Chapter 12 Review

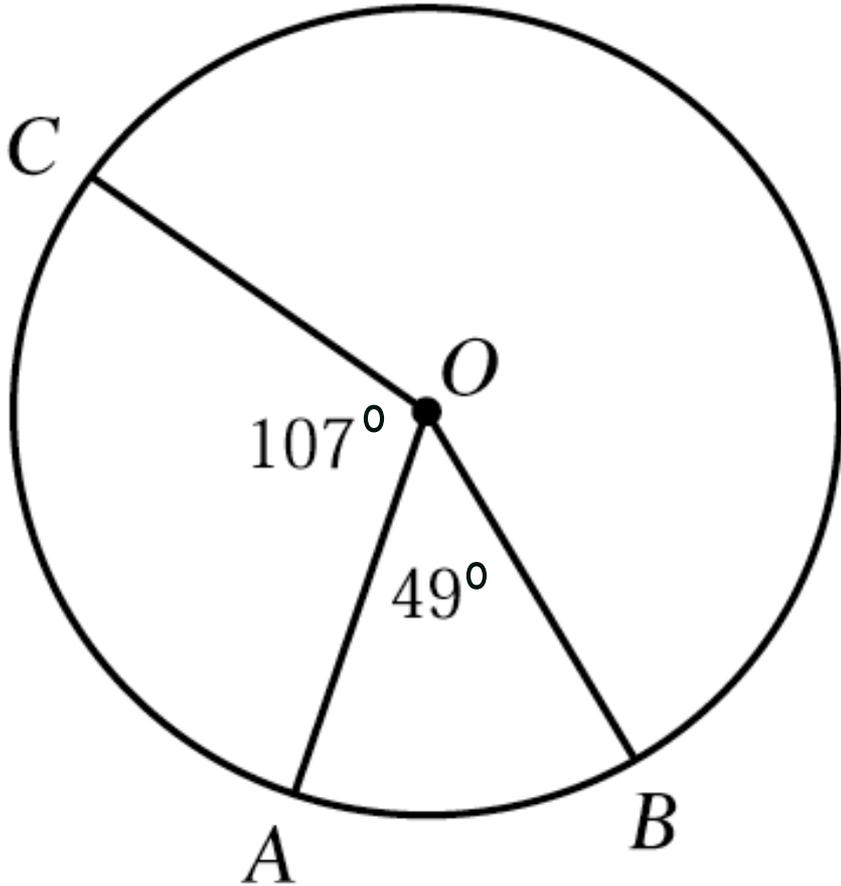# Equation of a circle

1) Write the equation of the circle which has center (3,4) and contains point (4, 7)

Equation of a circle

2) Write the equation of the circle with a diameter whose endpoints are (17, 25) and (7,1)
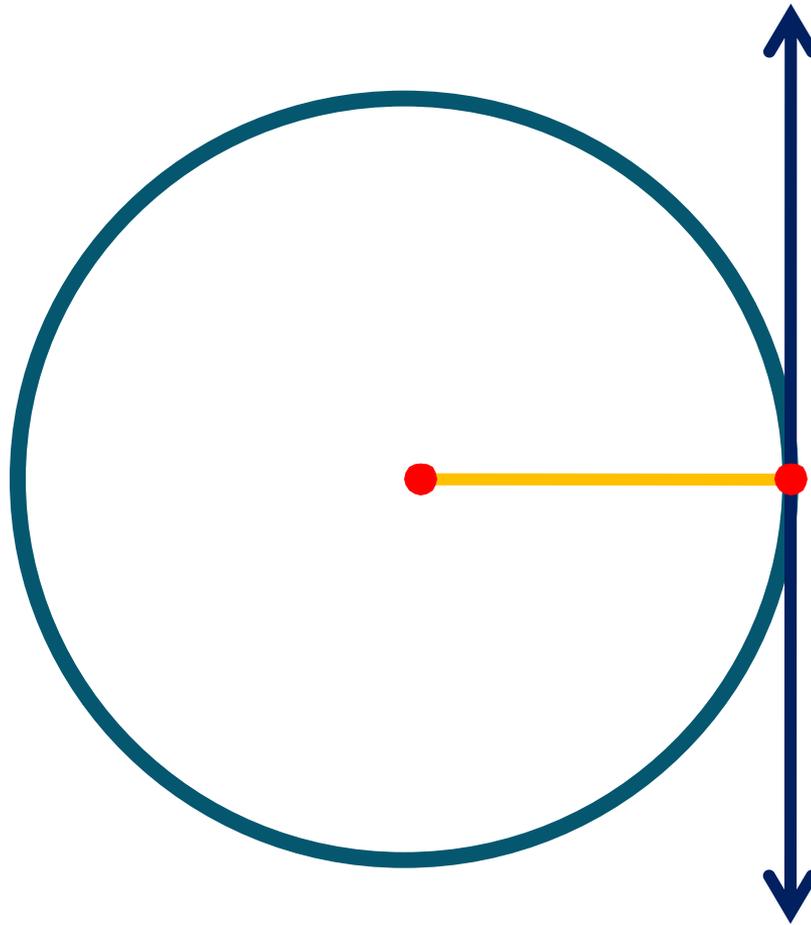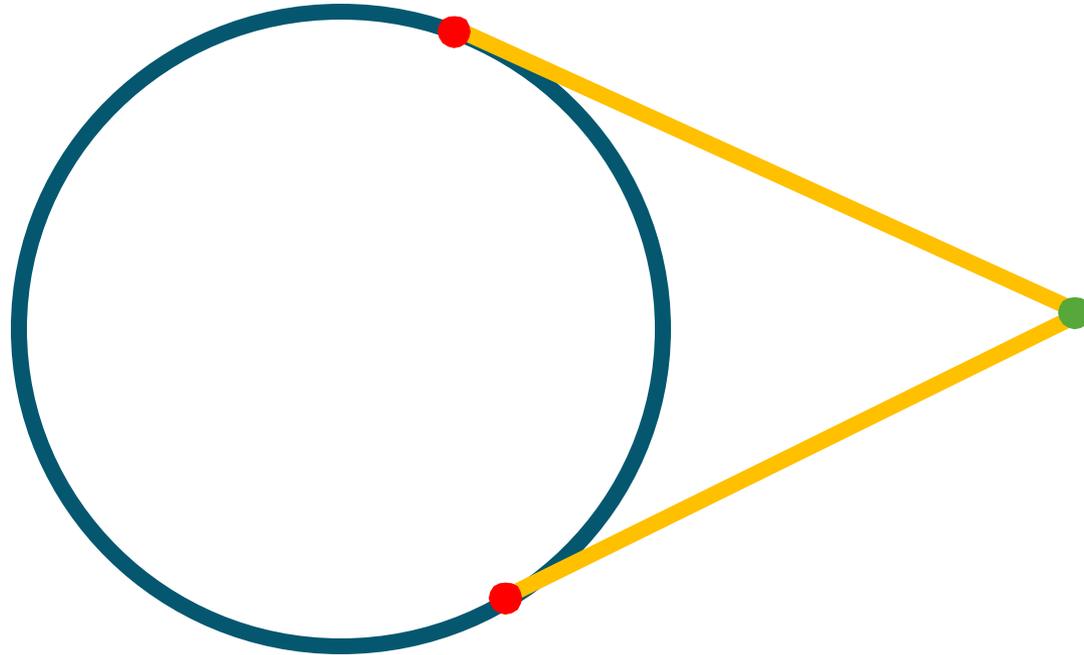
Arc Measures

$m\,AB =$

$m\,ABC =$

$m\,BAC =$

$m\,ACB =$

POK

Tangent Theorem

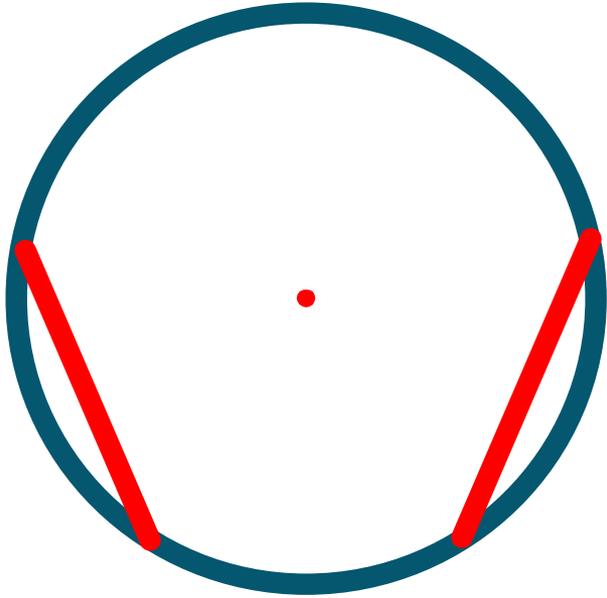**A tangent to a circle is _____ to the radius drawn to the _____.**
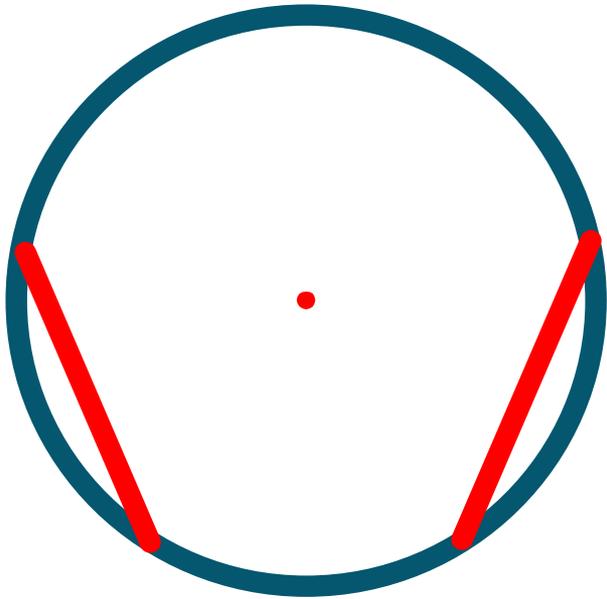
Tangent Segments Theorem

Tangent segments to a circle from a point outside the circle are _____ .
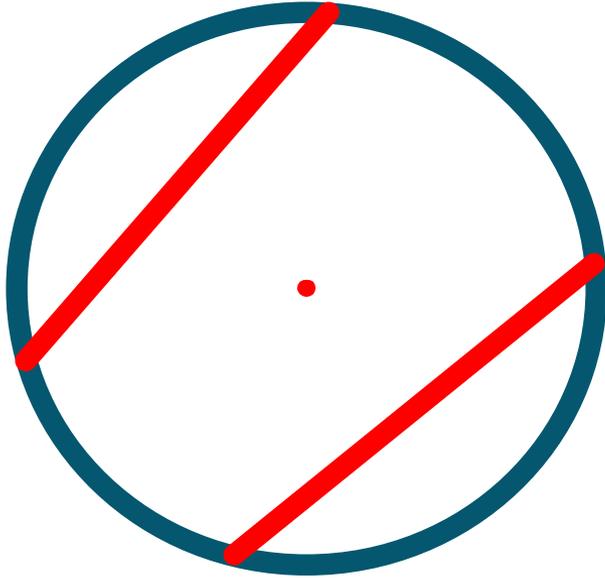
Chord Properties

If two chords in a circle are congruent, then they determine
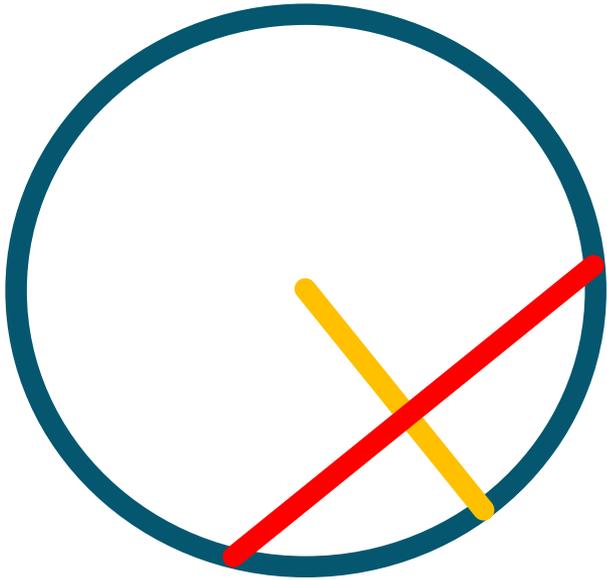
Chord Properties

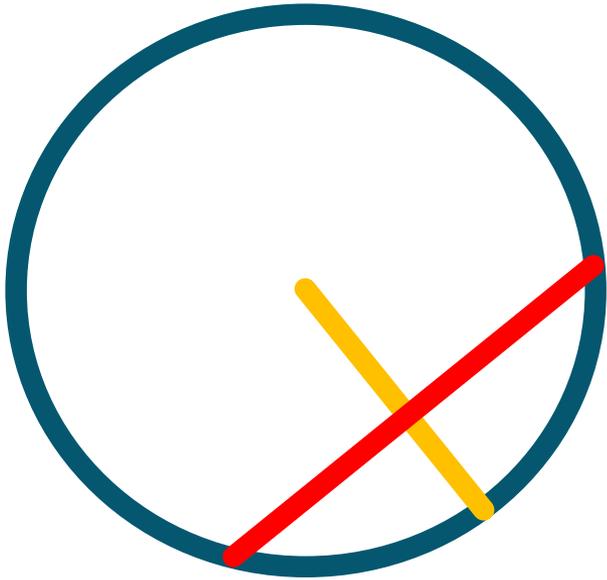If two chords are congruent, then their intercepted arcs are

_____

Chord Properties

Two congruent chords in a circle _____

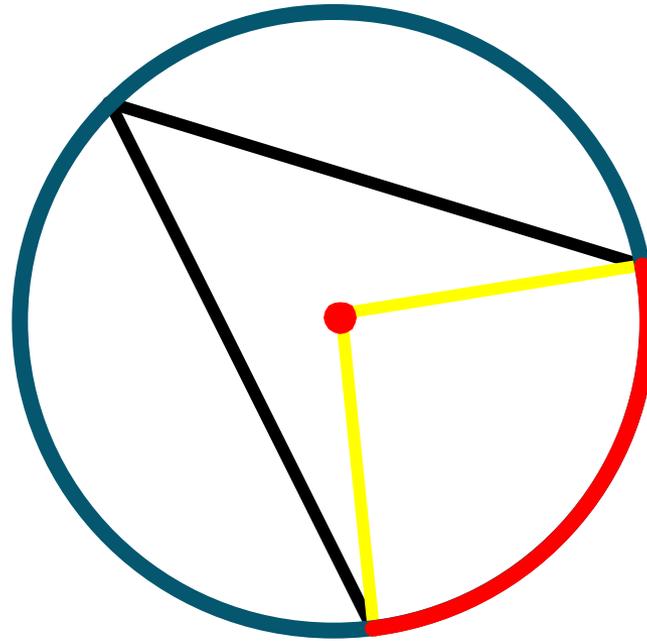_____

Chord Properties

The perpendicular from the center of a circle to a chord

Chord Properties
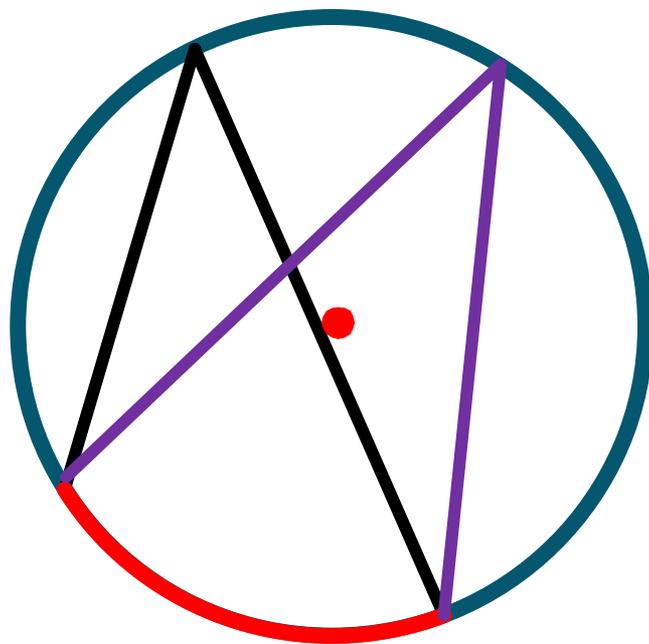

A segment that bisects a chord _____

_____

Relationship between inscribed angles and central angles

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Inscribed Angle Theorem

The measure of an _____ angle is half the measure of the _____ angle that shares the same _____ arc
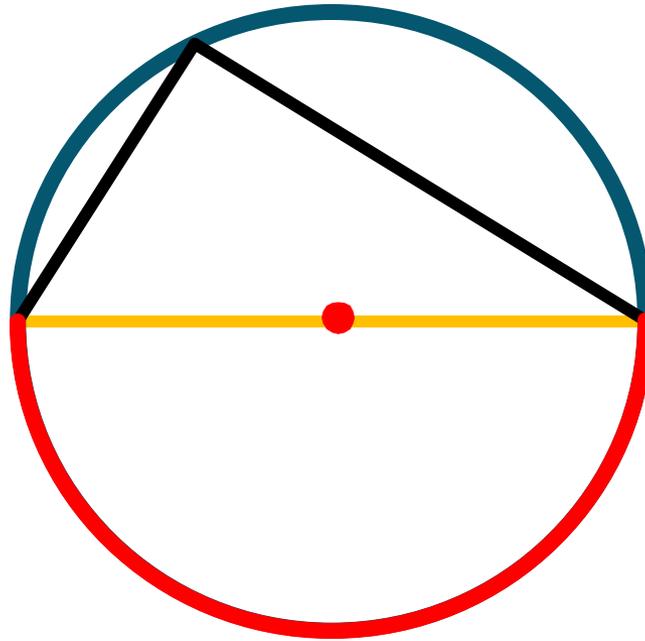
Relationship between inscribed angles that share the same arc.
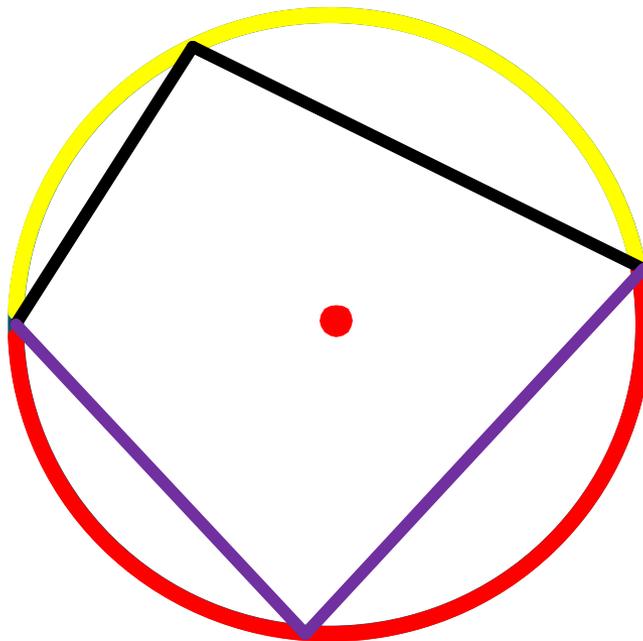

Inscribed angles that share the same _____ arc are _____.

Observations of a right inscribed angle

Angles inscribed in a semicircle are ____ _____.
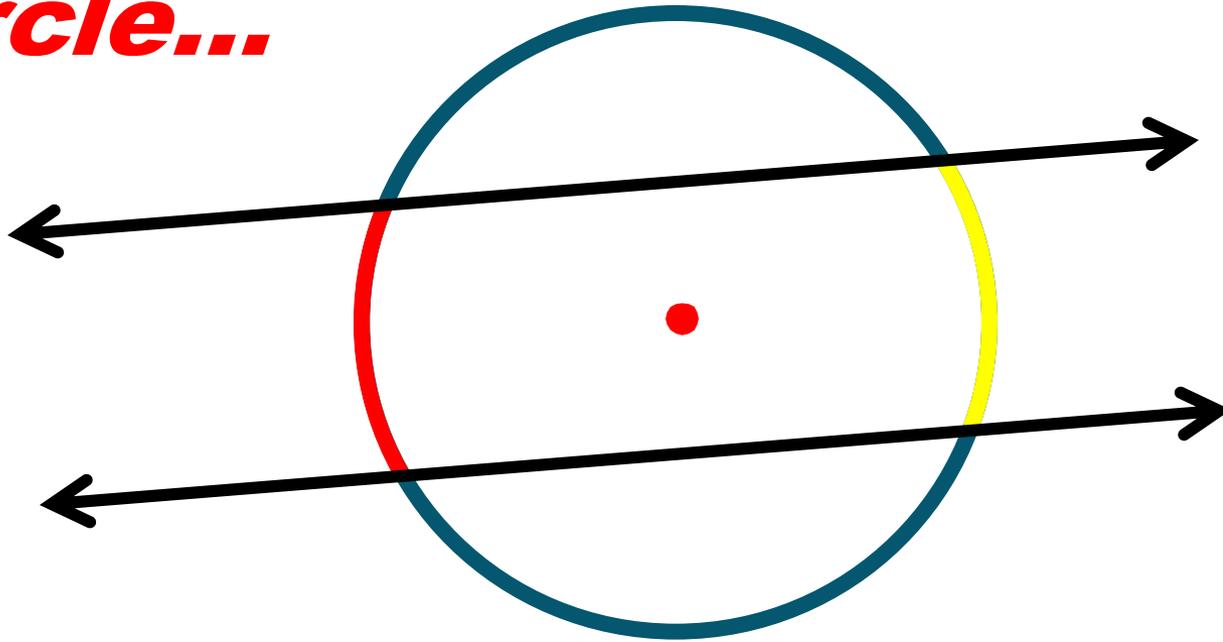
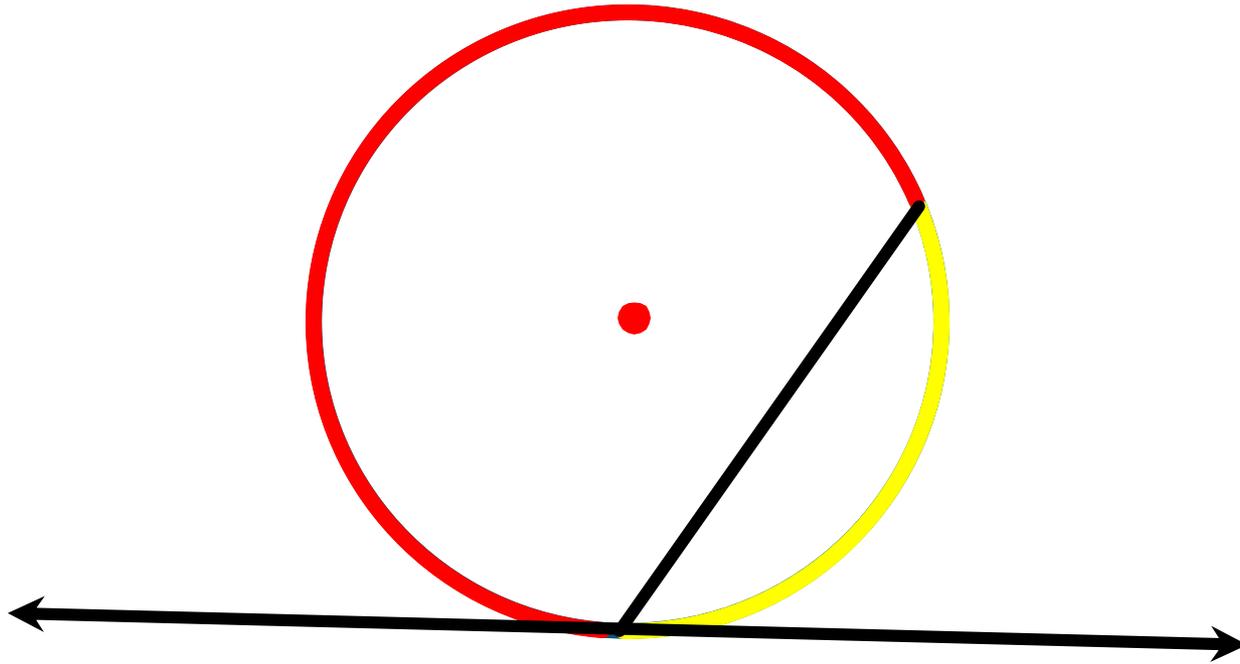# *Quadrilaterals inscribed in a Circle...*

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Cyclic Quadrilateral Theorem

_____ angles in a cyclic quadilateral are _____.

Parallel Lines Intersecting a Circle...

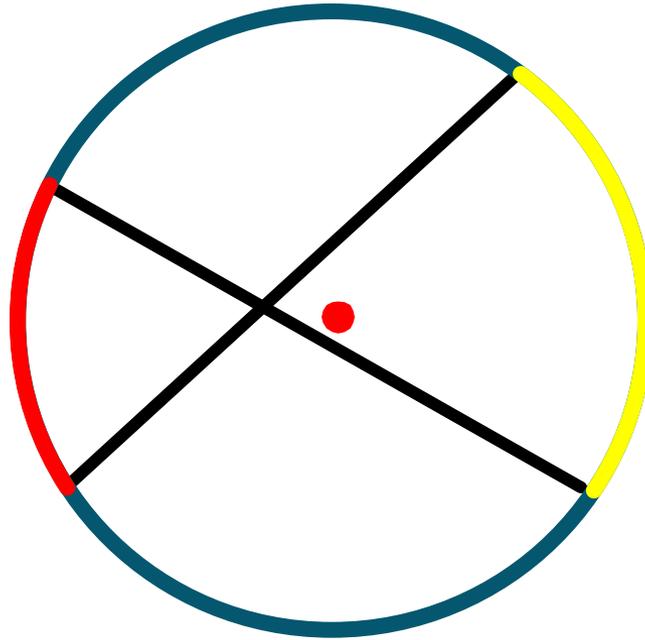**Parallel lines intercept _____ arcs on a circle.**

Tangent/Chord Theorem

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Tangent/Chord Theorem

If a tangent and chord _____ at a point on a circle, then the measure of each angle formed is _____ the measure of the _____ arc.
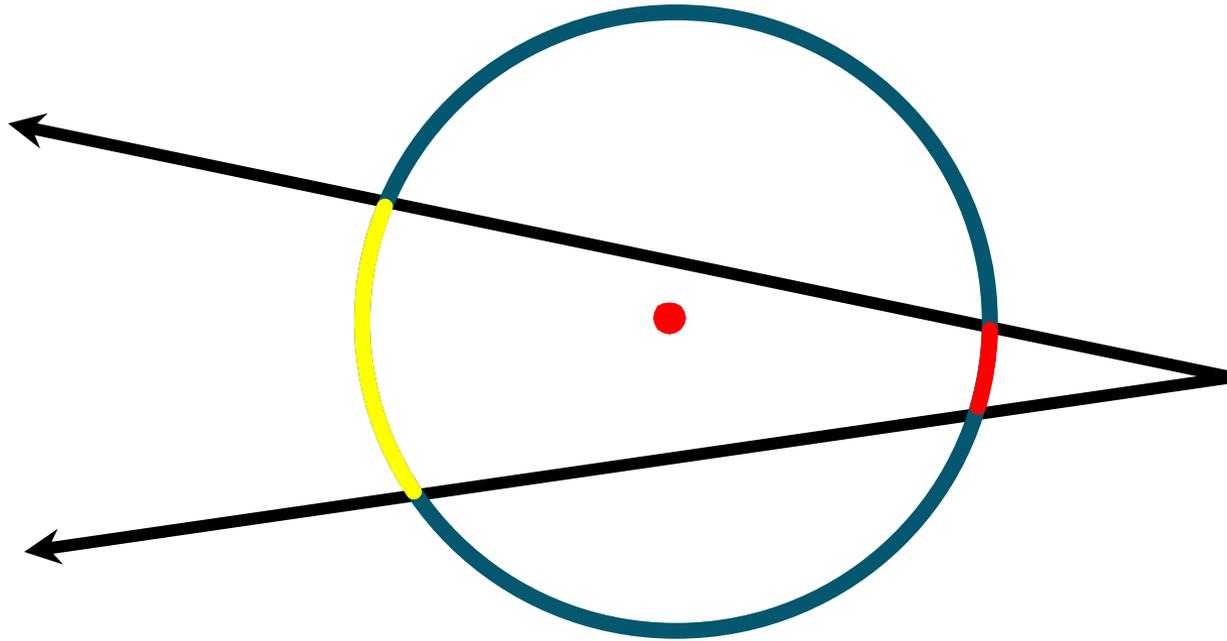
Angle/Chord Theorem

Angle/Chord Theorem

If two chords intersect _____ a circle, then the measure of each angle is _____ the sum of the intercepted arcs.
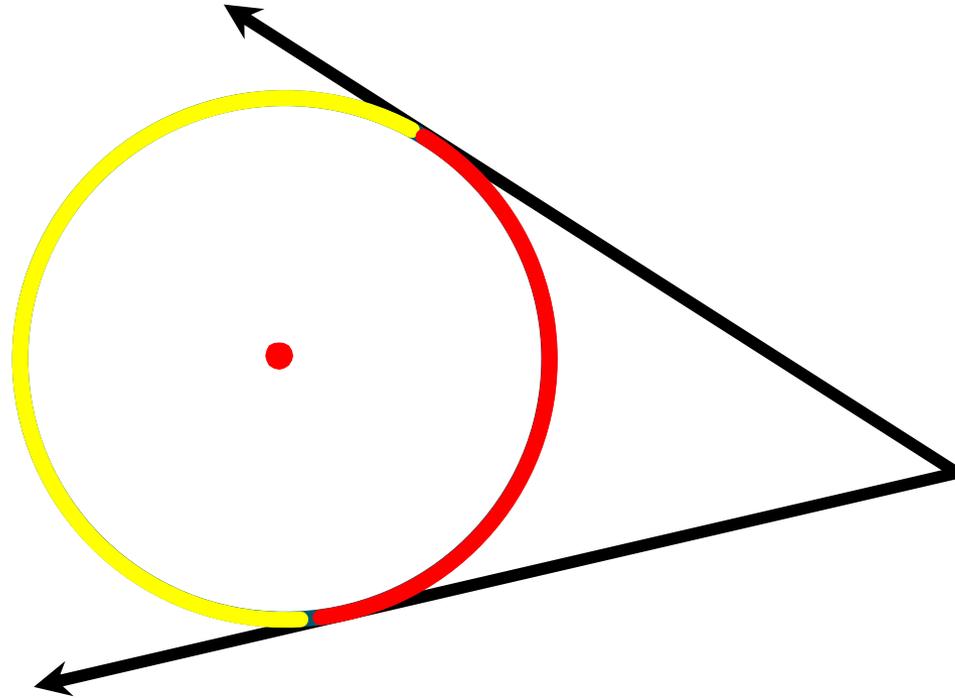
Angle/Secant Theorem

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Angle/Secant Theorem

If secants intersect outside a circle, then the measure of the angle formed outside the circle is _____ the _____ of the intercepted arcs
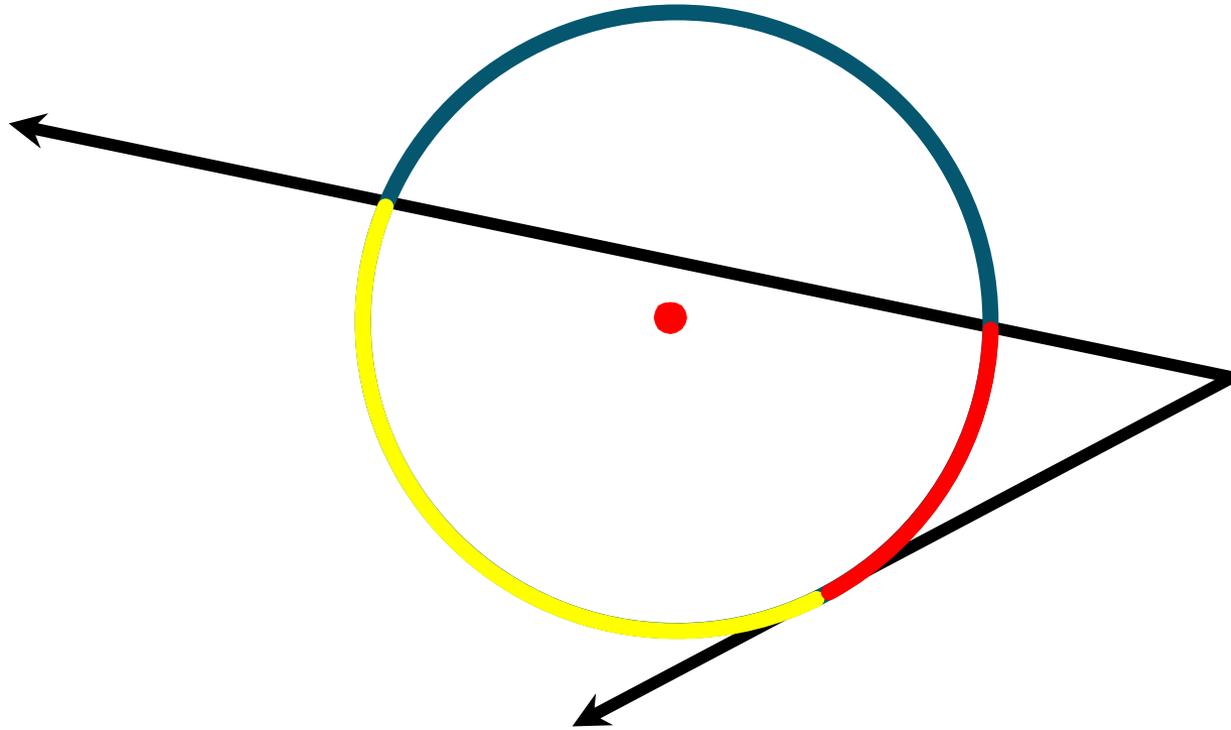
Angle/Tangents Theorem

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Angle/Tangents Theorem

If tangents intersect outside a circle, then the measure of the angle formed outside the circle is _____ the difference of the intercepted arcs
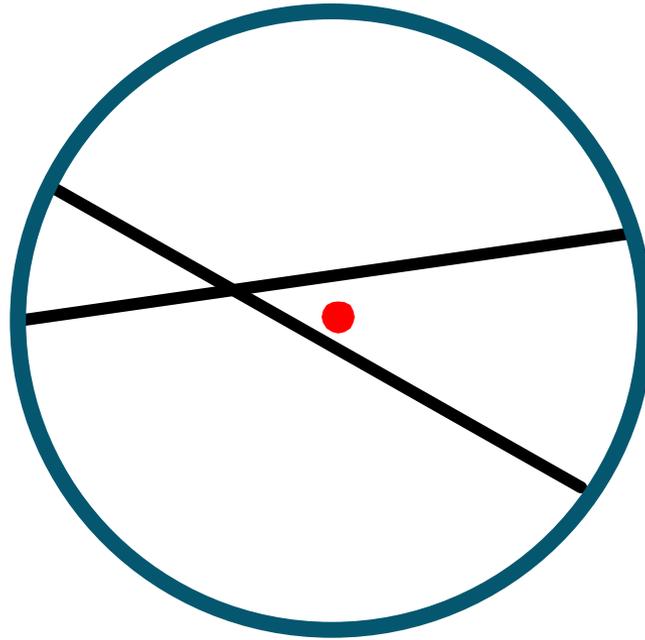
Tangent/Secant Theorem

Tangent/Secant Theorem

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If tangents or secants intersect outside a circle, then the measure of the angle formed outside the circle is _____ the difference of the intercepted arcs
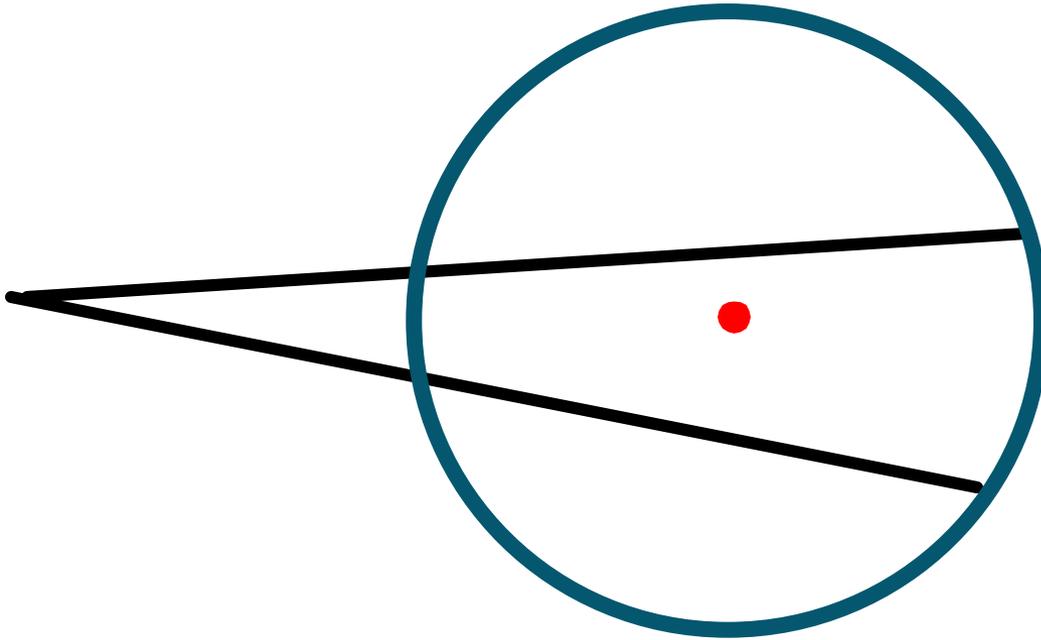
Segments of Chord Theorem

Segments of Chords Theorem

If two chords intersect in a circle then the _____ of the lengths of the segments of one chord is equal in measure to the _____ of the segments in the other chord.
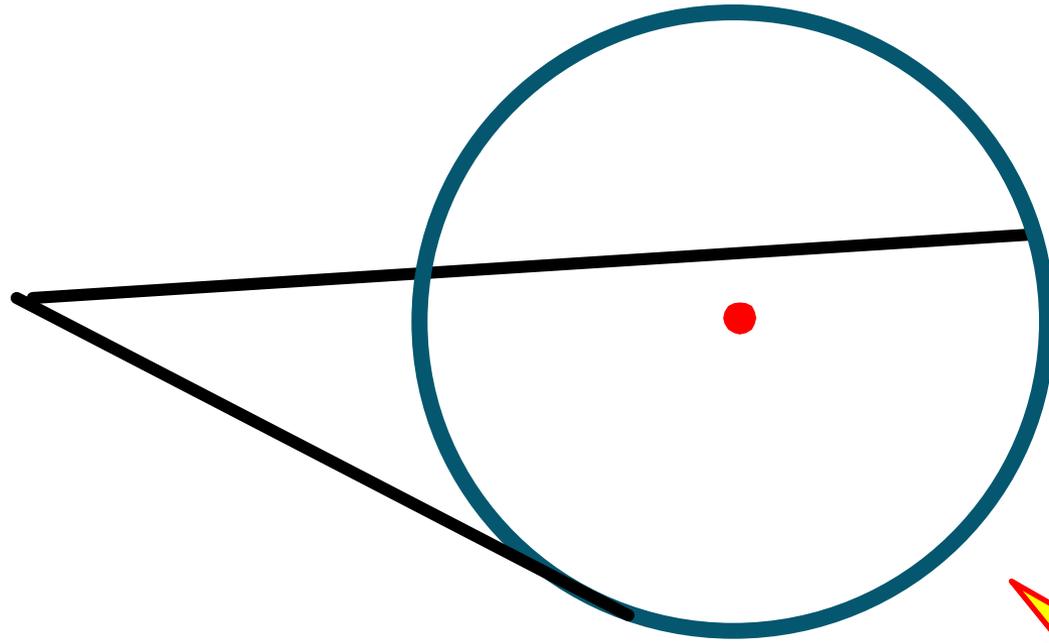
Secant Length Theorem

Secant Length Theorem

If two secant segments share the same endpoint outside a circle, then the _____ of the lengths of one secant and its external part is equal to the _____ of the other secant and its external part.

Secants/Tangent Lengths Theorem

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Secants/Tangents Lengths Theorem

If a secant and a tangent segment share the same endpoint outside a circle, then the _____ of the lengths of the secant and its external part is equal to the _____ of the tangent segment

Equation of a circle

- (h,k) is the center of the circle
- r is the radius