

Goal • Review your understanding of series circuits.

What to Do

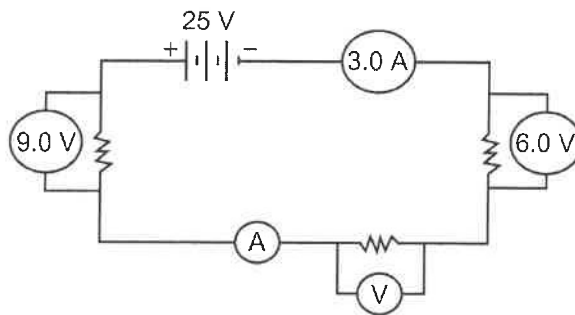
Circle the best term in the parentheses to correctly complete each statement.

1. A series circuit has (*more than one, only one*) path for current to travel.
2. In a series circuit, the current at one location in the circuit is (*equal to, different from*) the current at another location in the circuit.
3. If two different resistors are connected in series, the voltage across one resistor will be (*equal to, different from*) the voltage across the second resistor.
4. By adding a resistor in series with an original resistor, the total resistance of the circuit (*increases, decreases*).
5. The sum of the voltages across each of the resistors in a series circuit is (*equal to, different from*) the voltage supplied by the battery.

Find the unknown voltage at V, and current at A, in each of the following circuits.

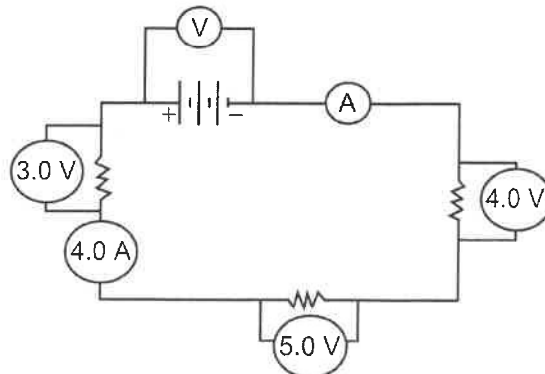
6. Voltage = _____

Current = _____



7. Voltage = _____

Current = _____



"SERIES"

Goal • Draw labelled circuit diagrams.

What to Do

Use information from Chapter 9 to help you draw the circuit diagrams described below. Be sure to use the proper circuit symbols, and label your drawings.

Description	Diagram
1. Draw a circuit diagram consisting of a 9.0 V battery, an ammeter, and a 25 Ω resistor in series. Include a voltmeter that is measuring the potential difference across the resistor.	1.
2. Draw a circuit diagram consisting of a battery made up of two 1.5 V cells, one closed switch, two lamps, and an ammeter in series. Show the direction in which the current flows.	2.
3. Draw a circuit diagram consisting of a battery made up of four 1.5 V cells, one closed switch, one lamp, two 0.50 Ω resistors in series, and a voltmeter. Show the direction in which the current flows.	3.