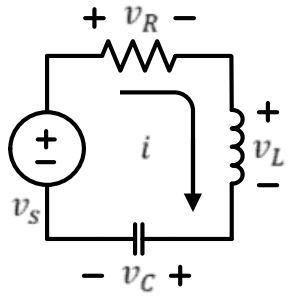
Your Lab Problem

1. Plot graph of $|Z_C|, |Z_L|, |Z_T|, |v_R|, |v_C|, |v_L|, |i|$ versus ω (from $10 - 10{,}000\ rad/sec$).
2. Find the frequency, ω, at which the current, $|i|$, is maximum. Use the "log scale" on frequency axis.

$$v_S = 12\cos(\omega t)\text{V},$$
$$R = 100\Omega,$$
$$C = 40\mu\text{F},$$
$$L = 100\text{mH}$$



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Your work

Find your own work that can be applied by MATLAB.

1. Clearly Explain what you want to do.
2. Step-by-Step show how to calculate the output.
3. Show MATLAB code with the comments
4. Present your result(s) in graphs and/or numbers.
5. Conclude how MATLAB can help you do this work.

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