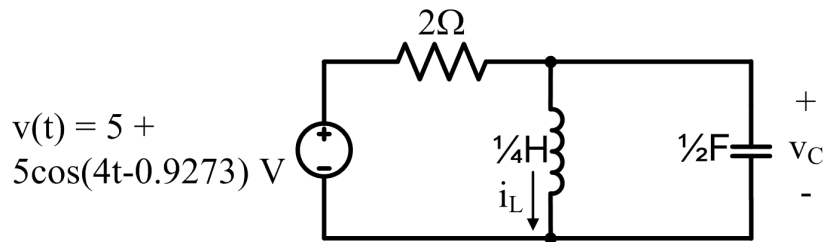


1. Find the inverse Laplace Transform (as real-valued functions of time) of each of the following:

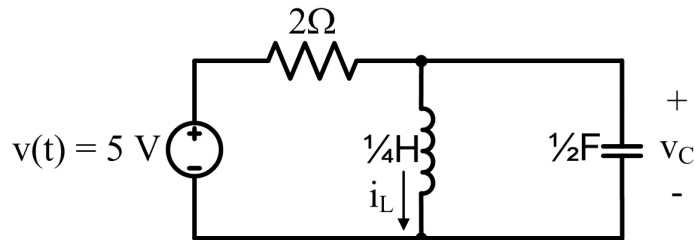
$$(a) \bar{F}_a(s) = \frac{s^2+5s+6}{s(s^2+2s+1)},$$

$$(b) \bar{F}_b(s) = \frac{6(s+34)}{s(s^2+10s+34)}$$

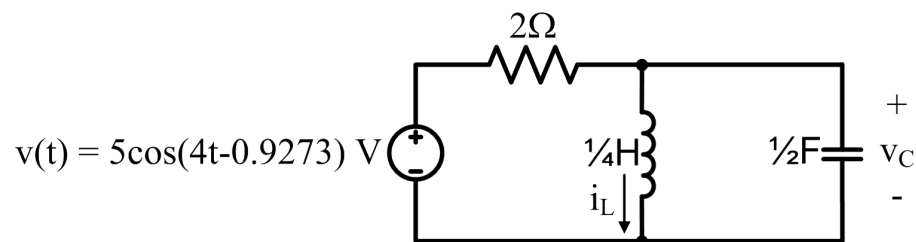
2. Given the circuit below that has been in this configuration for  $t \geq 0$ , redraw it in the complex-frequency- ( $s$ -) domain using the Laplace Transform. Relabel all signals using notation presented in class.



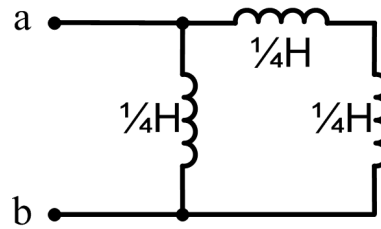
3. Given the circuit below that has been in this configuration for a long time, redraw it in its DC configuration. Relabel all signals using notation presented in class.



4. Given the circuit below that has been in this configuration for a long time, redraw it in its AC (frequency-domain) configuration. Relabel all signals using notation presented in class.



5. Find the equivalent inductance between nodes  $a$  and  $b$ .



6. Find the equivalent capacitance between nodes  $a$  and  $b$ .

