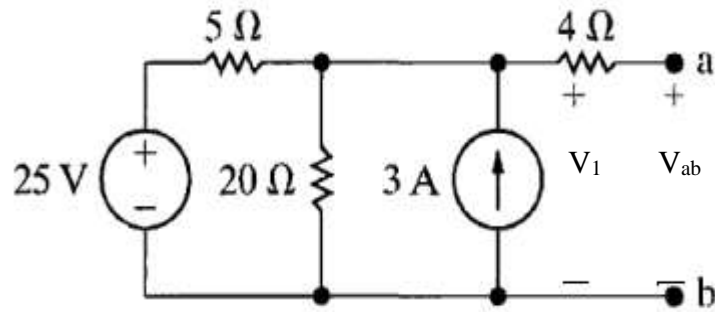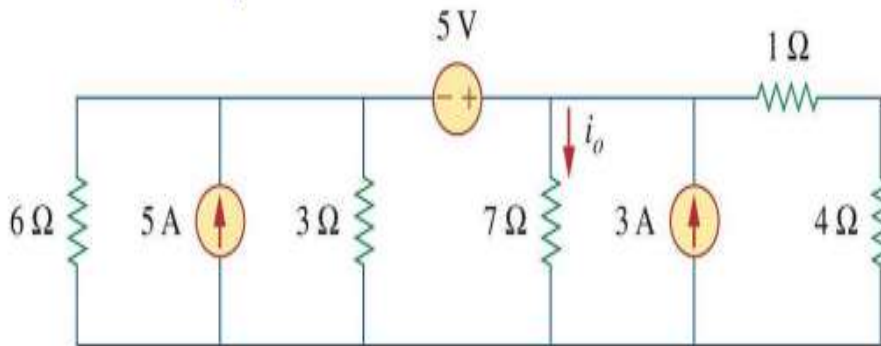# Tutorial 2

1. Find the Thevenin's equivalent circuit for the following circuit.
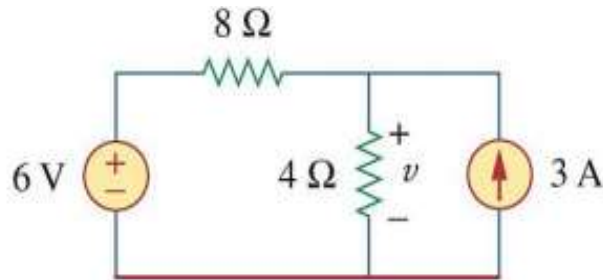

(Ans: $V_{th} = 32V$, $R_{th} = 8\ \Omega$)

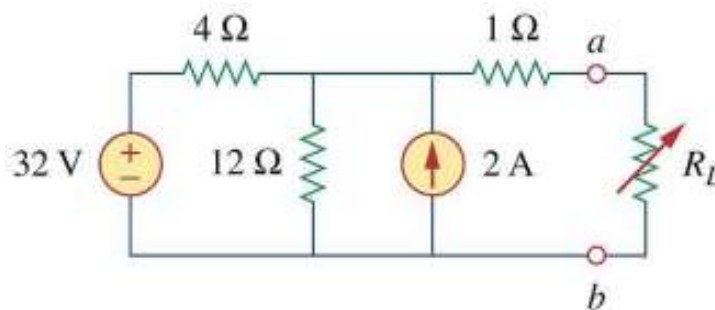2. Find i_o in the circuit using source transformation.

(Ans: 1.78A)

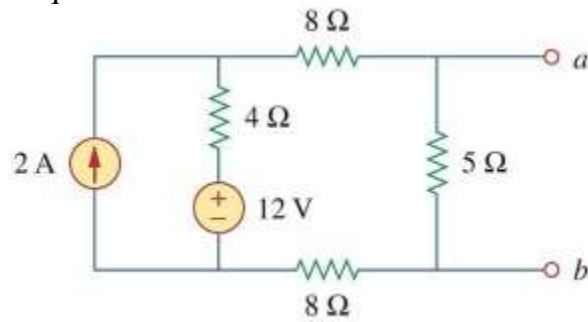3. Use the superposition theorem to find v in the circuit.

(Ans: 10V)

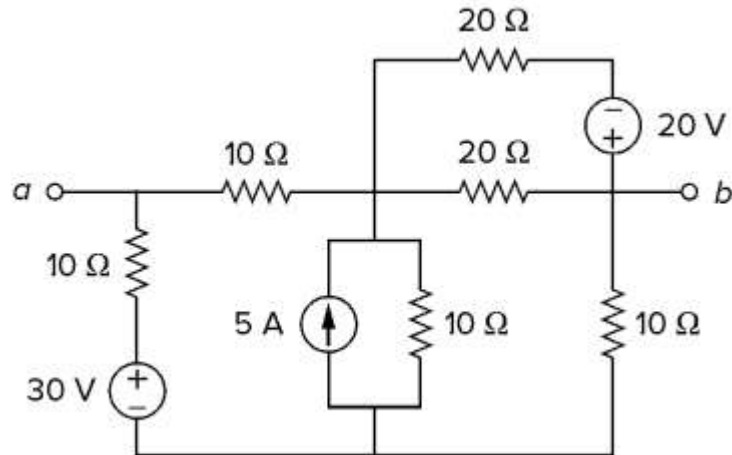4. Find the Thevenin equivalent circuit at the terminals a & b.

(Ans: $V_{th} = 30V$, $R_{th} = 4\ \Omega$)

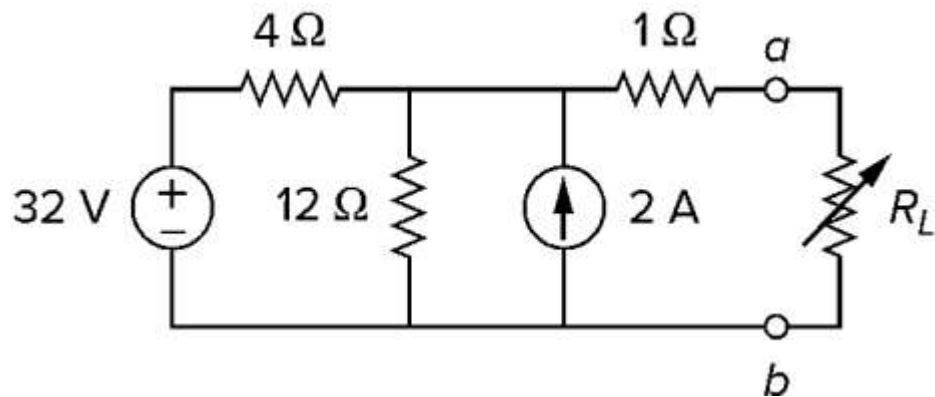**5.** Find the Norton equivalent circuit at the terminals a & b.

(Ans: $I_N = 1A$, $R_N = 4\ \Omega$)

6. Find Thevenin equivalent circuit at the terminals a & b.

(Ans: $V_{th} = 30V$, $R_{th} = 4\ \Omega$)

7. Find the Thevenin equivalent of the circuit shown below across terminals a-b. Then find the current through $R_L = 6\Omega$ and 36Ω respectively.

(Ans: $V_{th} = 30V$, $R_{th} = 4\ \Omega$; $I_{L6} = 3A$, $I_{L36} = 0.75A$)

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