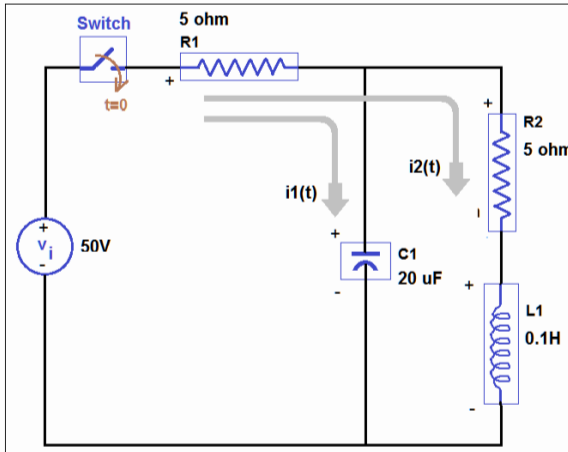


Problem 8.27 (Mesh RLC circuit) :

In the two mesh circuit of the circuit provided, the switch is closed at $t=0$.
Find i_1 and i_2 for $t>0$.



$$R1 := 5 \quad \text{Ohm}$$

$$R2 := 5 \quad \text{Ohm}$$

$$C1 := 20 \cdot 10^{-6} \quad \text{F}$$

$$L1 := 0.1 \quad \text{H}$$

$$\frac{1}{C1} = 50000$$

Answer:

$$i_1(t) = -0.051 e^{-100 t} + 10.05 e^{-9950 t} \quad \text{A.}$$

$$i_2(t) = -5.05 e^{-100 t} + 5.00 + 0.05 e^{-9950 t} \quad \text{A.}$$

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