# Discussion3

Analyze the networks shown in the figure below using the node voltage analysis method and the loop current analysis method.

Node voltage analysis

(a) Mark the datum node and unknown node-to-datum voltages in the figure below.

(b) Write your appropriate equations to solve for the unknown node-to-datum voltages.

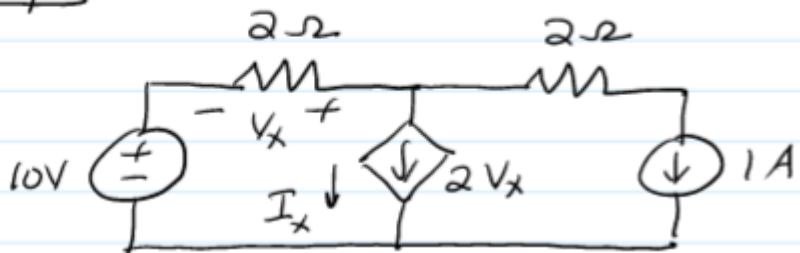(c) Collect them into a matrix form but do not solve them.

Loop current analysis

(d) Mark your loop current unknowns clearly in the circuit.

(e) Write the appropriate KVL equations needed to solve for the unknown.

(f) Collect them into a matrix form but do not solve them.

Q1.



Q2.
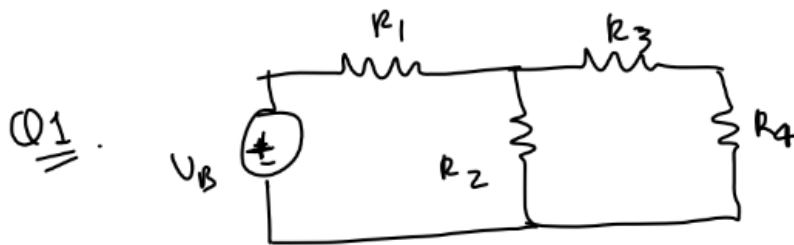


Q3. Using source transformation, find the effective voltage and output impedance of a set of "n" batteries connected in parallel.