

Chapter 9, Problem 78.

A coil with impedance $(8 + j6) \, \Omega$ is connected in series with a capacitive reactance \mathbf{X} . The series combination is connected in parallel with a resistor \mathbf{R} . Given that the equivalent impedance of the resulting circuit is $5 \angle 0^\circ \, \Omega$, find the value of \mathbf{R} and \mathbf{X} .