Circuit Analysis Techniques

Lecture 5
Tutorial

Lecture delivered by:

Objectives

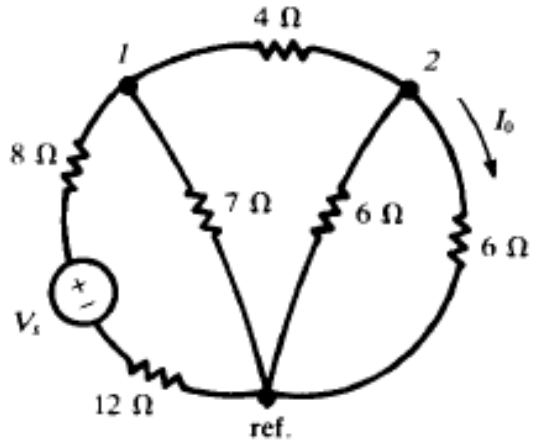
At the end of this lecture, student will be able to:

- Solve problems on KCL, KVL, Mesh and Nodal analysis
- Compute equivalent resistance in electrical circuits

Problems

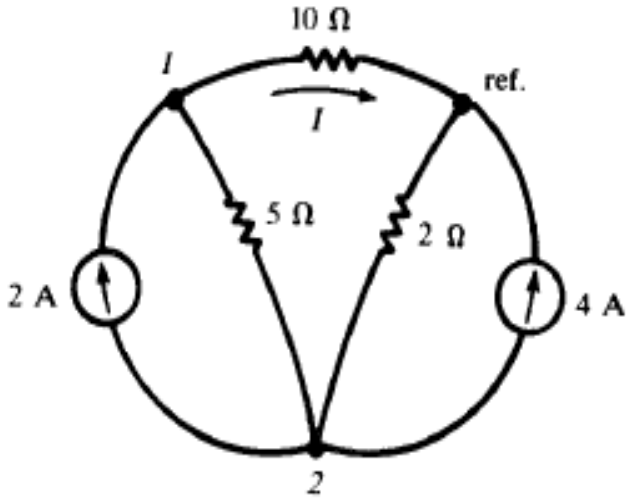
Problem 8

For the network shown in Fig, find Vs which makes I0 = 7.5 mA.



Problem 9

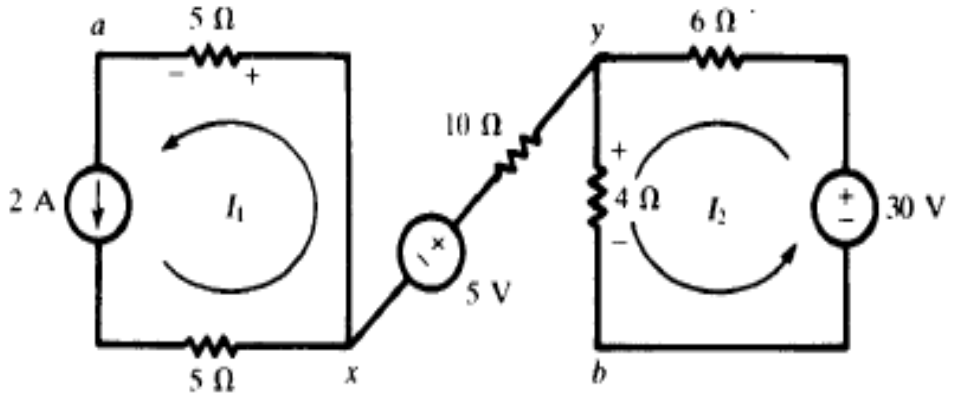
In the network shown, find the current in the 10Ω resistor.



Problems

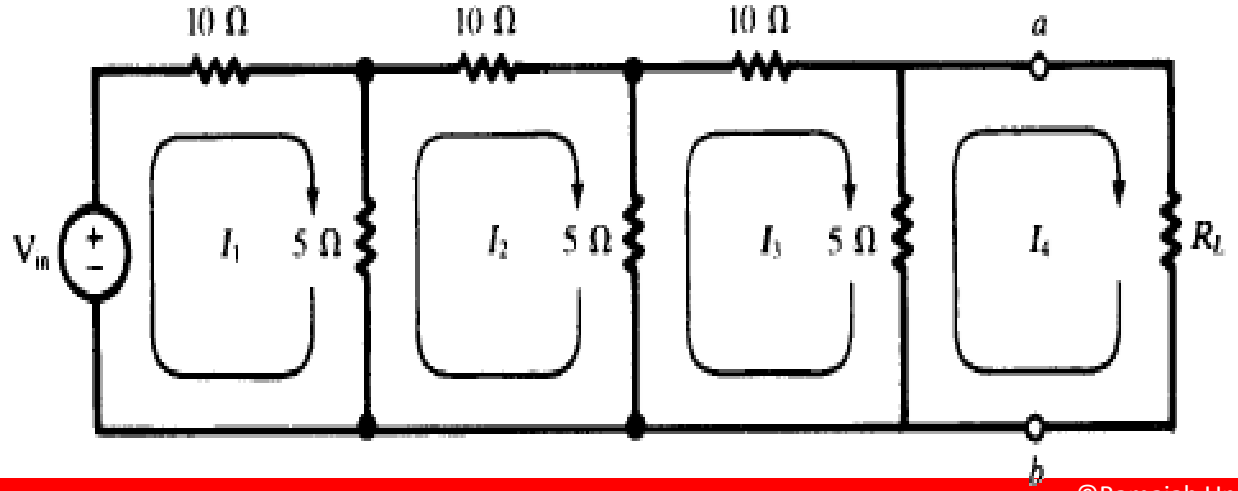
Problem 10

Find the voltage Vab in the network shown in Fig.



Problem 11

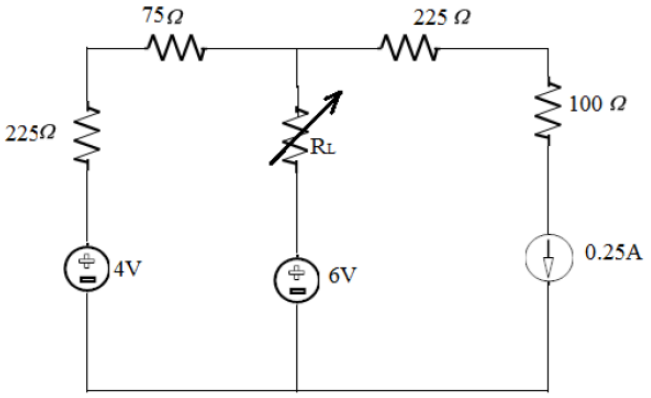
In the ladder network of Fig, obtain the transfer resistance as expressed by the ratio of Vin to I4.



Problems

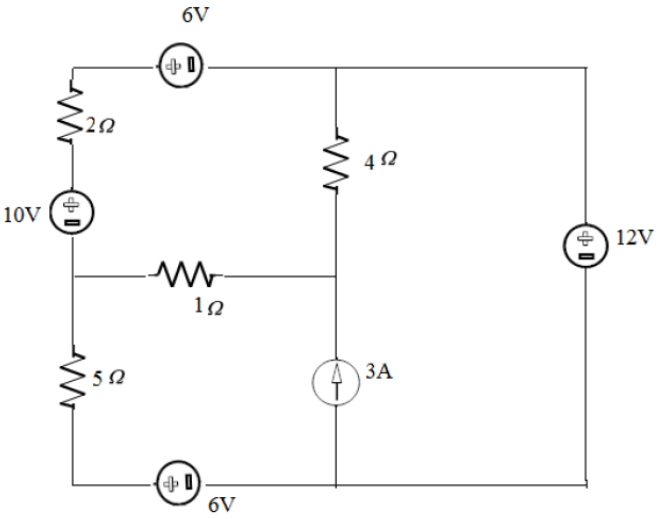
Problem 12

Find the maximum power that can be delivered to the resistor of circuit shown in figure



Problem 13

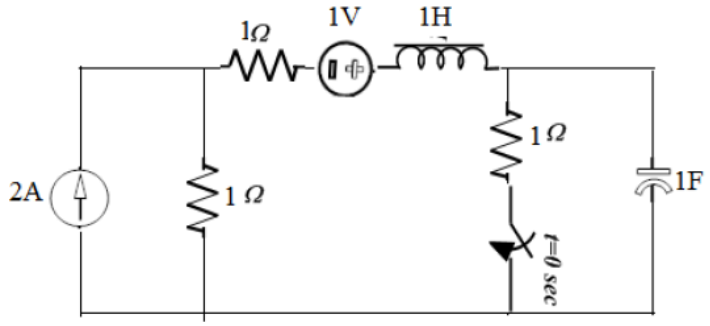
Find the power supplied by the 3A current source to the circuit shown in figure. Use either mesh analysis or nodal analysis



Problems

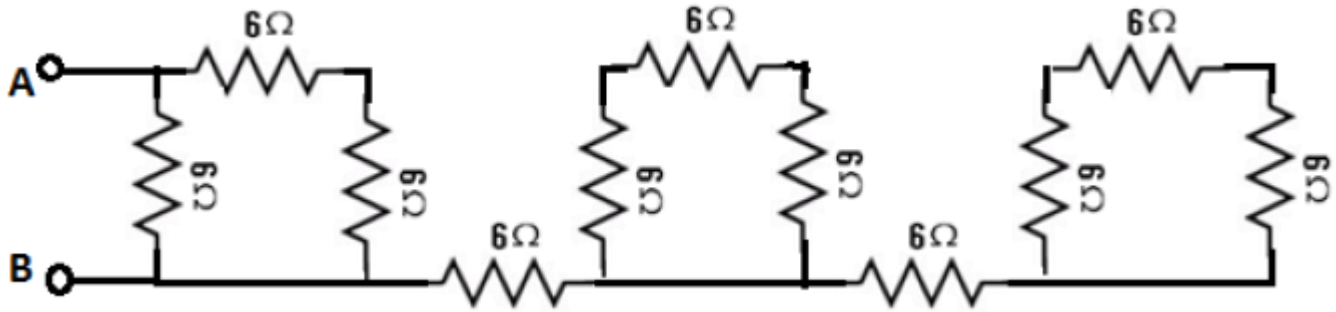
Problem 14

Find $I_L(0)$ and $V_C(0)$ for the circuit shown in figure



Problem 15

Find the equivalent Resistance across A and B



Summary

- Problems are solved on KCL
- Problems are solved on KVL
- Problems are solved on meh and node analysis
- Arrive at equivalent resistance