



Nodal Analysis

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Nodal Analysis → KCL

Definition: The common point where two or more elements are connected.

simple node → C.D.X
principal node → C.D. ✓

- Procedure:**
- 1) Identify the total number of nodes.
 - 2) Assign the voltage at each node. One node is taken as reference node (datum).
 - 3) Develop the KCL equation for each non-reference node.
 - 4) Solve the KCL equations to get the node voltage.

↓
pot. = 0V

- Note:**
- 1) Applicable for both planar and non-planar networks.
 - 2) Number of equations required to solve an electrical network is

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Example: Find the value of current I using nodal analysis.



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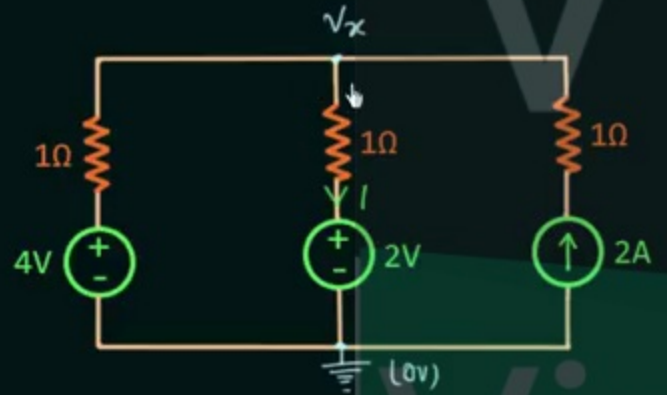
Sol.:- i) ✓ no. of node = 2
ii)



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- Sol.:- i) ✓ no. of node = 2
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iii)

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