

Objective: The students will complete assignment 19.1 Central Angles and Inscribed Angles and will demonstrate their understanding with an accuracy rate of 70% or higher on Quiz-19 tomorrow.*

Standards G-SRT. Define trigonometric ratios and solve problems involving right triangles.

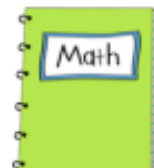
WHAT DO YOU NEED?


Mathematics II


 A working *Chromebook*



 Math Notebook



 **19.1 Central Angles and Inscribed Angles**

 **TURN IN LATE OR MISSING WORK**



**If accuracy of 70% or higher is not achieved, the student(s) will be required to retake it.*



May 2018

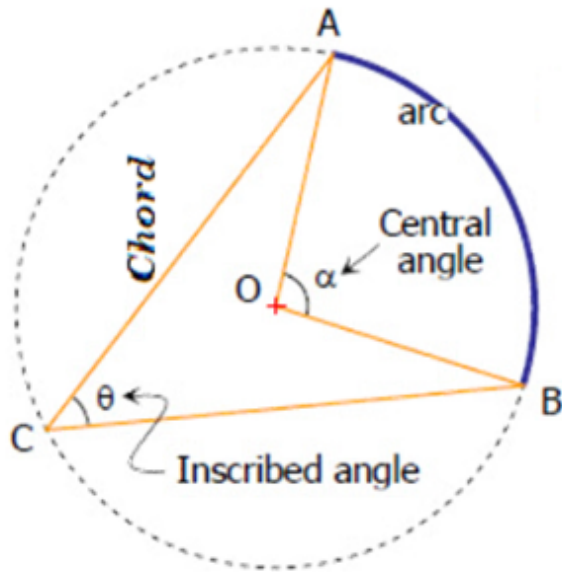
Month

Sun	Mon	Tue May 1	Wed 2	Thu 3	Fri 4	Sat 5
						Cinco de Mayo
6	7 my.hrw.com 17.3 19.1	8 Quiz-19	9 PPT 17.4 PPT 19.2	10 my.hrw.com 17.4 19.2	11 Quiz-20	12
13 Mother's Day	14 Review PPT 19.3	15 (sub) Exam-6 my.hrw.com	16 Retake/Finish my.hrw.com	17 Review for Final Quiz-21	18 (Quiz-?) Review for Final Review	19
20	21 Review for Final Exam-6	22 (Quiz-?) Review for Final Retake/Finish	23 Last Day for Late Work	24 Final Exam 10% of Grade	25 Final Exam 10% of Grade	26
27	28 Memorial Day No School	29 Make-up Final	30 Grades Due!!	31	Jun 1 Last Day	2

my.hrw.com

19.1 Central Angles and Inscribed Angles

19.1

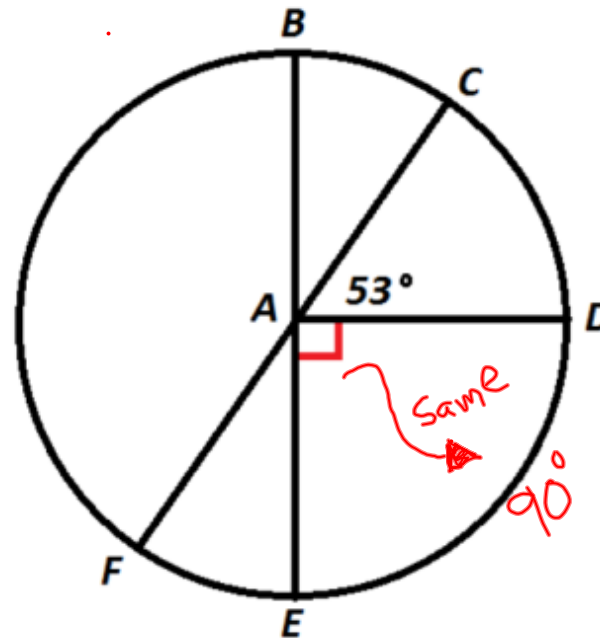


Inscribed Angle Theorem

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

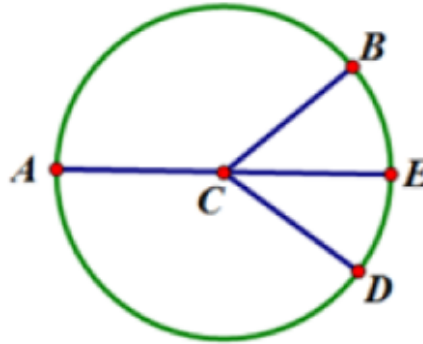
$$m\angle ADB = \frac{1}{2} m\widehat{AB}$$

Central Angle = Intercepted Arc
 $m\angle ACB = m\widehat{AB}$





Drag and drop the angles and line segments into the correct category to identify those that are chords, inscribed angles, and central angles in the figure. The center of the circle is C.



\overline{BC}

\overline{CD}

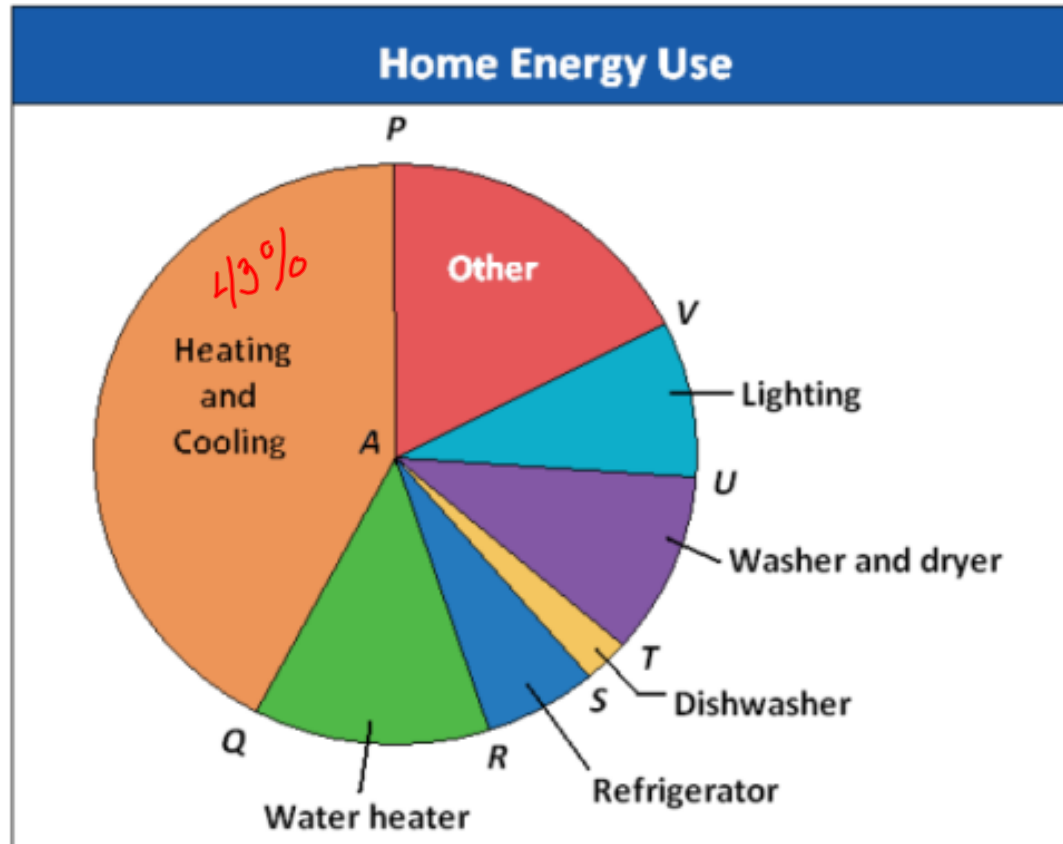
Chords	Inscribed Angles	Central Angles
<div data-bbox="562 938 665 1011" style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">\overline{AE}</div>		<div data-bbox="1509 943 1637 1023" style="border: 1px solid black; padding: 5px; display: inline-block;">$\angle ACB$</div> <div data-bbox="1653 943 1780 1023" style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;">$\angle BCE$</div> <div data-bbox="1435 1038 1585 1118" style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;">$\angle DCE$</div> <div data-bbox="1697 1054 1825 1134" style="border: 1px solid black; padding: 5px; display: inline-block; background-color: yellow;">$\angle ACE$</div> <div data-bbox="1570 1118 1697 1198" style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;">$\angle DCB$</div> <div data-bbox="1659 1198 1787 1278" style="border: 1px solid black; padding: 5px; display: inline-block; margin-left: 20px;">$\angle ACD$</div>



The circle graph shows that a typical household spends 43% of its money on energy for heating and cooling.

Use the image to find $m\widehat{PQ}$.

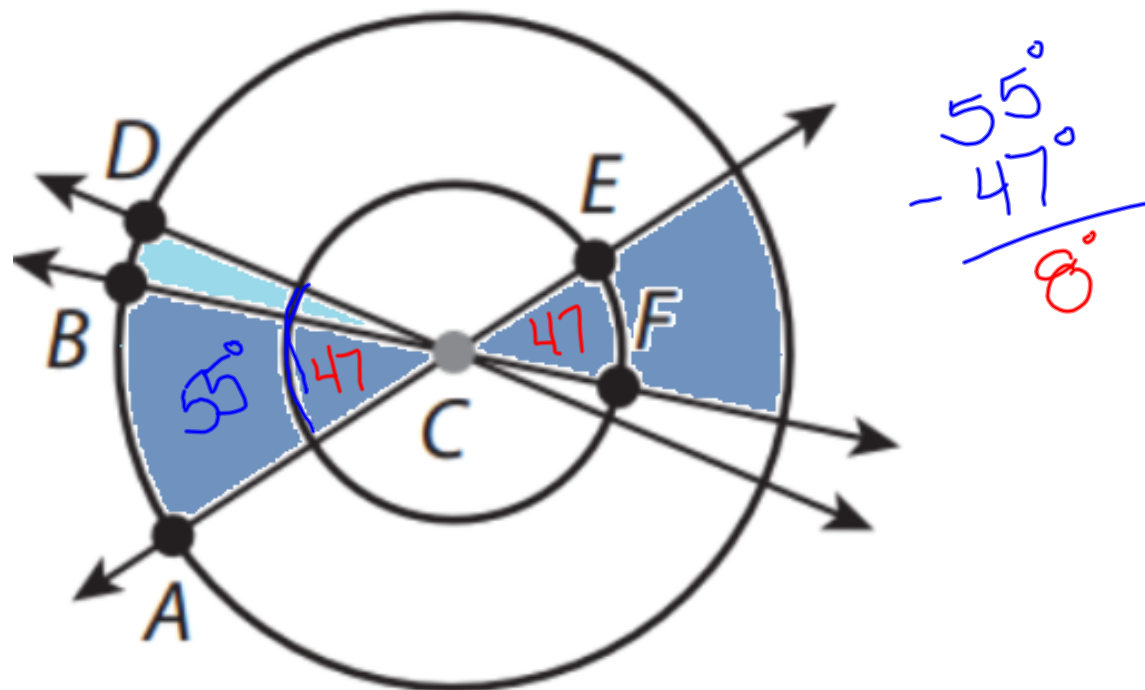
$$\begin{aligned}
 m\angle PAQ &= \overset{\text{Circle}}{360^\circ} \times 43\% \\
 &= 360(0.43) \\
 m\angle PAQ &= 154.8^\circ
 \end{aligned}$$



Therefore, $m\widehat{PQ}$ is °.

3

If $m\widehat{EF} = 47^\circ$ and $m\angle ACD = 55^\circ$, determine $m\widehat{BD}$ using the appropriate theorems and postulates. \overleftrightarrow{AE} , \overleftrightarrow{BF} , and \overleftrightarrow{DC} intersect at Point C.

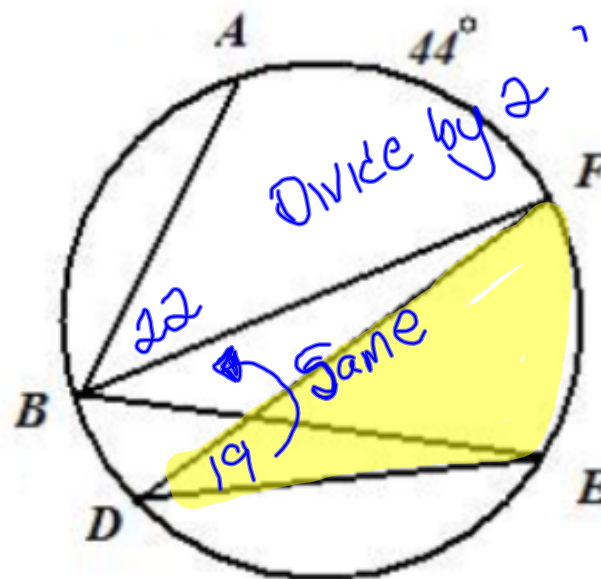


Therefore, the measure of \widehat{BD} is °.

4

If $\angle EDF = 19^\circ$, determine $m\angle ABE$ using the appropriate theorems and postulates.

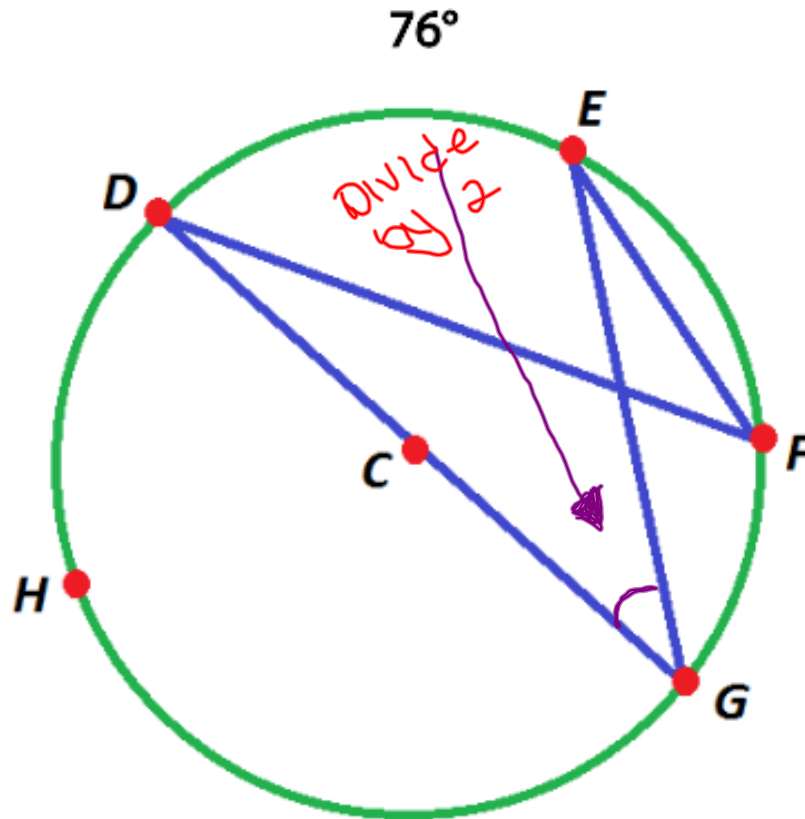
$$\begin{array}{r} 22 \\ + 19 \\ \hline 41 \end{array}$$



Therefore, $m\angle ABE = \boxed{41}^\circ$.

5

In circle C , $m\widehat{DE} = 76^\circ$. Find the measure of $\angle DGE$.



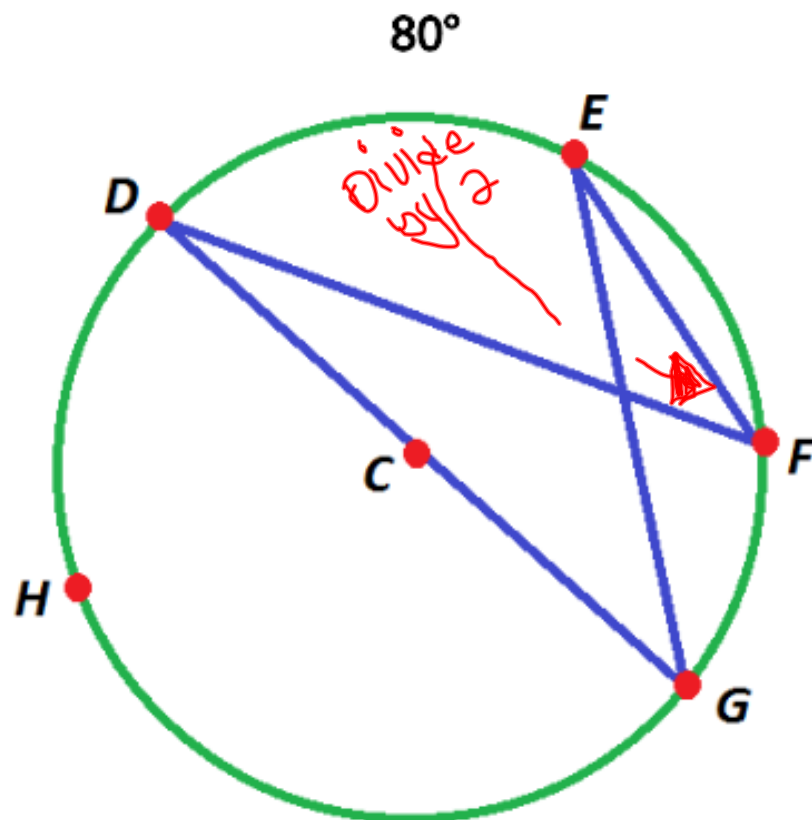
$$m\angle DGE = \frac{1}{2} \times 76^\circ$$

$$m\angle DGE = 38^\circ$$

The measure of $\angle DGE$ is $^\circ$.

6

In circle C , $m\widehat{DE} = 80^\circ$. Find the measure of $\angle EFD$.



$$m\angle EFD = \frac{1}{2} \times 80^\circ$$

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

The measure of $\angle EFD$ is °.

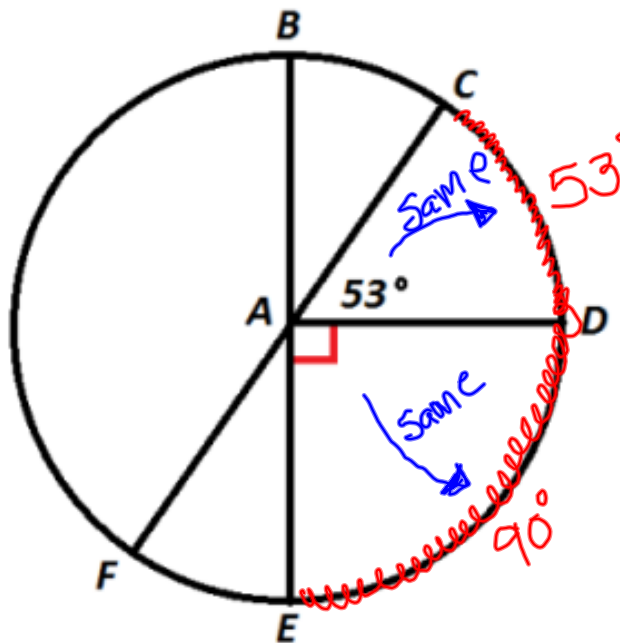
7

The center of the circle is A . Find the measure of \widehat{CE} using the appropriate theorems and postulates.

$$m\widehat{CE} = m\widehat{CD} + m\widehat{DE}$$

$$m\widehat{CE} = 53^\circ + 90^\circ$$

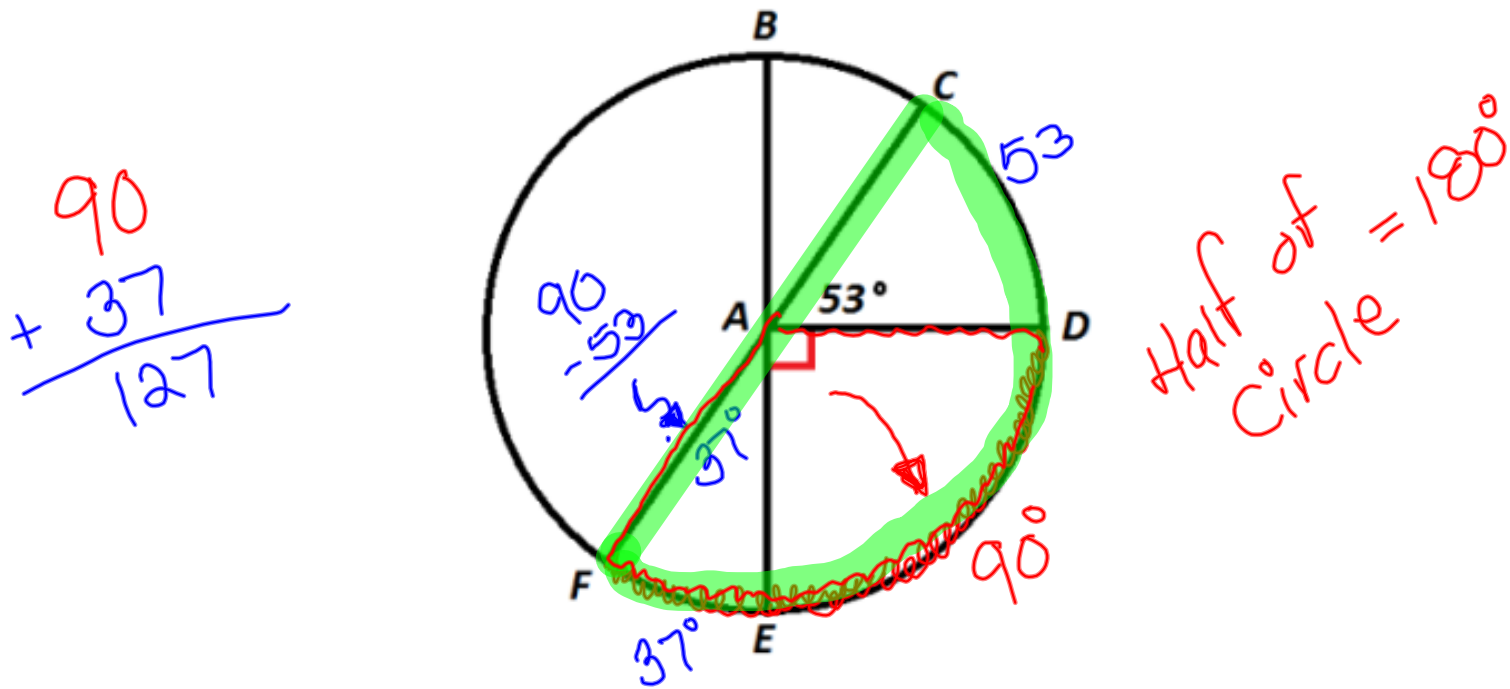
$$m\widehat{CE} = 143^\circ$$



The measure of \widehat{CE} is °.

8

The center of the circle is A. Find the measure of \widehat{DF} using the appropriate theorems and postulates

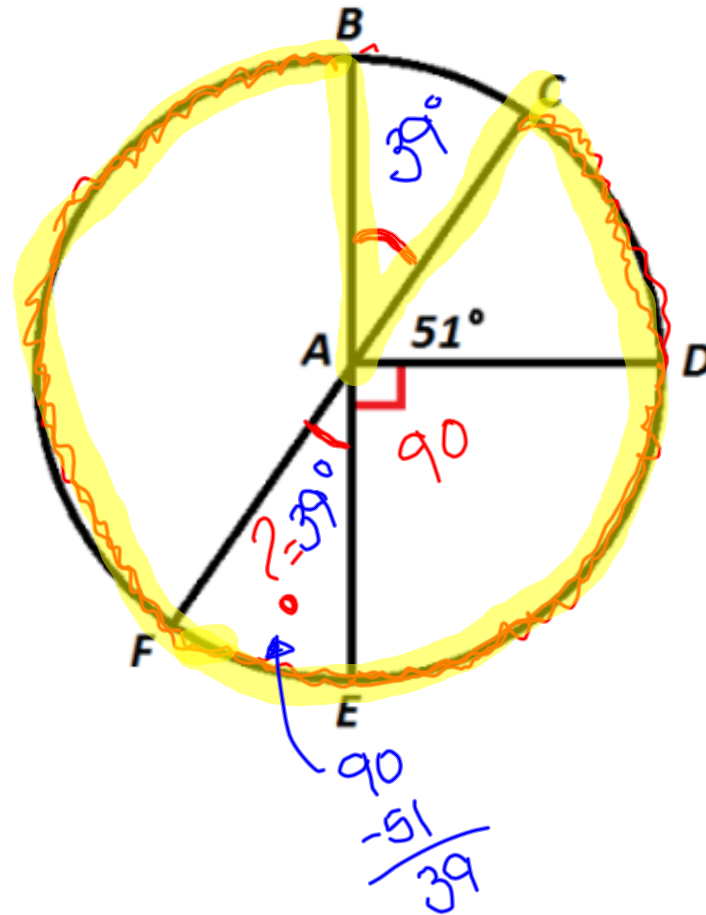


The measure of \widehat{DF} is °.

9

The center of the circle is A . Find $m\widehat{BEC}$ using the appropriate theorems and postulates.

$$\begin{array}{r} 360 \\ - 39 \\ \hline 321 \end{array}$$



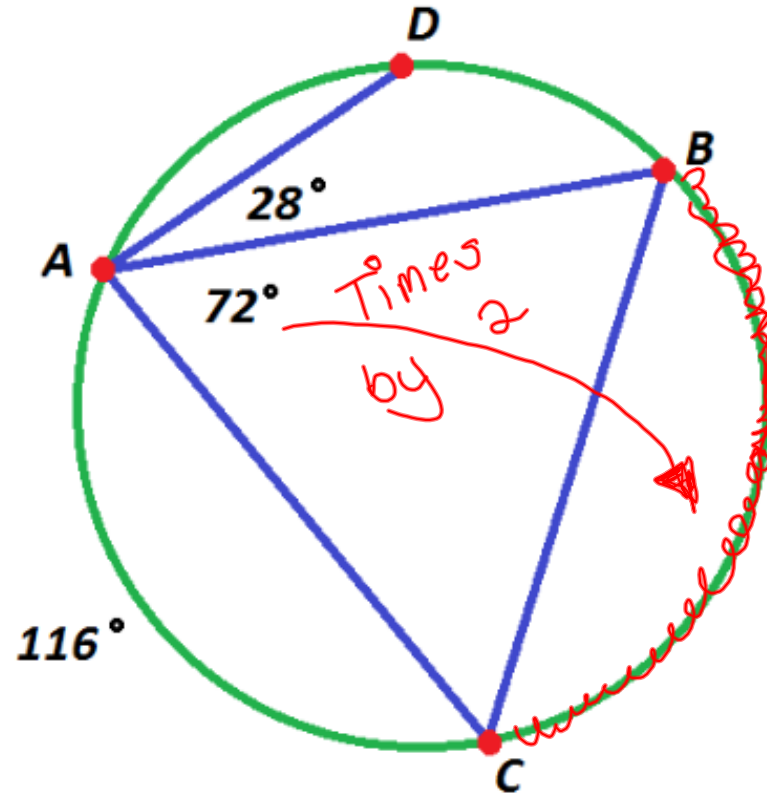
$m\widehat{BEC}$ is $^\circ$.

10Find $m\widehat{BC}$ using the appropriate theorems and postulates.

$$m\angle CAB = \frac{1}{2} \times m\widehat{BC}$$

$$72^\circ \times 2 = m\widehat{BC}$$

$$144^\circ = m\widehat{BC}$$



$m\widehat{BC}$ is °.



Never say,
"I can't"
Always say,
"I'll try"