

NAME: _____

key

DATE: _____

1. A circuit with a resistor and a power supply. Find the current.

Given	Formula	Subst.	Answer
$V = 12 \text{ volts}$ $R = 4 \text{ ohms}$	$I = \frac{V}{R}$	$I = \frac{12}{4}$	3 A

2. The voltage across a resistor is 6V and the current is 2A. Find the resistance.

Given	Formula	Subst.	Answer
$V = 6 \text{ Volts}$ $I = 2 \text{ A}$	$R = \frac{V}{I}$	$R = \frac{6}{2}$	3 Ohms

3. The current through a resistor is 5A and the voltage is 25V. Find the power.

Given	Formula	Subst.	Answer
$I = 5 \text{ Amps}$ $V = 25 \text{ Volts}$	$P = \frac{V^2}{R}$	$P = \frac{25^2}{5}$	125 W

4. The voltage across a resistor is 10V and the power is 20W. Find the current.

Given	Formula	Subst.	Answer
$V = 10 \text{ Volts}$ $P = 20 \text{ W}$	$I = \frac{P}{V}$	$I = \frac{20}{10}$	2 A