

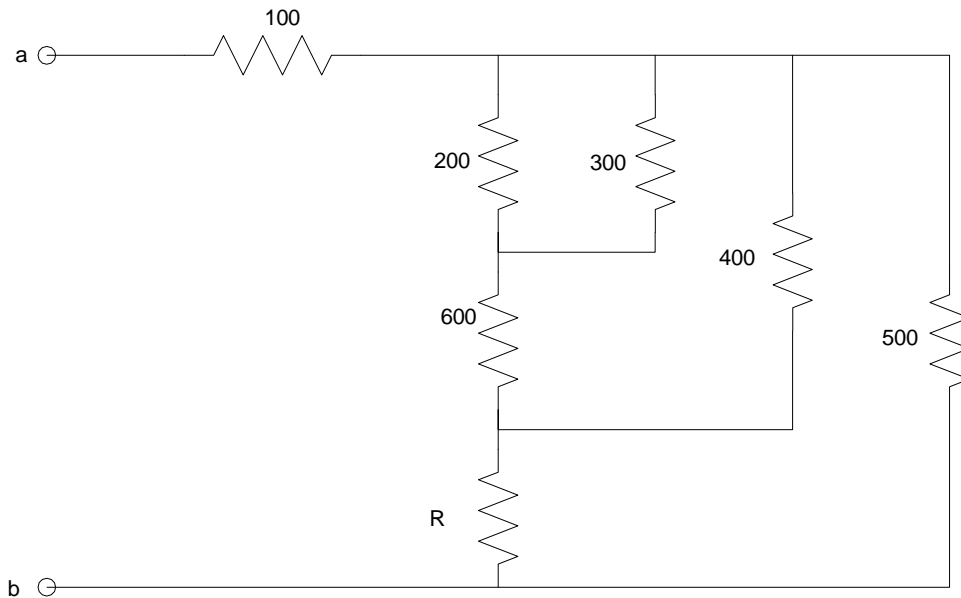
EE 206: Homework #3

Voltage and Current Division. Voltage Nodes. Due Mon, Feb 3rd

Please make the subject "EE 206 HW#3" if submitting homework electronically to Jacob_Glower@yahoo.com (or on blackboard)

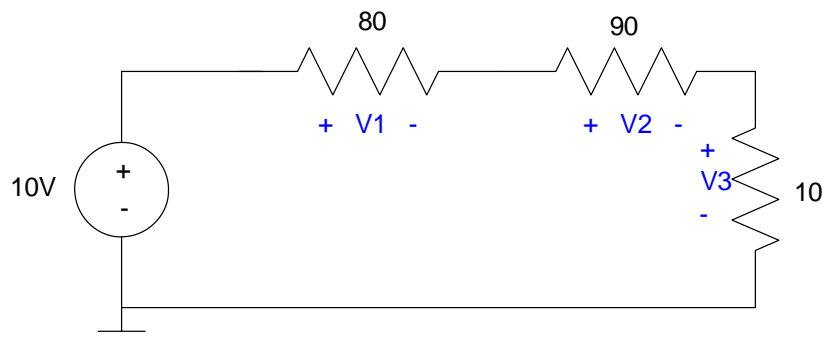
Resistors in Series and Parallel

- 1) Assume $R = 100$. Determine the total resistance, R_{ab}
- 2) Assume the total resistance is $R_{ab} = 400$ Ohms. Determine R .

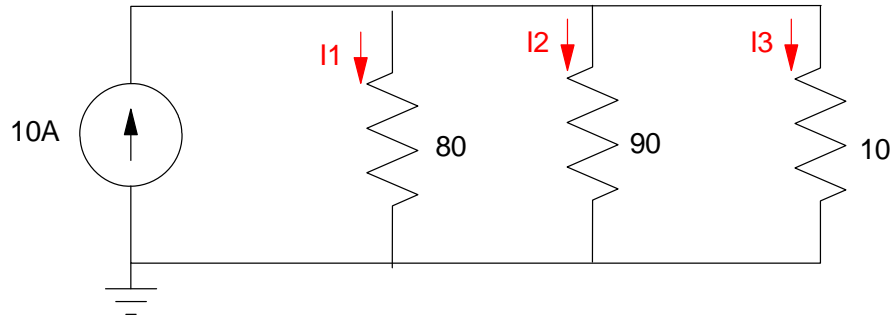


Voltage Division:

- 3a) Use voltage division to determine the voltages V_1 , V_2 , and V_3
- 3b) Determine the power dissipated in the 10 Ohm resistor (in Watts)



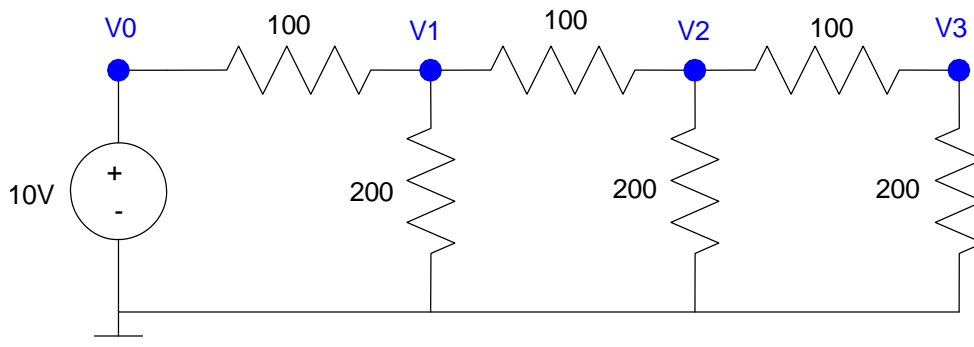
- 4a) Use current division to determine the current I_1 , I_2 , and I_3
- 4b) Determine the power dissipated in the 10 Ohm resistor (in Watts)



Voltage Nodes:

- 5) Write the voltage node equations for the following circuit. Solve for $V_1..V_3$ using Matlab (or similar program)
- 6) Check your answers in PartSim (or similar program)

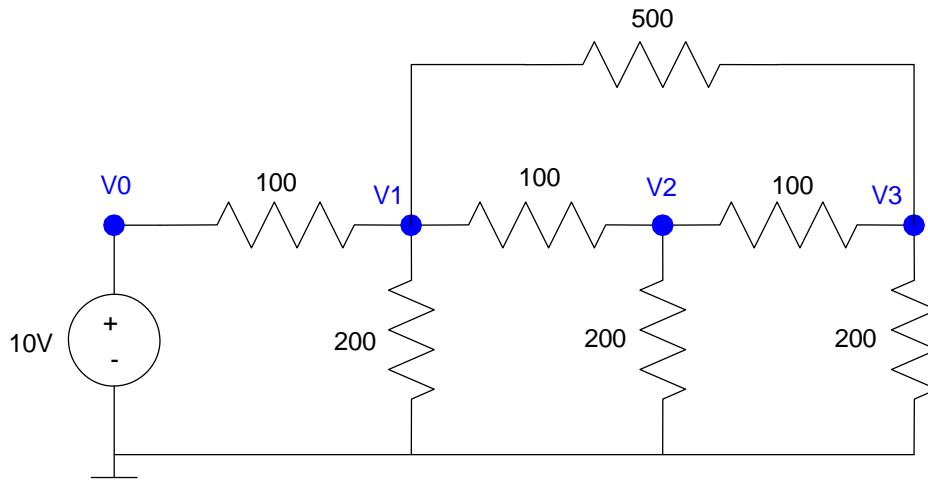
	Calculated prob 3	Simulated prob 4
V1		
V2		
V3		



Circuit for Problem 3 - 4

7) Write the voltage node equations for the following circuit. Solve for V_1 .. V_3 using Matlab (or similar program)

8) Check your answers in PartSim (or similar program)



Circuit for Problem 5 - 6

	Calculated prob 5	Simulated prob 6
V1		
V2		
V3		