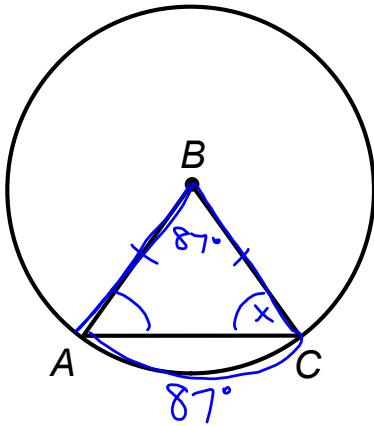


DO NOW

Given $m\widehat{AC} = 87^\circ$, find the $m\angle BCA$.



$$180 - 87$$

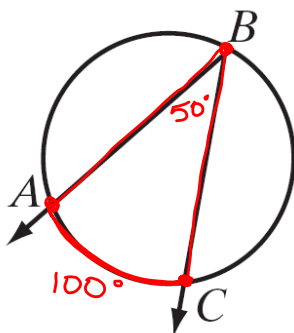
$$93^\circ$$

$$\frac{93}{2} = \boxed{46.5^\circ}$$

Mar 15-10:17 AM

Inscribed Angles

An angle whose vertex is on the circle and whose sides are chords of the circle

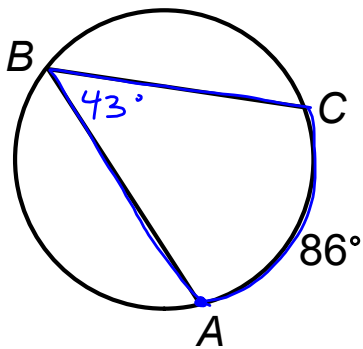


The measure of an inscribed angle is one-half the measure of its intercepted arc

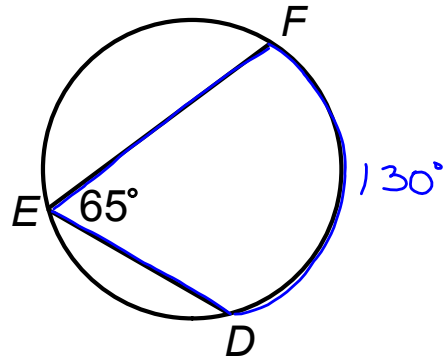
$$m\angle ABC = \frac{1}{2} \widehat{AC}$$

Mar 15-10:29 AM

1) Find $m\angle ABC$

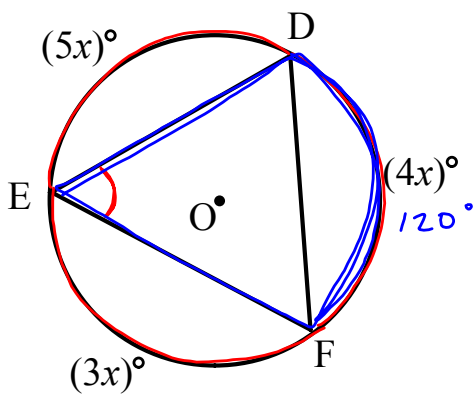


2) Find $m\widehat{DF}$



Mar 16-11:54 AM

In circle O , $m\widehat{DE} = 5x^\circ$, $m\widehat{DF} = 4x^\circ$ and $m\widehat{EF} = 3x^\circ$. Find $m\angle DEF$.



$$3x + 4x + 5x = 360$$

$$\frac{12x}{12} = \frac{360}{12}$$

$$x = 30$$

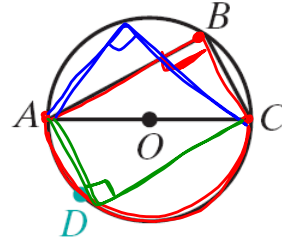
$$m\angle DEF = \frac{1}{2}(120)$$

$$m\angle DEF = 60^\circ$$

Mar 15-10:37 AM

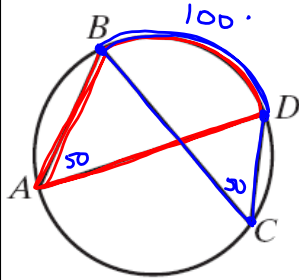
Inscribed Angles

An angle inscribed in a semicircle is a right angle



$$m\angle ABC = \frac{1}{2}m\widehat{ADC}$$

$$m\angle ABC = \frac{1}{2}(180^\circ)$$

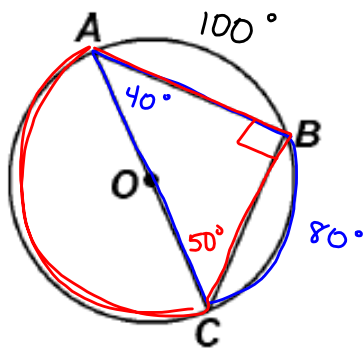


If two inscribed angles intercept the same arc, then they are equal

$$m\angle BAD = m\angle BCD$$

Mar 15-10:48 AM

Triangle ABC is inscribed in circle O with the measure of \widehat{AB} equal to 100° . What is the measure of $\angle BAC$?

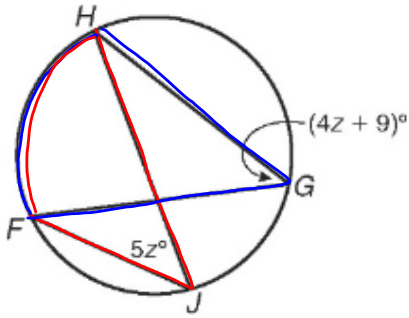


$$m\angle BAC = 40^\circ$$

$$m\angle ABC = 90^\circ$$

Apr 30-6:54 AM

Find the $m\angle FJH$



$$5z = 4z + 9$$

$$z = 9$$

$$m\angle FJH = 5(9) = \boxed{45^\circ}$$

Apr 30-6:58 AM

\overline{AC} and \overline{BD} intersect at E in circle O

If $m\angle B = 42$ and $m\angle AEB = 104$, find:

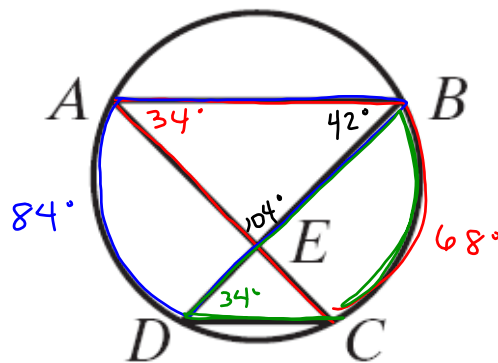
a. $m\angle A = 34^\circ$

b. $m\widehat{BC} = 68^\circ$

c. $m\widehat{AD} = 84^\circ$

d. $m\angle D = 34^\circ$

e. $m\angle C = 42^\circ$



Mar 15-10:48 AM