OHMS LAW
Key Revision Facts: GCSE Science

Current, Voltage, and resistance are all related using Ohm's law.

```
V = Volts
R = Resistance
I = Current
```

$$\frac{V}{I \quad R}$$

Examples

- What resistance is needed to pass 5a with a voltage of 100v

  ```
  R = V
      I
  ```

  ```
  R = 100
       5
  ```

  R = 20Ω

- What Voltage is need to allow a current of 3a through a resistance of 400Ω?

  ```
  V = I * R
  ```

  ```
  V = 3 * 400
  ```

  ```
  V = 1200v
  ```

- What current passes through a 10Ω Resistor with a voltage of 60v?

  ```
  I = V
      R
  ```

  ```
  I = 60
      10
  ```

  ```
  I = 6a
  ```