

Part A

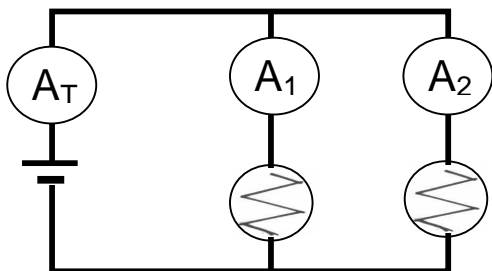
No. of Resistors in Series Circuit	Brightness of Bulb(s)	Total I (amps)
1		
2		
3		

What happened when one bulb was unscrewed? \_\_\_\_\_

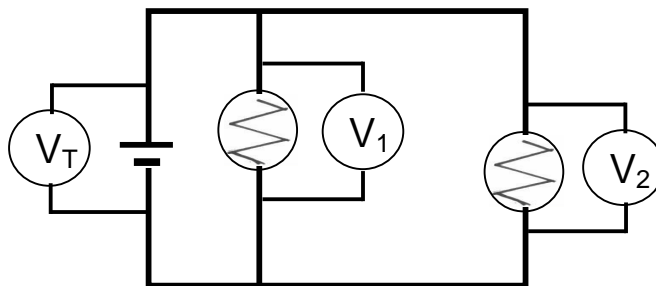
Conclusion:

As more resistors are added to a parallel 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 parallel circuit is (the same, different).
2. Within bounds of experimental error, the voltage drops across each resistor in this parallel 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, lower than) the resistance of each bulb.