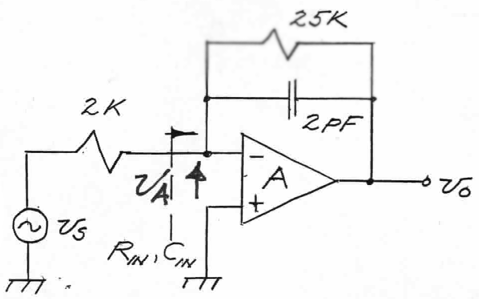
E E 311

Quiz 11 (10pts) Name _____

November 22, 2013 ID _____



1. Consider the voltage amplifier in the circuit above to be ideal except that it has a finite gain $A = 49$. Using Miller's theorem, determine the input resistance, R_{IN} , and input capacitance, C_{IN}, at the input to the amplifier.

R_{IN} = _____ *(5 pts)*

C_{IN} = _____ *(5 pts)*

EXTRA CREDIT:

To find the 3_{dB} frequency for v_o/v_s we need to know the RC time constant seen by the source, v_s. What is the value of R in the RC time constant?

R = _____ *(5 pts)*