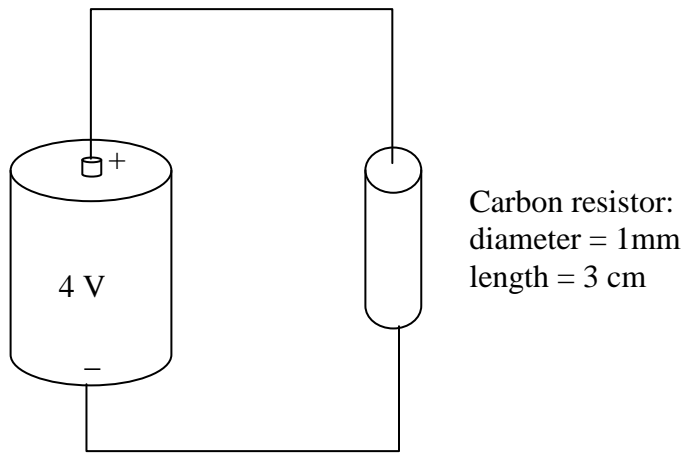


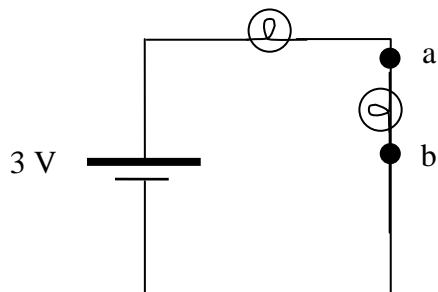
## Circuit examples

### Example 1



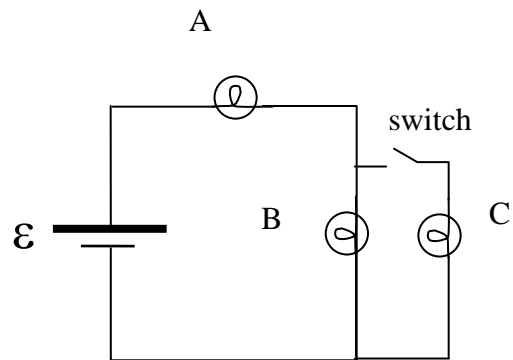
1. Draw the circuit diagram (What is shown above is the physical layout of the circuit).
2. What is the resistance of the carbon resistor?
3. How does  $R_{\text{carbon}}$  compare with  $R_{\text{wires}}$ ?
4. Apply  $\Delta V_{\text{loop}} = 0$
5. Find the current
6. Graph  $V$  vs  $s$  ( $s$  measures the distance around the circuit)

### Example 2



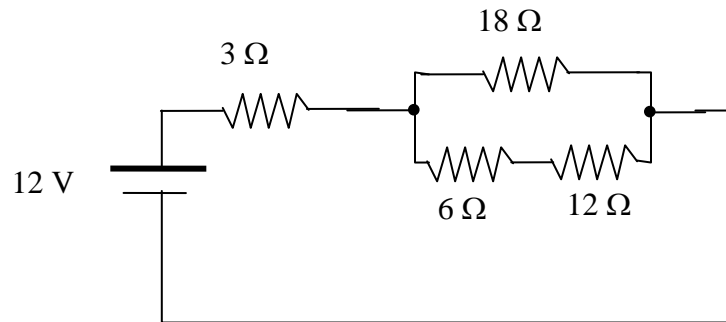
What is  $\Delta V_{ab}$ ?

### Example 3



1. This is the circuit from our tutorial. Using voltage, can you predict whether B gets dimmer, brighter or stays the same when the switch is opened?

### Example 4



1. Find the current through and the voltage across each resistor.
2. What is power delivered by the battery?
3. What is the power dissipated by each resistor?