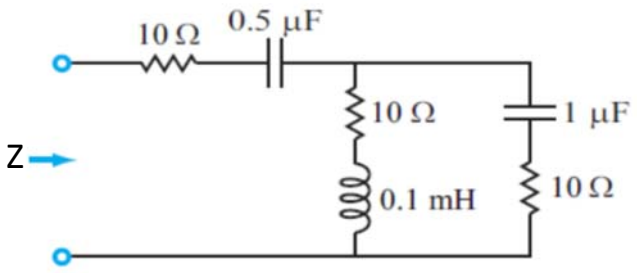
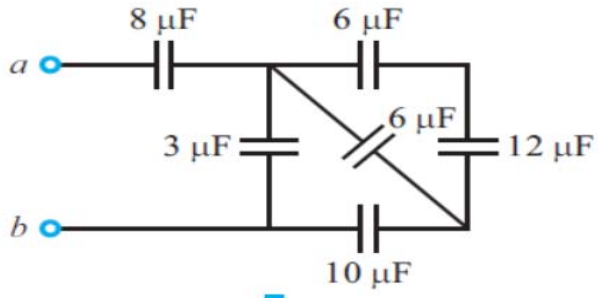
ELEN 50 – W17 HW#4

(due March 10 before class)

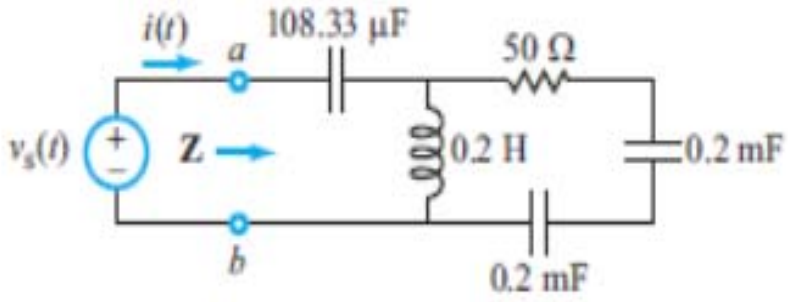
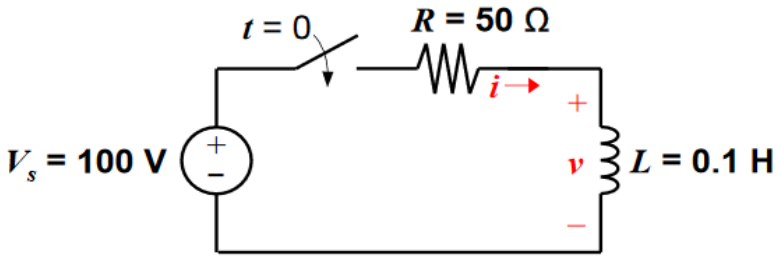
1. What is the complex impedance, Z, of this circuit at $\omega = 10^5$ rad/sec?



2. Reduce this circuit to a single equivalent capacitor:



3. At what angular frequency, ω, is the current, i(t) in phase with the applied voltage $v_s(t)$?



4. Find the voltage v(t) and current i(t) in this circuit. The switch closes at time t=0.