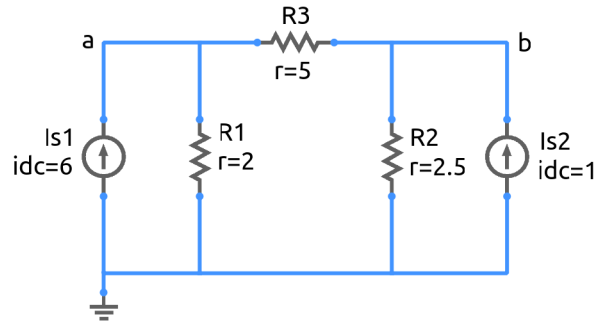


ee101_nodal_anaylsis_1.sqproj



In nodal analysis, the following steps are carried out:

1. Identify circuit nodes, define node voltages V_1 , V_2 , etc.
2. Write KCL at each node in terms of V_1 , V_2 , etc.
3. Solve the resulting system of equations to obtain V_1 , V_2 , etc.
4. Compute any other quantities (currents, voltages, powers) of interest using the node voltages.

Exercise

For the circuit shown in the figure, carry out nodal analysis, and find the following: (a) currents through R_1 , R_2 , R_3 , (b) power delivered by the two sources, I_{s1} and I_{s2} .

Verify your answers against simulation results.