

Name: _____ Date: _____



Electric Power Math Worksheet Answers

1. There are 2 A of current in a circuit that has one 1.5 V battery. What is the electric power consumed by the circuit?

Use the equation: $P = I \times V$

$$1.5 \text{ V} \times 2 \text{ A} = 3 \text{ VA} = 3 \text{ W}$$

P = electric power consumed by the circuit (Watts)

I = amount of current in the circuit (Amps)

V = battery voltage (Volts)

2. The electric power consumed by a circuit with one light bulb is 3 W. The voltage of the battery is 3 V. What is the current in the circuit?

$$3 \text{ W} / 3 \text{ V} = 1 \text{ A}$$

Use the equation: $I = \frac{P}{V}$

3. The electric power consumed by a circuit with one light bulb is 6 W. The current in the circuit is 4 A. What is the voltage of the circuit?

$$6 \text{ W} / 4 \text{ A} = 1.5 \text{ V}$$

Use the equation: $V = \frac{P}{I}$