

## ENSC3021 Tutorial Problems 2A

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**Question 1.** In the circuit of figure 1 find the current through the inductor for  $t < 0$ , and also for  $t > 0$ . Assume the switch has been closed a long time but is opened at  $t = 0$ .

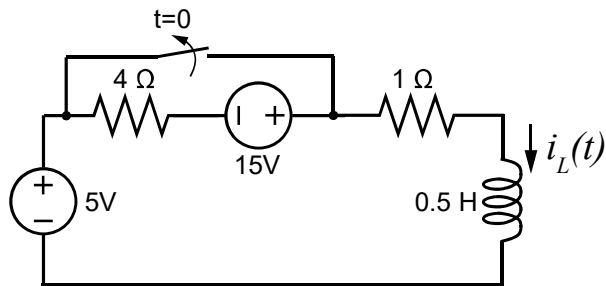


Figure 1.

**Question 2.** Find the potential difference across the capacitor in figure 2 for  $t > 0$ . Assume the switch has been closed for a long time before it is opened at  $t = 0$ .

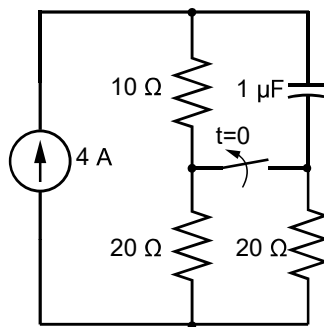


Figure 2.

**Question 3.** In the circuit of figure 3 find the potential difference  $v(t)$  for  $t > 0$ .

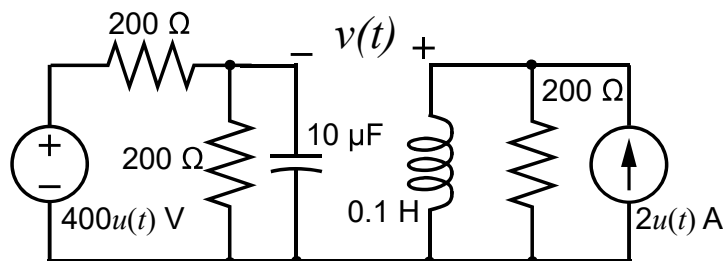


Figure 3.