Geometry CC – Mr. Valentino
Unit 12 Day 4: Inscribed Angles/Tangent Arc Angles

Name: _____
Date: _____ Per: _____

Aim: What are the measures of angles formed by chords and tangents?

Do Now: **Refer to the diagram of circle *O* to find each of the following:**

a] $m\widehat{AE}$

b] $m\angle BOC$

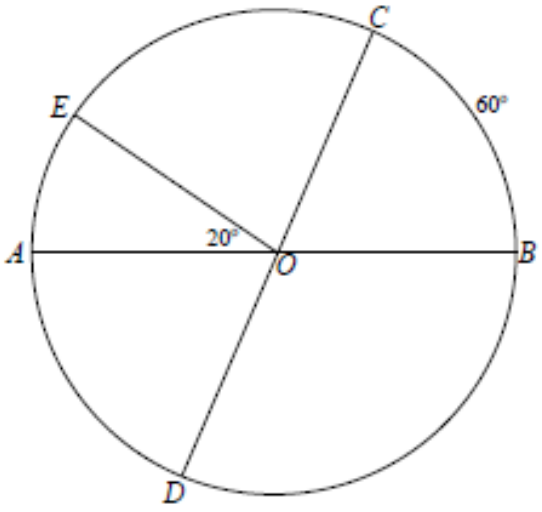
c] $m\widehat{ADB}$

d] $m\widehat{AD}$

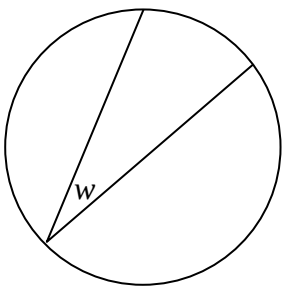
e] $m\widehat{BD}$

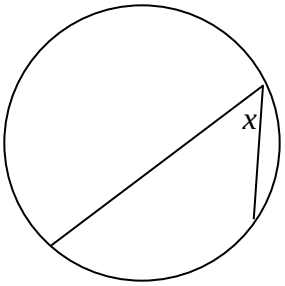
f] $m\widehat{EC}$

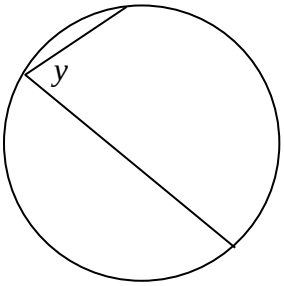
g] $m\widehat{BDE}$ h] $m\widehat{BDC}$ i] $m\widehat{CDE}$

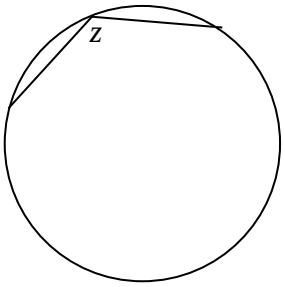


The angles indicated by *w,x, y,* and *z* are called inscribed angles.



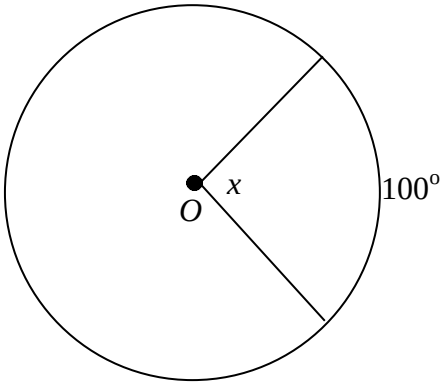


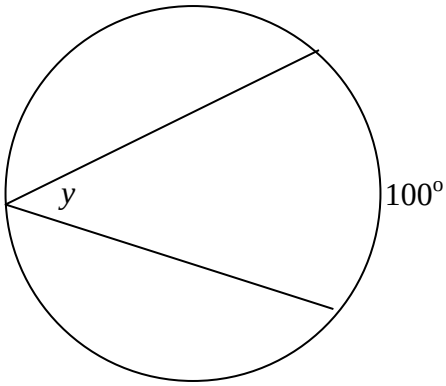




An inscribed angle is made by two _____, and its _____ is on the circle.

What are the measures of angles x and y?

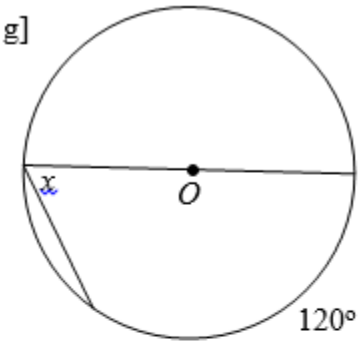




The measure of an inscribed angle is equal to _____ the measure of its intercepted arc

Find the value of x in each case:

g]



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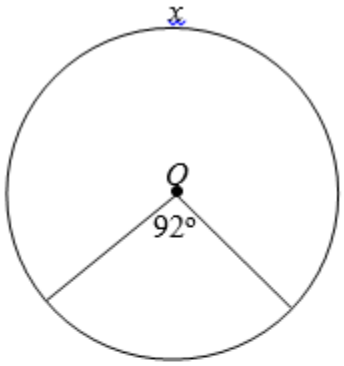

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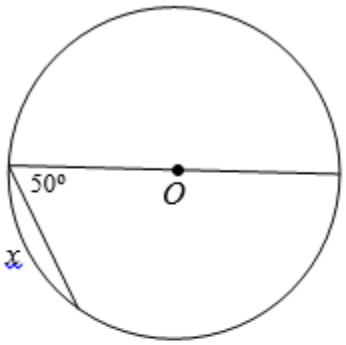

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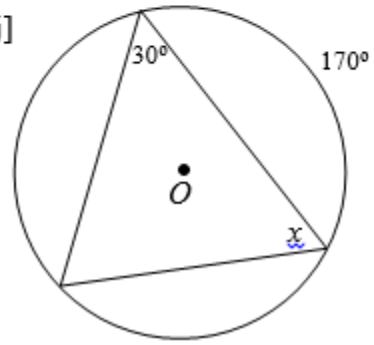

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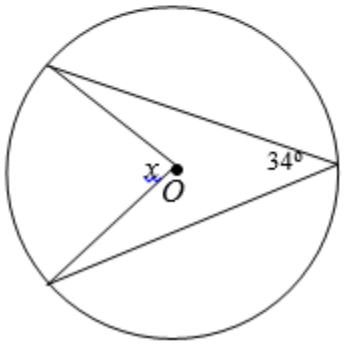

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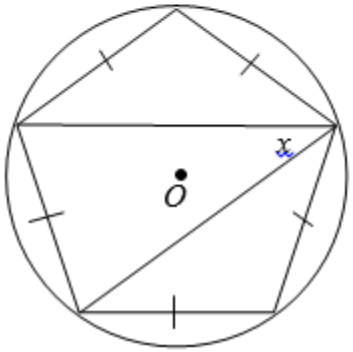
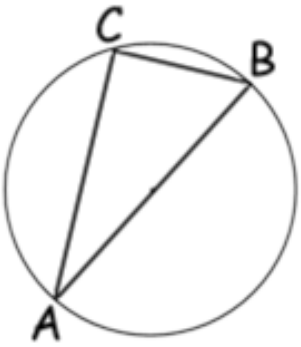
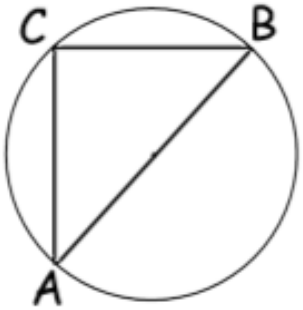
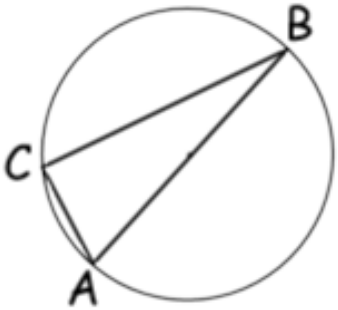


Food for Thought

If a triangle is drawn in a circle so that one of its sides is the diameter, what kind of triangle must it always be?







WHY?

The measure of a chord-tangent angle is also equal to _____ the measure of its intercepted arc.

Find the value of *x* in each case:

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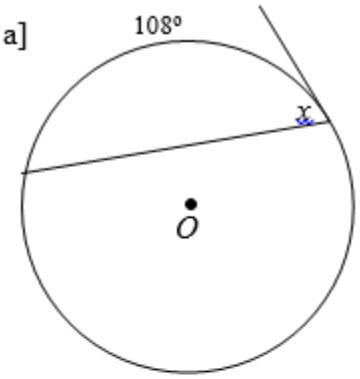

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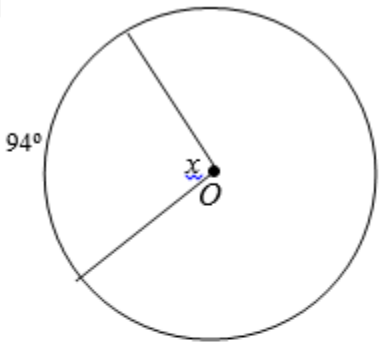

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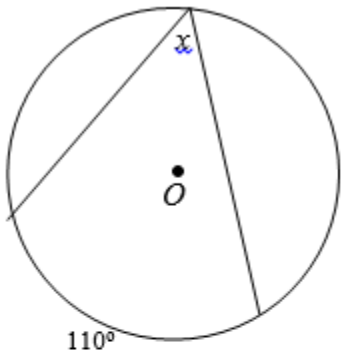

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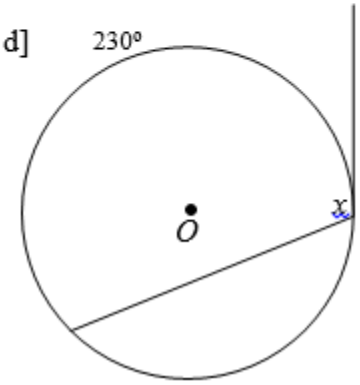

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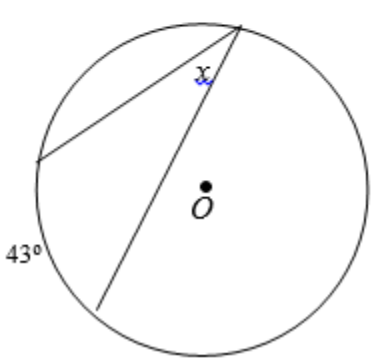

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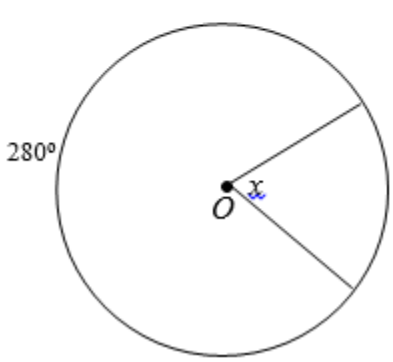
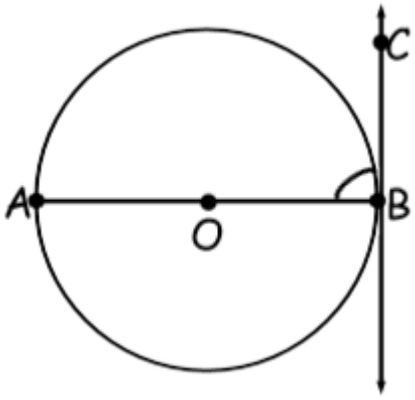


Food for Thought

AB is a diameter of circle O. What is the measure of $\widehat{AB}$?



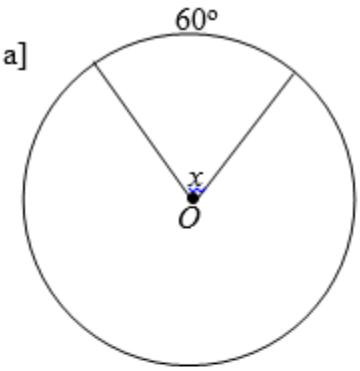
What is the measure of <ABC?

Will that be the case every time a radius (diameter) and tangent meet?

Practice Problems

Find the value of x in each case:

a]



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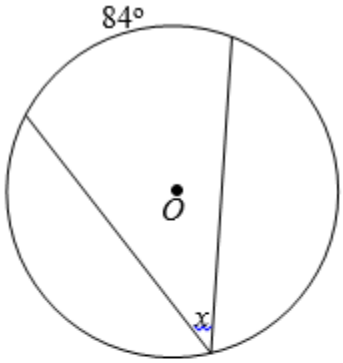

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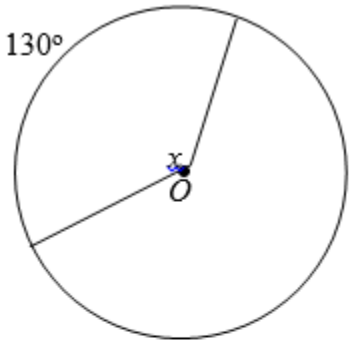

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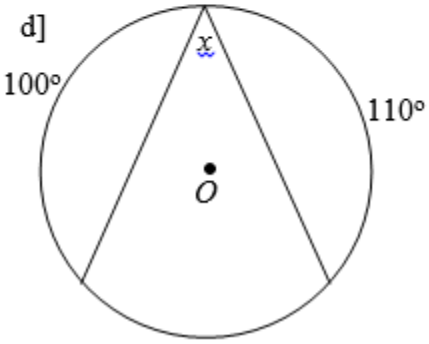

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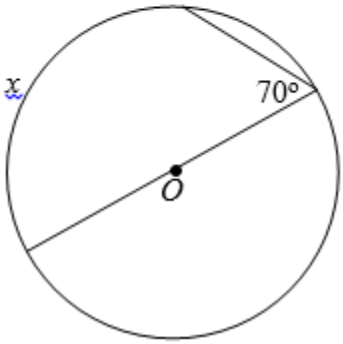

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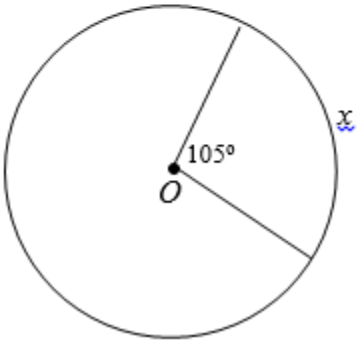

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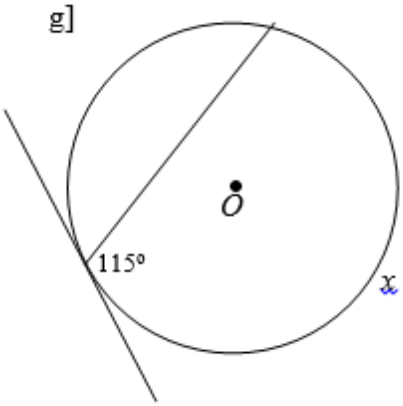

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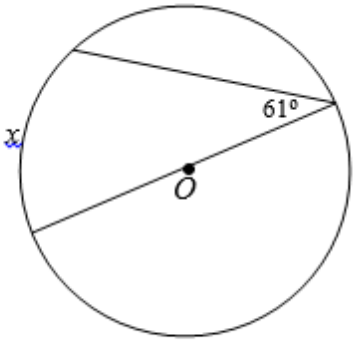

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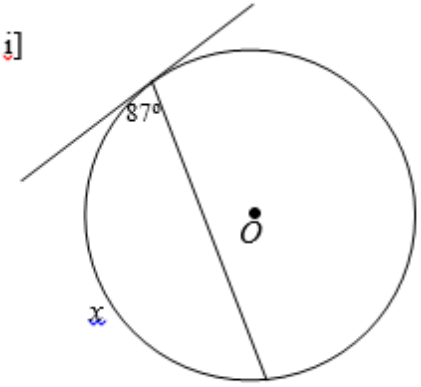

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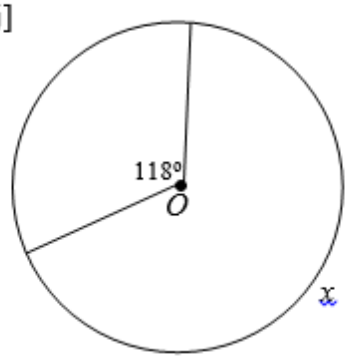

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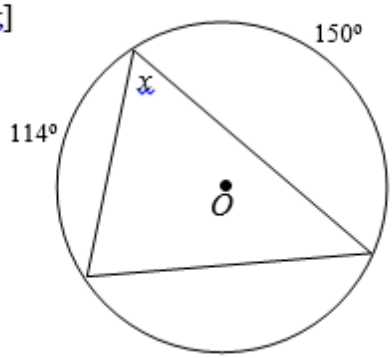

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