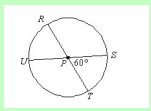
Check Point 10.1-10.3

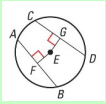
1. A ___A___ is a segment with endpoints on the circle.
   a. chord b. secant
   c. tangent d. radius

2. Find the measure of arc RU. A
   a. 60° b. 120°
   c. 240° d. 300°



3. Find the measure of arc RUS. C
   a. 60° b. 120°
   c. 240° d. 300°

4. To show that AB=CD, what other piece of information must we have?
   FE = GE



5. Given FE=EG, solve for x is AB = 3x + 1 and CD = 5x.

3x+1=5x

1=2x

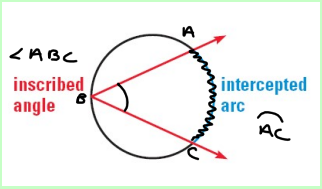
x = 1/2

Mar 5-7:47 PM

10.4 Inscribed Angles & Polygons

Apr 8-9:58 AM

An ***inscribed angle*** is an angle whose vertex is on a circle and whose sides contain chords or rays of the circle.



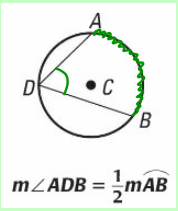
An **Intercepted arc** is an arc that lies between two lines, rays, chords.

Inscribed angles are not central angles

Mar 24-10:38 AM

Measure of an Inscribed Angle Theorem

The measure of an inscribed angle is one half the measure of its intercepted arc.



$m\angle ADB = \frac{1}{2}m\overset{\frown}{AB}$

if $m\angle ADB = 100°$ then $\overset{\frown}{AB} = 200°$

*If given the angle, then double to find the arc.

*If given the arc, 1/2 to find the angle.

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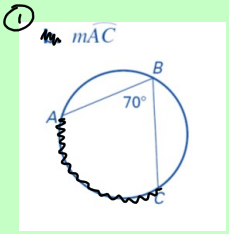
Find the measure of the arc or the angle.

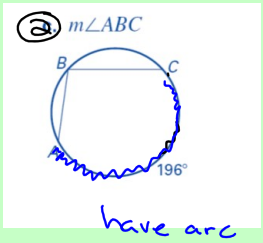
1. $m\overset{\frown}{AC}$



have angle need arc

70 x 2 = 140°

2. $m\angle ABC$



have arc need angle

$\frac{196}{2} = 98°$

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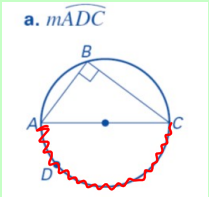
Try on your own: Find the measure of the arc or the angle.

a. $m\overset{\frown}{ADC}$



∠ABC = 90°

$m\overset{\frown}{AC} = 180°$

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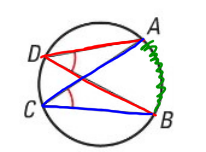
If two inscribed angles of a circle intercept the same arc, then the angles are congruent.



$\angle ADB \cong \angle ACB$

Share $\overset{\frown}{AB}$

*Works both ways!

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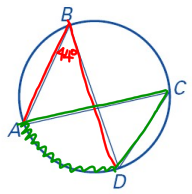
It is given that $m\angle B = 44°$.
What is $m\angle C$?

$\angle B \cong \angle C$

$m\angle C = 44°$

$m\overset{\frown}{AD} = 88°$



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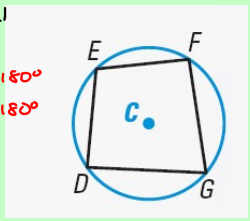
A quadrilateral can be inscribed in a circle if and only if its opposite angles are supplementary.

sum to 180°

inscribed quadrilateral

$\angle E + \angle G = 180°$

$\angle F + \angle D = 180°$



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An inscribed triangle whose side is the diameter will be a rt triangle

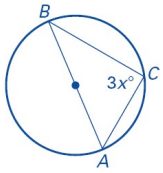
AC is diameter

$\angle B = 90°$

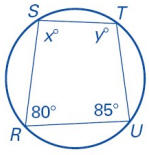
Apr 24-12:28 PM

Find the value of each variable.

a.



b.



$\angle C$ is rt angle

$3x = 90$

$x = 30$

$x + 85 = 180$

$x = 95°$

$80 + y = 180$

$y = 100°$

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Apr 23-11:58 AM