

Department of Mechanical Engineering
Cleveland State University

MCE 441: Introduction to Linear Control Systems
MCE 541: Linear Control Systems
Homework 1 - Fall 2011

OUT: 09-08-11. DUE: 09-20-11

1: 40pts Solve the following problems from Dorf, 11th Ed:

- a P1.8
- b (MCE441 Only:) P1.24
- c (MCE541 Only:) DP1.1
- d E2.20
- e E2.25

Only 2 of the above problems will be graded.

2: 30pts Find the I/O differential equation from V_i to V_o for the circuit in Fig. 1

3: 30pts Find the I/O differential equation from V_i to V_o for the circuit in Fig. 2

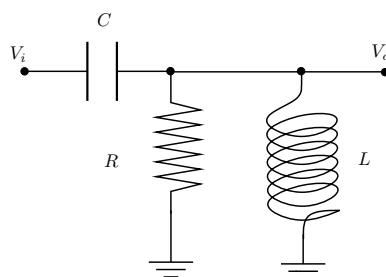


Figure 1: Circuit for Prob. 2

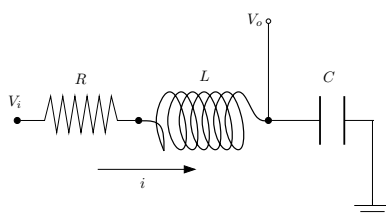


Figure 2: Circuit for Prob. 3