

Chapter 9, Solution 56.

$$50\mu F \longrightarrow \frac{1}{j\omega C} = \frac{1}{j377 \times 50 \times 10^{-6}} = -j53.05$$

$$60mH \longrightarrow j\omega L = j377 \times 60 \times 10^{-3} = j22.62$$

$$Z_{in} = 12 - j53.05 + j22.62 // 40 = \underline{21.692 - j35.91 \Omega}$$