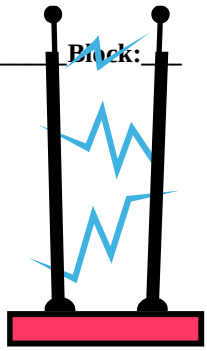
Name: _____ Date: _____ Block: ____

Calculating Voltage in Series



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.

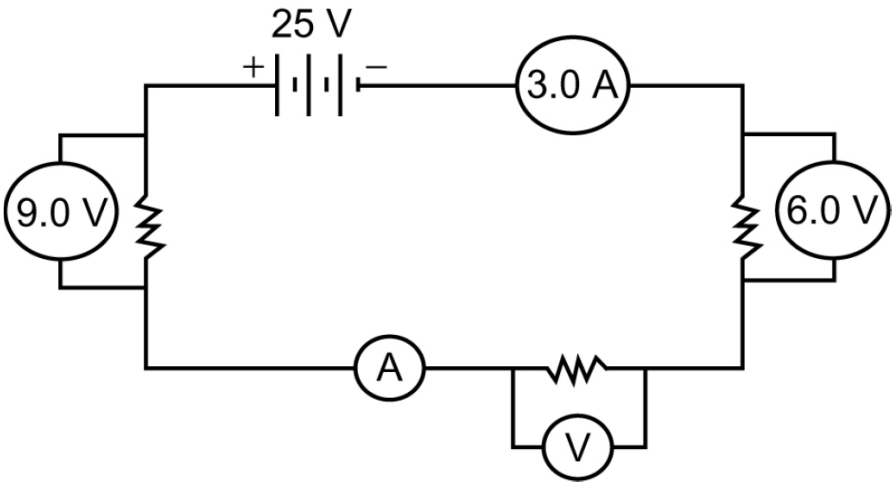
2. In a series circuit, the current at one location in the circuit is (*equal to, different from*) the current at another location in the circuit.

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.

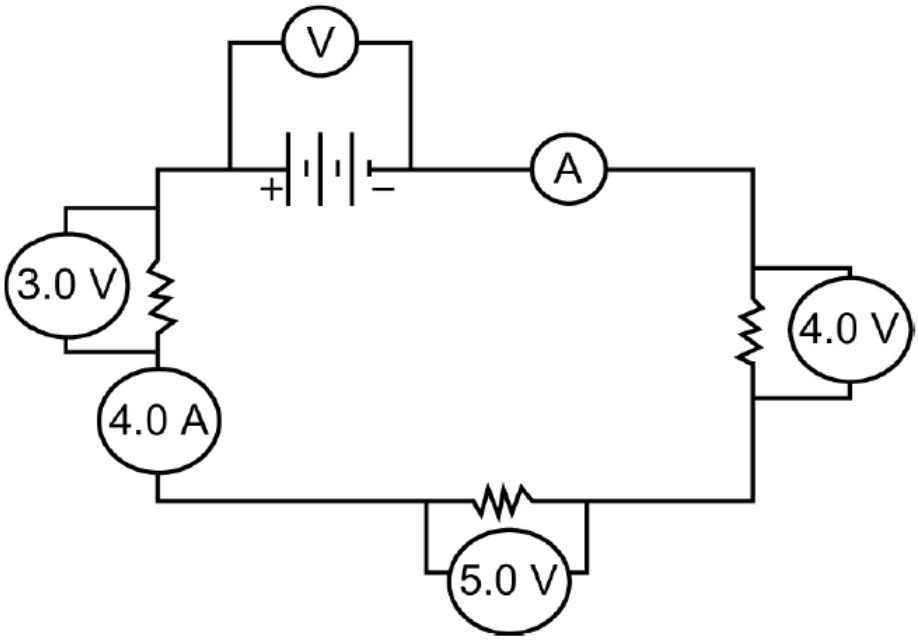
4. By adding a resistor in series with an original resistor, the total resistance of the circuit (*increases, decreases*).

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 = _____

ANSWER KEY

1. only one
2. equal to
3. different from
4. increases
5. equal to
6. Voltage = 10 V, current = 3.0A
7. Voltage = 12 V, current = 4.0A

Name: _____ Date: _____ Block:___

Calculating Voltage in Parallel

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

1. A parallel circuit has (*only one, more than one*) path for current to travel.

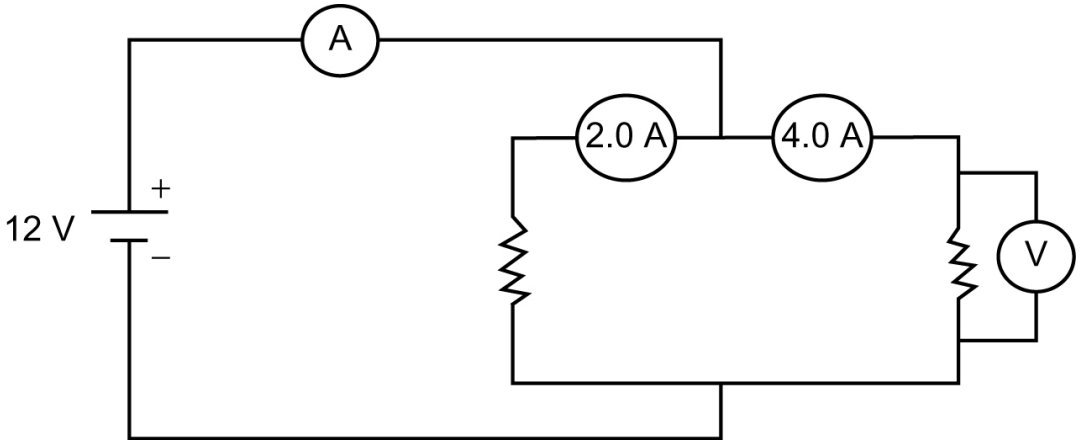
2. Two different resistors are connected in parallel. The current through one of the resistors will be (*equal to, different from*) the current through the other resistor.

3. If two different resistors are connected in parallel, the voltage across one resistor will be (*equal to, different from*) the voltage across the second resistor.

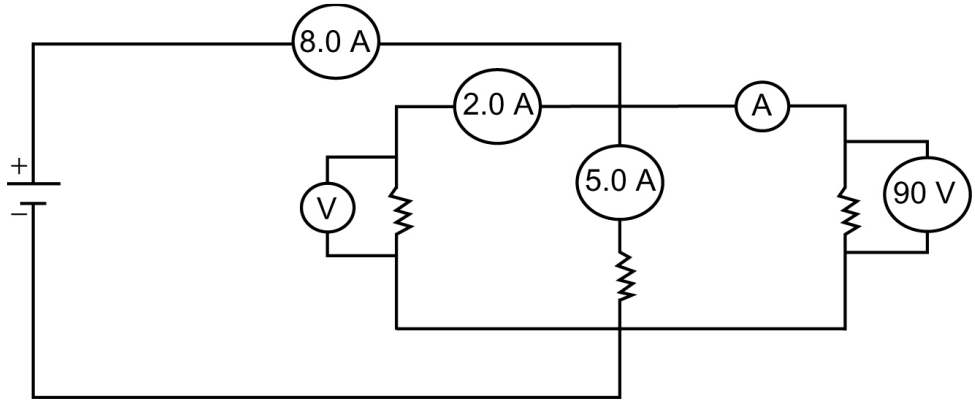
4. By adding a resistor in parallel with an original resistor, the total resistance of the circuit (*increases, decreases*).

5. The total current entering the junction of a parallel circuit must be (*equal to, different from*) the sum of the currents through each branch of the parallel circuit.

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



6. Voltage =_____
Current = _____



7. Voltage = _____
Current =_____

ANSWER KEY Parallel Circuits

1. more than one
2. different from
3. equal to
4. decreases
5. equal to
6. Voltage = 12 V, current = 6.0 A
7. Voltage = 90 V, current = 1.0 A