

Geometry Notes

Name _____

10.2 Find Arc Measures

Vocabulary:

Central Angle: an angle whose vertex is the _____ of the circle.

Minor Arc: part of the circle measuring less than _____.

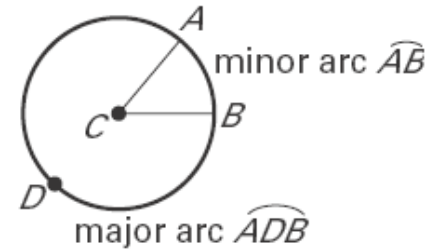
notation: named by endpoints.

Major Arc: part of the circle measuring between _____.

notation: named by endpoints AND another point on the arc.

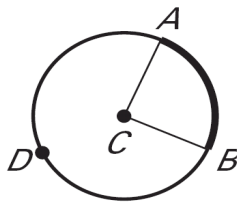
Semicircle: an arc with endpoints formed by a _____.

notation: named by endpoints AND another point on the arc.

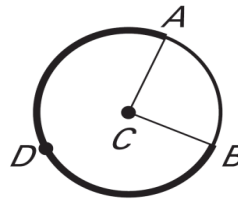


Name the arc shown in bold.

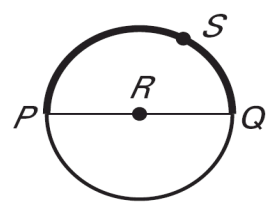
1.



2.



3.



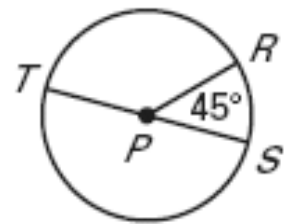
Measuring Arcs

*Note: The **measure** of an arc is not the same as the **length** of an arc.*

Measure of an entire circle = _____ Measure of a semicircle = _____

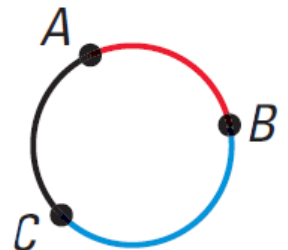
The Measure of a Minor Arc is the measure of its central angle. $\widehat{RS} =$

The Measure of a Major Arc is the difference between 360° and the measure of the related minor arc. $\widehat{RTS} =$



Arc Addition: The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs. (Adjacent arcs share a common endpoint.)

Measure of $\widehat{ABC} =$ _____ + _____

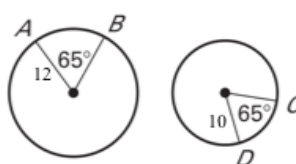


Congruent Circles: two circles with the same radius

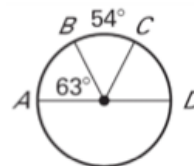
Congruent Arcs: two arcs with the same measure and they are arcs of the same circle or of congruent circles

Decide if $\widehat{AB} \cong \widehat{CD}$. Explain.

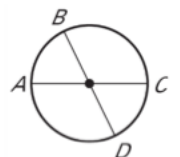
4.



5.



6.



7. In $\odot O$, \overline{MQ} and \overline{NR} are diameters. Find the indicated measure.

$m\widehat{NP}$

$m\widehat{QN}$

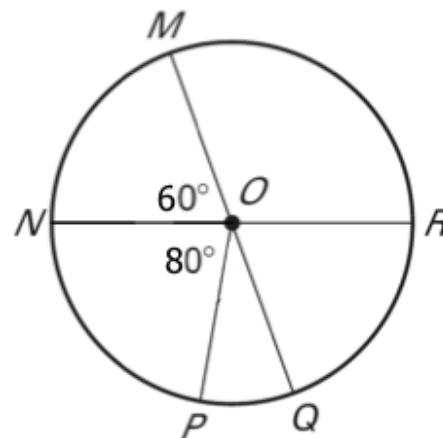
$m\widehat{MPQ}$

$m\widehat{MQN}$

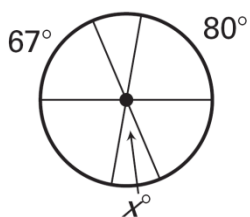
$m\widehat{QR}$

$m\widehat{PR}$

$m\widehat{PMQ}$



8. Find the value of x .



9. Find the value of x .

