

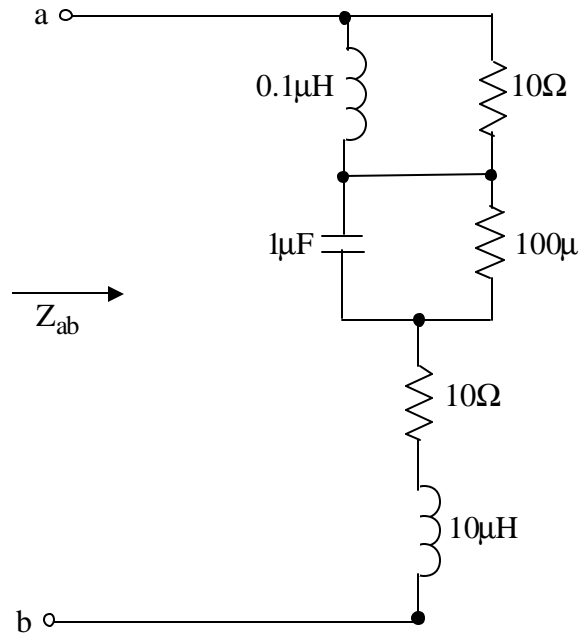
UNIVERSITY OF UTAH
ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT

ECE 1270

HOMEWORK #7

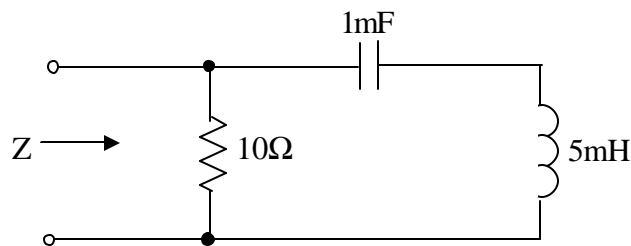
Spring 2008

1.



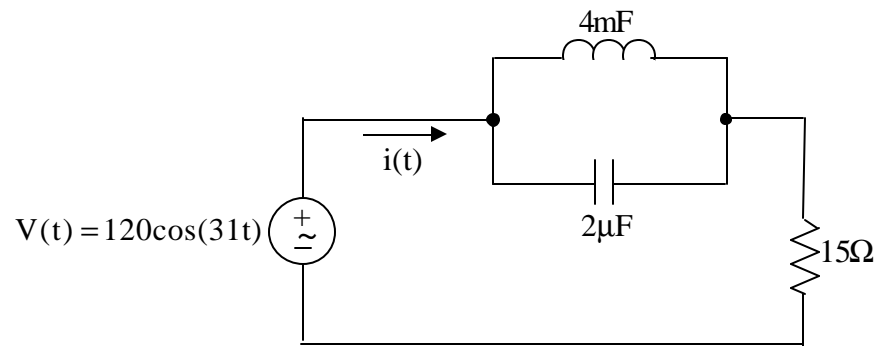
Given $\omega = 1\text{k rad/sec}$, find Z_{ab} .

2.



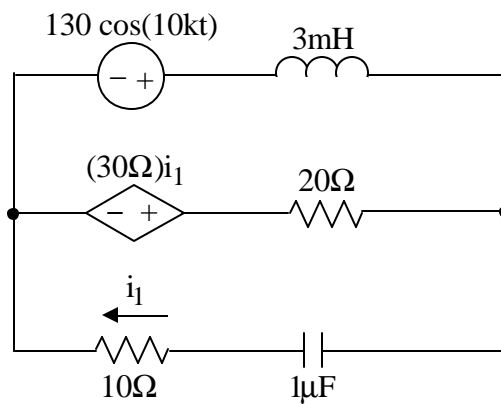
Find a frequency, ω , that causes Z to be real (i.e. imaginary part equals zero).
 $\omega \neq 0$ or $\omega \neq \infty$.

3.



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

4.



Find $i_1(t)$.