

Angle Rules - Line and Point



Key idea

Angles on a **straight line** add to 180° .

Angles **around a point** add to 360° .

On a line

One angle is 65° , so the other is $180^\circ - 65^\circ = 115^\circ$.

Around a point

Four equal angles around a point are each $360^\circ \div 4 = 90^\circ$.

Common mistake

Do not mix them up: a line is 180° , a full turn around a point is 360° .

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Vertically Opposite Angles



Key idea



When two straight lines cross, the angles **opposite** each other are **equal**.

Example



One angle is 75° , so the angle opposite it is also 75° .
Each angle next to it is $180^\circ - 75^\circ = 105^\circ$.

Common mistake

Opposite angles are **equal**, not 180° apart.

Copy the same value across — do not subtract from 180° .



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Angles in a Triangle



Key idea

The three angles **inside a triangle** add to 180° .

Example

A triangle has angles 50° , 60° and x .

$$50 + 60 + x = 180, \text{ so } x = 70^\circ.$$

Common mistake

A triangle is 180° , not 360° .
Ask first: line, full point, or triangle?

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