Warm Up

Goals For Today

Circle Properties

- Identify Segments/Lines in/on a Circle

- Learn properties about angles formed from segments/lines in/on a circle.

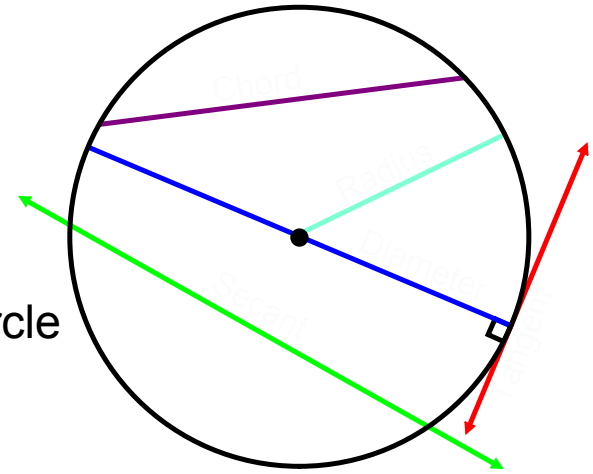
Refresh of some definitions from last week

Circle Properties

Chord - A line that links two points on a circle

Secant - A line that intersects a circle at two points

Tangent - A line that contacts a circle at only one point. Perpendicular to radius.



Let's look at how these lines and segments can intersect to form angles and arcs.

On the Circle

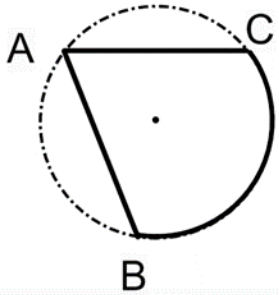
Inscribed Angles

Chord - Tangent

Inscribed Quadrilaterals

On the Circle

Inscribed Angles

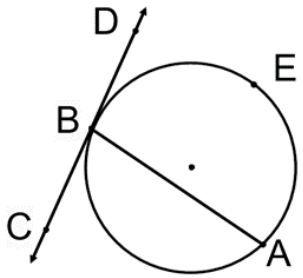


How does m∠A relate to $m\overset{\frown}{CB}$?

On the Circle

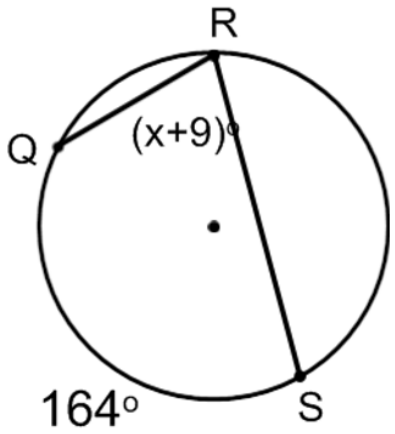
Circle Properties

Chord - Tangent

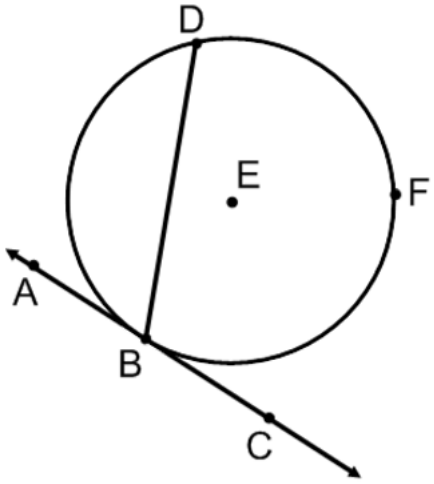


How does m∠ABC relate to $\overset{\frown}{mAB}$
and m∠ABD relate to $\overset{\frown}{mBEA}$?

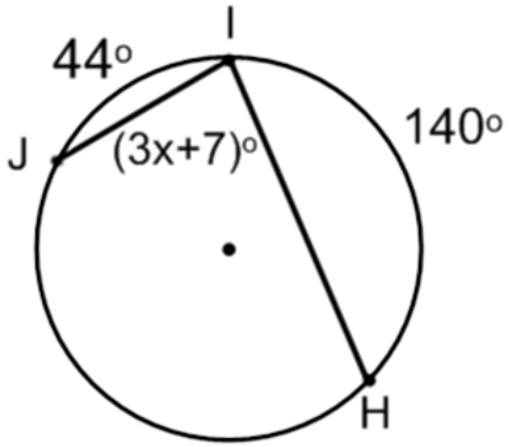
Ex.1: Solve for x



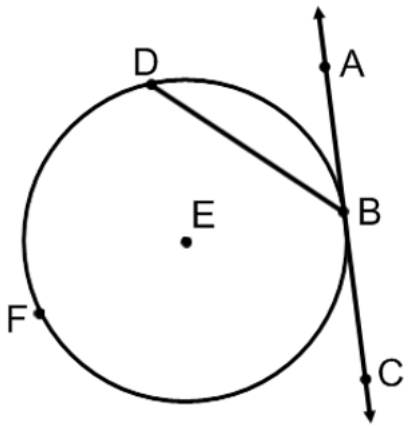
Ex.2: If $m\angle DBC = 108^o$, what is $m\widehat{BFD}$?



Ex.3: Find the value of x.



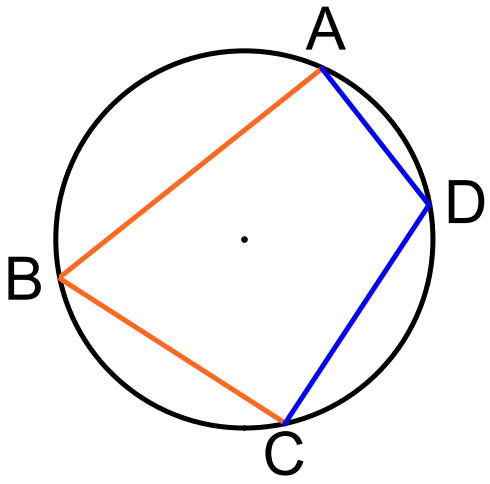
Ex.4: If $m\angle DBA = 35^o$**, what is** $m\widehat{BFD}$**?**



You Try

Problems 1, 3, 5, 6

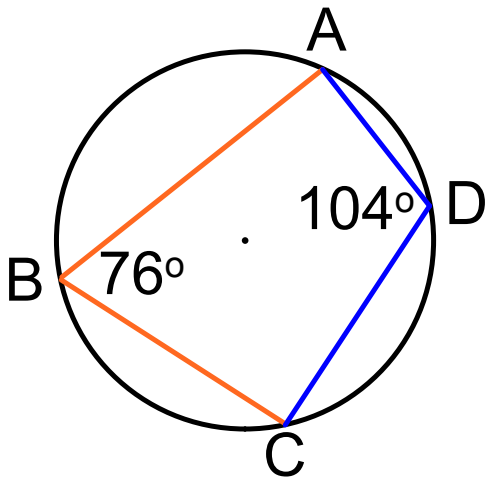
What if you made two connected inscribed angles? What type of shape is made?



If $m\angle B = 76^{o}$ what is the $m\overset{\frown}{AC}$?

What would the $m\overset{\frown}{ABC}$ be?

What would the $m\angle D$ be?

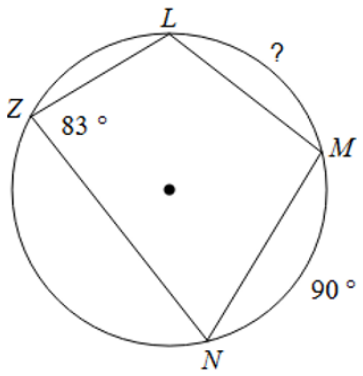


What would m∠B + m∠D be?

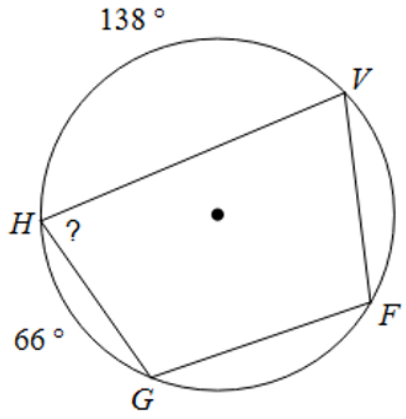
Would the same be true for m∠A + m∠C?

What does this show?

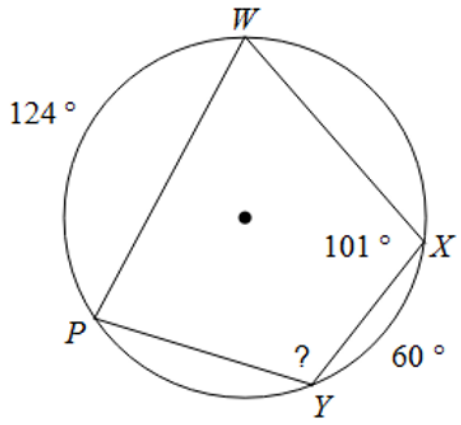
Ex.2: Solve for the value of '?'



Ex.3: Solve for the value of '?'



Ex.4: Solve for the value of '?'

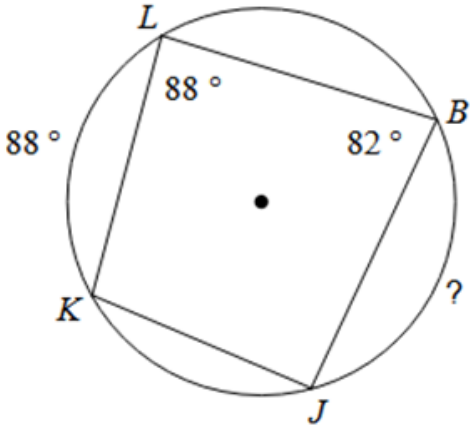


You Try

Problems 1,2, 4 and 6.

Try number 7 for a challenge

Look at 5 together.



Quizlet

Review Quizlet