

Chapter 6, Solution 86.

$$v = v_R + v_L = Ri + L \frac{di}{dt} = 12 \times 2te^{-10t} + 200 \times 10^{-3} \times (-20te^{-10t} + 2e^{-10t}) = \underline{(0.4 - 20t)e^{-10t} \text{ V}}$$