Chapter 7, Solution 36.

(a) $v(t) = A + Be^{-t}, \quad t > 0$

$A = 1, \qquad v(0) = 0 = 1 + B \qquad \text{or} \qquad B = -1$

$v(t) = \mathbf{1 - e^{-t}\ V, \quad t > 0}$

(b) $v(t) = A + Be^{t/2}, \quad t > 0$

$A = -3, \; v(0) = -6 = -3 + B \qquad \text{or} \qquad B = -3$

$v(t) = \mathbf{-3\left(1 + e^{t/2}\right) V, \quad t > 0}$