

ELECTRIC CIRCUITS:

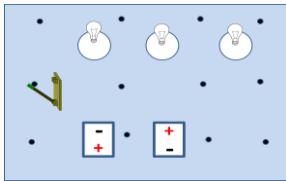
Name, Date, Section

PART ONE:

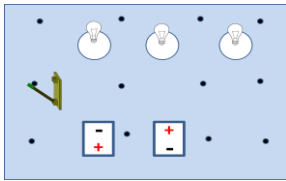
Draw a schematic (**USE A RULER**) using the correct symbols and build a simple series circuit. The schematic drawing should be either rectangular or square in shape. Measure the current through the circuit and the voltage across the battery and calculate the resistance. Add one additional component and re-evaluate current, voltage, and resistance. In the schematic use a different color to indicate the one change that was made.

Write a statement as to what happens to current, voltage, and resistance from one series to the next and explain why.

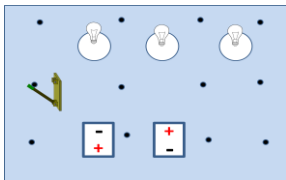
SERIES CIRCUIT DRAWING #1: This must use a switch.

	Voltage:
	Current:
	Resistance: (calculate this)

SERIES CIRCUIT DRAWING #2: (add a resistor)

	Voltage:
	Current:
	Resistance: (calculate this)

SERIES CIRCUIT DRAWING #3 (add an additional resistor)

	Voltage:
	Current:
	Resistance: (calculate this)

STATEMENT AND EXPLANATION: (no personal pronouns; check spelling, grammar & punctuation) This must be word processed.

PART TWO:

Draw a schematic (**USE A RULER**) using the correct symbols and build a simple parallel circuit. The schematic drawing should be either rectangular or square in shape. Measure the current through the entire circuit and the circuit at each branch as well the voltage across the battery. Calculate the resistance. Add one additional component and re-evaluate current, voltage, and resistance. In the schematic use a different color to indicate the one change that was made.

Write a statement as to what happens to current, voltage, and resistance from one parallel to the next and explain why.

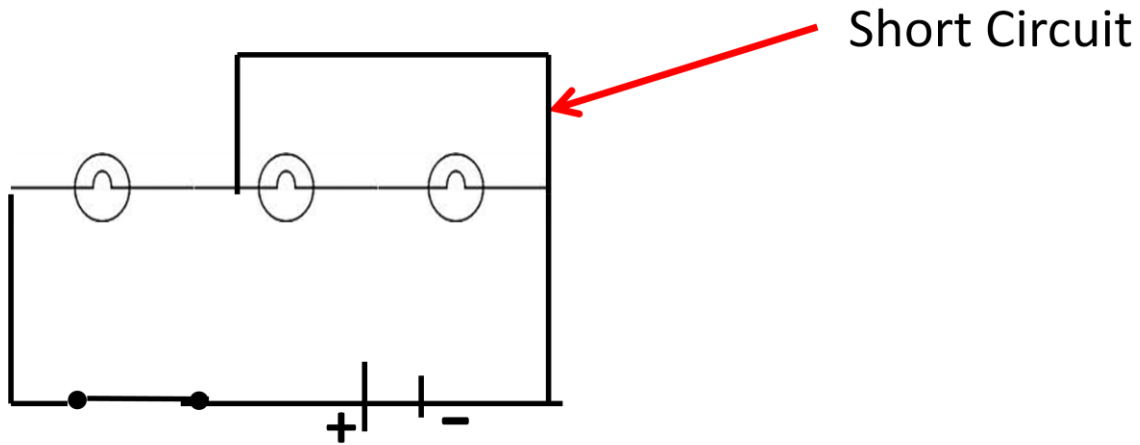
PARALLEL CIRCUIT DRAWING #1: Do not use a switch. Use two bulbs & two batteries.

	Voltage:
	Current (for each branch):
	Resistance: (calculate this)

PARALLEL CIRCUIT DRAWING #2: Do not use a switch. Use three bulbs and two batteries.

	Voltage:
	Current (for each branch):
	Resistance: (calculate this)

STATEMENT AND EXPLANATION: (no personal pronouns; check spelling, grammar & punctuation) This must be word processed.



SHORT CIRCUITS:

No resistance along the line. Connecting a wire from where the resistor starts to where it ends allows for the current to flow through the wire instead of the resistors. Alters the current and voltage in the circuit.