Circuit Analysis Techniques

Lecture 10
Tutorial

Lecture delivered by:

Objectives

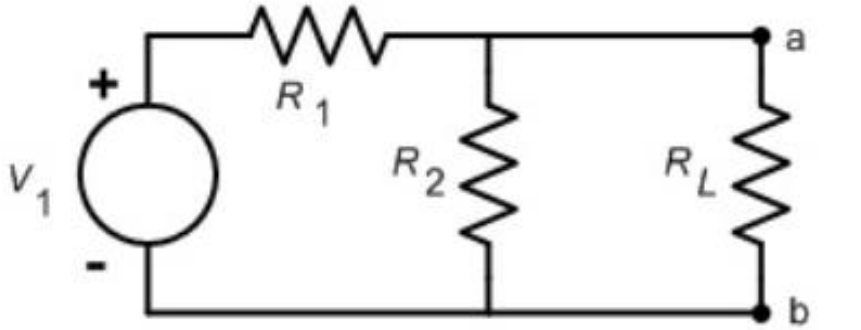
At the end of this lecture, student will be able to:

- Solve problems on Thevenin's Theorem
- Solve problems on Superposition Theorem

Thevenin's Theorem

Problem 5:

Obtain the load current through R_L using Thevenin's theorem.

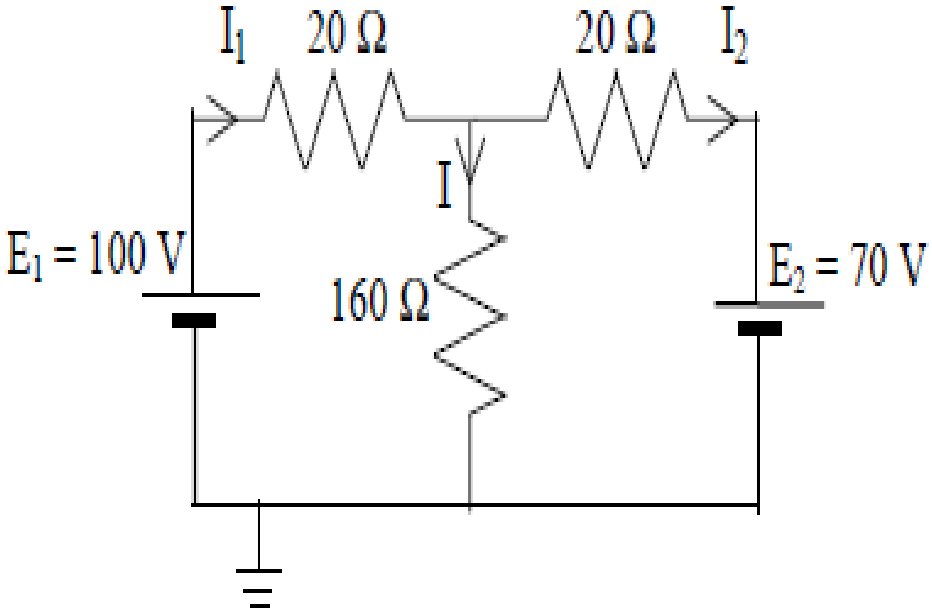


$V_1 = 42\ V,\ R_1 = 3\ \Omega,\ R_2 = 6\ \Omega,\ R_L = 12\ \Omega$

Thevenin's Theorem

Example 6:

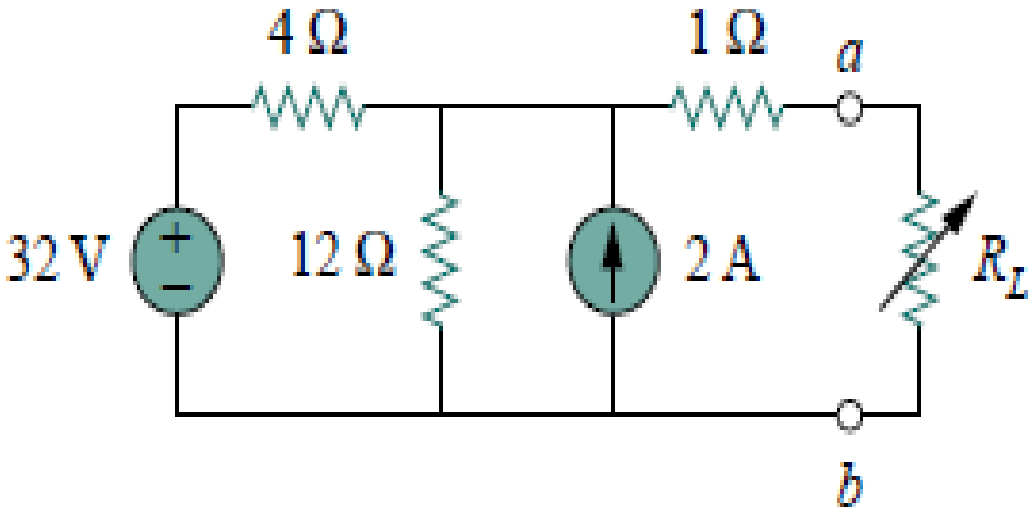
Obtain the load current I using Thevenin's theorem.



Thevenin's Theorem

Problem 7:

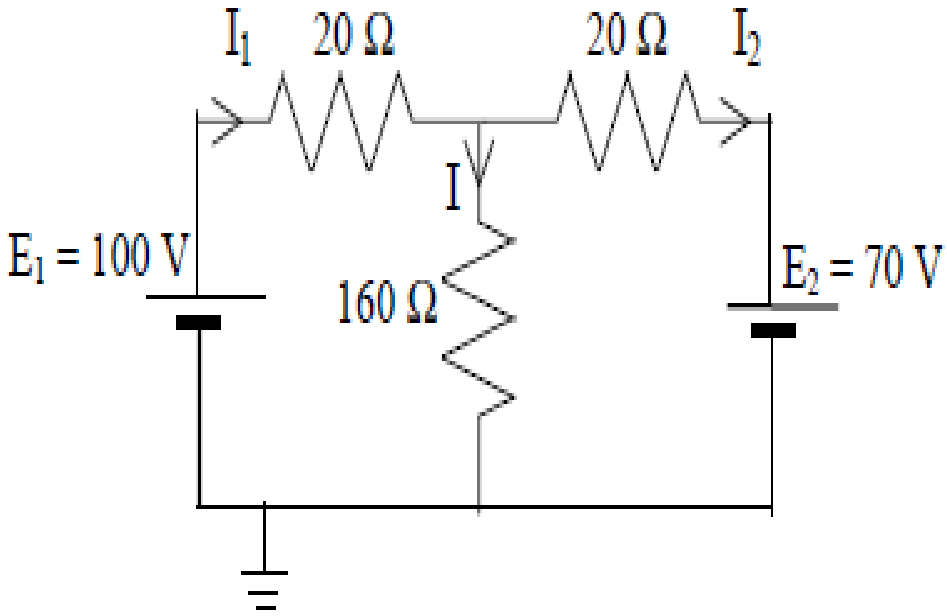
Find the load current through R_L = 6 , 16 and 36Ω using Thevenin's theorem for the given circuit.



Norton's Theorem

Problem 8:

Obtain the load current I using Norton's theorem.



Summary

- Understand and be able to use Thevenin's theorem
- Understand and be able to use Norton's theorem