HW8

1. You may submit your results using EE446 memos having at most 3 authors.
2. Consider two inverting amplifiers, each having an ideal gain of 100. One inverting amplifier uses a compensated op amp (R_i = 2 MΩ, R_o = 75 Ω, a_o = 200,000 V/V, f_T = 1 MHz) and the other uses an uncompensated op amp (R_i = 2 MΩ, R_o = 75 Ω, a_o = 200,000 V/V, f_T = 1 MHz). (EE446 Lecture 3/25/09)
    a. Simulate both amplifiers using PSpice to obtain gain Bode plots. (See EE446 lectures on 3/4/09 and 3/25/09 for op amp models.)
    b. Argue that the results of these simulations show that the gain Bode plots of the inverting amplifiers consist of
        i. a low frequency asymptote showing the ideal gain of 100 and
        ii. the high frequency asymptote of the op amp gain Bode plot.
    c. The introduction needs to …
        i. introduce and distinguish the various gains (inverting amplifiers, compensated and uncompensated op amps)
        ii. describe the expected results, including the identifying characteristics of the low and high frequency asymptotes.
3. Due Friday, 4/3. Only "real reports" submitted Friday can be revised.