7.4 The switch in Fig. 7.84 has been in position A for a long time. Assume the switch moves instantaneously from A to B at $t = 0$. Find v for $t > 0$.

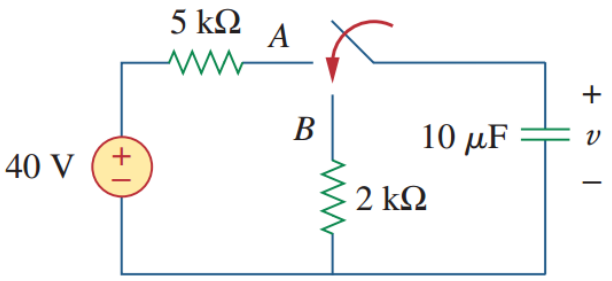

Figure 7.84
For Prob. 7.4.

7.12 Using Fig. 7.92, design a problem to help other students better understand source-free RL circuits.

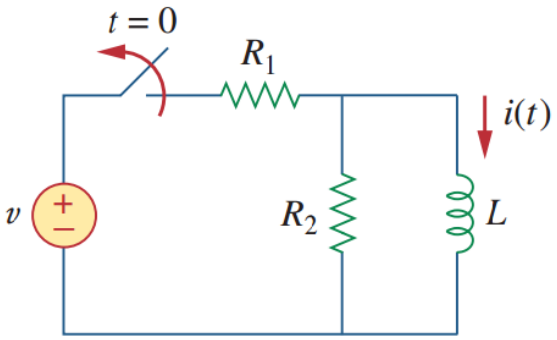

Figure 7.92
For Prob. 7.12.

7.26 Express the signals in Fig. 7.104 in terms of singularity functions.

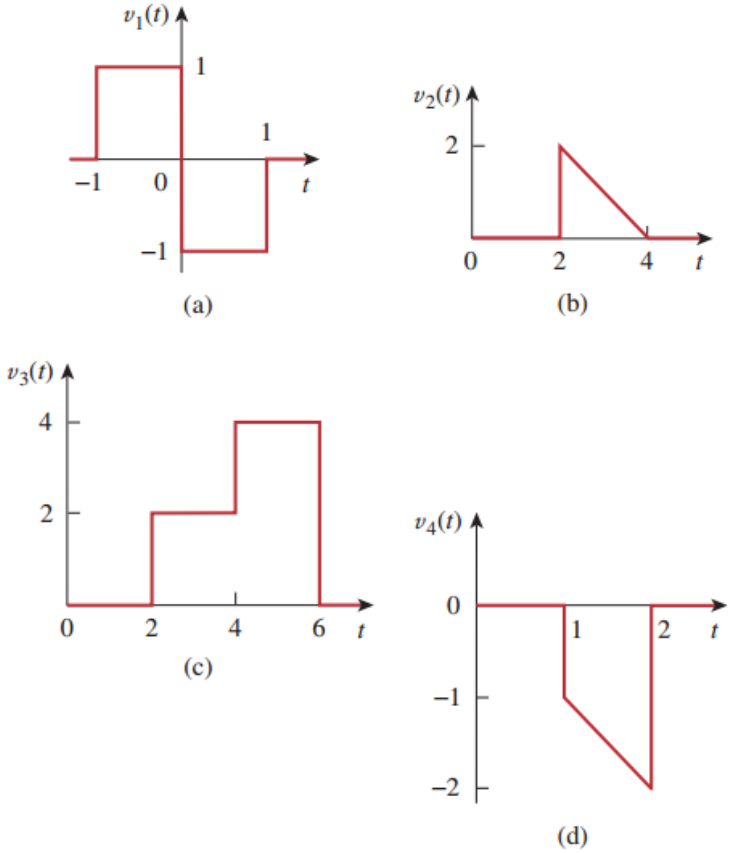

Figure 7.104
For Prob. 7.26.

7.28 Sketch the waveform represented by

$$i(t) = r(t) - r(t-1) - u(t-2) - r(t-2) + r(t-3) + u(t-4)$$

7.40 Find the capacitor voltage for $t < 0$ and $t > 0$ for each of the circuits in Fig. 7.107.

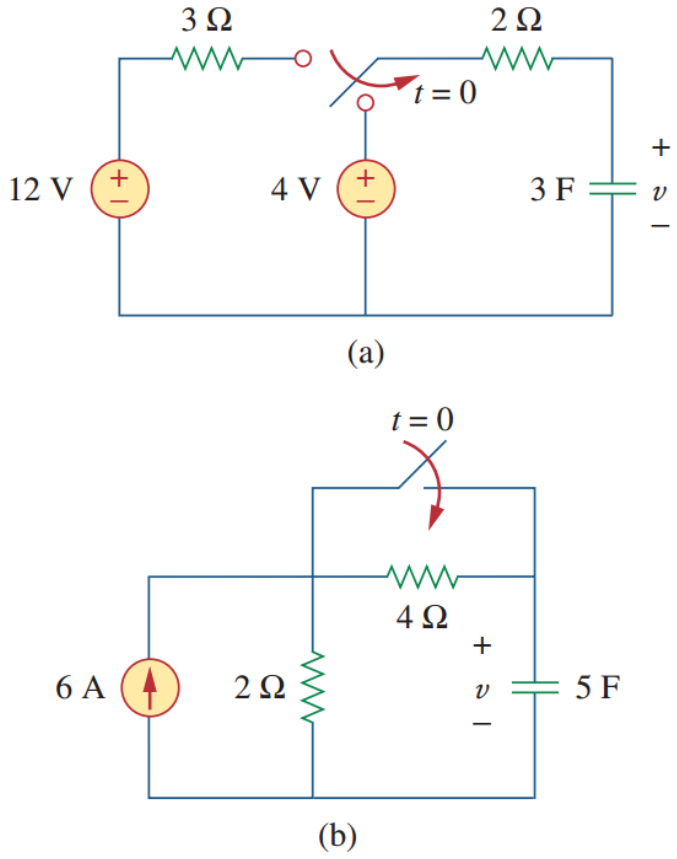

Figure 7.107
For Prob. 7.40.

7.44 The switch in Fig. 7.111 has been in position a for a long time. At $t = 0$, it moves to position b. Calculate $i(t)$ for all $t > 0$.

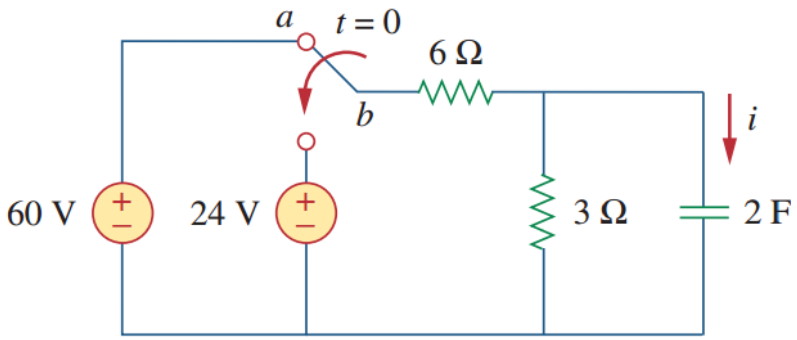

Figure 7.111
For Prob. 7.44.

7.52 Using Fig. 7.118, design a problem to help other students better understand the step response of an *RL* circuit.

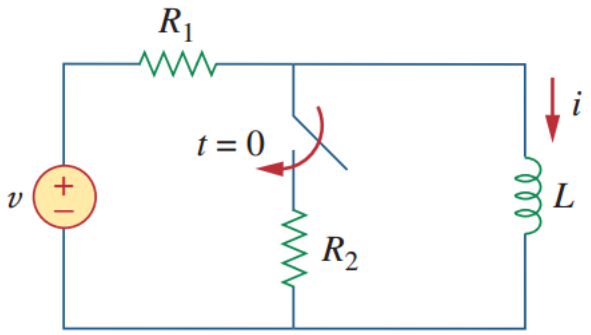

Figure 7.118
For Prob. 7.52.

7.74 Determine $v_o(t)$ for $t > 0$ in the circuit of Fig. 7.139. Let $i_s = 10u(t)\ \mu$A and assume that the capacitor is initially uncharged.

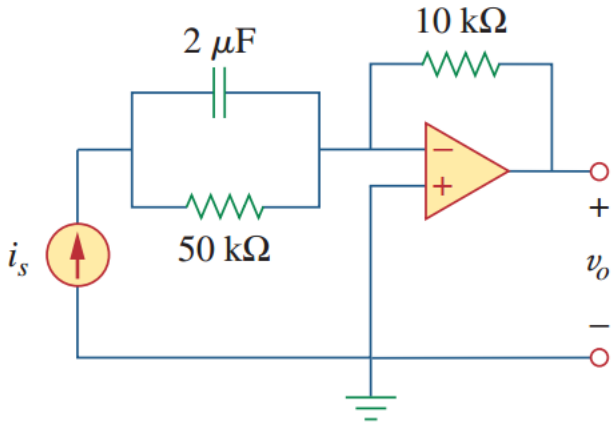

Figure 7.139
For Prob. 7.74.

7.78 The switch in Fig. 7.142 moves from position a to b at $t = 0$. Use *PSpice or MultiSim* to find $i(t)$ for $t > 0$.

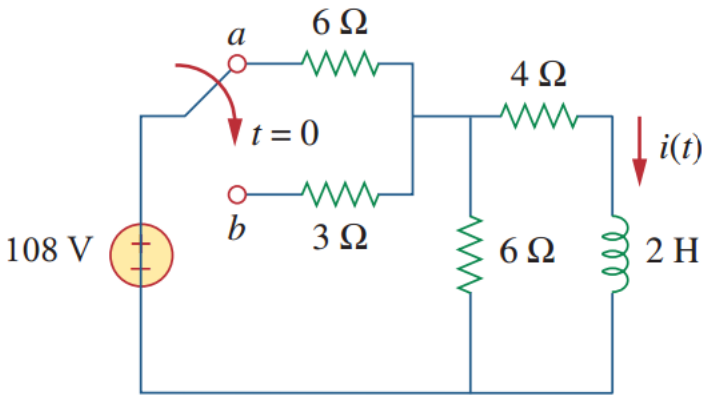

Figure 7.142
For Prob. 7.78.