

Homework Assignment No. 15

Due at the beginning of the final exam, Monday, April 28, 2003

This homework assignment has two parts, both of which are optional. However, you must do one of the parts to receive the 50 homework points.

Part I – Fill in the following form and submit at the above due date.

I, _____, completed the on-line student feedback for this class, ECE 3050a on _____.

(On submitting this form you will receive 50 points for homework assignment no. 15)

Part II – Homework assignment representative of material covered in last lectures (solutions are posted on the class website)

- 1.) Problem 12.122 of the text.
- 2.) Problem 12.128 of the text.
- 3.) Problem 12.130 of the text.
- 4.) Problem 12.131 of the text.
- 5.) Problem from last years final exam.

If the op amps shown are ideal (infinite voltage gain, infinite differential input resistance, and zero output resistance) find the voltage transfer function, $V_{out}(s)/V_{in}(s)$, the input impedance, $Z_{in}(s)$, and the output impedance, $Z_{out}(s)$. Sketch an asymptotic plot for the magnitude and phase shift of the voltage transfer function, $V_{out}(i\omega)/V_{in}(j\omega)$ as a function of $\log_{10}\omega$.

