AC Current Sources (16:51)

Describe an AC current source in general terms.

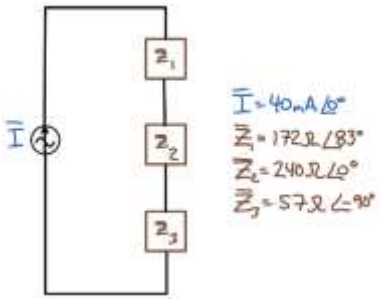
Describe the significance of arrows and polarity markers for AC current and voltage sources.

Given a 2A sinusoidal AC current source determine the voltage across and the power dissipated by a 20Ω resistive load impedance.

Given an AC current source supplying 50mA∠0° to a parallel combination of a fixed impedance of 480Ω∠30° /30 and a variable impedance currently set to 240Ω∠0° determine the current through each load and the voltage across the parallel combination.

Given an AC current source supplying 50mA∠0° to a parallel combination of a fixed impedance of 480Ω∠30° /30 and a variable impedance currently set to 150Ω∠-20° determine the current through each load and the voltage across the parallel combination.

Given this series circuit incorporating an AC current source determine the current through and voltage across each impedance.



Identify rules regarding AC current sources in series and parallel.

Explain the method of operation for a real world current source.

Describe closed loop control in general terms.

Identify limitations of real world current sources.