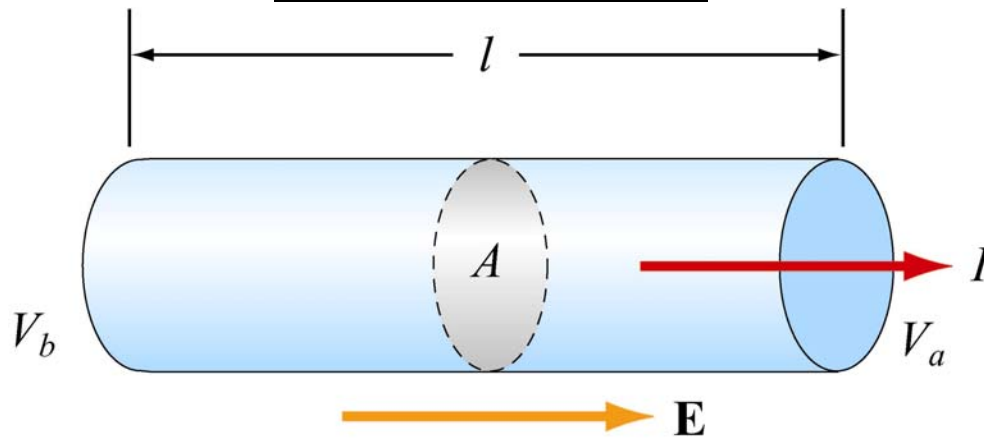


# Resistance

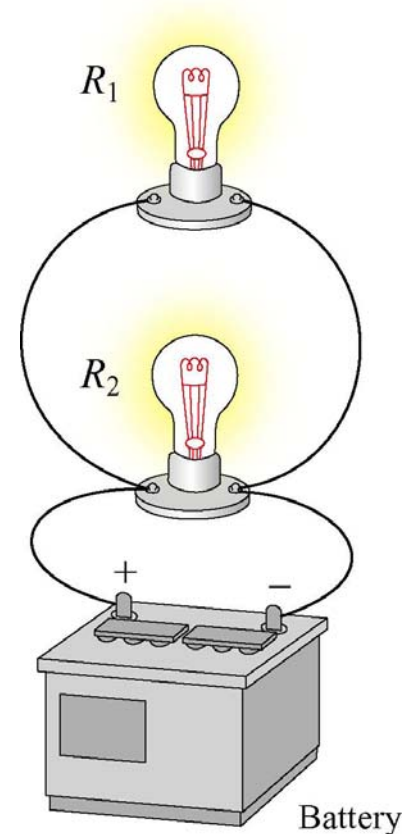


When a current flows in a wire of length  $L$  and cross sectional area  $A$ , the resistance of the wire is

1. Proportional to  $A$  and inversely proportional to  $L$ .
2. Proportional to both  $A$  and  $L$ .
3. Proportional to  $L$  and inversely proportional to  $A$ .
4. Inversely proportional to both  $L$  and  $A$
5. Do Not Know

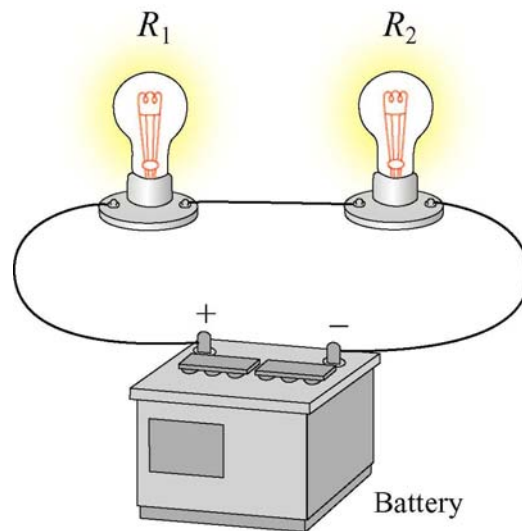
# Bulbs and Batteries

An ideal battery is hooked to a light bulb with wires. A second identical light bulb is connected in parallel to the first light bulb. After the second light bulb is connected, the current from the battery compared to when only one bulb was connected.



1. Is Higher
2. Is Lower
3. Is The Same
4. Don't know

# Bulbs and Batteries

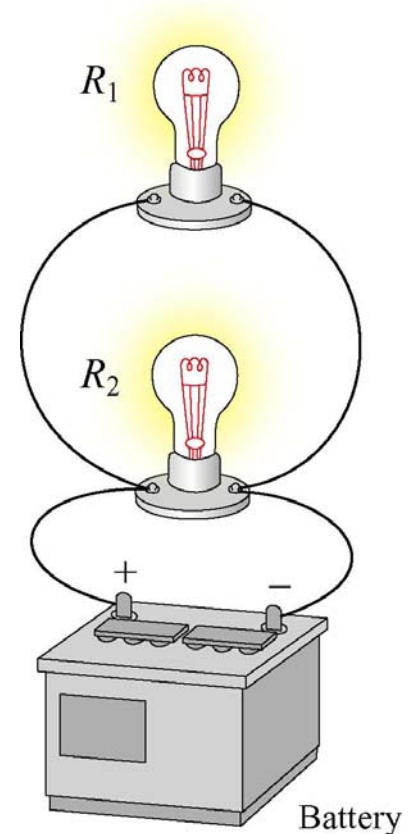


An ideal battery is hooked to a light bulb with wires. A second identical light bulb is connected in series with the first light bulb. After the second light bulb is connected, the current from the battery compared to when only one bulb was connected.

1. Is Higher
2. Is Lower
3. Is The Same
4. Don't know

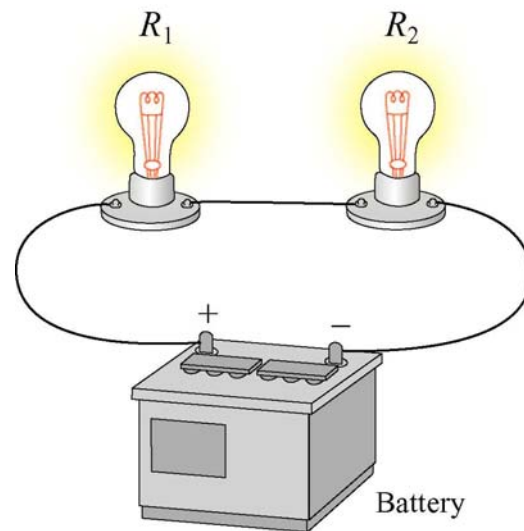
# Bulbs and Batteries

An ideal battery is hooked to a light bulb with wires. A second identical light bulb is connected in parallel to the first light bulb. After the second light bulb is connected, the power output from the battery (compared to when only one bulb was connected)



1. Is four times higher
2. Is twice as high
3. Is the same
4. Is half as much
5. Is one quarter as much
6. Don't know

# Bulbs and Batteries



An ideal battery is hooked to a light bulb with wires. A second identical light bulb is connected in series with the first light bulb. After the second light bulb is connected, the light from the first bulb (compared to when only one bulb was connected)

1. is four times as bright
2. is twice as bright
3. is the same
4. is half as bright
5. is one quarter as bright