

ELEC 312 - Systems I

Homework Assignment 2

Due Friday, February 6, 2015 for Section 01
Due Wednesday, February 4, 2015 for Section 81

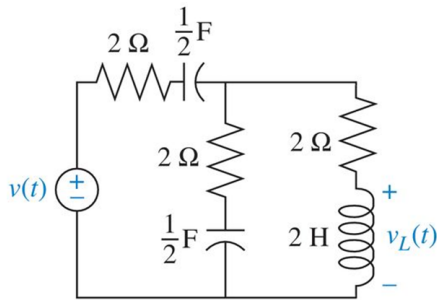


Figure P2.4(b)

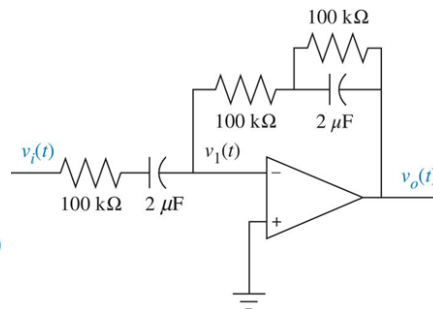


Figure P2.7(b)

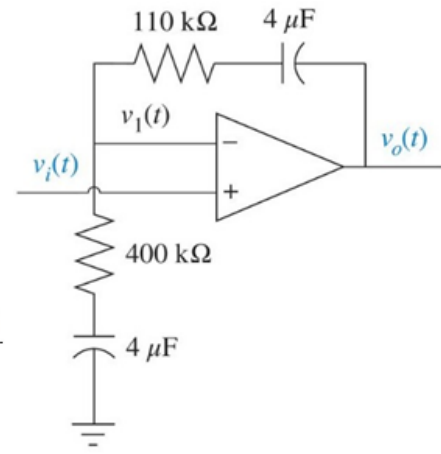


Figure P2.8(a)

1. Problem 18(b) in Chapter 2 of *Control Systems Engineering*:
Find the transfer function, $G(s) = V_L(s)/V(s)$, for the network shown in Figure P2.4(b) above. Simplify your answer as much as possible.

2. Problem 22(b) in Chapter 2 of *Control Systems Engineering*:
Find the transfer function, $G(s) = V_o(s)/V(s)$, for the operational amplifier shown in Figure P2.7(b) above. Simplify your answer as much as possible.

3. Problem 23(a) in Chapter 2 of *Control Systems Engineering*:
Find the transfer function, $G(s) = V_o(s)/V(s)$, for the operational amplifier shown in Figure P2.8(a) above. Simplify your answer as much as possible.