

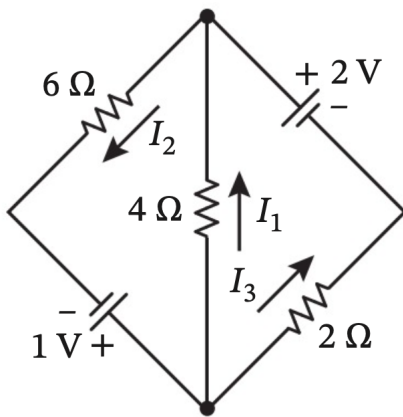


**Definitions:** A **battery** is a source of electric energy, and a **resistor** dissipates electric energy. A **node** is where three or more wires join in a circuit. A **closed loop** begins and ends at the same node.

**Ohm's Law:**  $E = IR$ , where  $E$  (volts) is voltage drop at a resistor with resistance  $R$  (ohms) in a circuit with current  $I$  (amperes).

**Kirchhoff's Laws** (summary): Net current (in and out) at a node is zero, and net voltage change (rises and drops) in a closed loop is zero.

**#6** Analyze the given electrical circuit by finding the unknown currents.



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