

ECE 111 - Homework #5

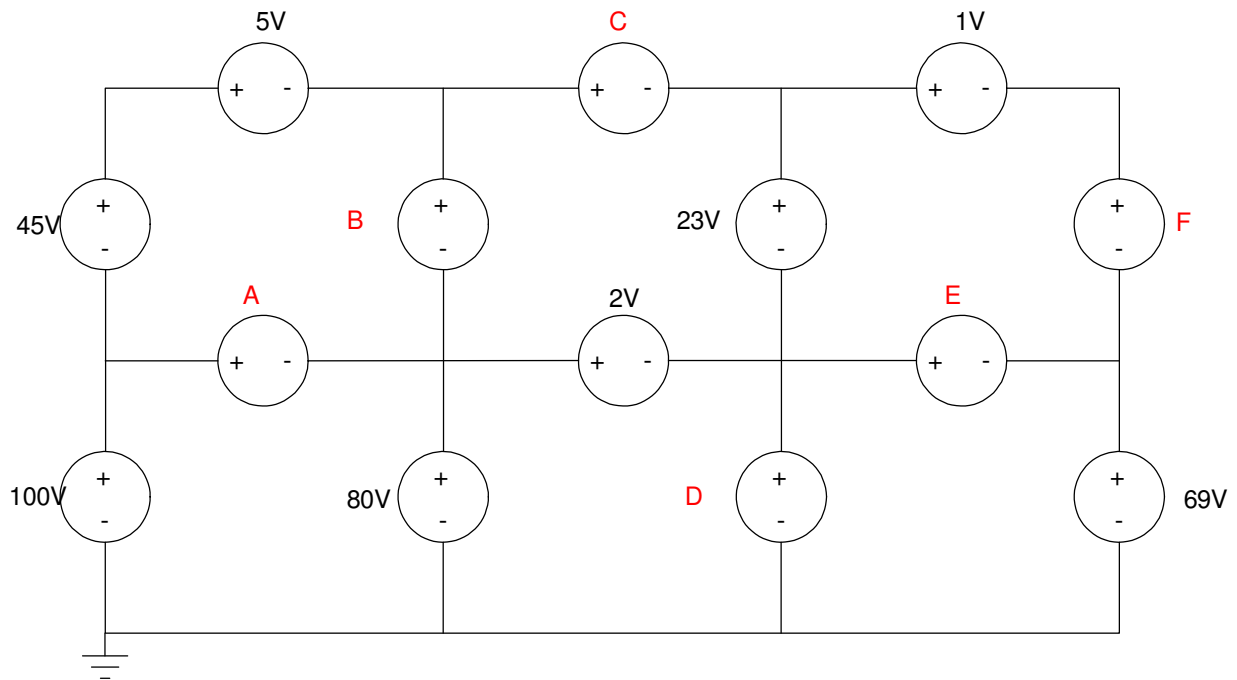
Week #5: EE 206 Circuits I. - Due 11am Tuesday, September 27th

1) A resistor has the following volts / amps / resistance / power. Determine the missing parameters:

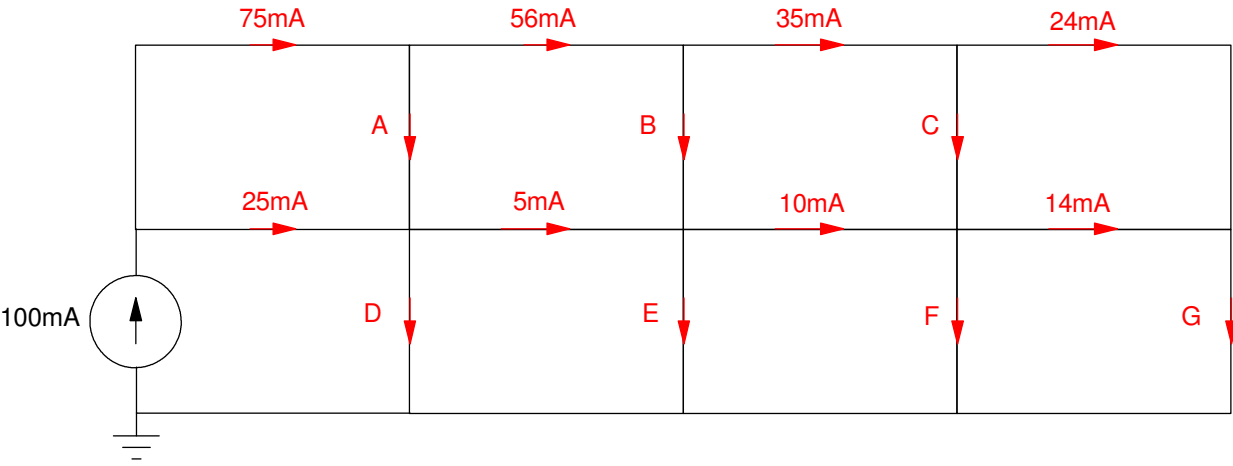
Volts	Amps	Ohms	Watts
40V	1.5A		
40V		4	
	5A		120
40V			100

Kirchoff's Laws:

2) Use conservation of voltage to determine the unknown voltages

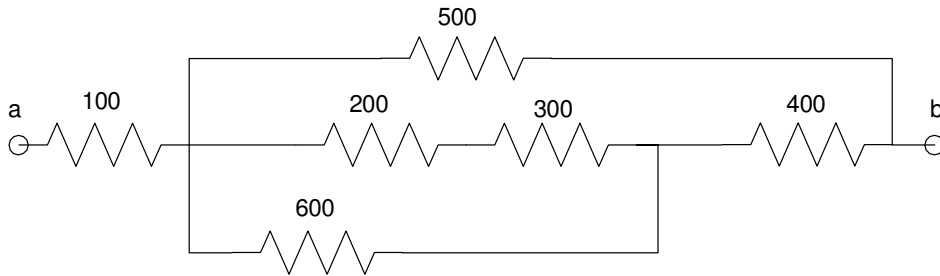


3) Use conservation of current to determine the unknown currents



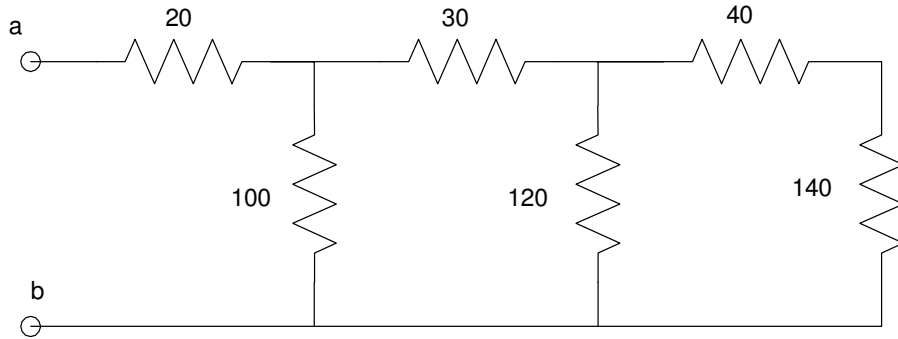
Resistors in Series and Parallel

4) Find the total resistance Rab



5) Find the total resistance Rab

6) Use CircuitLab to find the resistance Rab (apply a 1V source and determine the current draw)



Voltage Division

- 7) Use voltage division to find V_1 , V_2 , and V_3 .
- 8) Use CircuitLab to find V_1 , V_2 , V_3 .

