EE 201 — HW 8-1 Name_____

a. Find values of R and C such that a *series* R-C combination would have an impedance of $Z = 4\,\text{k}\Omega - j3\,\text{k}\Omega$. The frequency is $\omega = 10^5$ rad/s.

R = _____; C = _____

b. Find values of R and C such that a parallel R-C combination would have an impedance of $Z = 4\,\text{k}\Omega - j3\,\text{k}\Omega$. The frequency is $\omega = 10^5$ rad/s.

R = _____; C = _____

c. Find values of R and L such that a *series* R-L combination would have an impedance of $Z = 4\,\text{k}\Omega + j3\,\text{k}\Omega$. The frequency is $\omega = 10^5$ rad/s.

R = _____; L = _____

d. Find values of R and L such that a parallel R-L combination would have an impedance of $Z = 4\,\text{k}\Omega + j3\,\text{k}\Omega$. The frequency is $\omega = 10^5$ rad/s.

R = _____; L = _____

Write your answers — and whatever work will fit — on this sheet. Staple any sheets with additional work behind.