# Expermg Grateres <br> <br> Math Virtual Learning <br> <br> Math Virtual Learning <br> <br> Geometry/Honors Geometry 

 <br> <br> Geometry/Honors Geometry}

May 7, 2020

## Geometry <br> Lesson: May 7, 2020

## Objective/Learning Target:

Find arc measures

Bell Ringer: Find the measure of the indicated arc.


Bell Ringer Answer: The measure of the arc is 105 degrees.

Let's Get Started: Go through the following slides and try the example problems.


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

$\angle D \cong \angle C$

A right triangle is inscribed in a circle iff the hypotenuse is a diameter of the circle.


## $\angle B$ is a right angle because it inscribes a semicircle.



A quadrilateral can be inscribed in a circle iff its opposite angles are supplementary.


$$
\begin{aligned}
& m \angle D+m \angle F=180^{\circ} \\
& m \angle E+m \angle G=180^{\circ}
\end{aligned}
$$



Example Problem: Find the measure of angle C.

## Answer:

$$
m \angle C=\frac{\mathbf{8 0}}{2}=\mathbf{4 0}^{\circ}
$$



Try the next practice problems on your own! Find the indicated measure.

1) Angle A and C
2) $\operatorname{Arc} Q P$
3) $x$ and $y$



Answer Key:
Here you will find the answers to the previous four questions. Check your answers below.

1) Angle $A=40$ degrees; Angle $C=32$ degrees
2) $\operatorname{Arc} \mathrm{QP}=62$ degrees
3) $x=108 ; y=72$

## Additional Resources:

Click on the link below to practice and to check your understanding!

## Arc Measures Extra Practice

