

Rules in Geometry

Lines:

Vertically opposite angles are equal.

Angles on a straight line add up to 180°

Angles at a point add up to 360°

Triangles and quadrilaterals:

Angles in a triangle add up to 180°

Base angles of an isosceles triangle are equal.

Angles in an equilateral triangle are equal.

Angles in a quadrilateral add up to 360°

An exterior angle (of a triangle) is equal to the sum of the internal opposite angles.

Polygons:

Exterior angles of a polygon add up to 360°

The interior and exterior angle of any polygon add up to 180°

Parallel lines:

Alternate angles are equal.

Corresponding angles are equal.

Allied angles add up to 180°

Circle Theorems:

The tangent to a circle is perpendicular (90°) to the radius.

Tangents from an external point are equal in length.

Angles in a semicircle are 90°

Angles in the same segment are equal.

The angle at the centre of a circle is twice the angle at the circumference.

Opposite angles of a cyclic quadrilateral add to 180°

Alternate segment theorem.