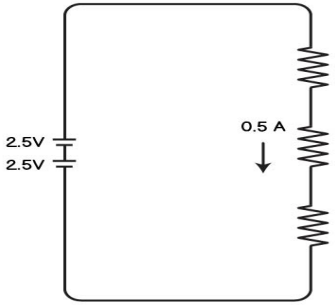


Series Circuit

Name: _____

Date: _____

Answer the questions in the blank space!

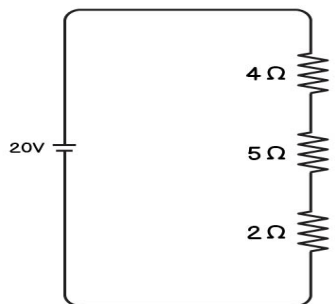


The diagram shows a series circuit with a battery on the left consisting of two 2.5V cells. On the right, three resistors are connected in series. A downward-pointing arrow in the center of the circuit is labeled "0.5 A", indicating the current flowing through the circuit.

a. What is the resistance of each resistor?

b. What is the voltage drop across each resistor?

c. On the diagram, show the amount of voltage in the circuit before and after each resistor.



The diagram shows a series circuit with a 20V battery on the left. On the right, three resistors are connected in series, labeled with their resistances: 4 Ω, 5 Ω, and 2 Ω.

a. What is the total resistance of the circuit?

b. What is the current in the circuit?

c. What is the voltage drop across each resistor?

d. What is the sum of the voltage drops across the three resistors? What do you notice about this sum?