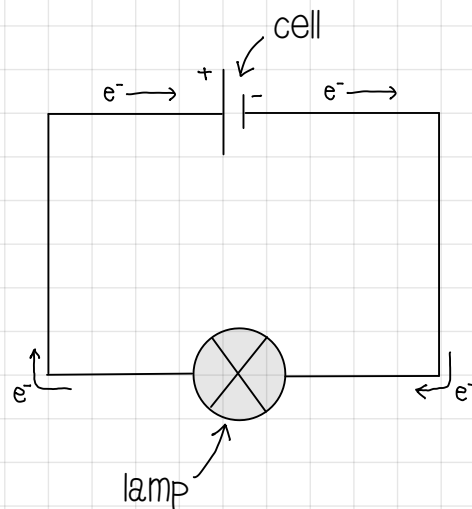


Current in series circuits

Series circuit



The electric current flows from the negative end of the cell to the positive end.

The electrons carry energy from the cell. This energy is passed to components such as the lamp. When the electrons return to the positive end of the cell they are carrying less energy.

The diagram shows a series circuit. It has no branches but forms a single loop. The current can only flow along one path.

Definitions

An electric **current** is a **flow** of electric charge (**electrons**) around a circuit.

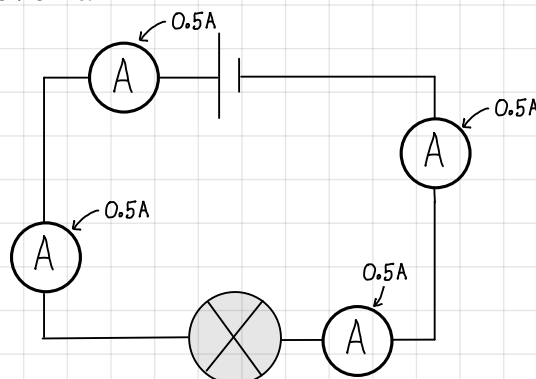
The **unit** of electric **current** is the **ampere** (A). You can shorten this to amp.

Current is **measured** in a circuit using an **ammeter**.



Measuring current

Current is not used up in a circuit. In a **series** circuit, **current** is the **same** all the way around the circuit.



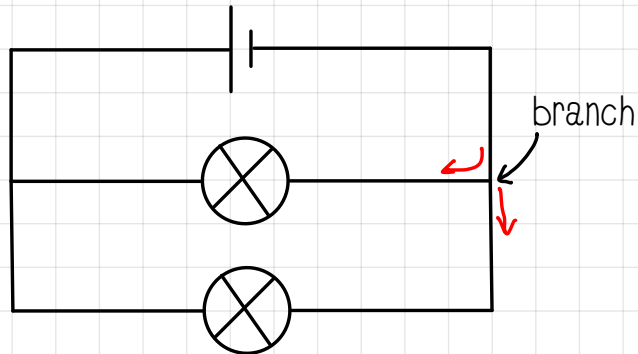
Current in parallel circuits

Review

Electric current is the flow of electrical charge (electrons) around a circuit.

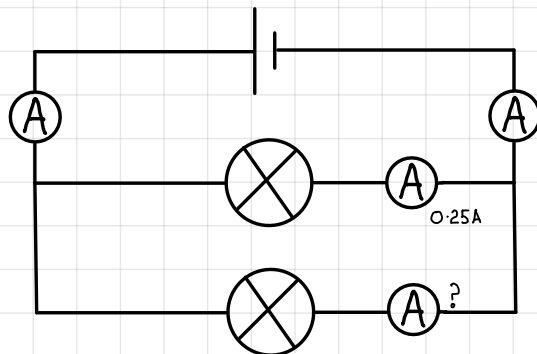
Electrical current is the same all around a series circuit.

Parallel circuits



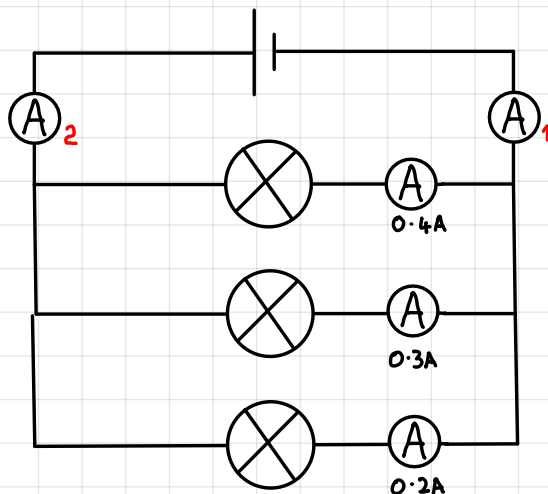
A parallel circuit contains branches. The current is divided through both of the branches

The current in each branch adds up to the total current in the circuit.



Calculate the current in the second branch of the parallel circuit

Practice question



Calculate the current at A₁ and A₂ in the parallel circuit

