

***Chapter 6, Problem 44.**

A 100-mH inductor is connected in parallel with a 2-k Ω resistor. The current through the inductor is $i(t) = 50e^{-400t}$ mA. (a) Find the voltage v_L across the inductor. (b) Find the voltage v_R across the resistor. (c) Is $v_R(t) + v_L(t) = 0$? (d) Calculate the energy in the inductor at $t=0$.