Physics 100 Practice Quiz - Circuits and Current

Name: _____

<u>Matching Section Answer Bank:</u> Current, Voltage, Resistance, Circuit, power, DC, AC

A closed loop that electrons can travel in. 1. 2 The rate at which electrical energy is used. _____ A type of circuit in which electrons flow in one direction. 3. The "pressure" that pushes charge through a circuit 4. The amount of flow of electricity through a circuit 5. A type of circuit in which electron flow switches directions 6. The formula for calculating this is IV. 7. Something that slows down the flow of electricity through a circuit 8.

Ohm's Law: [Hint: you may want to use a triangle] according to Ohm's Law ...

- 9. V = _____
- 10. I = _____
- 11. R = _____

12. According to Ohm's law, what happens (or has happened) in a circuit when...

- a. Voltage is kept the same, but resistance is increased?
- b. Voltage is kept the same, but current increases?
- c. Current decreases, but resistance is kept constant.
- d. Resistance increases, but current is kept constant.

Series and Parallel Circuits

13. In this type of circuit, the individual voltages add up to the total circuit voltage.

a. series b. parallel.

14. In this type of circuit, the individual voltages are equal to the total circuit voltage.a. series b. parallel.

- 15. In this type of circuit, the individual currents add up to the total circuit voltage.a. series b. parallel.
- 16. In this type of circuit, the individual currents are equal to the total circuit voltage.a. series b. parallel.
- 17. For each of the following circuits, identify whether the circuit is a series circuit or a parallel circuit. Then fill in the missing information for the overall circuit, and for each of the bulbs.

