

Ch 6
Sec 6.3
obj: How do series circuits differ from parallel circuits?

Representing Electric Circuits

- Schematic Diagrams
 - Picture of the circuit that uses symbols for the source, path + Load.

Symbols

* Source

Cell 	Battery 	AC Generator
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* Path

conductor 	connection 	no connection
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* Load

Lightbulb 	Resistor 	Variable Resistor
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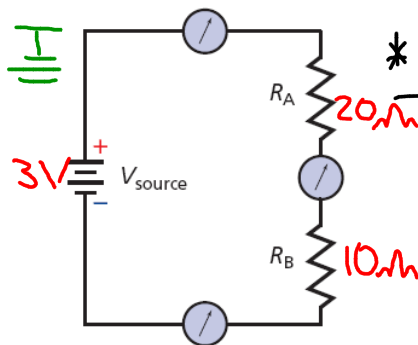
* Misc.

Switch open 	closed 	Meters Voltmeter 	Ammeter 	Ohmmeter
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Types of Electric Circuits

Series Circuit

- A circuit w/ only one path for the current to follow.



* Characteristics

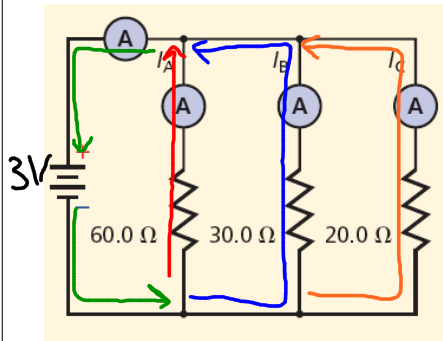
3) The voltage changes after each Load.

1) The current does not change in the circuit.

2) The resistance of the circuit is the sum of the Loads.

Parallel Circuit

- A circuit w/ more than 1 path (Branch) for the current to follow.



* Characteristics

- 1) The total current is the sum of the currents in each branch.
- 2) The resistance of the circuit is Less than the smallest resistor
- 3) The voltage in the circuit does not change.

Protective Devices for Circuits

- A device that controls the amount of current that can flow through the circuit.

* Prevents the Circuit from overheating and causing an electrical fire.

1) Fuse - A metal w/ a Low melting point that can handle a certain amount of current.

2) Circuit Breaker

- Spring w/ two different metals connected together.