Homework Assignment No. 13
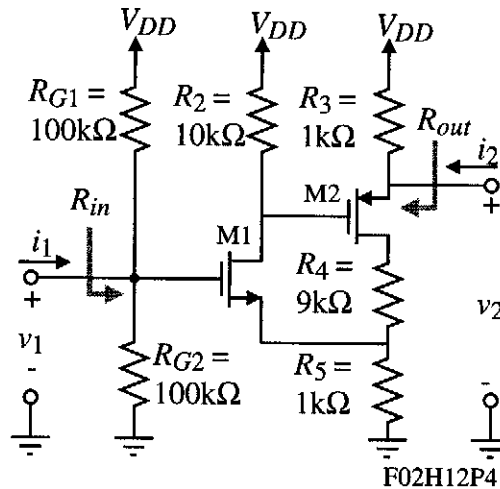
Due on Monday, November 18, 2002

1.) Problem 18.22 of the text.

2.) Problem 18.23 of the text.

3.) Problem 18.24

4.) Use the method of feedback analysis to find the numerical values of v_2/v_1, $R_{in} = v_1/i_1$, and $R_{out} = v_2/i_2$. Assume that all transistors are matched and that $g_{m1} = g_{m2} = 1mS$. Neglect r_{ds} of the transistors.

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Ans. [$v_2/v_1 = -0.714V/V$, $v_1/i_1 = 50k\Omega$, and $v_2/i_2 = 857\Omega$]

5.) Problem 18.32 of the text.