

Chapter 7, Solution 36.

$$\begin{aligned} \text{(a)} \quad v(t) &= A + B e^{-t}, \quad t > 0 \\ A &= 1, \quad v(0) = 0 = 1 + B & \text{or} \quad B &= -1 \\ v(t) &= \mathbf{1 - e^{-t} \text{ V}, \quad t > 0} \end{aligned}$$

$$\begin{aligned} \text{(b)} \quad v(t) &= A + B e^{t/2}, \quad t > 0 \\ A &= -3, \quad v(0) = -6 = -3 + B & \text{or} \quad B &= -3 \\ v(t) &= \mathbf{-3(1 + e^{t/2}) \text{ V}, \quad t > 0} \end{aligned}$$