

EE 206: Homework #2

VIR, Kirchoff's Laws, Resistors in Series and Parallel. Due Wednesday, September 9th

Please make the subject "EE 206 HW#2" if submitting homework electronically to lauren.n.singelmann@ndsu.edu (or on blackboard)

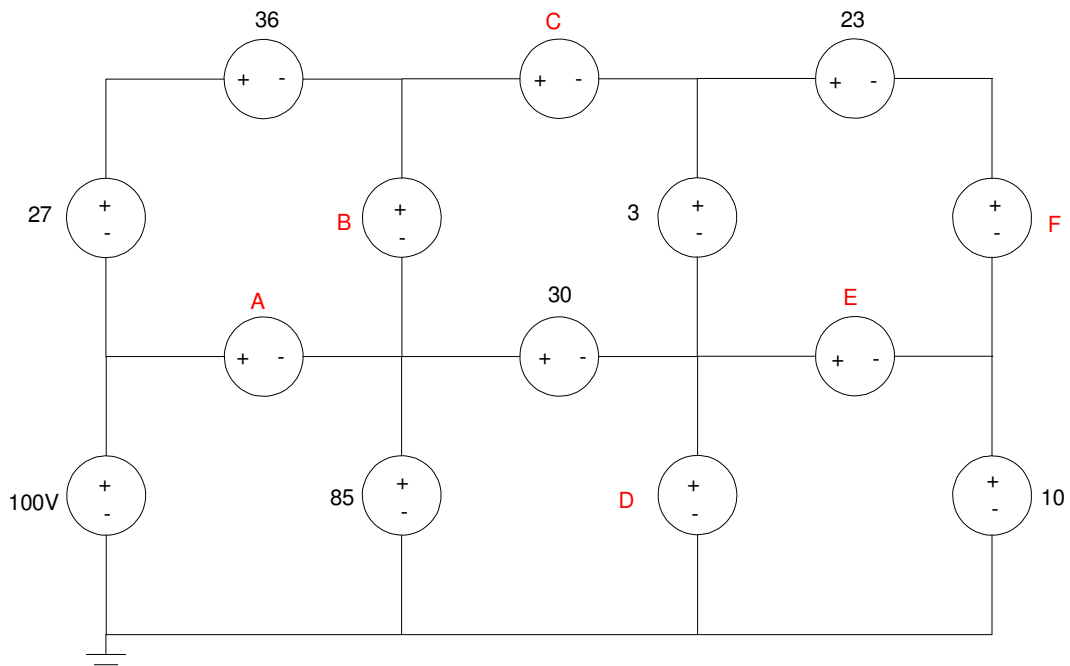
Electrical Quantities:

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

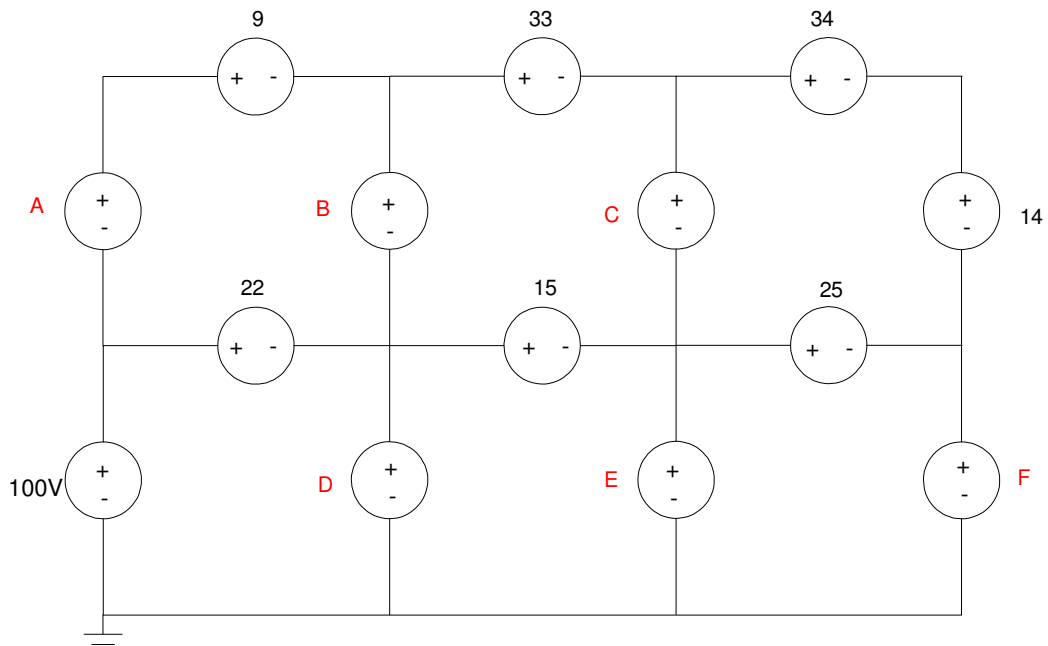
Volts	Amps	Ohms	Watts
6	4		
3		3	
	9		7
10			7

Kirchoff's Laws:

2) Use conservation of voltage to determine the unknown voltages

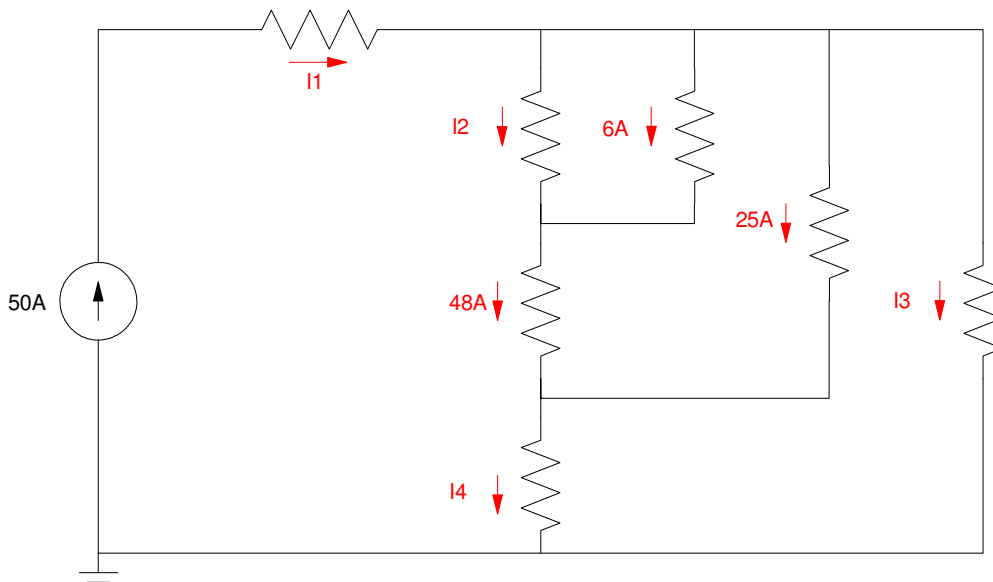


3) Use conservation of voltage to determine the unknown voltages



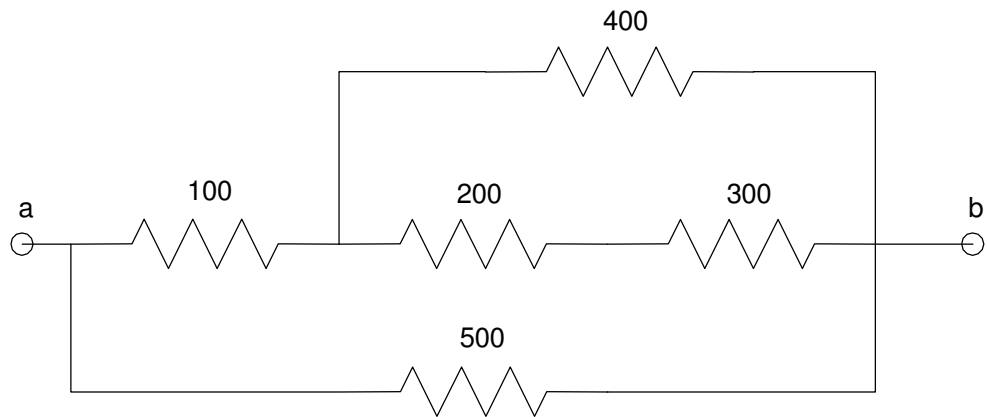
4) Use conservation of current to determine the unknown currents

5) Change the 50A source to 20A. Use conservation of current to determine the unknown currents. (note: some of the currents may be negative).



Problem 4 & 5

6) Determine the resistance, R_{ab}



7) Determine the resistance R_{ab}

