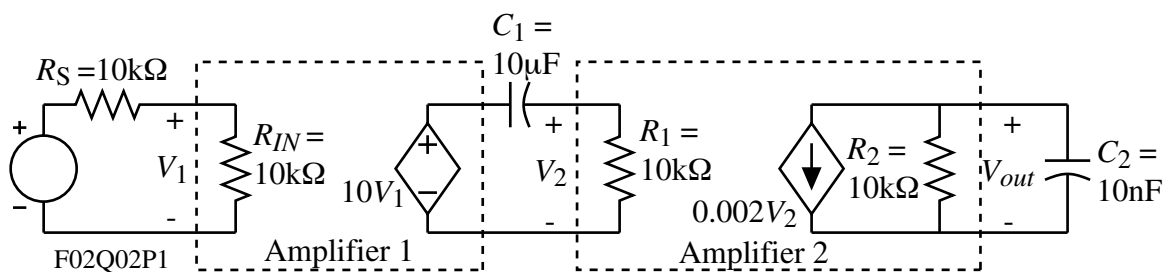


Homework Assignment No. 2

Due on Wednesday, January 21, 2004

- 1.) Problem 10.20 (11.16) of the second-edition of the text (first edition).
- 2.) Problem 10.48 (11.34) of the second-edition of the text (first edition).
- 3.) Problem 10.57 (11.37) of the second-edition of the text (first edition).
- 4.) Problem 10.63 (11.43) of the second-edition of the text (first edition).
- 5.) Problem 10.75 (11.55) of the second-edition of the text (first edition).
- 6.) a.) Find the transfer function, $V_{out}(s)/V_S(s)$, of the circuit shown and identify the location of the poles and zeros. What is the gain in the region where the transfer function is independent of frequency?



- b.) Sketch the asymptotic (straight-line) plot for the magnitude and phase of transfer function shown. Use the same plot for phase shift. Label the phase shift on the right side of the plot.

$$A(s) = \frac{-10s}{(s+1)(s+100)}$$

