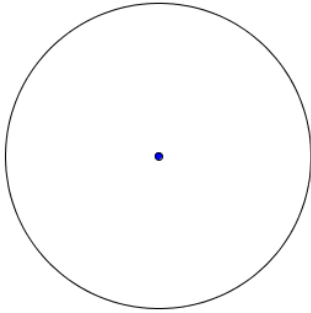
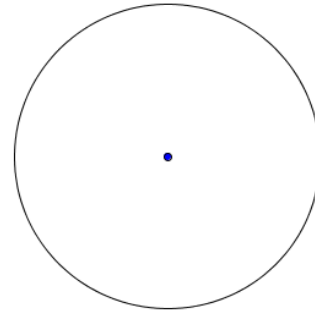


**Circle Theorem 1: Double Angle**

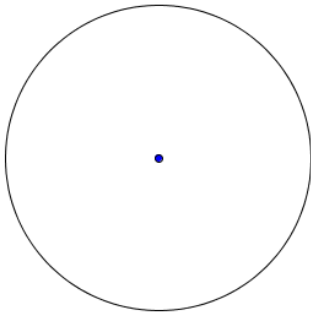
*The angle subtended by an arc at the centre of a circle is twice the angle subtended at the circumference.*

**Circle Theorem 2: Semicircle**

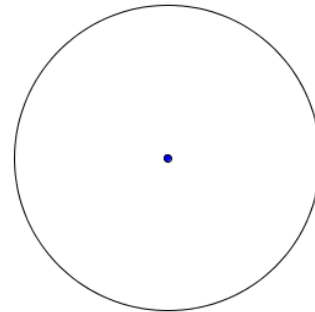
*The angle in a semicircle is a right angle.*

**Circle Theorem 3: Segment Angles**

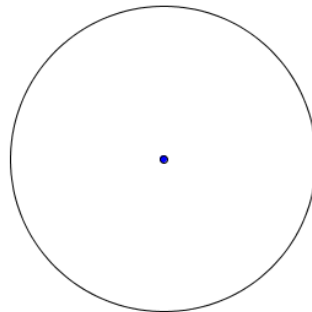
*Angles in the same segment are equal.*

**Circle Theorem 4: Cyclic Quadrilateral**

*The sum of the opposite angles of a cyclic quadrilateral is  $180^\circ$ .*

**Circle Theorem 5: Alternate Segment**

*The angle between a chord and the tangent at the point of contact is equal to the angle in the alternate segment.*

**Facts: (not quite theorems, but should be remembered)**

Any triangle with two points at the circumference and one in the centre is isosceles.

Any tangent is perpendicular to the radius at the point of contact.

Any triangle created by two crossing tangents and the line joining their point of contact is isosceles.

A chord bisected by a radius is at right angles to it; a chord perpendicular to a radius is bisected by it.