

HINTS & TIPS

POWER

Use the following formula to calculate power:

Power = Current x Voltage

or

$$P = I \times V$$

This equation can be rearranged to work out the other values, e.g.

$$I = \frac{P}{V} \quad \text{and} \quad V = \frac{P}{I}$$

This can be remembered with the triangle shown below:



Using Ohm's Law we can get a few different equations which can be used if you can't use the original equation. All of these equations can also be rearranged.

$$\text{As } V = I \times R \rightarrow P = I \times I \times R = I^2 \times R$$

$$\text{and } I = V/R \rightarrow P = V \times V/R = V^2/R$$

Conclusion

$$P = I \times V$$

$$P = I^2 \times R$$

$$P = \frac{V^2}{R}$$

Remember:

Power is measured in Watts (W),
Current is measured in Amperes (A),
Voltage is measured in Volts (V)
and Resistance is measured in Ohms (Ω)

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