

Chapter 7, Problem 4.

The switch in Fig. 7.84 moves instantaneously from A to B at $t = 0$. Find v for $t > 0$.

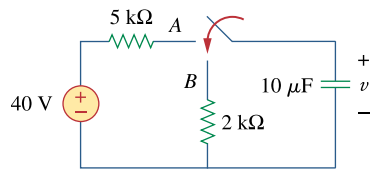


Figure 7.84

For Prob. 7.4.

Chapter 7, Problem 13.

In the circuit of Fig. 7.93,

$$v(t) = 20e^{-10^3 t} \text{ V}, \quad t > 0$$

$$i(t) = 4e^{-10^3 t} \text{ mA}, \quad t > 0$$

(a) Find R , L , and τ .

(b) Calculate the energy dissipated in the resistance for $0 < t < 0.5$ ms.

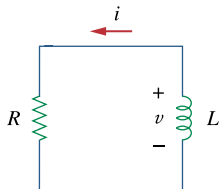


Figure 7.93

For Prob. 7.13.

Chapter 7, Problem 17.

Consider the circuit of Fig. 7.97. Find $v_o(t)$ if $i(0) = 2$ A and $v(t) = 0$.

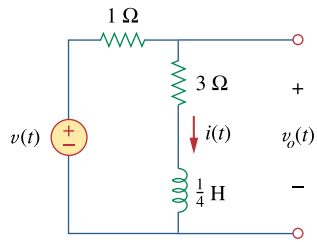


Figure 7.97
For Prob. 7.17.

Chapter 7, Problem 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 $t > 0$.

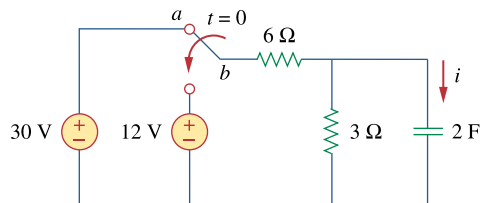


Figure 7.111
For Prob. 7.44.

Chapter 7, Problem 54.

Obtain the inductor current for both $t < 0$ and $t > 0$ in each of the circuits in Fig. 7.120.

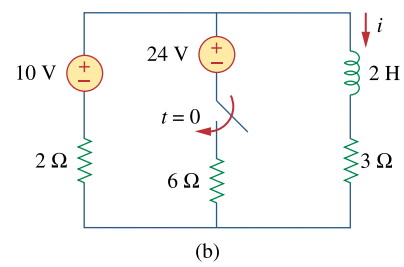
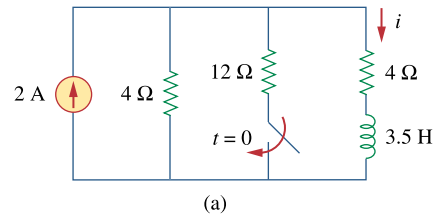


Figure 7.120
For Prob. 7.54.