Chapter 7, Solution 22.

$$i(t) = i(0)\,e^{-t/\tau}, \qquad \tau = \frac{L}{R_{eq}}$$

$$R_{eq} = 5 \,||\, 20 + 1 = 5\,\Omega, \quad \tau = \frac{2}{5}$$

$$i(t) = \mathbf{10e^{-2.5t}\ A}$$

Using current division, the current through the 20 ohm resistor is

$$i_o = \frac{5}{5+20}(-i) = \frac{-i}{5} = -2e^{-2.5t}$$

$$v(t) = 20\,i_o = \mathbf{-40e^{-2.5t}\ V}$$