

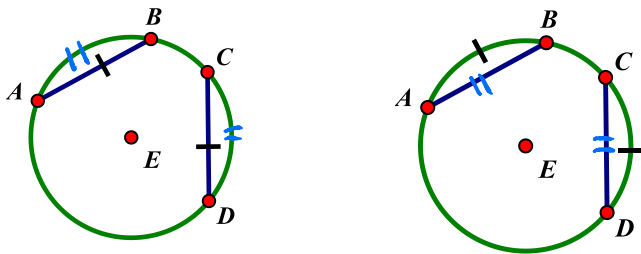
Circles – Chord Theorems

G.C.A.2

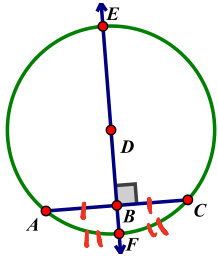
Notes Section 13.2

Name _____

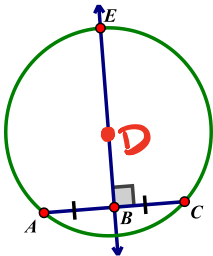
Theorem: Two chords are congruent, IFF their corresponding arcs are congruent.



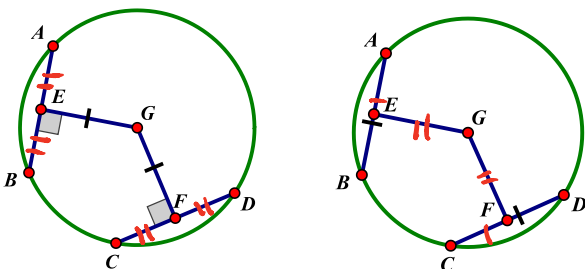
Theorem: If a radius (or diameter) is perpendicular to a chord, then the radius bisects the chord and arc.



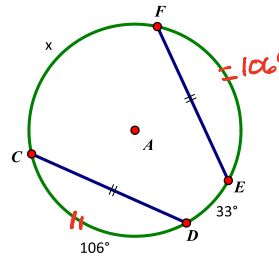
Theorem: If a segment (or diameter) is the perpendicular bisector of a chord, then the segment goes through the center.



Theorem: Two chords are equidistant from the center of a circle IFF the chords are congruent.



#1) Find $m\widehat{CF}$

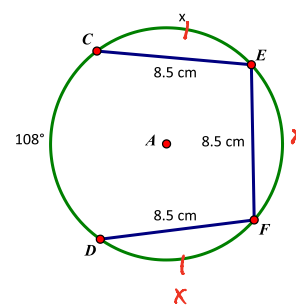


$$x + 106 + 106 + 33 = 360$$

$$x + 245 = 360$$

$$x = 115$$

#2) Find $m\widehat{CE}$



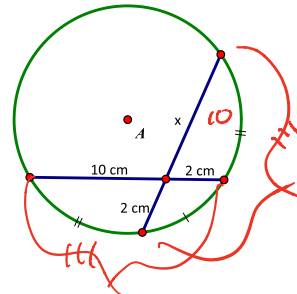
$$108 + 3x = 360$$

$$3x = 252$$

$$x = 84$$

$$m\widehat{CE} = 84$$

#3) Find x



$$x = 10$$

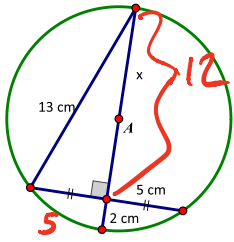
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Notes Section 13.2

Name _____

#4) Find x



Pythag Triple
5-12-13

$x = 7 \text{ cm}$

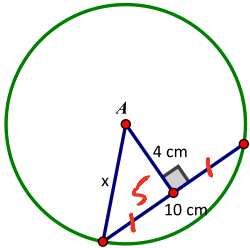
$d = 12 + 2$

$d = 14$

$r = \frac{1}{2}(14)$

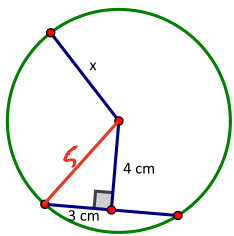
$r = 7$

#5) Find x . 2 decimal places.



$a^2 + b^2 = c^2$
 $(5)^2 + (4)^2 = x^2$
 $25 + 16 = x^2$
 $41 = x^2$
 $\pm \sqrt{41} = x$
 $x \approx 6.40 \text{ cm}$

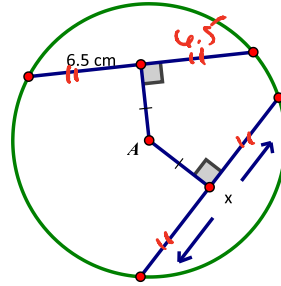
#6) Find x



Pythag Triple
3-4-5

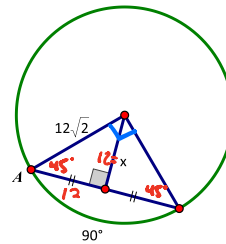
$x = 5$

#7) Find x



$x = 6.5 + 6.5$
 $x = 13 \text{ cm}$

#8) Find x



$45 = 45 = 90$

$x = 12$

#9) Construct the circle that contains the given points.

