ECE 3620   Nov. 20, 2020

Homework: # 12
Due Dec. 1, 2020

For each problem, you must **show your work!**

1. Reading

   (a) Read Sections 5-11–5-12 in the text.

   (b) If you are interested, read Section 5-13 in the text. It will not be covered in class.

2. Problem 5.51

3. Problem 5.52 (a), (c)

4. Problem 5.53 (a), (b)

5. Problem 5.56

6. Problem 5.67
   Helps: The frequency response of the system is given by

$$H(\omega) = \frac{V_{out}(\omega)}{I_s(\omega)} = \frac{R_1}{1 + \frac{j\omega}{\omega_0}}$$

   where

$$\omega_0 = \frac{1}{C(R_1 + R_2)}.$$

   $I_s(\omega)$ was found in homework assignment 10.