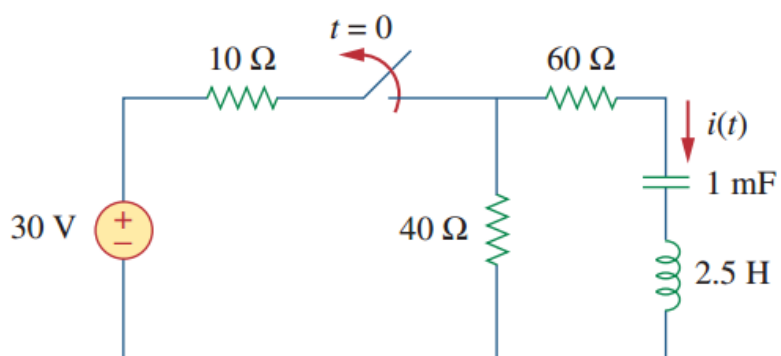


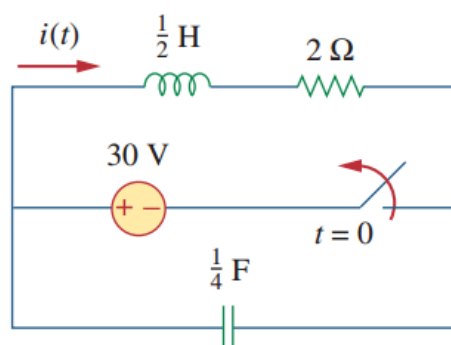
**8.16** Find  $i(t)$  for  $t > 0$  in the circuit of Fig. 8.70.



**Figure 8.70**

For Prob. 8.16.

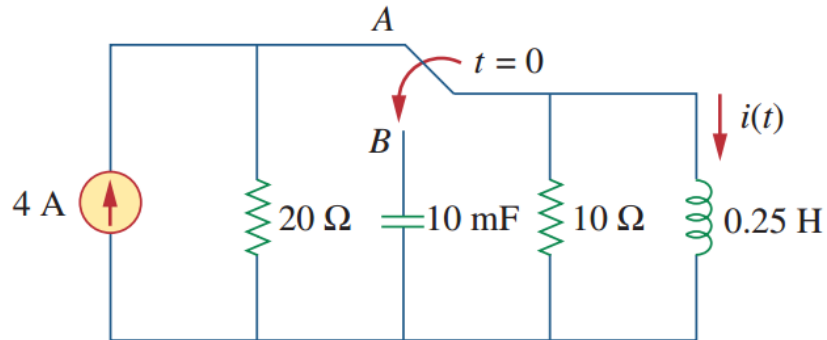
**8.20** The switch in the circuit of Fig. 8.74 has been closed for a long time but is opened at  $t = 0$ . Determine  $i(t)$  for  $t > 0$ .



**Figure 8.74**

For Prob. 8.20.

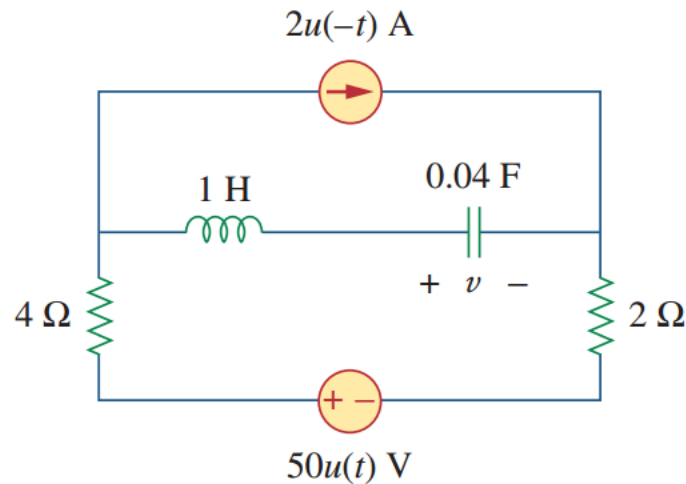
- 8.24** The switch in Fig. 8.77 moves from position  $A$  to position  $B$  at  $t = 0$  (please note that the switch must connect to point  $B$  before it breaks the connection at  $A$ , a make-before-break switch). Determine  $i(t)$  for  $t > 0$ .



**Figure 8.77**

For Prob. 8.24.

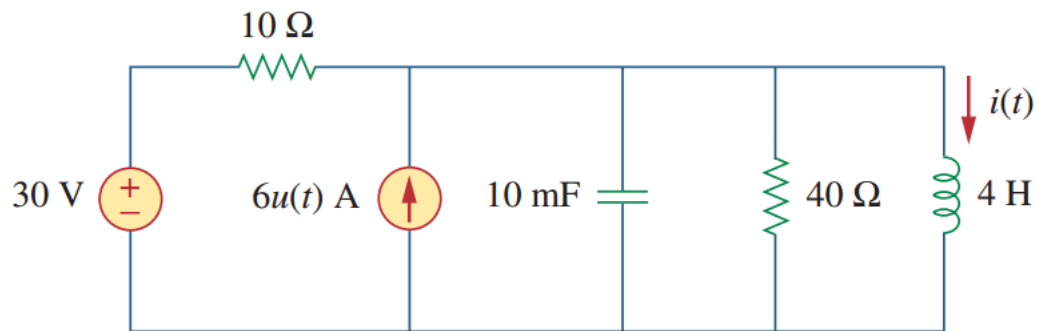
- 8.32** For the circuit in Fig. 8.80, find  $v(t)$  for  $t > 0$ .



**Figure 8.80**

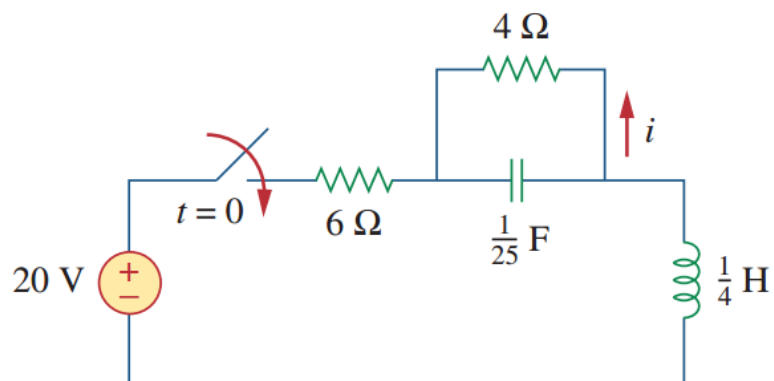
For Prob. 8.32.

**8.50** For the circuit in Fig. 8.97, find  $i(t)$  for  $t > 0$ .



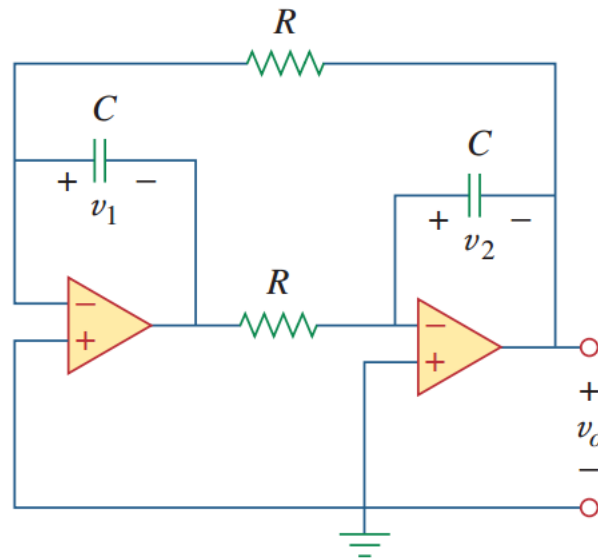
**Figure 8.97**  
For Prob. 8.50.

**8.56** In the circuit of Fig. 8.102, find  $i(t)$  for  $t > 0$ .



**Figure 8.102**  
For Prob. 8.56.

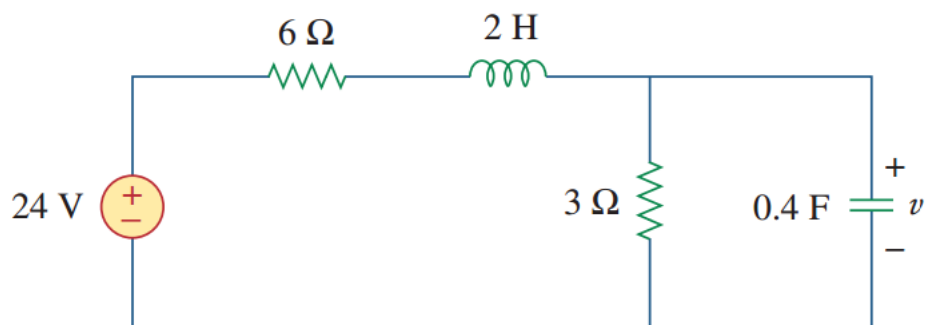
- 8.65** Determine the differential equation for the op amp circuit in Fig. 8.110. If  $v_1(0^+) = 2 \text{ V}$  and  $v_2(0^+) = 0 \text{ V}$ , find  $v_o$  for  $t > 0$ . Let  $R = 100 \text{ k}\Omega$  and  $C = 1 \mu\text{F}$ .



**Figure 8.110**

For Prob. 8.65.

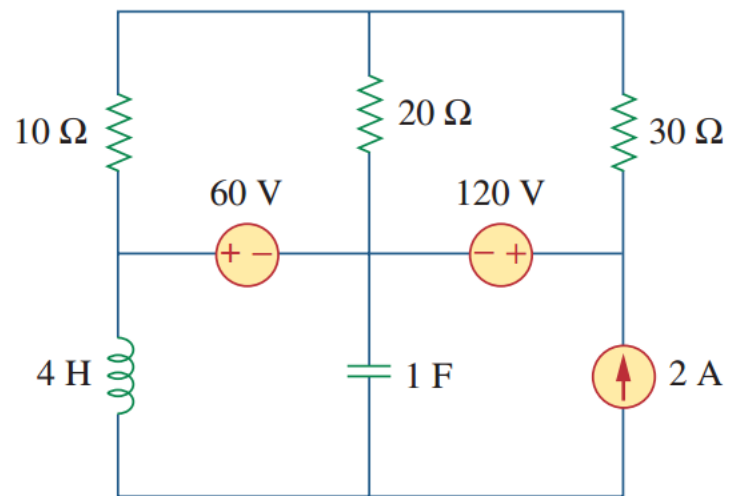
- 8.70** For the circuit in Fig. 8.115, use *PSpice* or *MultiSim* to obtain  $v(t)$  for  $0 < t < 4 \text{ s}$ . Assume that the capacitor voltage and inductor current at  $t = 0$  are both zero.



**Figure 8.115**

For Prob. 8.70.

**8.76** Find the dual of the circuit in Fig. 8.120.



**Figure 8.120**

For Prob. 8.76.