ENME 462 Homework #2 Spring 2001

Due Date: February 19, 2001

NOTE, unless otherwise indicated, use only hand calculations to solve these problems (i.e., no MatLab)!

Problem 1: Problem 16b from Nise (3rd edition) p. 112 (solution: $G(s) = \frac{s^2}{s^2 + s + 1}$)

Problem 2: Problem 17a from Nise (3rd edition) p. 112 except use a value of 2 H for the inductor across which V_L is measured. (solution: $G(s) = \frac{s}{2s^2 + 4s + 1}$)

Problem 3: Problem 18a from Nise (3rd edition) p. 112, only set up the problem, i.e., determine all the equations needed and state how they could be solved simultaneously (you do not need to actually solve them).

Problem 4: Problem 22b from Nise (3rd edition) p. 114

Problem 5: Problem 25 from Nise (3rd edition) p. 115 (solution: $G(s) = \frac{10}{s\left(s^2 + 50s + 2\right)}$)

Problem 6: Problem 27 from Nise (3rd edition) p. 115
(solution: $G(s) = \frac{s}{s^4 + 2s^3 + 3s^2 + 3s + 1}$)