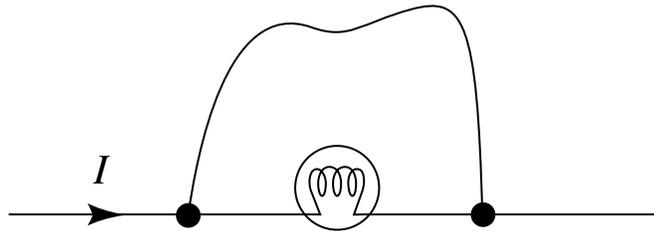
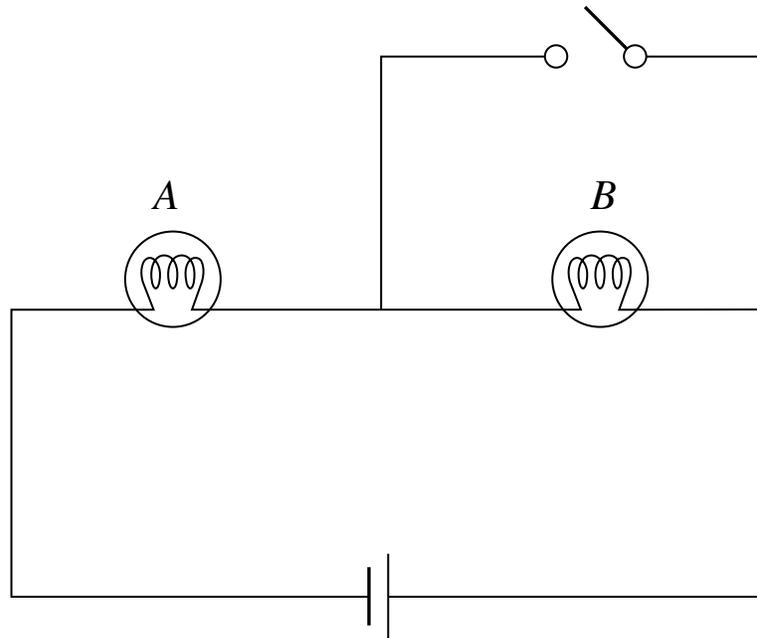


Charge flows through a light bulb. Suppose a wire is connected across the bulb as shown. When the wire is connected,



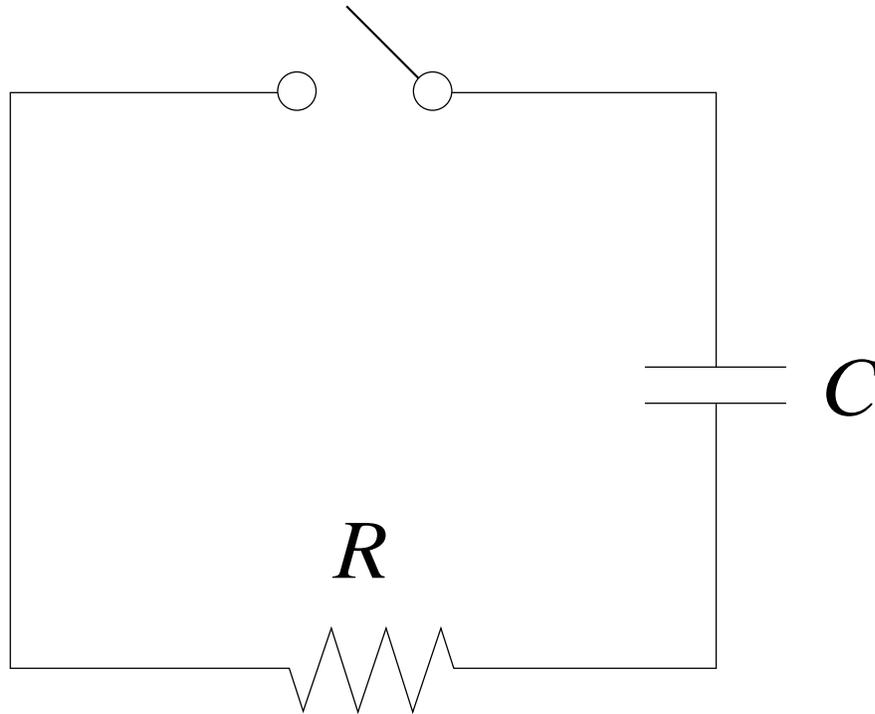
1. all the charge continues to flow through the bulb.
2. half the charge flows through the wire, the other half continues through the bulb.
3. all the charge flows through the wire.
4. none of the above

The circuit below consists of two identical light bulbs burning with equal brightness and a single 12 V battery. When the switch is closed, the brightness of bulb A



1. increases.
2. remains unchanged.
3. decreases.

A simple circuit consists of a resistor, R , a capacitor, C , charged to a potential V_0 , and a switch that is initially open, but then thrown closed. Immediately after the switch is thrown closed, the current in the circuit is



1. V_0/R .
2. zero.
3. need more information

You apply a potential difference V to a wire-resistor, causing a current to flow through the resistor. Next, the resistor is removed from the circuit and the wire in it is cut in half lengthwise. One of the halves is placed back into the circuit, with the same potential difference V applied to it. Is the current through the new resistor

1. larger than
2. smaller than
3. the same as

the current which flowed through the original resistor?