Name:_____

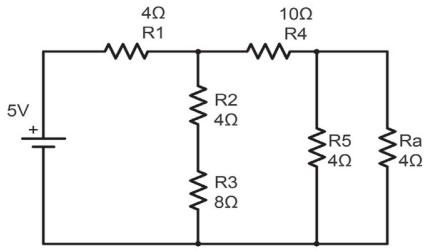
Date Started:_____Date Completed:_____Score:_____

Learning Activity Sheet

Circuit and Circuit Elements

Directions: Choose the letter of the correct answer and write it in the blank provided before each number.

For questions 1 and 2, refer to the diagram on the right.



_____ 1. What is the total resistance in the circuit?

A. 8 Ω
B. 10 Ω
C. 12 Ω
D. 14 Ω

_____ 2. What is the total current in the circuit?

A. 0.2 A
B. 0.3 A
C. 0.4 A
D. 0.5 A

_____ 3. What is the function of a switch?

A. It provides voltage to the circuit.
B. It provides electrical energy to appliances.
C. It limits the total current passing through a circuit.
D. It creates a short circuit or an open circuit, depending on its position.

_____ 4. Which device limits the total current passing from the transmission line into the house?

A. battery
B. fuse
C. resistor
D. switch

_____ 5. What is the total resistance of a 4-Ω resistor and a 6-Ω resistor connected in parallel?

A. 2.4 Ω
B. 4 Ω
C. 5.5 Ω
D. 10 Ω

_____ 6. Which of the following shows a proper way of handling electronic devices?

A. Touch active wires during a flood.
B. Avoid touching wires on power poles.
C. Handle electronic devices with a wet hand.
D. You can plug as many appliances as you like into a circuit.

_____ 7. Which of the following is equal to the total resistance of a pair of 1-Ω resistors connected in series?

A. 2 Ω, and when in parallel 0.5 Ω
B. 0.5 Ω, and when in parallel 2 Ω
C. 1 Ω, and when in parallel 0.75 Ω
D. 1 Ω, and when connected in parallel 2 Ω

_____ 8. Which of the following is NOT a safety measure when handling electronic devices?

A. You can still use broken or frayed wires.
B. Avoid sticking your fingers into an electrical outlet.
C. Do not handle electronic devices when your hands are wet.
D. Always unplug an electrical appliance before attempting to repair it.

_____ 9. Which of the following is NOT true about series circuits?

A. The current in the different parts of the circuit varies.
B. The total resistance is equal to the sum of the resistance of the different parts.
C. The total voltage is equal to the sum of the voltages across the different parts of the circuit.
D. The various components comprising the circuit are connected that the current flows through each circuit component.

_____ 10. Which of the following is NOT correct about a parallel circuit?

A. It is the most commonly used circuit.
B. The voltage in any part of the circuit is the same.
C. The total resistance is equal to the sum of the resistances.
D. One side of each component is connected to a common junction, and the other side is connected to another common junction.