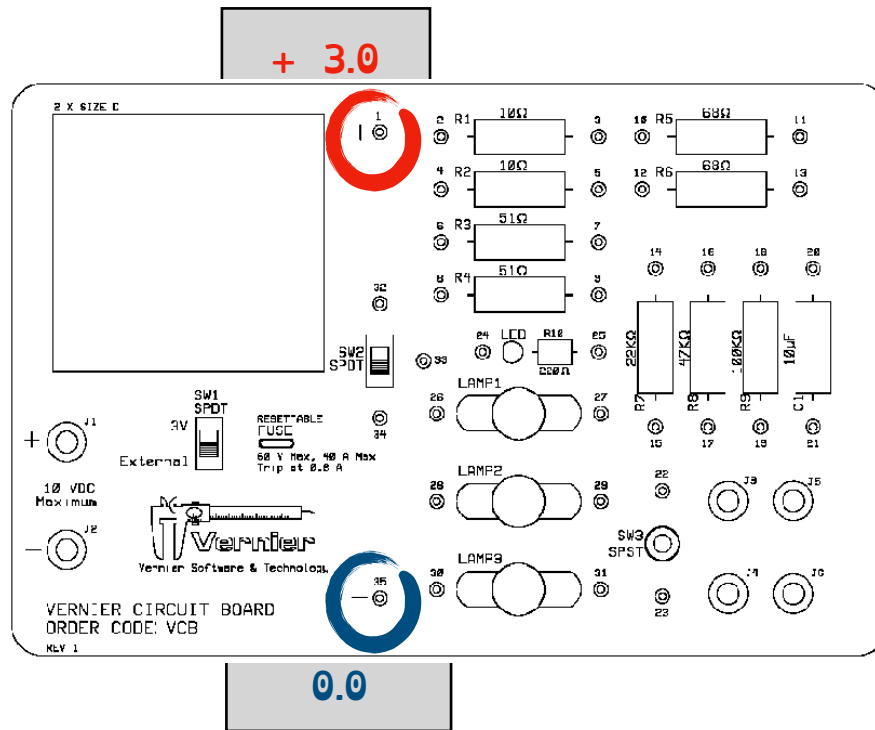


CIRCUIT BOARD LAYOUT



WITH TWO “D” BATTERY CELLS ON THE BOARD, YOU SHOULD HAVE NEARLY 3 VOLTS BETWEEN THE POSITIVE AND NEGATIVE TERMINALS

THE POSTS NEXT TO EACH OF THE COMPONENTS ON THIS CIRCUIT BOARD MAKE CONNECTIONS QUICK, AND CAN BE USED FOR MORE THAN ONE CONNECTION.

MEASURING VOLTAGE (POTENTIAL)

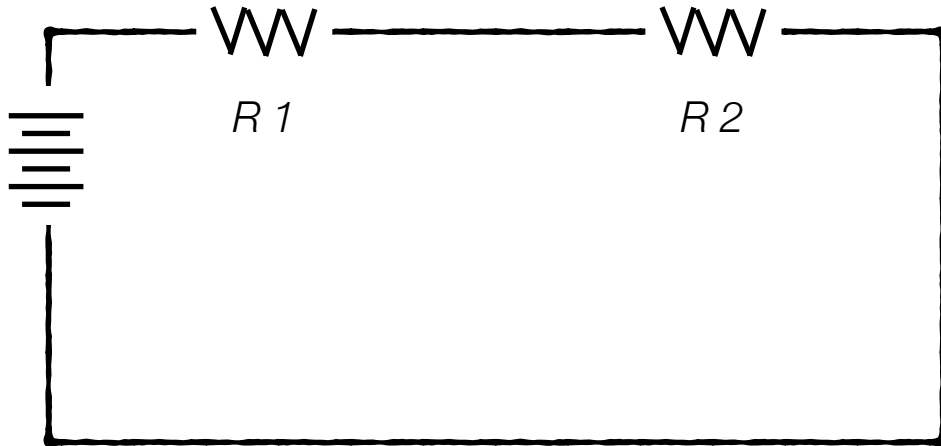
- Test probe leads
 - Red - V Ω
 - Black - COM
- DCV Setting
- Measure in PARALLEL
 - Touch the voltmeter leads to both sides of the circuit component
 - Adjust multiplier if necessary



MEASURING CURRENT

- Test probe leads
 - Red - 10 A
 - Black - COM
- DCA Setting
- Measure in SERIES
 - Remove a wire from the circuit
 - Fill the created gap with the ammeter
 - Adjust multiplier if necessary

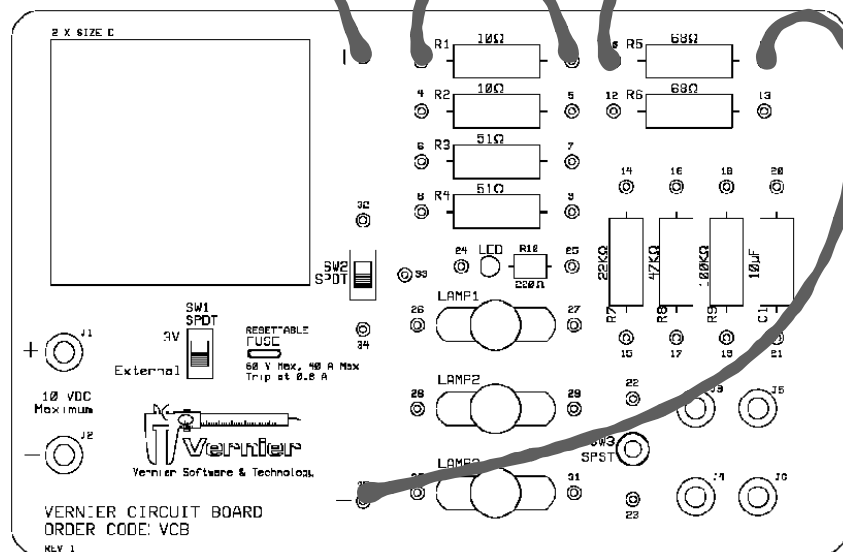
Wire the following circuit:



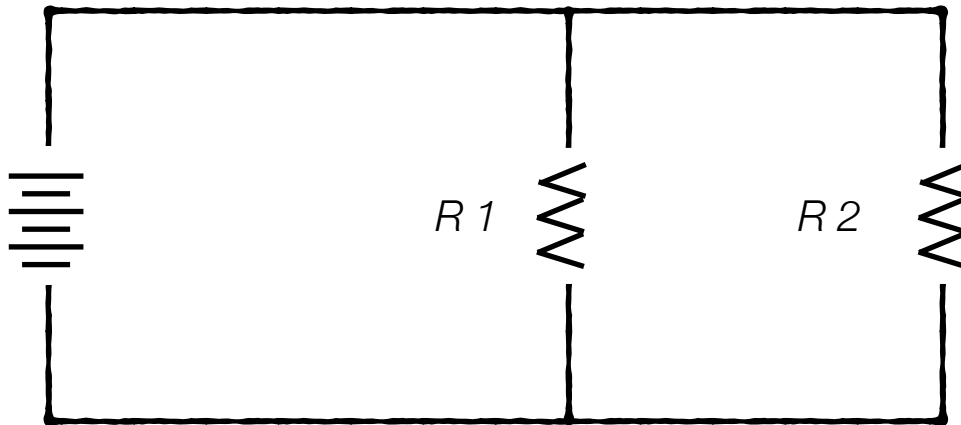
Measure the values for V and I , calculate the missing values for R and P

	V	I	R	P
R_1			10	
R_2			68	
T				

Draw the wires on the circuit board



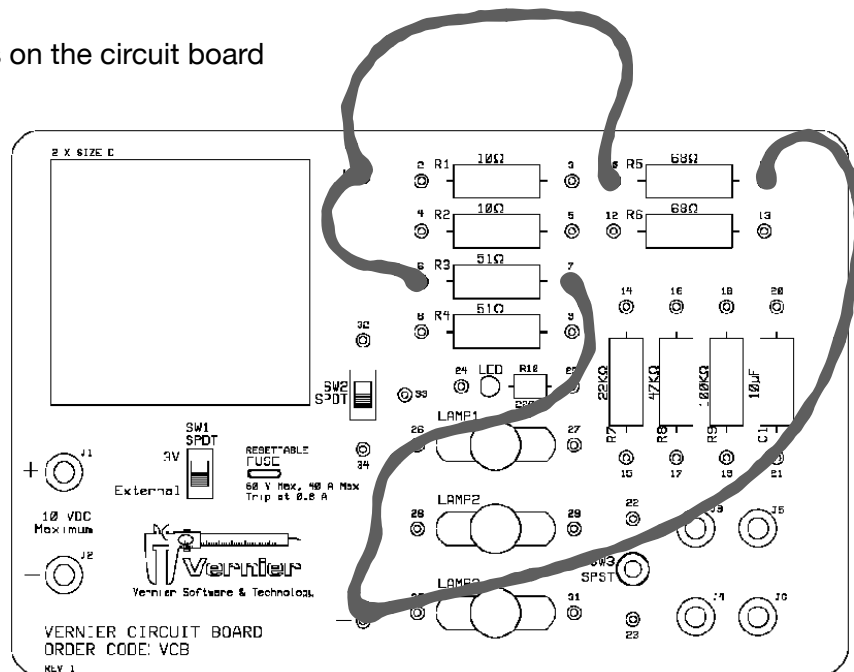
Wire the following circuit:

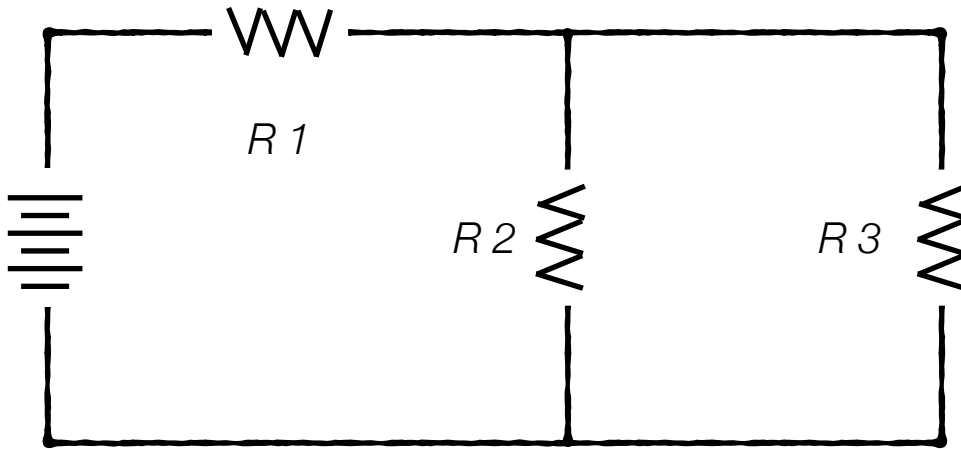


Measure the values for V and I , calculate the missing values for R and P

	V	I	R	P
R_1			51	
R_2			68	
T				

Draw the wires on the circuit board

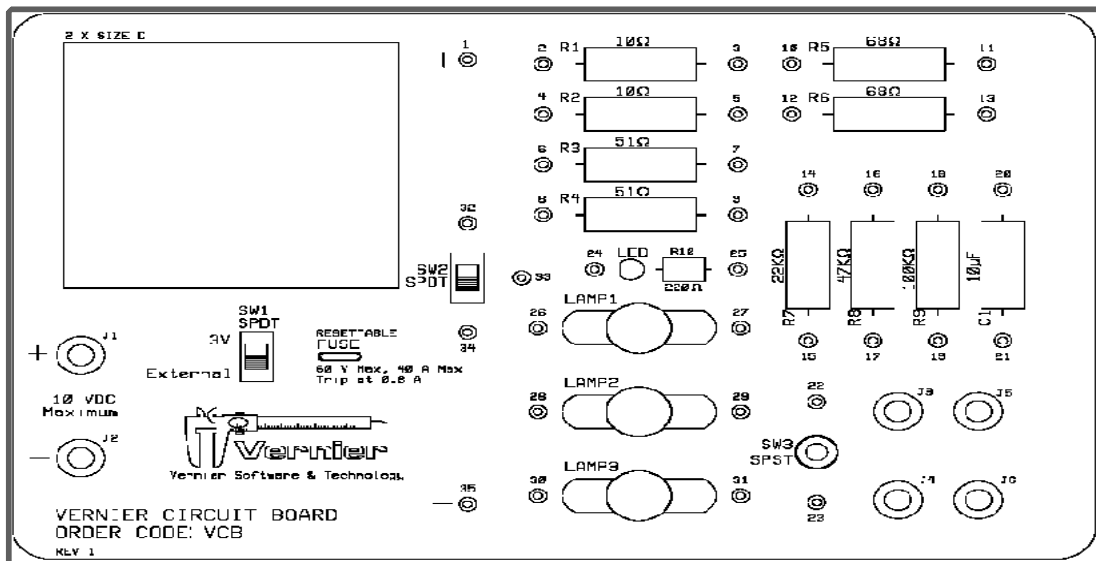


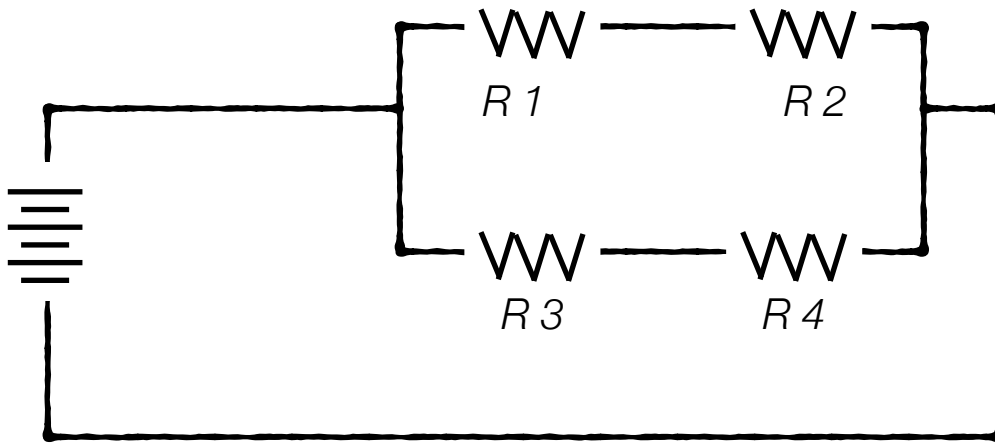


Measure the values for V and I , calculate the missing values for R and P

	V	I	R	P
R_1			51	
R_2			68	
R_3			68	
T				

Draw the wires on the circuit board

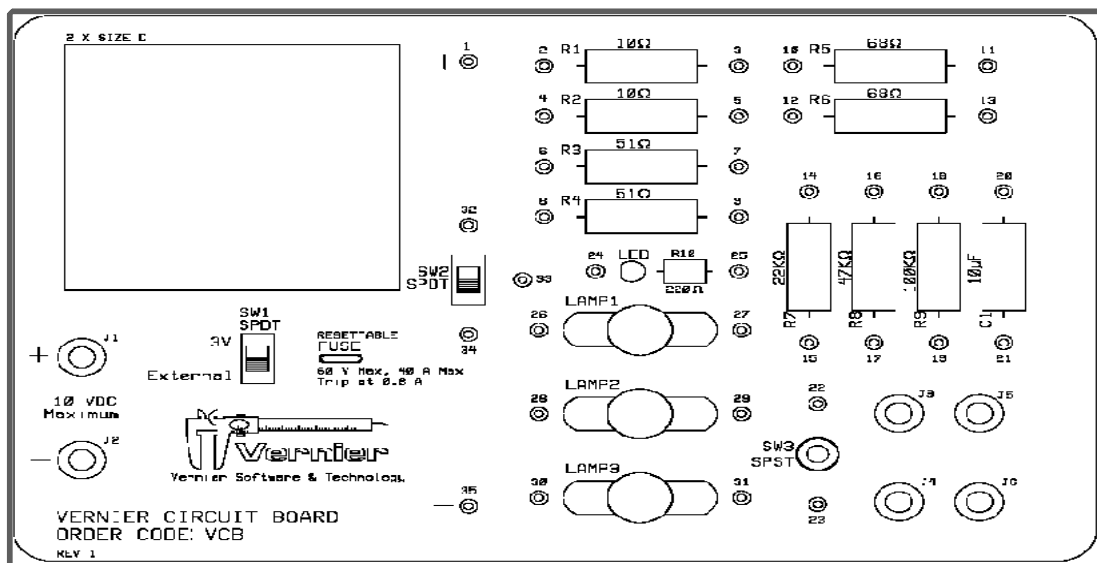


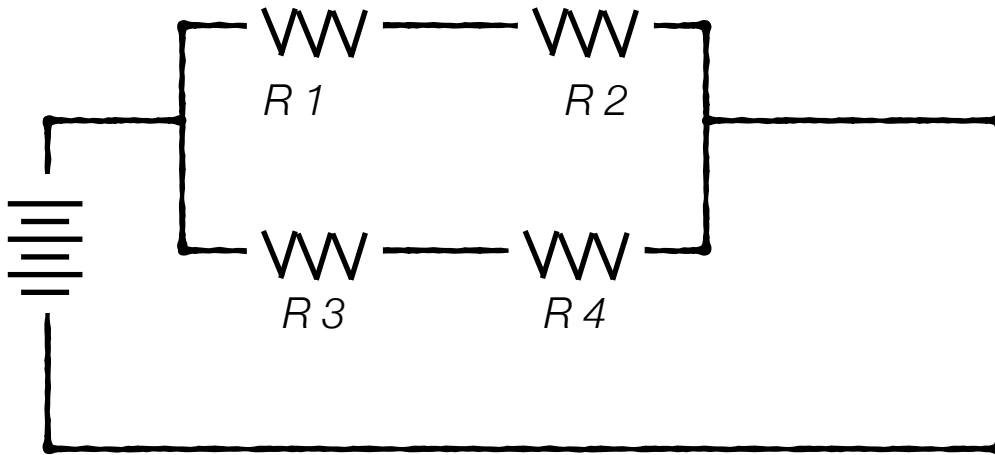


Measure the values for V and I , calculate the missing values for R and P

	V	I	R	P
R_1			10	
R_2			68	
R_3			51	
R_4			68	
T				

Draw the wires on the circuit board

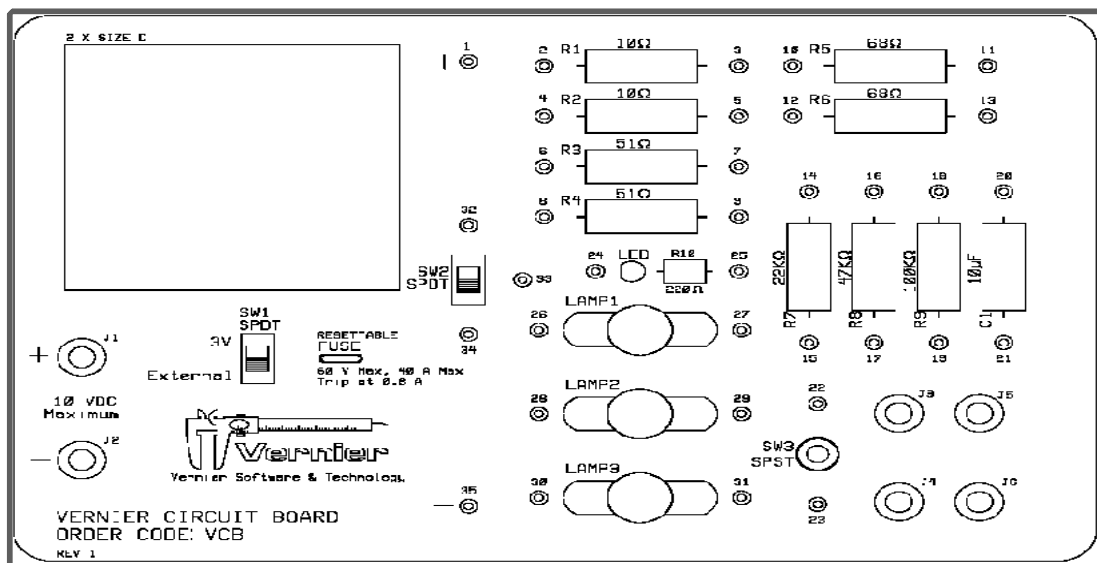


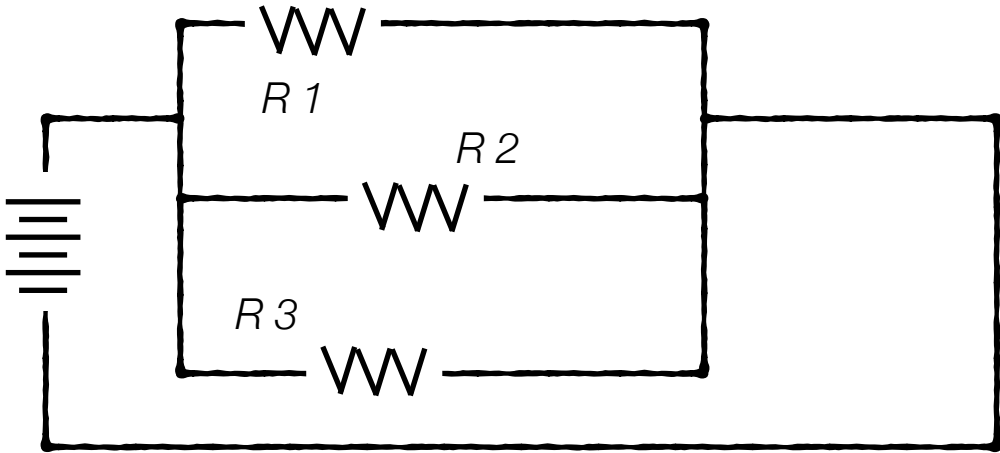


Measure the values for V and I, calculate the missing values for R and P

	V	I	R	P
R_1			68	
R_2			68	
R_3			51	
R_4			51	
T				

Draw the wires on the circuit board





Measure the values for V and I, calculate the missing values for R and P

	V	I	R	P
R_1			10	
R_2			68	
R_3			51	
T				

Draw the wires on the circuit board

