![C:\Documents and Settings\gill_narinder\Local Settings\Temporary Internet Files\Content.IE5\84O5OHIC\MC900311160[1].wmf]()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

![C:\Documents and Settings\gill_narinder\Local Settings\Temporary Internet Files\Content.IE5\T6YRMXCQ\MM900236225[1].gif]()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