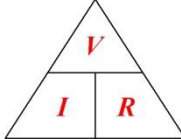


Ohm's Law

The Relationship Between Voltage, Current and Resistance

Ohm's law states that as long as temperature stays the same:

$$V = IR$$

$$I = \frac{V}{R}$$
$$R = \frac{V}{I}$$

1. A current of 4.0 A flows through a 40 Ω resistor in a circuit. What is the voltage?
2. A 30 V battery generates a current through a 15 Ω resistor. How much current does the battery generate?
3. An electric stove is connected to a 240 V outlet. If the current flowing through the stove is 20 A, what is the resistance of the heating element?