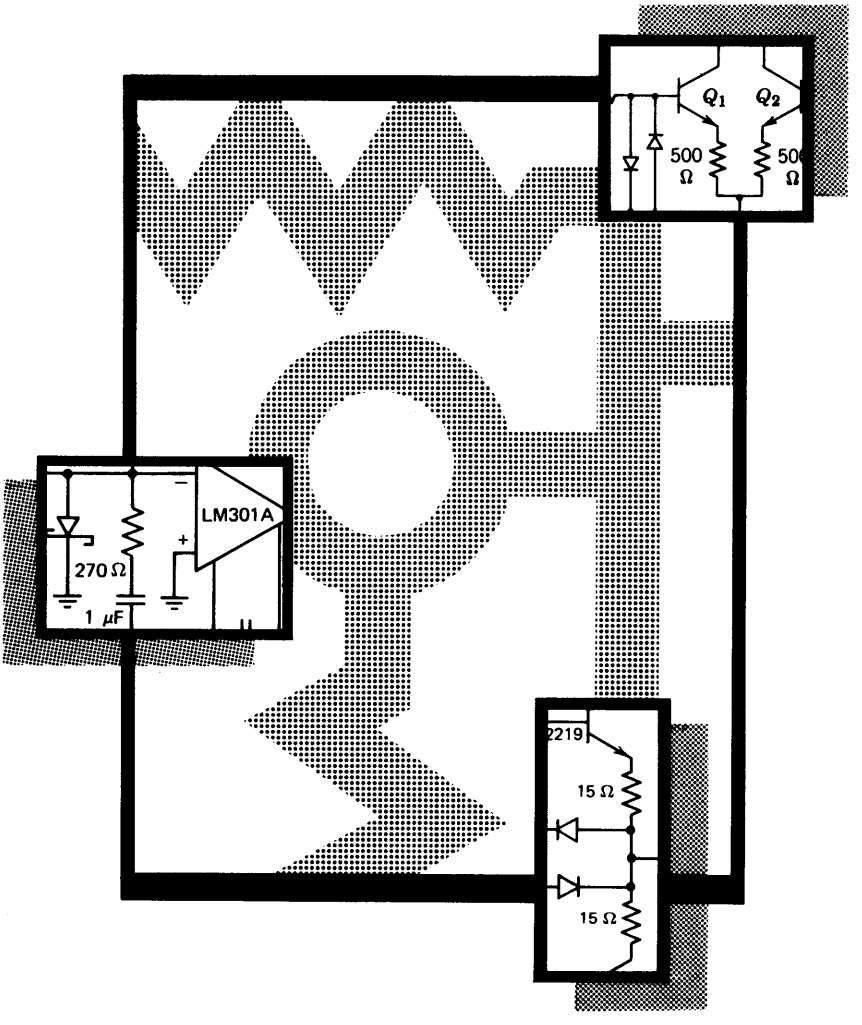
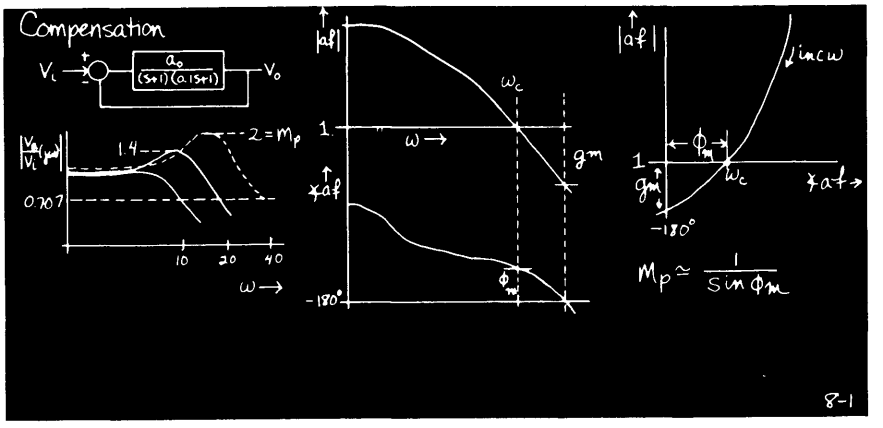
VIDEO COURSE MANUAL

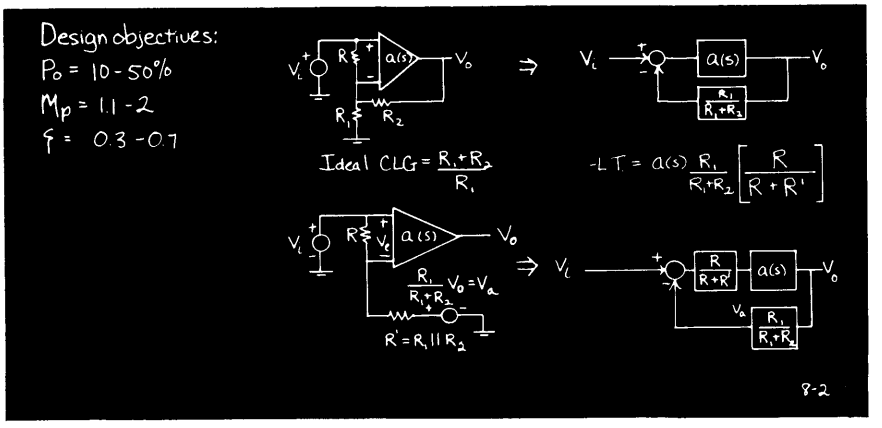
# Compensation 8



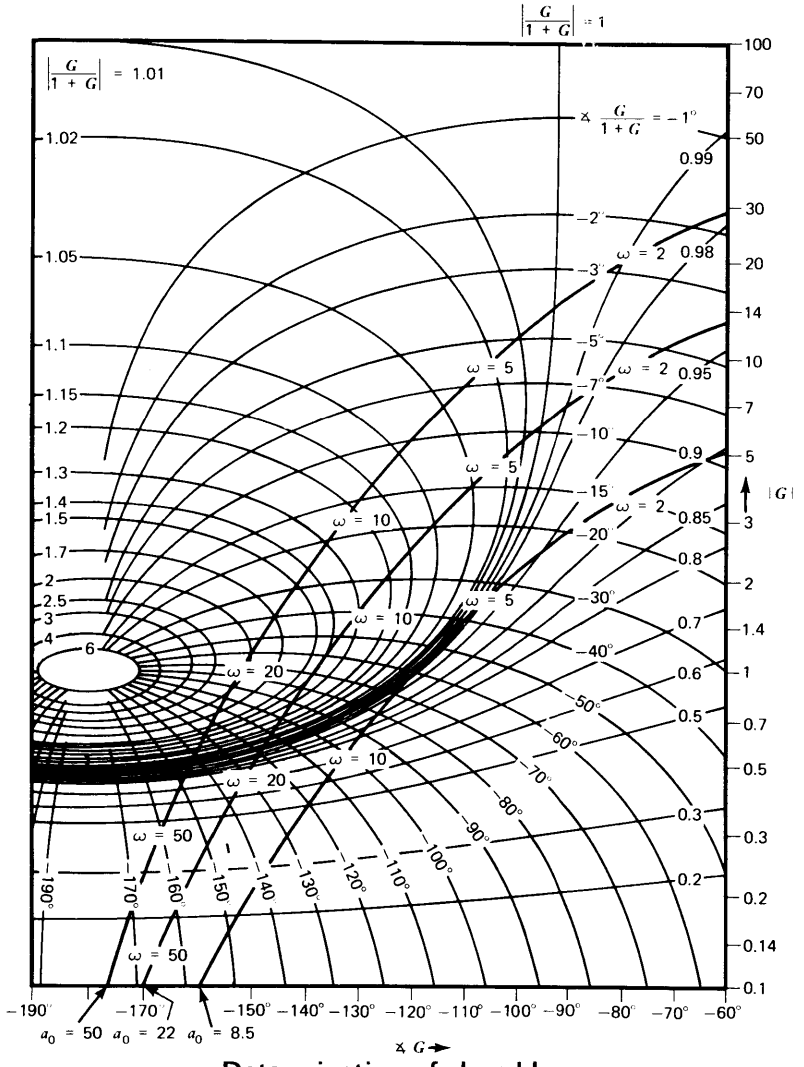
## Blackboard 8.1




## Blackboard 8.2

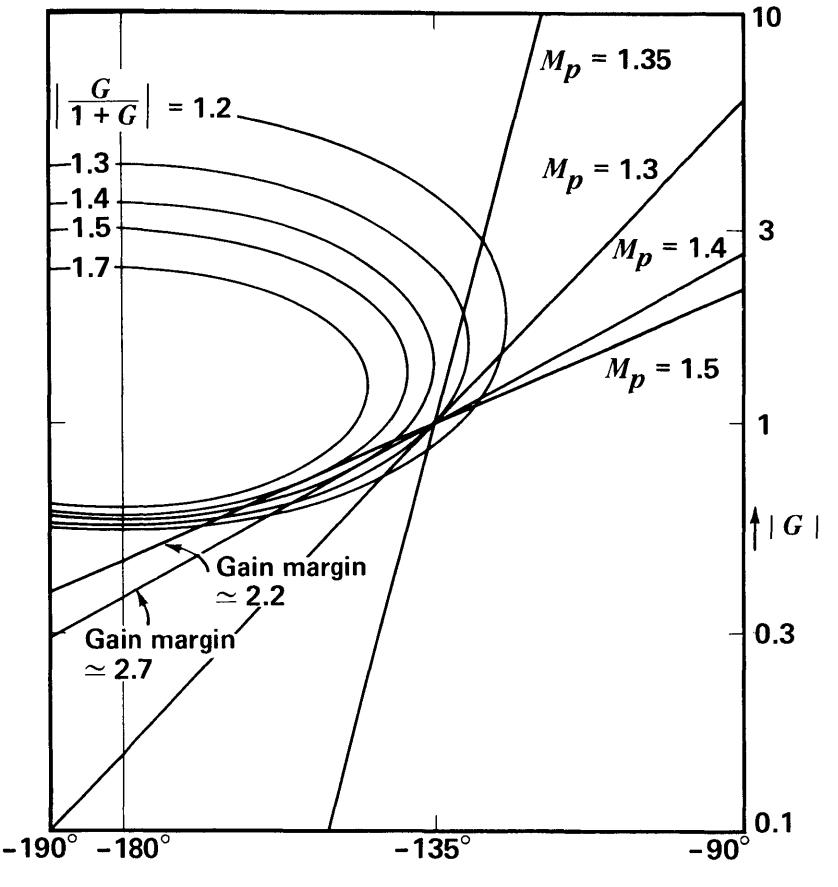


## Viewgraph 8.1




**Determination of closed-loop transfer function for $a(s) = a_0/[(s + 1)(0.1s + 1)]$, $f = 1$.**

**Viewgraph 8.2**




$M_p$ for several systems with 45° of phase margin.

**Comments**

In this lecture we define phase margin and show that it is a valuable indicator of the relative stability of a feedback system. Because of the ease with which they are obtained and the accuracy of estimates based on them, frequency-domain measures are generally used for the quantitative design of feedback systems.

Our discussion of compensation is initiated in this lecture by showing how changes in the $a_o f_o$ product influence stability for typical systems.

Textbook: Review material in Sections 4.4.2 and 4.4.3. Chapter 5 through Section 5.2.1.

**Reading**

**Problems**

**Problem 8.1 (P4.13)**

**Problem 8.2 (P5.1)**

**Problem 8.3 (P5.2)**

RES.6-010 Electronic Feedback Systems

Spring 2013