Homework 8

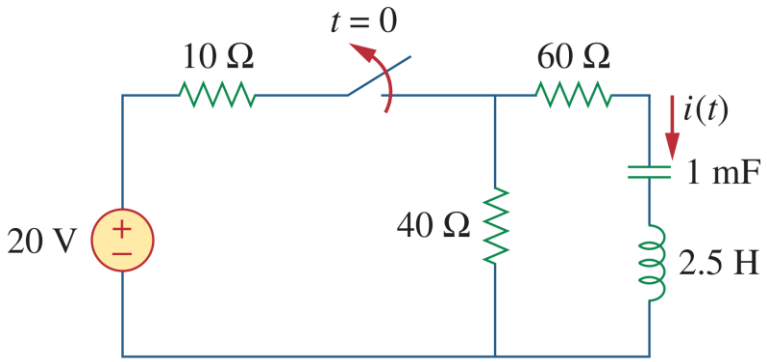
Due date: 18:30 of Dec.30th, 2021

Turn in your homework to Tutorial Course Classroom 1B-110

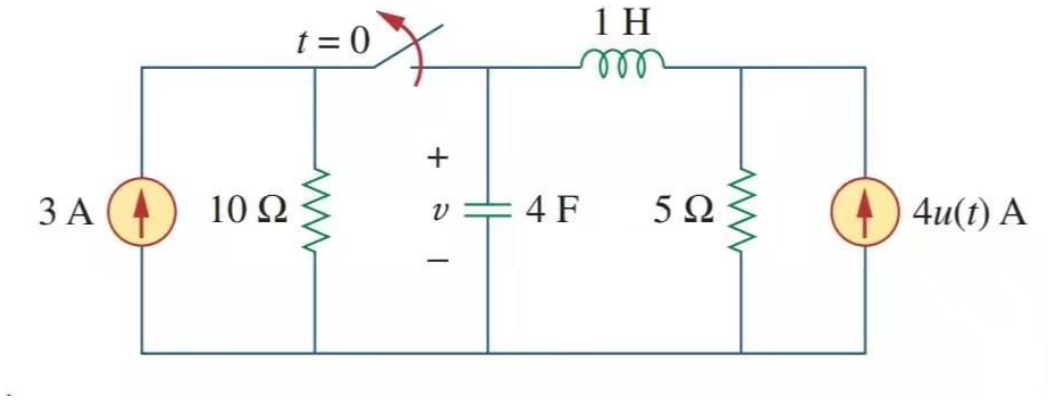
Rules:

- Work on your own. Discussion is permissible, but extremely similar submissions will be judged as plagiarism.
- Please show all intermediate steps: a correct solution without an explanation will get zero credit.
- Please submit on time. No late submission will be accepted.
- Please prepare your submission in English only. No Chinese submission will be accepted.
- If needed, round the number to the nearest hundredths, i.e., rounding it to 2 decimal places.

1. Use Laplace domain method to find *i(t)* for *t>0* in the circuit below.



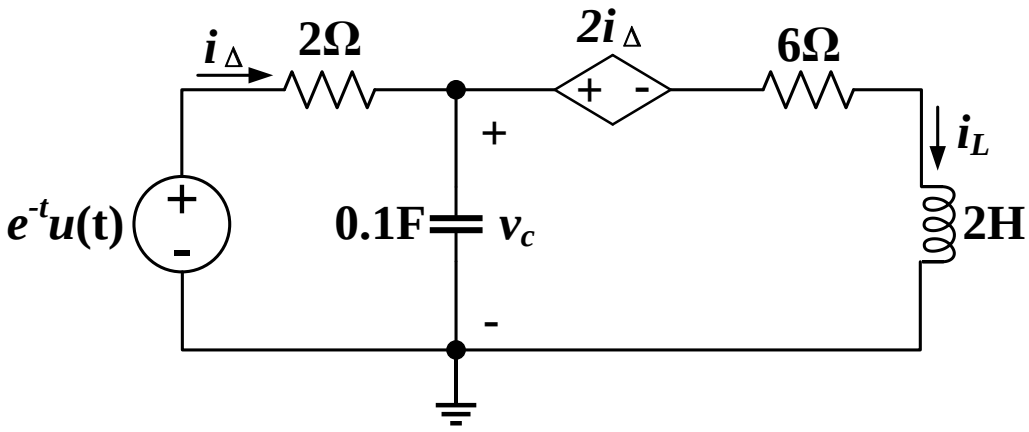
2. The switch has been closed for a long time and use Laplace domain method to find $v(t)$ for $t > 0$ in the circuit in the figure below.



3. For the circuit below, $u(t)$ means unit step function. Use Laplace domain method to calculate

(a) $i_L(t)$ for t >0

(b) $v_c(t)$ for t >0



4. Use Laplace domain method to obtain *v(t) and i(t)* for t>0 in the circuit below.