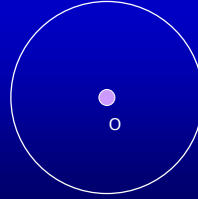


## Circumference

The distance around the edge of a circle (or any curvy shape)



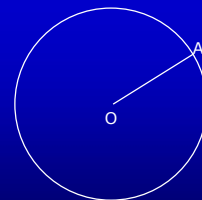
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## Radius

The distance from the center to the circumference of a circle

It is half of the circle's diameter

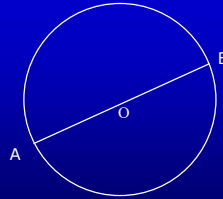


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## Diameter

A straight line going through the center of a circle connecting two points on the circumference



3

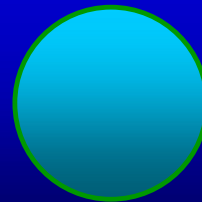
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## Circle

*A line forming a closed loop, every point on which is at a fixed distance from a center point.*

The area is  $\pi$  times (x) radius squared:  $A = \pi r^2$

(Pie Are Squared)

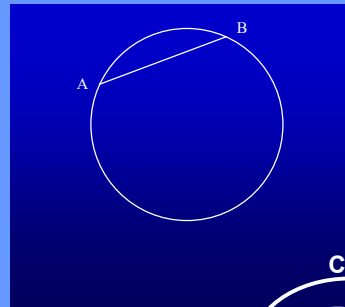


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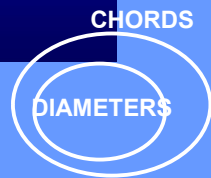
## Chord

A line segment connecting two points on a curve.  
When the chord passes through the center of a circle it is called the diameter.



*AB is a diameter* → *AB is a chord*

*But not: AB is a chord* → *AB is a diameter*

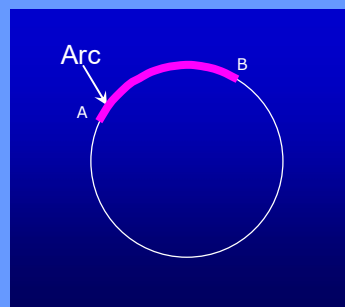


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## Arc

Part of the circumference of a circle defined by two points

They are called endpoints



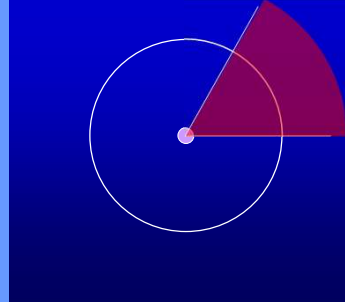
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## Central Angle

*The angle subtended at the center of a circle whose vertex is the center of the circle.*

*Subtend=delimit*



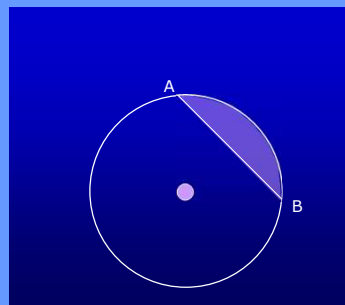
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## Circle segment

*The region of a circle between a chord of a circle and its associated arc.*

*Its symbol is:  $\cap$*



8

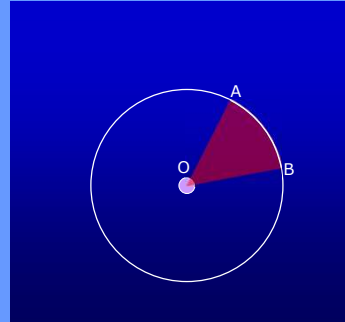
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## Circle sector

The part of a circle enclosed by two radii and their intercepted arc

(symbol:  $\text{◁}$ )

A sector with the central angle of  $180^\circ$  is called a half-disk

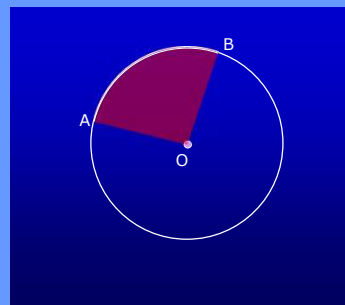


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## Quadrant

It is a special sector whose angle is a right angle. It is a quarter of a circle



10

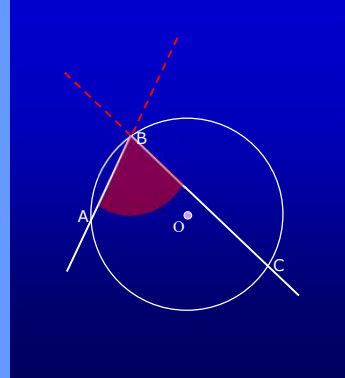
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## Inscribed angle

The angle subtended at a point on the circle (B) by two given points on the circle. (A-C). It is

1. Convex
2. The vertex is on the circle
3. The 2 legs are secant (A line that intersects two or more points on a curve)

or...



1

11

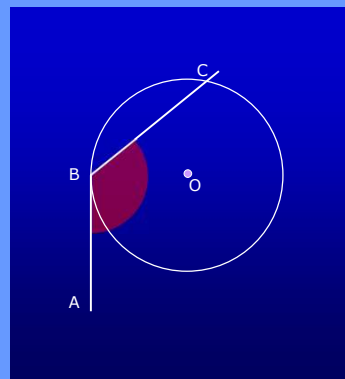
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## Inscribed angle 2

...

or

3. A leg is SECANT the other is TANGENT (A line that only intersects one point)



2

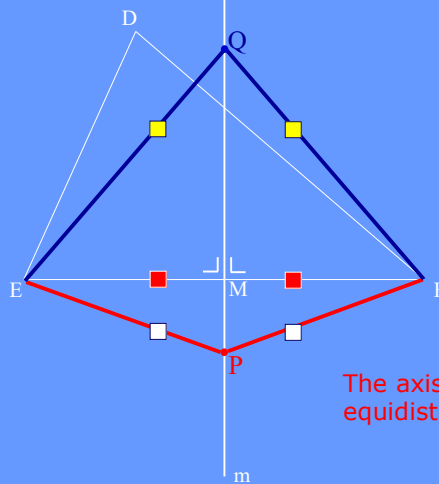
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## AXIS

The axis of a triangle relative to a side is the straight line

- perpendicular to the side
- passing through the midpoint



The straight line  $m$

- perpendicular to  $EF$

- passing through the point  $M$

is called **AXIS** of the side  $EF$

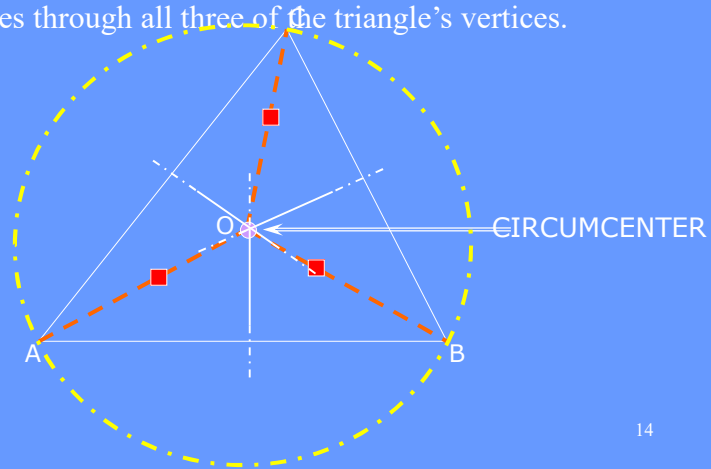
The axis is the 'locus' of the points equidistant from the extremes.

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13

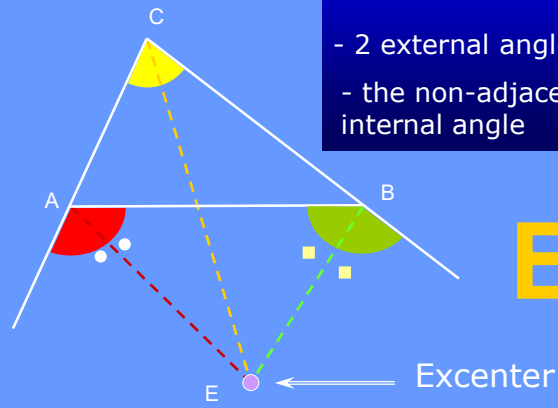
## CIRCUMCENTER

It is where the "perpendicular bisectors" (lines that are at right angles to the midpoint of each side) or the **AXIS** of the sides meet. The circumcenter is also the center of the triangle's circumcircle- the circle that passes through all three of the triangle's vertices.



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REMARKABLE POINTS IN A TRIANGLE - *EXCENTER*

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