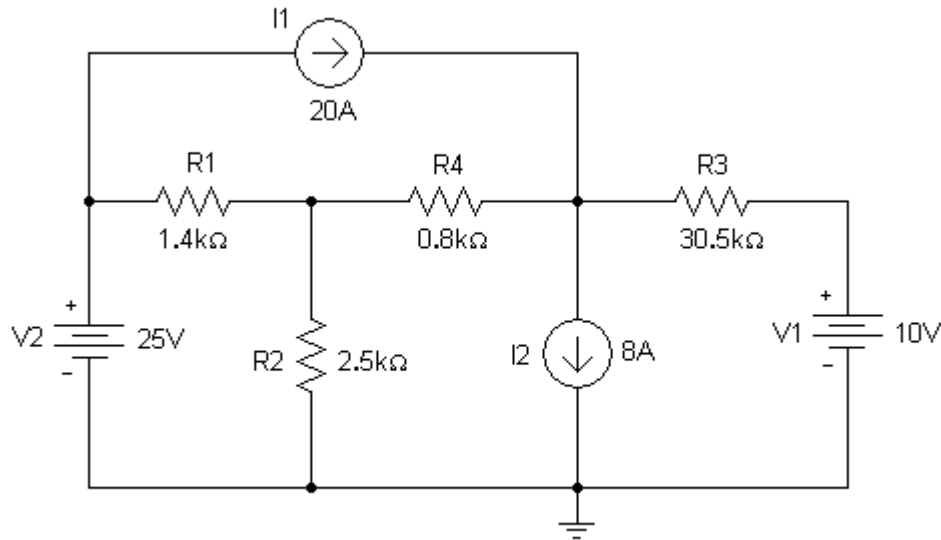


EE 206 Simulation 3

Solving Circuits using Nodal & Mesh Analysis via MATLAB



Procedure

1. Analytically solve the circuit above using mesh analysis. Find all mesh currents.
2. Analytically solve the circuit using nodal analysis. Find all node voltages.
3. Solve the circuit using MATLAB.
 - a. Find all mesh currents using a mesh solution approach.
 - b. Find all node voltages using a nodal solution approach
4. Write a PSpice .cir file to simulate the circuit. Have PSpice display all node voltages and all branch currents. Use the branch current information to determine the mesh currents.
5. Compare results from your analytical, MATLAB, and PSpice solutions. Describe the merits of each solution method.

Report

Your report should include the calculations required in Step 1 and 2, the printout of the MATLAB command window with all commands you have used for each case, the printout of the .cir file and the .out file, and the comparison required in Step 5. Your report is due at the beginning of the next recitation session.