

# EE 206: Homework #2 Solution

Electrical Quantities, Kirchoff's Laws, Resistors in Series and Parallel. Due Monday, January 27th

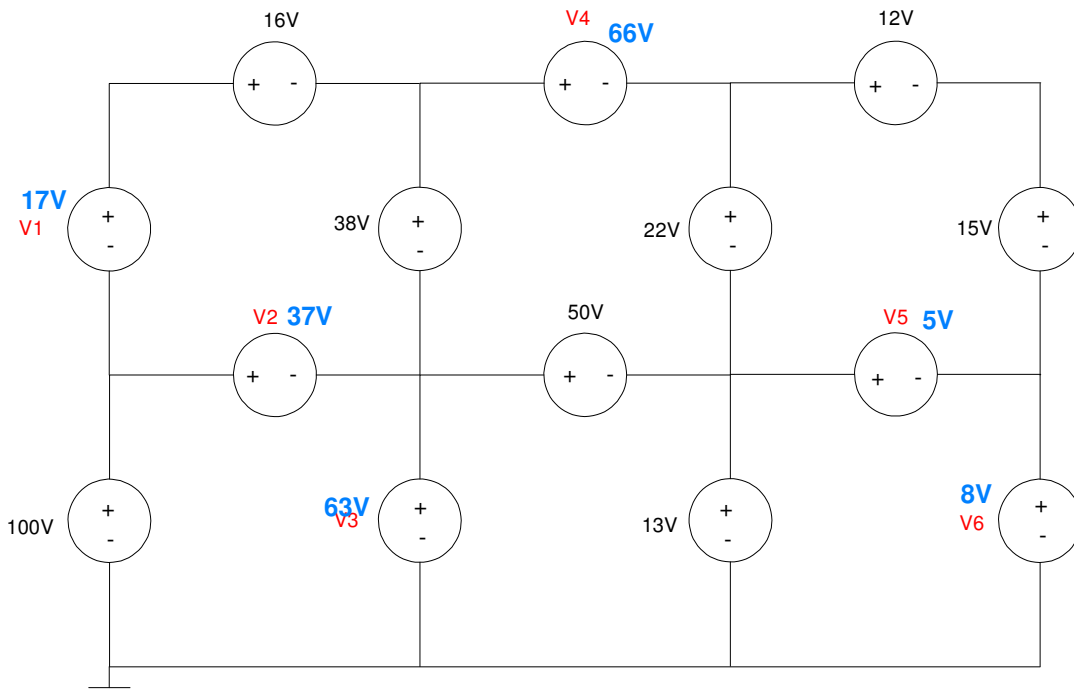
## Electrical Quantities:

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

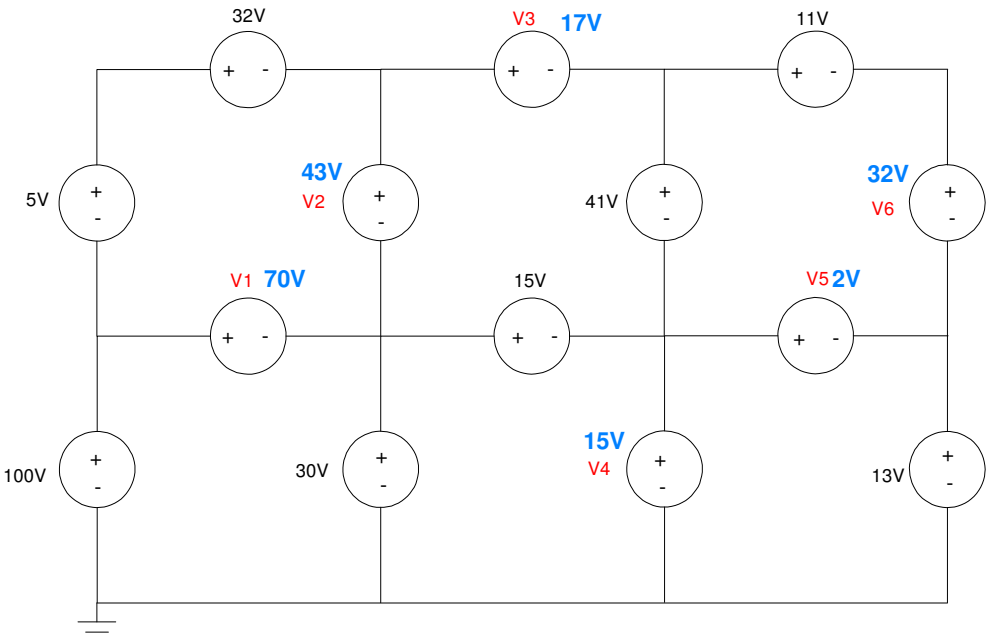
Volts	Amps	Ohms	Watts
10	2	<b>5</b>	<b>20</b>
10	<b>2.5</b>	4	<b>25</b>
<b>6.67</b>	3	<b>2.22</b>	20
10	<b>4</b>	<b>2.5</b>	40

## Kirchoff's Laws:

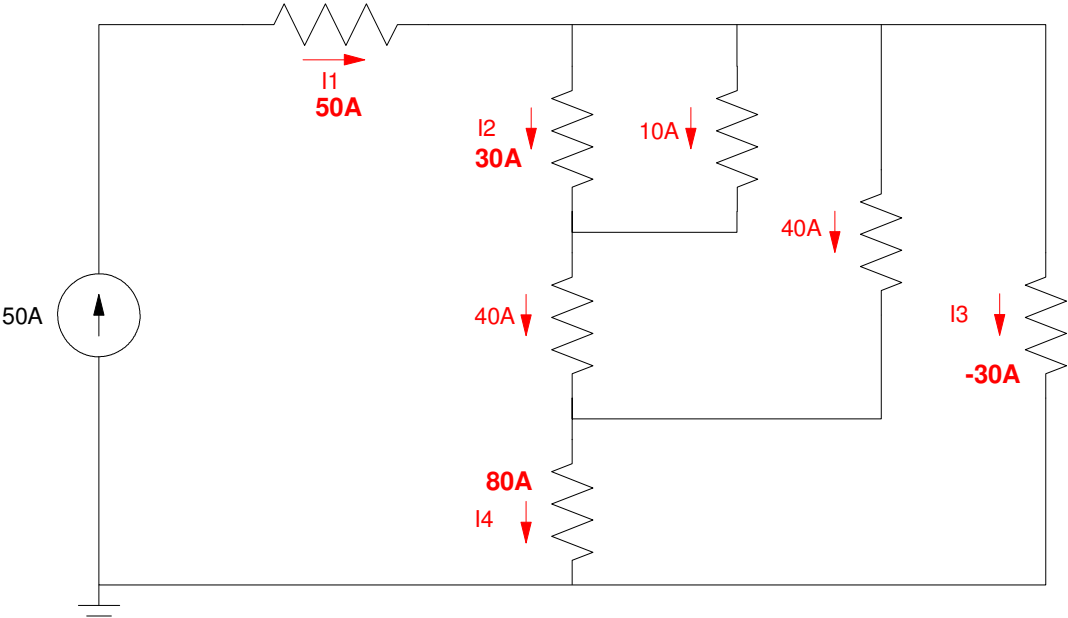
2) Use conservation of voltage to determine the unknown voltages



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).

