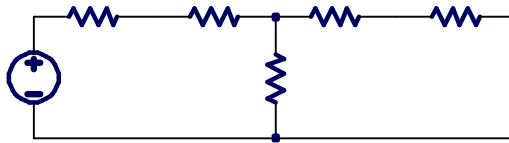
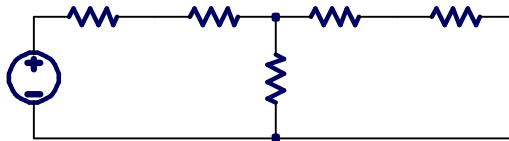


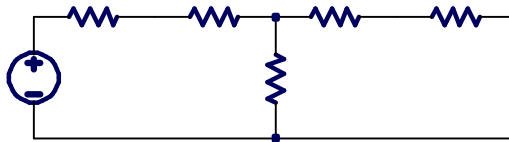
17.) a.) How many nodes does the circuit shown below have? Label them "N1", "N2", etc. (2/2 points)



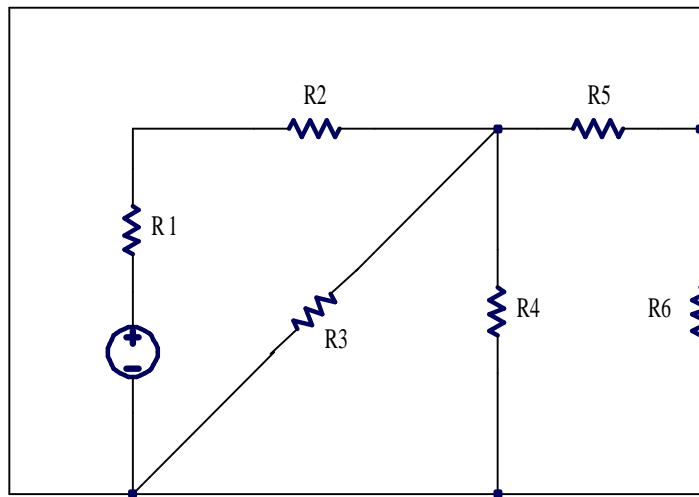
b.) How many loops does the circuit shown below have? Label them "L1", "L2", etc. (2/2 points)



c.) How many meshes does the circuit shown below have? Label them "M1", "M2", etc. (2/2 points)

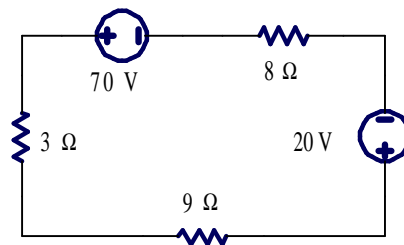


18.) In the circuit shown below, which resistors are connected in parallel? Which are connected in series? (4/4 points)



19.) Find the electrical power supplied to the circuit by the 20 V source. Explain what the sign of your answer means.

(4/4 points)



20.) In the circuit diagram shown below, add current labels to each voltage source and voltage labels to each current source to conform with the passive sign convention. Then use KVL to quantify each of the newly labeled voltages and currents. Finally, find the electrical power dissipated by each circuit element and show that the sum of all the dissipated power is zero.

(4/4 points)

