ECET341 Homework 5

(1) Find $v_0(t)$ in the circuit shown in Fig. 1 if the initial energy is zero and the switch is closed at $t = 0$.

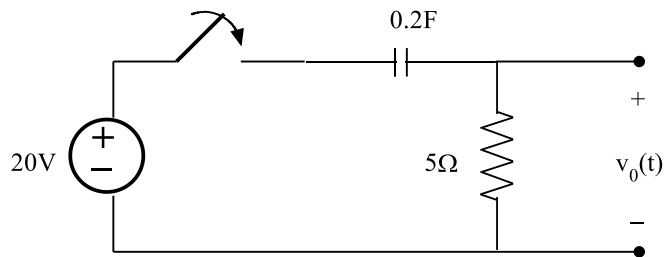

Fig. 1

(2) There is no energy stored in the circuit in Fig. 2. at the time the voltage source is energized. $v(t) = 8e^{-4t}u(t)\,(\text{V})$. Find $v_0(t)$ and $i_0(t)$ for $t \geq 0$
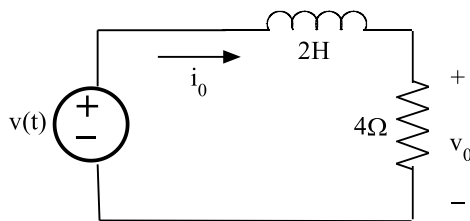

Fig. 2

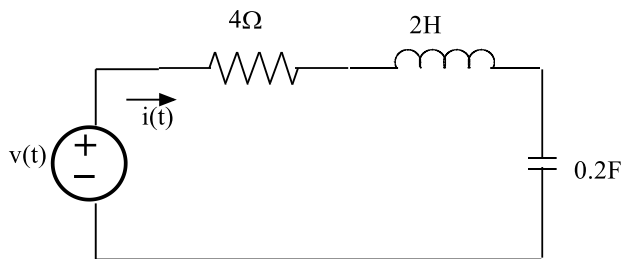(3) Find the expression for $i(t)$ in the circuit of Fig. 3, if the initial energy is zero and $v = 20u(t)$ (V).

Fig. 3