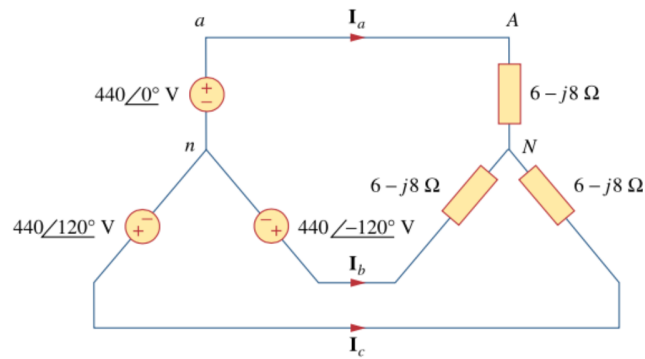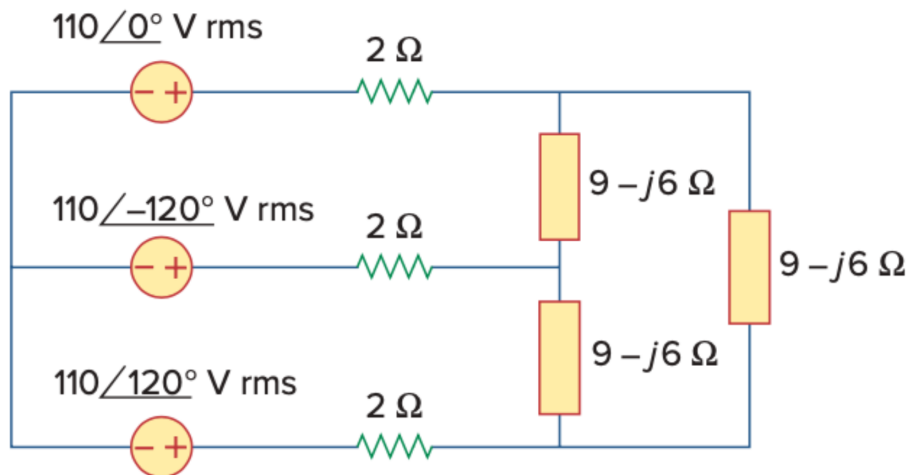Obtain the line currents in the three-phase circuit of Fig. 12.42 on the next page.
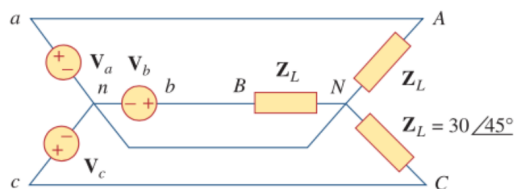

1.

12.13 In the balanced three-phase Y-Δ system in Fig. 12.46, find the line current I_L and the average power delivered to the load.

2.

In Fig. 12.56, the rms value of the line voltage is 208 V. Find the average power delivered to the load.
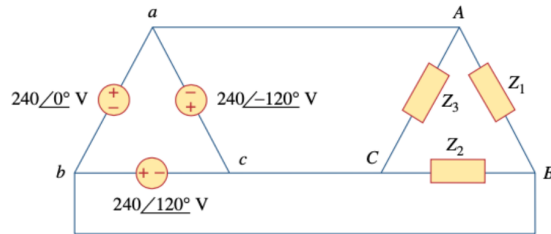

3.

Chapter 12, Problem 51.

ps ML Consider the Δ-Δ system shown in Fig. 12.60. Take $\mathbf{Z}_1 = 8 + j6\,\Omega$, $\mathbf{Z}_2 = 4.2 - j2.2\,\Omega$, $\mathbf{Z}_3 = 10 + j0\,\Omega$.

(a) Find the phase current $\mathbf{I}_{AB}$, $\mathbf{I}_{BC}$, $\mathbf{I}_{CA}$.

(b) Calculate line currents $\mathbf{I}_{aA}$, $\mathbf{I}_{bB}$, and $\mathbf{I}_{cC}$.

4.