

Different Types Of Electrical Circuits

Electrical circuits are of two types, namely series and parallel. Read on to know the difference between them. Some common examples of series circuits and parallel circuits have also been provided.

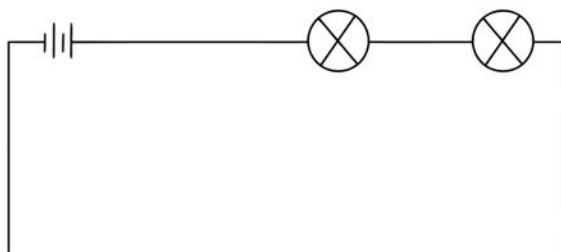
Series circuit: A series circuit is a circuit in which the current follows only one path. In other words, although there can be more than one resistor (lamps), the electric current flows through only one path.

In a series circuit, if any resistor becomes non-functional, the entire series stops working. The decorative Christmas lights are examples of series circuits.

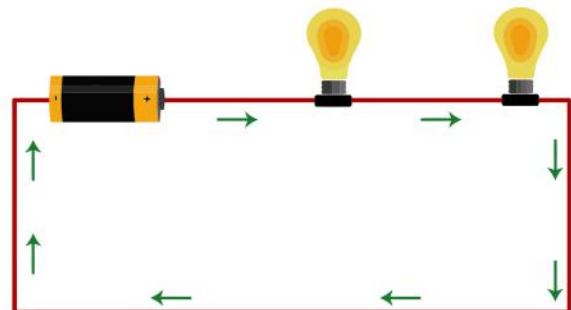
Parallel circuit: In a parallel circuit, there are more than one bulb, but they are all distributed across different paths. In this circuit, the electrons, after emerging from the negative end of the battery, can travel across many different paths before reaching the positive end of the battery.

In a parallel circuit, even if one or more lamps are broken or non-functional, the other lamps of the series can still be functional. The light bulbs in our homes are examples of parallel circuits.

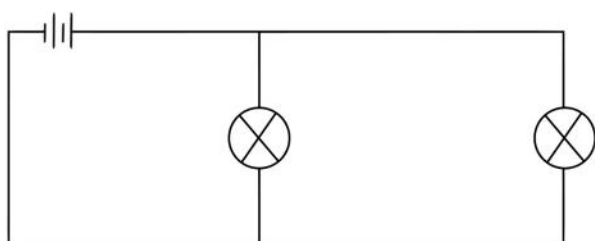
SERIES AND PARALLEL CIRCUITS



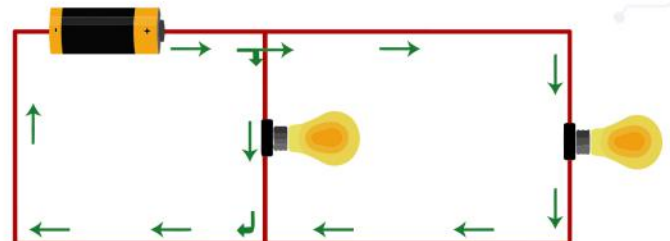
Series Circuit



Series Circuit



Parallel Circuit



Parallel Circuit

In a parallel circuit, the electric current always follows the path with the least resistance. For example, if there is a wire where there is no lamp, and there is one more wire with a lamp, the electrons will follow the path of least resistance, that is, the path with no bulb and, hence, the bulb won't light up.

Will the light bulb light up?

In the images given below, color the symbols of the lamps that you think will light up.

Image A

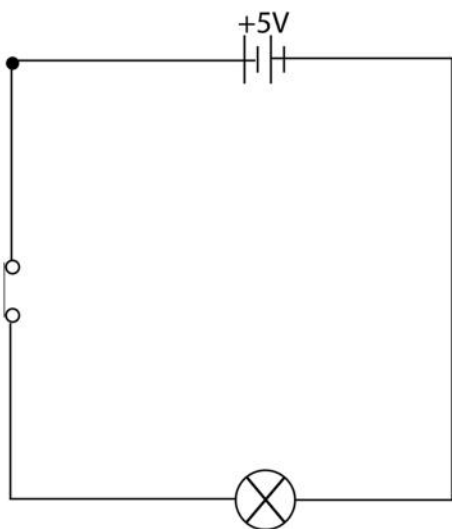


Image B

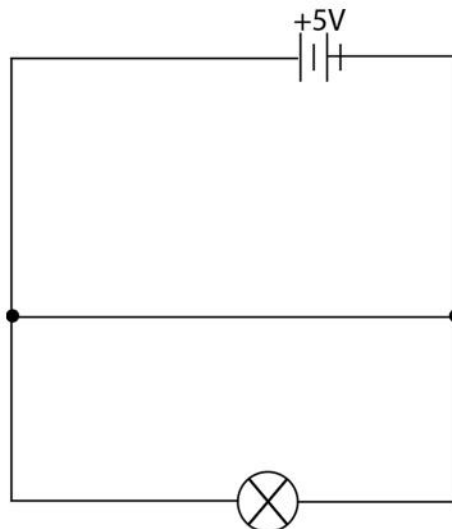


Image C

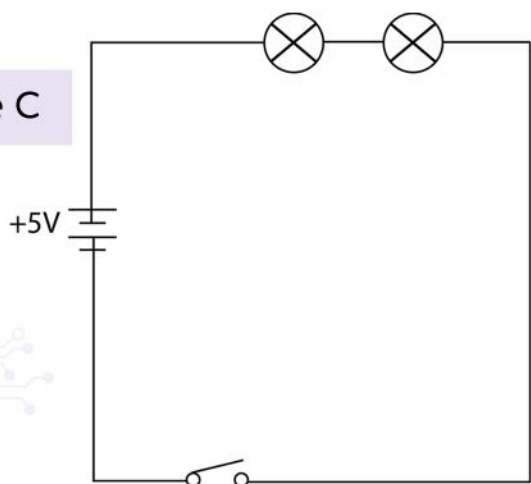


Image D

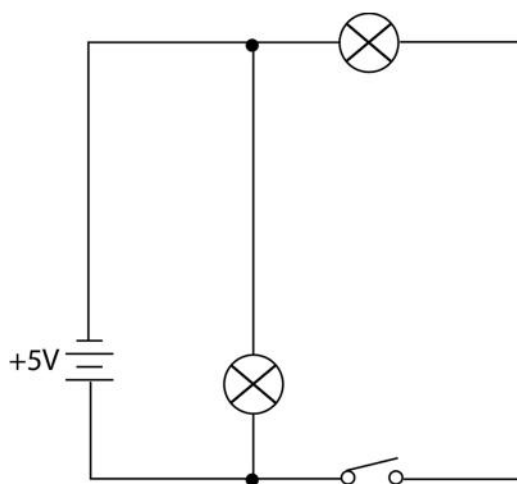


Image E

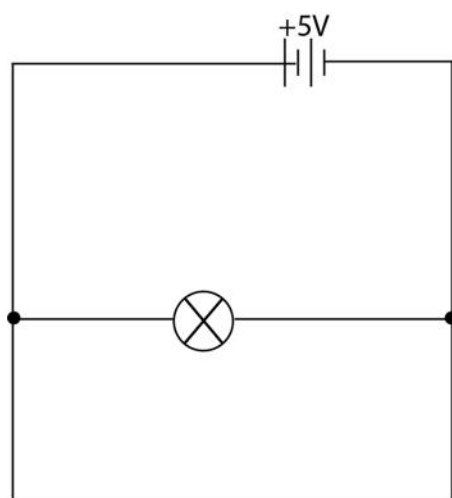


Image F

