

Chapter 9, Solution 61.

All of the impedances are in parallel.

$$\frac{1}{\mathbf{Z}_{\text{eq}}} = \frac{1}{1 - j} + \frac{1}{1 + j2} + \frac{1}{j5} + \frac{1}{1 + j3}$$

$$\frac{1}{\mathbf{Z}_{\text{eq}}} = (0.5 + j0.5) + (0.2 - j0.4) + (-j0.2) + (0.1 - j0.3) = 0.8 - j0.4$$

$$\mathbf{Z}_{\text{eq}} = \frac{1}{0.8 - j0.4} = \mathbf{(1 + j0.5) \, \Omega}$$