# 12.5 <br> Angles of Chords, Secants, and <br> Tangents 

## Tangent/Chord Theorem



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If a tangent and chord $\qquad$ at a point on a circle, then the measure of each angle formed is the measure of the arc.

## Practice

1) Find $m \angle B A D$

2) Find $m \overparen{A E B}$


## Practice

3) 



## Exterior Angle



If you extend one side of a triangle from the vertex, you form an exterior angle.
$\prod \angle A=?$
$\mathrm{m} \angle \mathrm{B}=?$


## Angle/Chord Theorem



## Angle/Chord Theorem



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

## Practice



## Practice



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


Angle/Tangents Theorem


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



## Tangent/Secant Theorem

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

## Practice



## Practice

9) 


10)


