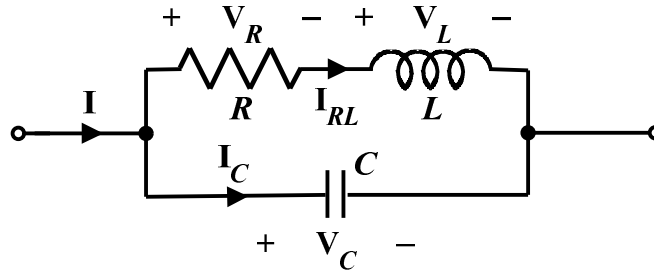


EE 3340
Homework Problem #019

The circuit shown below is sometimes called a “tuning circuit.”



If $R = 20\Omega$, $L = 5\text{mH}$, and $C = 0.5\mu\text{F}$:

a. Determine the frequency, ω , at which its equivalent impedance, $\mathbf{Z}_{eq} = \frac{\mathbf{V}_C}{\mathbf{I}}$, is purely resistive.

b. For the frequency determined in part a, determine that equivalent resistance.