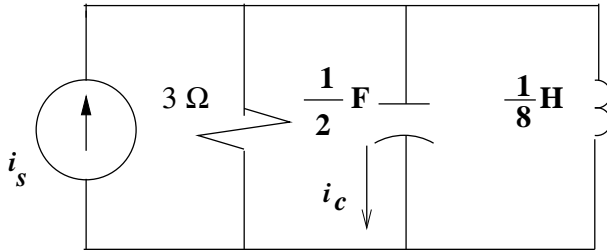


EE 211/ES 332: Fall 2014, Exam 3

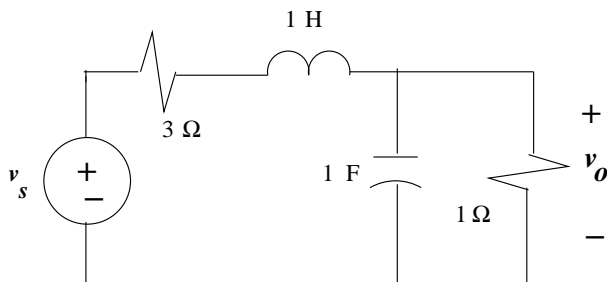
Name: _____

Closed book. Show all work. Partial credit will be given. No credit will be given if an answer appears with no supporting work.

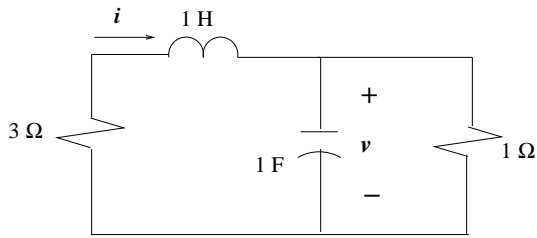
1. For the circuit shown in the figure below, $i_s(t) = 5 \cos 4t$.
Use phasors to find $i_c(t)$.



2. For the circuit shown in the figure below, $v_s(t) = 8 \cos 2t$. Find $v_o(t)$ by first replacing the portion of the circuit to the left of the 1Ω resistor with its Norton equivalent.



3. For the series-parallel circuit shown in the figure below, find $v(t)$ given that $v(0) = 0$ V and $i(0) = 1$ A.



4. For the op-amp circuit shown in the figure below, $R = 2\ \Omega$, $C = \frac{1}{4}\ \text{F}$. Suppose that $v_c(0) = 0$ V. Find $v_o(t)$ given that $v_s(t) = e^{-3t}u(t)$

