

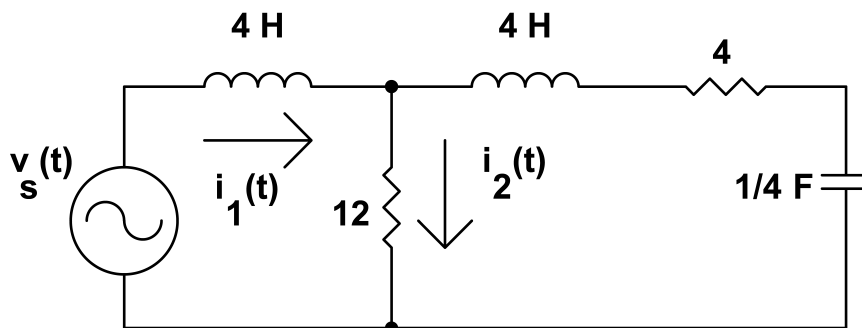
# ECE 2350 CIRCUIT ANALYSIS I

Homework 11  
14 April 2020

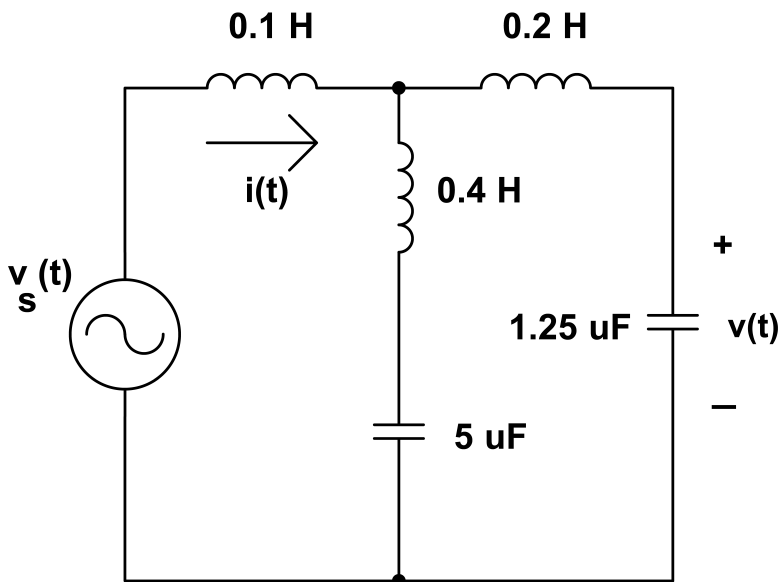
Professor Dunham  
Due: 21 April 2020

Review Lecture Notes.

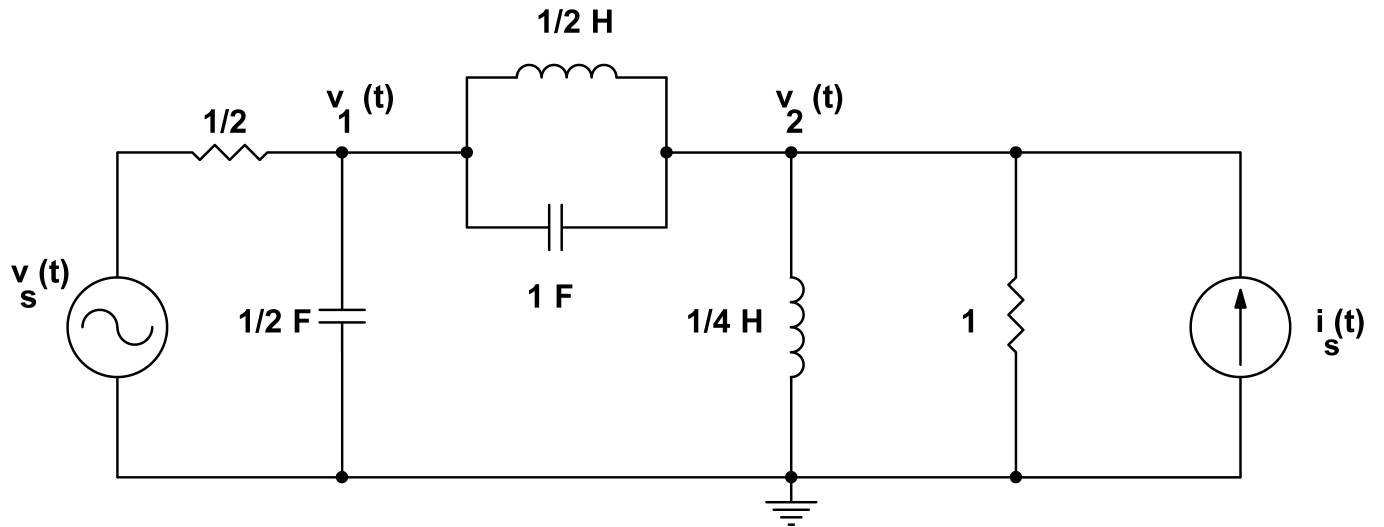
1. In the circuit shown below, find the impedance as seen by the source. Use the phasor method to find the steady-state values of  $i_1(t)$  and  $i_2(t)$  given that  $v_s(t) = 10\cos(t)$  V.



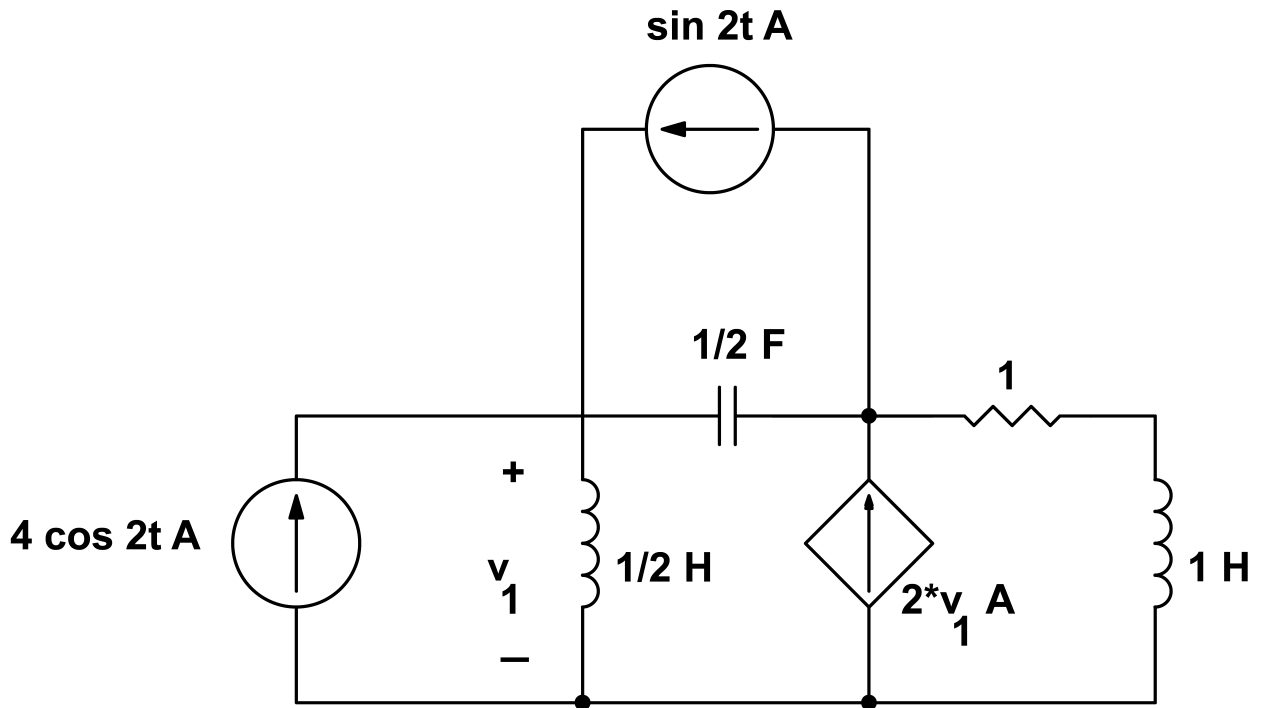
2. In the circuit shown below, find the impedance as seen by the source. Use the phasor method to find the steady-state values of  $v(t)$  and  $i(t)$  given that  $v_s(t) = 4\cos(1000t)$  V.



3. In the circuit shown below, use nodal analysis to find the steady-state values of  $v_1(t)$  and  $v_2(t)$  given that  $v_s(t) = 5 \cos(2t)$  V and  $i_s(t) = 5 \cos(2t)$  A.



4. In the circuit shown below, use loop analysis to find the steady-state values of  $v_1(t)$ .



5. In the circuit shown below, find the steady-state values of  $v_o(t)$  if  $v_s(t) = 3 \cos(2t)$  V.

