Name _____

Central and Inscribed Angles of Circle

Date _____ Period _____

Central Angle

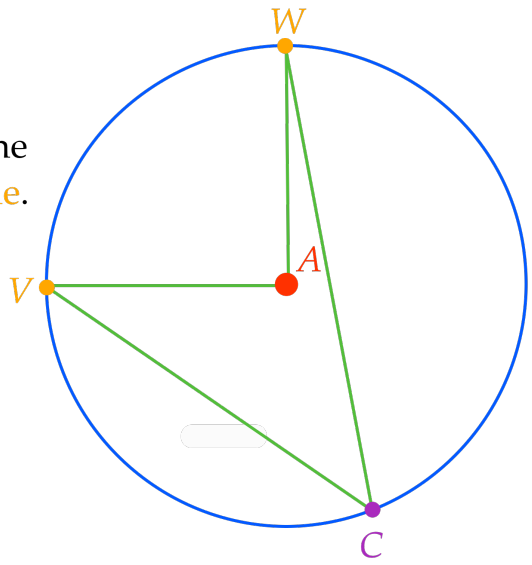
A central angle is an angle whose vertex at the center of the circle and endpoints on the circle.

$\angle VAW$ is a central angle

Inscribed Angle

An inscribed angle is an angle whose vertex is on the circle and endpoint on the circle.

$\angle VCW$ is an inscribed angle



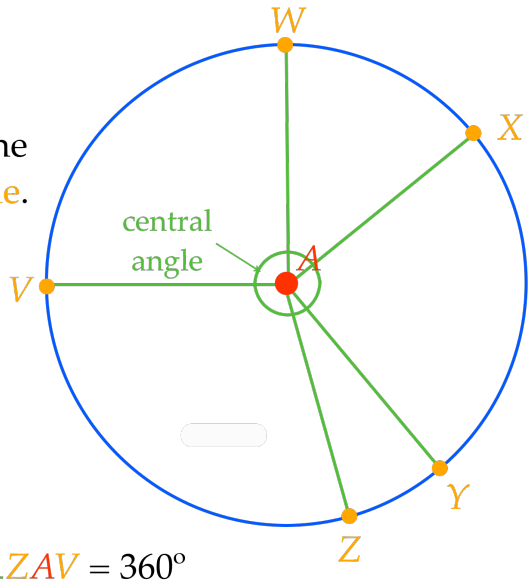
Central Angle

A central angle is an angle whose vertex at the center of the circle and endpoints on the circle.

$\angle VAW$ is a central angle

Sum of Central Angles

The sum of all non-overlapping central angles within a circle is 360°.

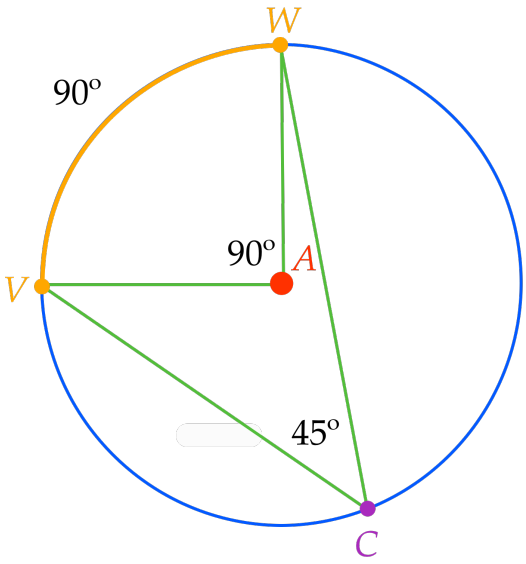


$m\angle VAW + m\angle WAX + m\angle XAY + m\angle YAZ + m\angle ZAV = 360°$

Central Angle

The measure of a central angle is equal to the measure of the arc it intercepts.

$$m\angle VAW = m\overset{\frown}{VW}$$



Inscribed Angle

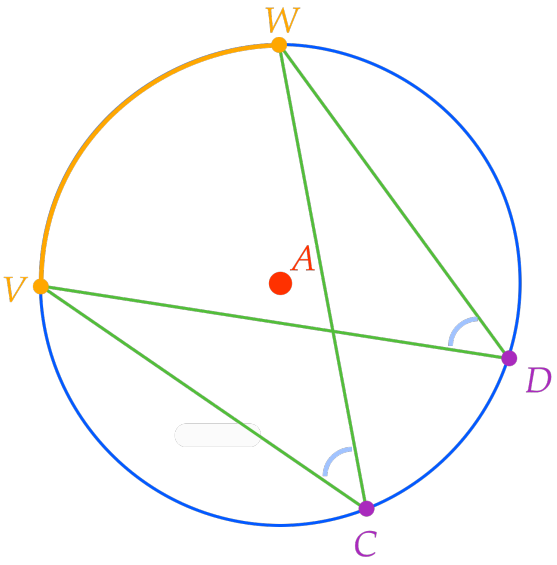
The measure of an inscribed angle is equal to one-half the measure of the arc it intercepts.

$$m\angle VCW = \frac{1}{2}m\overset{\frown}{VW}$$

Inscribed Angle

If two inscribed angles intercept the same arc, then those two inscribed angles are congruent.

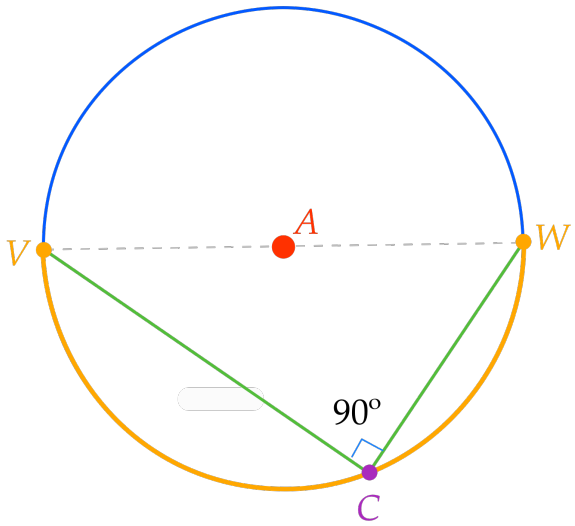
$$\angle VCW \cong \angle VDW$$



Inscribed Angle

An angle inscribed in a semicircle is a right angle.

$\angle VCW$ is a right angle.



Inscribed Angle

Opposite angles of a quadrilateral inscribed in a circle are supplementary.

$\angle W$ and $\angle Y$ are supplementary

$\angle X$ and $\angle Z$ are supplementary