

Soal Analisa Arus Mesh

- 1 For the network shown in Figure 30.11, determine the current flowing in each branch.

[50 V source discharges at 2.08 A,
20 V source charges at 0.62 A,
current through 20 Ω resistor is 1.46 A]

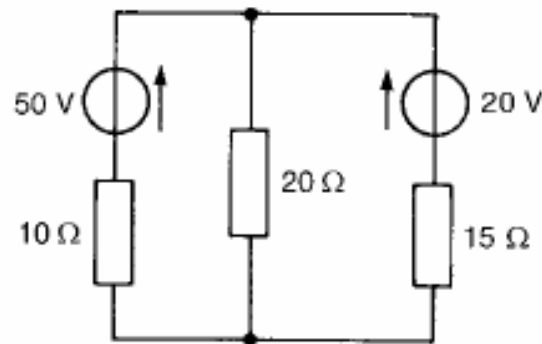


Figure 30.11

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2. Determine the value of currents I_A , I_B and I_C for the network shown in Figure 30.12. $[I_A = 5.38 \text{ A}, I_B = 4.81 \text{ A}, I_C = 0.58 \text{ A}]$

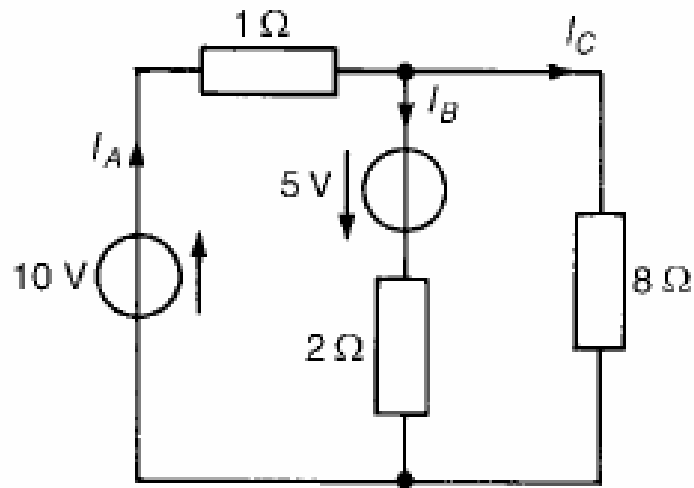


Figure 30.12

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3. For the bridge shown in Figure 30.13, determine the current flowing in (a) the $5\ \Omega$ resistance, (b) the $22\ \Omega$ resistance, and (c) the $2\ \Omega$ resistance. [(a) 4 A (b

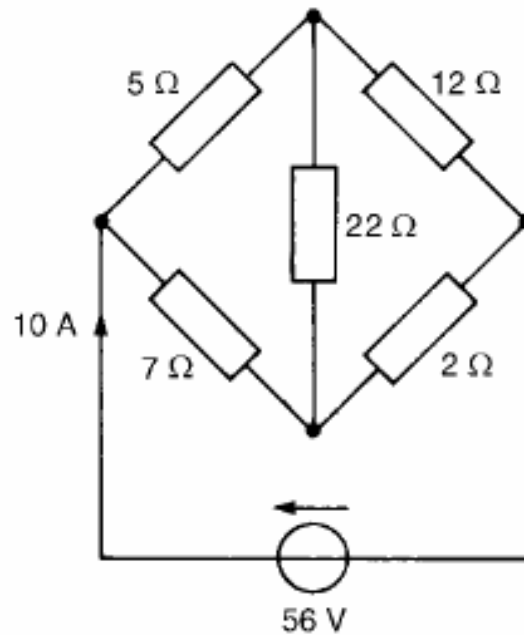


Figure 30.13

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4. For the circuit shown in Figure 30.14, determine (a) the current flowing in the 10 V source, (b) the p.d. across the 6 Ω resistance, and (c) the active power dissipated in the 4 Ω resistance.

[(a) 1.59 A (b) 3.71 V (c) 3.79 W]

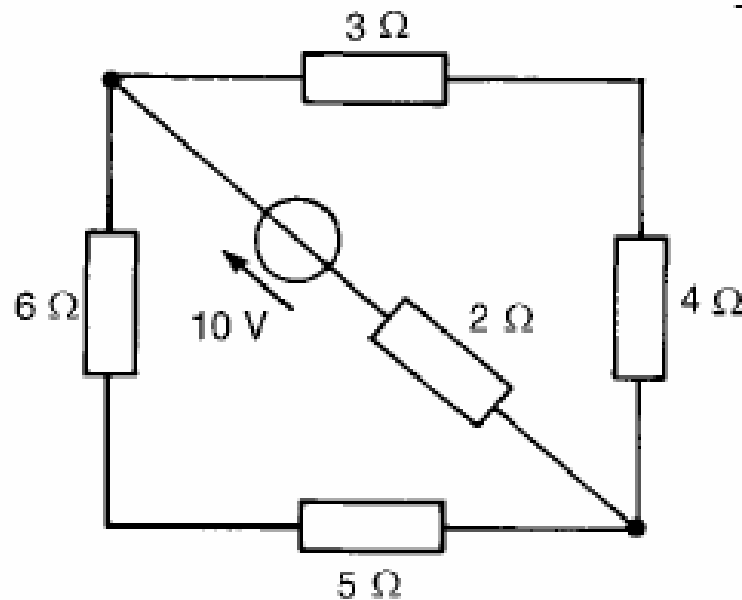


Figure 30.14

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5. **Gunakan A Arus Mesh** to determine the current flowing in each branch of the network shown in Figure 30.15.

$40\angle 90^\circ$ V source discharges at $4.40\angle 74.48^\circ$ A
 $20\angle 0^\circ$ V source discharges at $2.94\angle 53.13^\circ$ A
current in $10\ \Omega$ resistance is $1.97\angle 107.35^\circ$ A
(downward)]

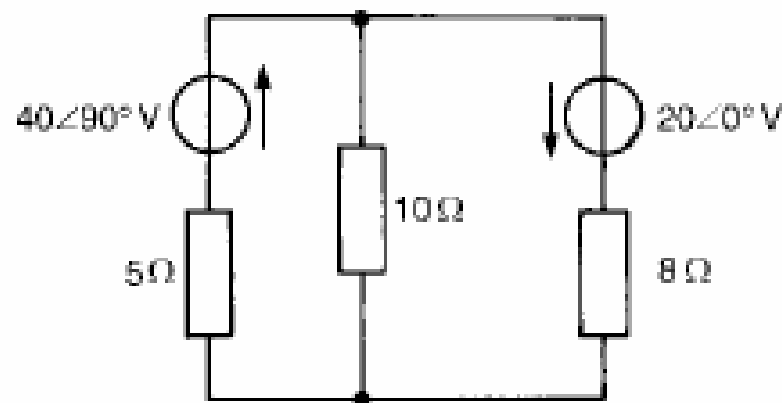


Figure 30.15