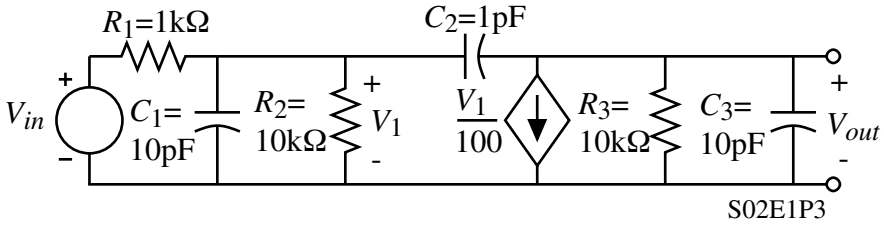
Homework Assignment No. 4

Due Monday, February 7, 2005 in class

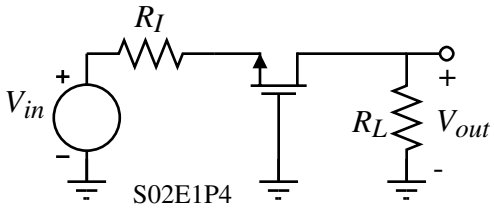
Problem 1 – (10 points)

Find the midband voltage gain and the –3dB frequency in Hertz for the circuit shown.



Problem 2 – (10 points)

Find the midband voltage gain and the exact value of the two poles of the voltage transfer function for the circuit shown. Assume that R_I = 1kΩ, R_L = 10KΩ, g_m = 1mS, C_{gs} = 5pF and C_{gd} = 1pF. Ignore r_{ds}.



Problem 3 - (10 points)

Prob. 7.11 of 3rd and 7.21 of 4th edition

Problem 4 - (10 points)

Prob. 7.15 of 3rd and 7.27 of 4th edition

Problem 5 - (10 points)

Prob. 7.21 of 3rd and 7.37 of 4th edition