

Source: [KBPhysicsMasterIndex](#)

1 | Circuits

Current

See [KBhPHYS201Current](#)

Resistance

In them, flows [KBhPHYS201Resistance](#) Resistance and Current

#disorganized, and split [KBhPHYS201Resistance](#) Resistance and Current

- Multiples batteries can't be solved with the combined resistor method
- So, first guess the current flow
 - Each batteries' current will flow back to itself
 - When currents meet, they will combine
- Use currents identified before + Kirkoff's second law
- Use Kirkoff's first law to find loops (and hence equations) that, together, **covers all components**
- If resulting currents is negative, that means that you drew the current in the wrong direction, or you are charging a battery
 - Either way, if the signs are preserved to solve the rest of the equation, you should be fine numerically
 - Just update your graph to reflect the actual currents' directions

LED longer leg is positive