QUESTIONS TO HAND IN – EXPERIMENT 9

NAME_____

LAB INSTRUCTOR_____**LAB DAY/TIME**_____

1. A 1 mH inductor is connected in a series circuit to a 0.001 μF capacitor, and has a total resistance of 100 Ω. Find the resonant frequency f_o of the circuit.

2. Find the capacitive reactance X_C in the circuit at the resonant frequency.

3. Find the inductive reactance X_L in the circuit at the resonant frequency.

4. What is the impedance Z of the circuit at the resonant frequency?

5. Make a sketch of the dependence of the impedance Z as a function of frequency f.