Angle properties

No.	Property	Explanation	Example
1	Angles on a straight line	 Angles on a straight line add up to 180° 2 angles are complementary is they add up to 90° 2 angles are called supplementary if they add up to 180° 	
2	Angles at a point	Angles at a point add up to 360°	a b
3	Vertically opposite angles	Vertically opposite angles are equal	B θ β
4	Angles formed by parallel lines	Alternate interior angles are equal	4
5	Angles formed by parallel lines	Alternate exterior angles are equal	Alternate exterior angles

6	Angles formed by parallel lines	Corresponding angles are equal	
7	Angle properties of triangles	The sum of angles in a triangle adds up to 180°	B C C
8	Angle properties of triangles	The sum of 2 interior opposite angles is equal to the exterior angle	C is exterior angle C A and B are interior angles
9	Angle properties of polygons	 sum of interior angles of an n-sided polygon = (n-2) x 180° each interior angle of a regular n-sided polygon = (n-2) x 180o / n 	
10	Angle properties of polygons	 sum of exterior angles of an n-sided polygon is 360° each exterior angle of a regular n-sided polygon = 360° / n 	

Angle Properties of Circles

\angle at Centre $\angle a = 2 \angle b$	\angle s in Same Segment $\angle a = \angle b$	\angle in Semi-Circle $\angle a = 90^{\circ}$	Radius 1 Tangent \(\alpha = 90^{\circ} \)
Opp. \angle s of Cyclic Quadrilateral $\angle a + \angle b = 180^{\circ}$ $\angle c + \angle d = 180^{\circ}$	⊥ bisector of chord passes through centre OB ⊥ AC, AB = BC	Tangents from external point TP = TQ	Equal chords equidistant from centre AB = CD ↔ OP = OQ A P O Q D
Alternate Segment Theorem $\angle a = \angle b, \angle c = \angle d$	Intersecting Chords Theorem AX-XB = CX-XD A X B	Tangent-Secant Theorem AX·BX = TX² A B X	