

**KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT**

EE380 / 051

Control Engineering I

HW# 6

From your text book:

Chapter 7: [E7.2 – E7.7 – E7.9 – E7.13 – E7.15 – E7.20 – P7.15 – MP7.2]

Problem 1:

Sketch the root-locus and do all the necessary analysis to support your solution.

$$1 + KG(s) = 1 + K \frac{(s^2 + 8.36s + 17.96)(s + 2.48)}{s^2 + 10s + 27.25)(s^2 + 2s + 2)}$$

Due: Saturday November 26, 2005