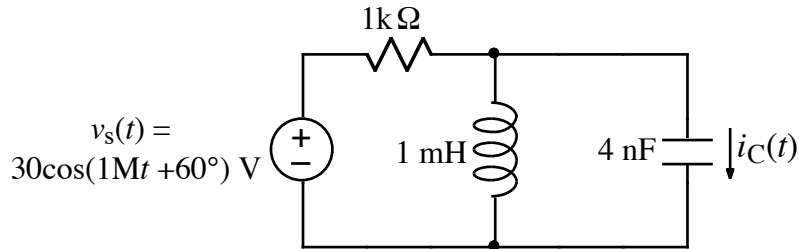




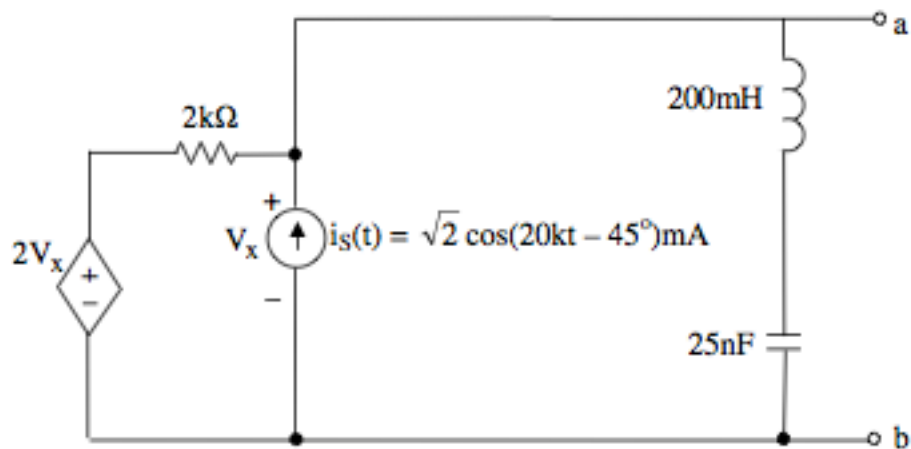
1.



- Find the phasor value for $v_s(t)$.
- Draw the frequency-domain circuit diagram, including the phasor value for $v_s(t)$ and impedance values for components.

2. Find the phasor value for $i_C(t)$.

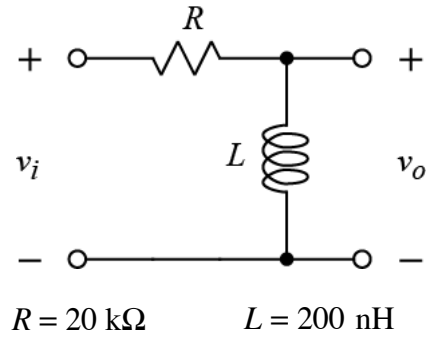
3.



Draw a frequency-domain equivalent of the above circuit. Show a numerical phasor value for $i_s(t)$, and show numerical impedance values for R , L , and C . Label the dependent source appropriately.

- Find the Thevenin equivalent (in the frequency domain) for the above circuit. Give the numerical phasor value for V_{Th} and the numerical value for the impedance value of z_{Th} .

5.



- Determine the transfer function V_o/V_i .
- Plot $|H(j\omega)| \equiv |V_o / V_i|$ versus ω .
- Find the value of ω where $|\text{Re}(H(j\omega))| = |\text{Im}(H(j\omega))|$.