Circle

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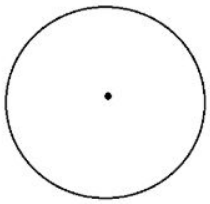
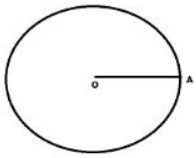
A circle is the set of points in a plane that are in same distant from a center. A circle is named by its center.



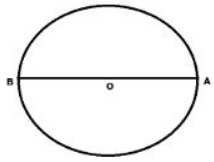
Radius

The distance from the centre of the circle to any point on a circle is called the radius of the circle.
In the given figure, O is the centre and OA is a radius of the circle.



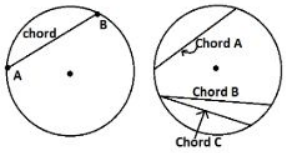
Diameter

The diameter of a circle is the distance across a circle through the center.
In the figure, BA is a diameter.



Chord

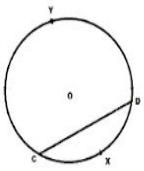
A chord is a line segment that joins two endpoints that lie on a circle. A circle has many different chords.
In the figure, AB is a chord of the circle.



Circumference and Arc of a circle

Circumference is the distance once around the circle. And a part of the circumference is called an Arc.

In the given figure, the smaller part CXB is known as the minor arc and the greater part CYB is known as the major arc.

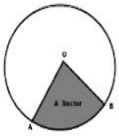


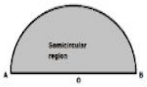
Sectors of a circle

A slice of a pizza can be known as a sector of a circle. There are especially two types of a sector in circle: Quadrant and Semicircle.

A quarter of a circle is called a Quadrant.

Half a circle is called a Semicircle.

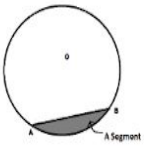




Segment of a circle

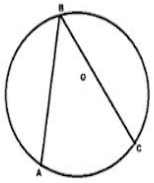
A chord divides the circle into two parts and the parts made by a chord is called a Segment.

The smaller part is called the minor segment and the other part is called the major segment.



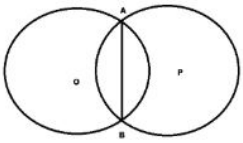
Inscribed angle

An inscribed angle is an angle formed by two chords in a circle which has a common endpoint. This common endpoint forms the vertex of the inscribed angle and the corresponding arc is called the intercepted arc. In the figure, ABC is an inscribed angle and AC is called an intercepted arc.



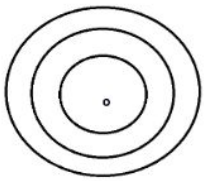
Circles Intersecting

Two circles may intersect in two imaginary points that may a single degenerate point or two distinct points.
In the figure, two circle are intersect where, AB is the common chord of the circles with centre O and P.



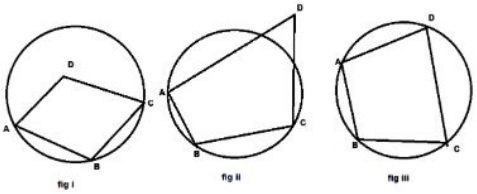
Concentric Circles

Concentric circles are simply a circles with a same distance apart all the way aroundwith a common center.
In the figure, three circles have the same centre O, so the circles are concentric.



Cyclic Quadrilaterals

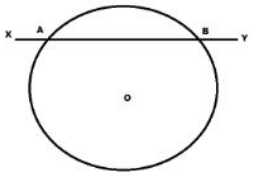
A cyclic quadrilateral is a quadrilateral whose all polygon vertex touches the circumference of a circle.



In the above figure, only in fig (iii) ABCD is cyclic quadrilateral and vertices A, B, C and D are concyclic.

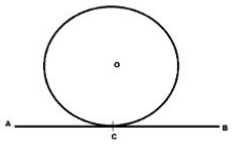
Secant

Secant is a line that intersects the circle at two distinct points.
In the figure, the line XY is a secant.



Tangent

A line that touches a circle at just one point is a tangent.In the figure, AB is a tangent to the circle at C. The point C is called the point of contact.



At most two tangent can be drawn to the circle from an external point.