Chapter 9, Solution 20.

7.5cos(10t+30˚) A can be represented by 7.5∠30˚ and 120cos(10t+75˚) V can be represented by 120∠75˚. Thus,

$$\mathbf{Z} = \mathbf{V}/\mathbf{I} = (120\angle 75°)/(7.5\angle 30°) = 16\angle 45° \text{ or } \mathbf{(11.314+j11.314)\ \Omega}.$$