ECE 2001
Fall 2019
J. E. Ayers
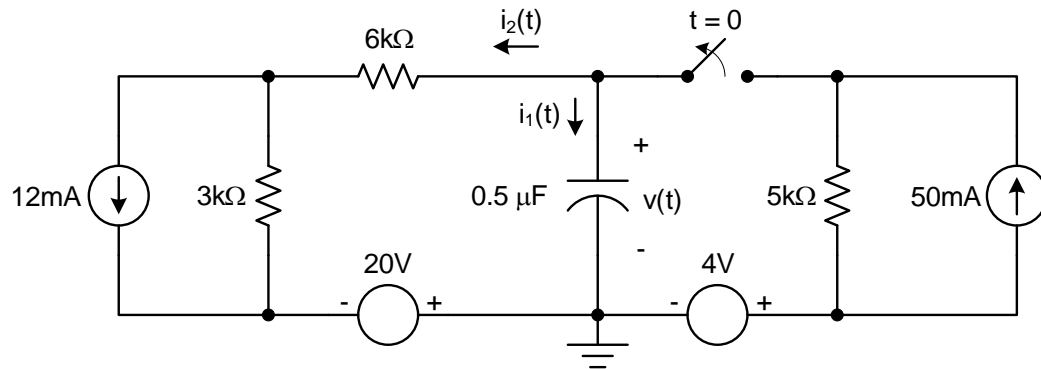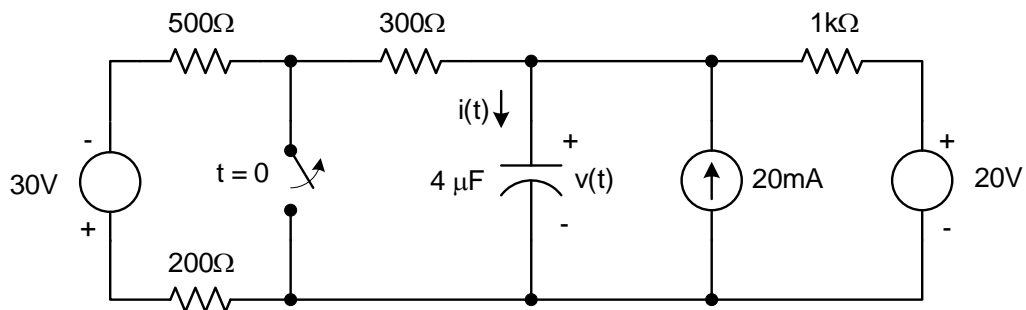
Homework Assignment 6
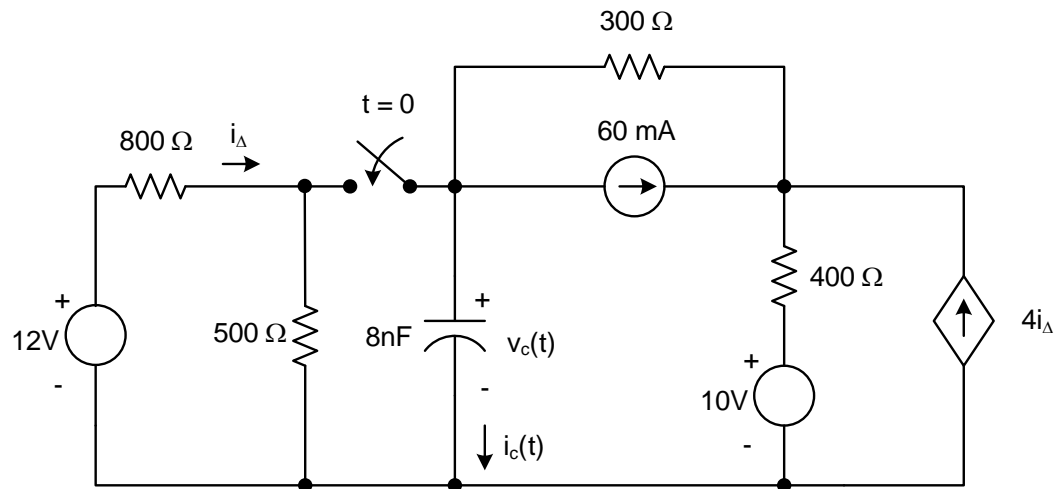Due: October 25, 2019

1. The switch has been closed for a long time before opening at t = 0. Find v(t), i_1(t), and i_2(t) for t ≥ 0^+.
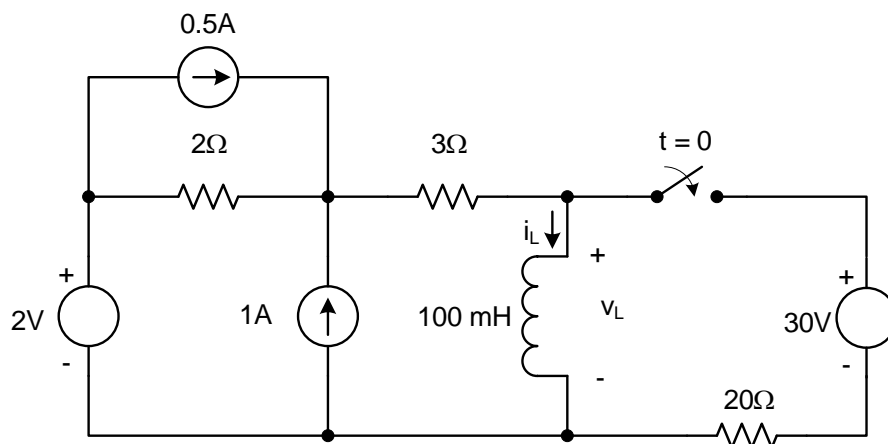

2. The switch has been closed a long time before opening at t = 0. Find the initial and final energy stored in the capacitor. Determine i(t) and v(t) for t ≥ 0^+.

3. The switch has been open a long time before closing at t = 0. Determine $i_C(t)$ and $v_C(t)$ for $t \geq 0^+$.

4. The switch has been open for a long time before closing at t = 0. Find $i_L(t)$ and $v_L(t)$ for $t \geq 0^+$. Find the initial and final energy stored in the inductor.

5. In the circuit below, the make-before-break switch has been in position "a" for a long time before being switched to position "b" at t = 0. Find $v_R(t)$, $i_1(t)$, and $i_2(t)$ for $t \geq 0^+$. Find the initial and final energy for each inductor.