

Lab - Circuits Data and Observations

Program 903

Part A

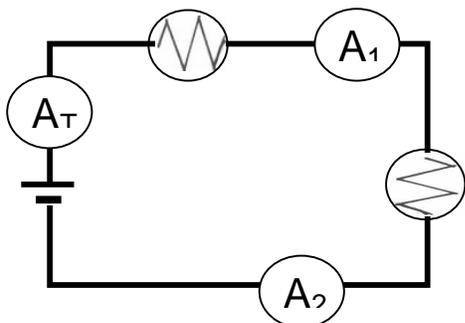
No. of Resistors in Series Circuit	Brightness of Bulb(s)	Total I (amps)
1		
2		
3		

What happened when one bulb was unscrewed? _____

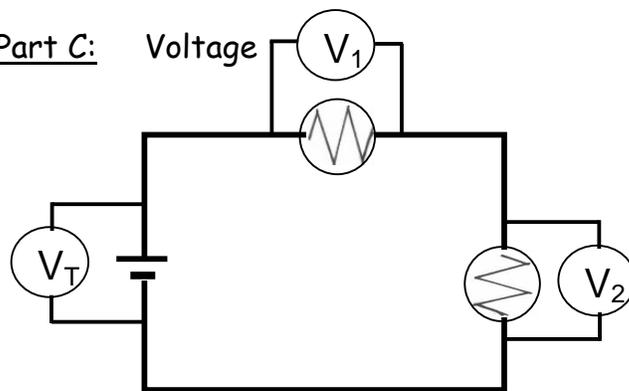
Conclusion:

As more resistors are added to a series circuit, the total current (increases, decreases), so total resistance (increases, decreases).

Part B: Current



Part C: Voltage



Position	Current, I	Voltage, V	Resistance, $R=V/I$
total			
R_1			
R_2			

Conclusions:

1. Within bounds of experimental error, the current in different parts of the series circuit is (the same, different).
2. Within bounds of experimental error, the voltage drops across each resistor in this series circuit (is the same as, adds up to) the total voltage supplied by the battery.
3. Within bounds of experimental error, the total resistance of the circuit is the (same as, the sum of) the resistance of each bulb.