

1. $i(t) = 0.9 \cos(5000t + 36.869^\circ) \text{ Amps}$,
 $i_c(t) = 1.5 \cos(5000t + 90^\circ) \text{ Amps}$
2. $I = 2 \angle 125^\circ \text{ Amps}$
3. $I_o = 5.26 \angle -74.75^\circ \text{ Amps}$
4. $V_o = 13.7 \angle -36.19^\circ \text{ Volts}$
5. $V_s = 6.71 \angle 26.57^\circ \text{ Volts}$
6. $Z = 1.98 \angle 83.08^\circ \text{ Ohms}$
7. $V_o(t) = 2.4 \cos(5000t + 45^\circ) \text{ Volts}$
8. $V_o = 45.3 \angle 34.9^\circ \text{ Volts}$