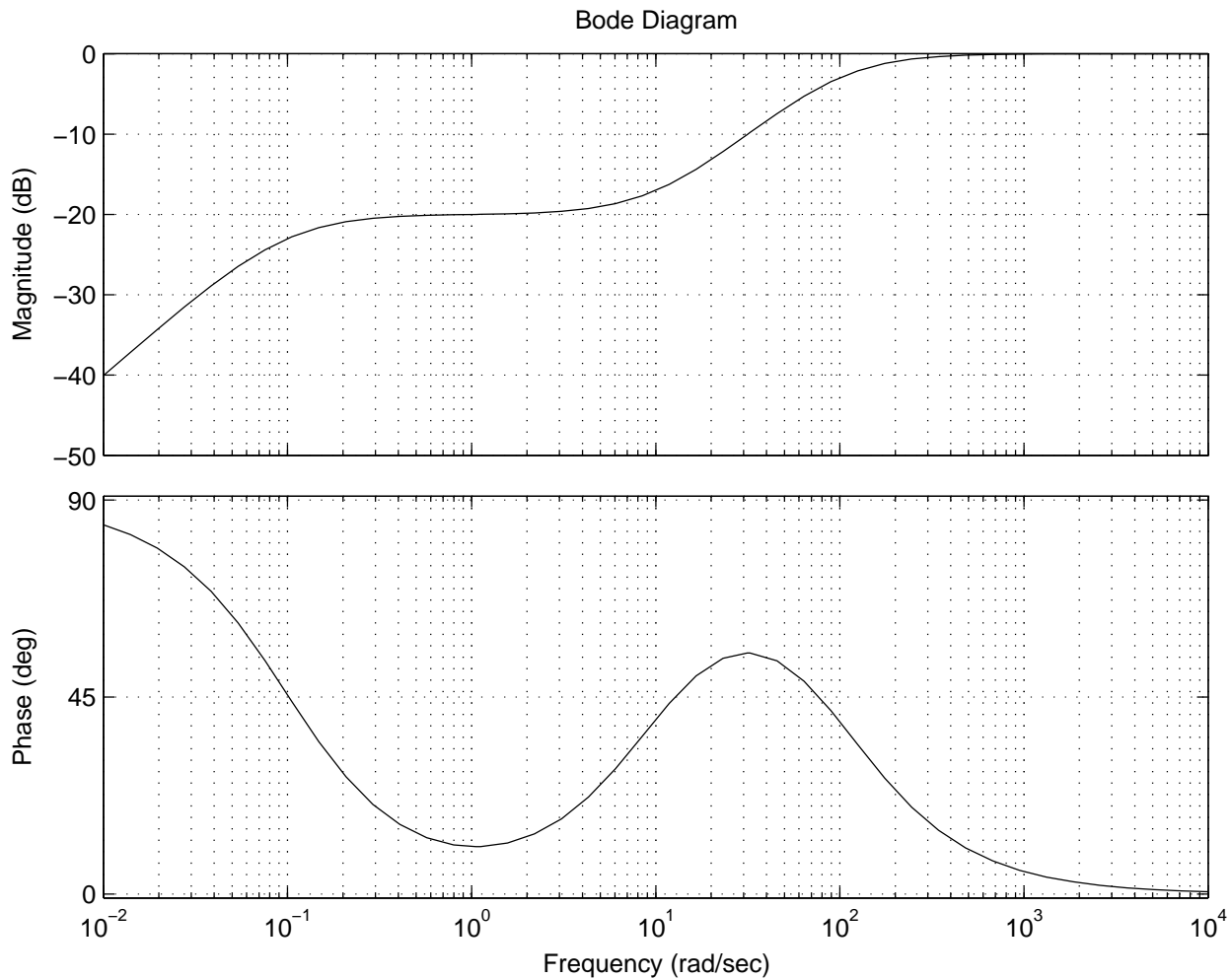# System Modeling, Dynamics and Control
## Tutorial 8, Autumn Semester, 2006

1. The open-loop transfer function of a unity-feedback system has the frequency response shown in the Bode plot given below. Find the relative degree, type, and the gain of the open-loop transfer function. Find the static position error constant of the closed-loop system. Find the open-loop transfer function.



Bode Diagram

2. Sketch the Bode plots for the transfer functions a) $10[s(s + 0.1s)(s + 0.5s)]^{-1}$ and b) $[s(1 + 0.04s)(1 + s/50 + s/2500)]^{-1}$.