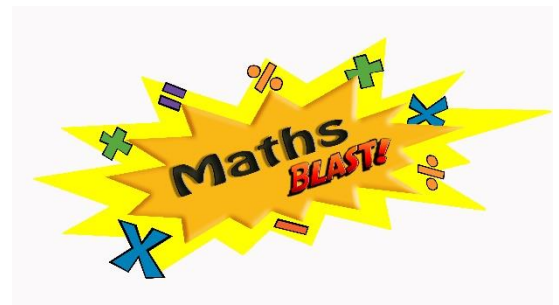


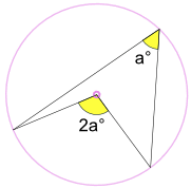
# Circle Theorems

Tutoring: KS4



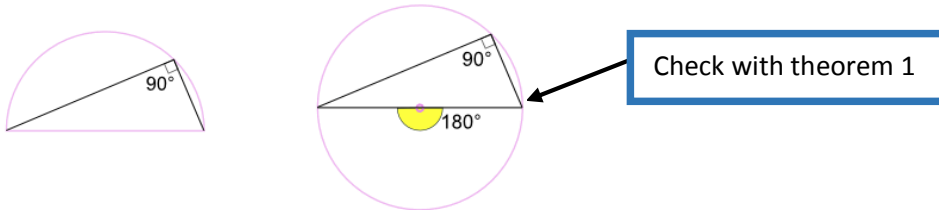
## Theorem 1: Angles at the centre and circumference

The angle at the centre is twice that of the outside angle.



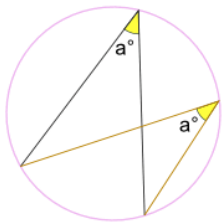
## Theorem 2: Angle in a semi-circle

The angle drawn in a semicircle is always a right angle.



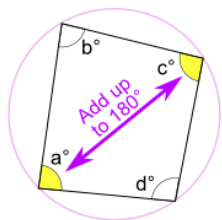
## Theorem 3: Angles in the same segment

Angles in the same segment are always equal



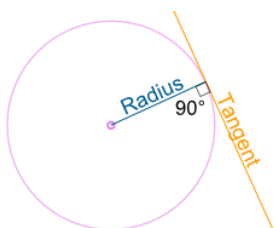
## Theorem 4: Angles in a quadrilateral

The opposite angles of a quadrilateral drawn in a circle add up to  $180^\circ$



## Theorem 5: Angle between circle tangent and radius

The angle between the radius and the tangent of a circle is always  $90^\circ$



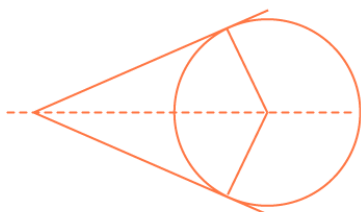
### Theorem 6: Alternative Segment

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



### Theorem 7: Length of Tangents

The lengths of two tangents that meet are always equal



This also means that the angles on either side of the dotted line are the same.

### Theorem 8: Perpendicular of chords to centre

The perpendicular from the centre to the chord bisects the chord

