

RESISTORS IN SERIES

Key Revision Facts: GCSE Science

Combining two or more resistors will increase the resistance of the circuit.

$$\text{Total Resistance} = R1 + R2 + R3 + R4$$

$$\text{Total Resistance} = 1k + 2k + 3k + 4k$$

$$\text{Total Resistance} = 10k$$



Example

The current of the circuit can be calculated by adding the values of the resistors and using OHM's law.

Total resistance

$$= 20k + 30k = 50k$$

$$I = \frac{V}{R} = \frac{10}{50} = 0.2A$$

