**Vocabulary: Advanced Circuits**



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* Circuit breaker – an electrical switch that automatically flips when the current exceeds a certain limit, breaking the circuit.
* Equivalent resistance – the total effective resistance of all of the resistors in a circuit or a part of a circuit.
	+ In a series circuit, the equivalent resistance of the resistors is equal to the sum of the resistors:

*RTotal* = *R1* + *R2* + *R3* + … + *Rn*

* + In a parallel circuit, the reciprocal of the equivalent resistance is equal to the sum of the reciprocals of each resistor in the circuit:



* Fuse – a safety device that melts when the current is too high, breaking the circuit.
	+ Most fuses consist of a thin strip of a low-resistance metal.
* Ohm’s law – an equation that relates voltage (*V*), resistance (*R*), and current (*I*):

*V* = *IR*

* Parallel circuit – a circuit that contains two or more branches.
* Series circuit – a circuit in which moving charges can only follow a single path.