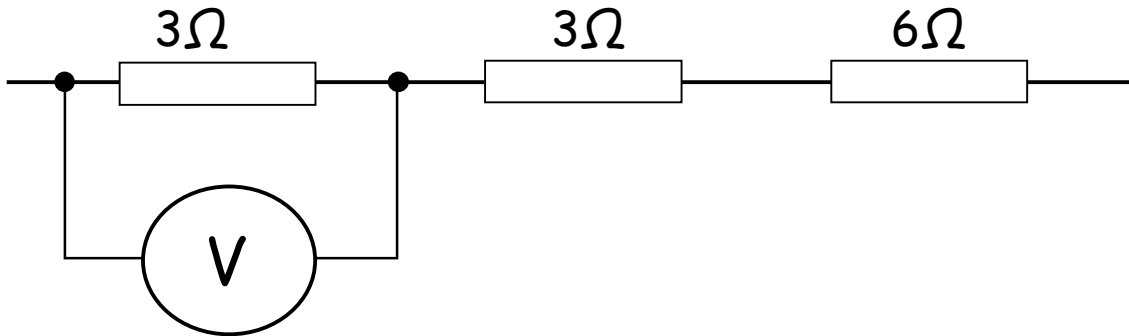


Current and Voltage in Series and Parallel.

Series

- The **current** in a series circuit is the same value at any point in the series circuit.
- The **voltage** from the power supply is shared out between the components of the circuit depending on the value of the components resistance.

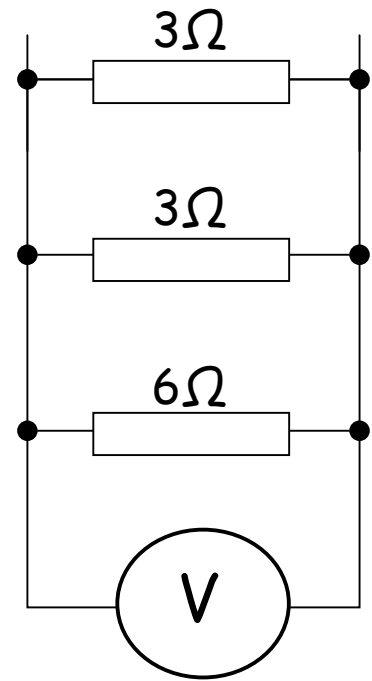


1. If 12V is put across the three resistors shown above calculate;
 - a. The current in the circuit
 - b. The voltage across each resistor
2. Using a similar circuit, find the values of voltage across each resistor and current in the circuit, given the info. in the table.

	V_S (V)	R_1 (Ω)	R_2 (Ω)	R_3 (Ω)
a.	18	3	3	3
b.	10	5	10	5
c.	12	20	15	5
d.	30	4	6	5
e.	60	10	20	10
f.	12	20	30	40
g.	20	5	15	10
h.	10	18	8	14

Parallel

- The **voltage** in a parallel circuit is the same value across all components in the parallel circuit.
- The **current** drawn by each resistor is determined by the value of the resistor and the voltage across it.
- The **sum** of the currents flowing into a point in the circuit is equal to the **sum** of the currents flowing out of that point.



3. If 12V is put across the three resistors shown above calculate;

- a. The current in each resistor
- b. The total current in the circuit
- c. The voltage across each resistor

4. Using a similar circuit, find the values of current in each resistor and total current in the circuit; given the information in the table.

	V_S (V)	R_1 (Ω)	R_2 (Ω)	R_3 (Ω)
a.	18	3	3	3
b.	10	5	10	5
c.	12	20	15	5
d.	30	4	6	5
e.	18	6	9	12
f.	10	5	10	20
g.	12	3	4	6
h.	30	3	10	20
i.	9	6	12	7