

10.1-10.4 Notes Spring 2020

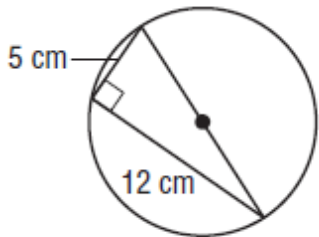
Practice Examples:

1. If the diameter of a circle is 6, find the radius and circumference.

Review of Content: radius = $1/2$ diameter and $C = d\pi$ or $C = 2\pi r$

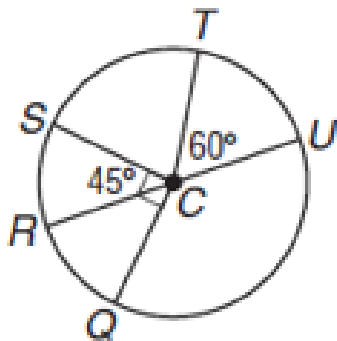
2. Find the circumference of the circle.

Review of Content: radius = $1/2$ diameter and $C = d\pi$ or $C = 2\pi r$



3. Find the measure of each angle or arc.

Review of Content: Central angles are equal to the measure of the arc.



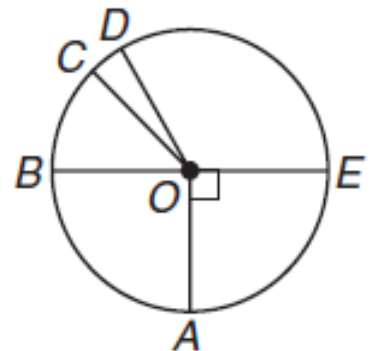
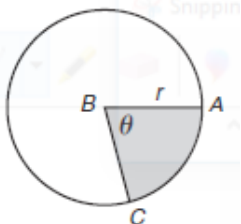
$m\angle SCT$ $m\widehat{QU}$

$m\angle QCT$ $m\widehat{QTU}$

$m\angle UCR$ $m\widehat{RQU}$

4. The diameter of circle O is 24m long. Find the length of \widehat{DE} if $m\angle EOD = 120^\circ$. Round to the nearest thousandth.

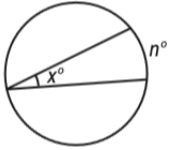
Review of Content: Arc Length: $L = \frac{\theta}{360} C$, $\theta =$ central angle



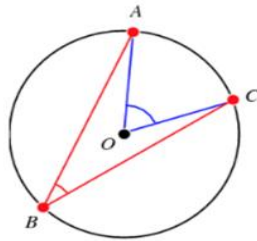
5. Find the measure of each angle or arc.

Review of Content: The inscribed angle is half the measure of the central angle or arc.

If $m\angle COA = 60^\circ$, find $m\angle ABC$ and $m\widehat{AC}$.



Inscribed Angle
 $x = \frac{1}{2}n$



6. Find the measure of each angle or arc.

Review of Content: The inscribed angle is half the measure of the central angle or arc.

Refer to the figure. Find each measure.

a. $m\angle ABC$

b. $m\widehat{CD}$

c. $m\widehat{AD}$

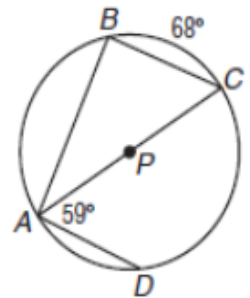
d. $m\angle BAC$

e. $m\angle BCA$

f. $m\widehat{AB}$

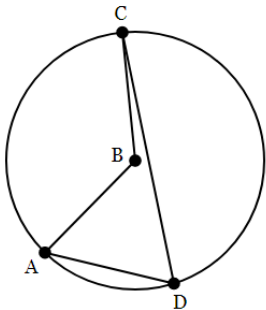
g. $m\widehat{BCD}$

h. $m\widehat{BDA}$



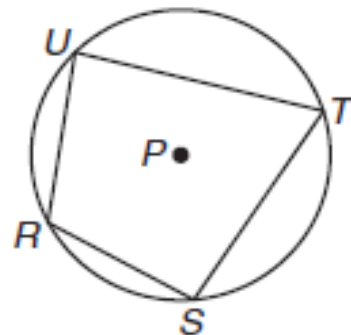
7. If $m\angle ABC = 130^\circ$, find $m\angle ADC$.

Review of Content: The inscribed angle is half the measure of the central angle or arc.



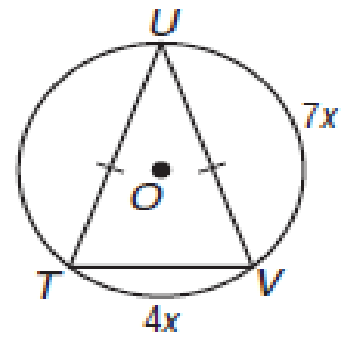
8. Quadrilateral RSTU is inscribed in circle P such that $m\widehat{STU} = 220^\circ$ and $m\angle S = 95^\circ$, find $m\angle R$, $m\angle T$, $m\angle U$, $m\widehat{RUT}$, $m\widehat{SRU}$, and $m\widehat{RST}$.

Review of Content: If a quadrilateral is inscribed in a circle, then its opposite angles are supplementary.



9. Determine the measure of each arc.

Review of Content: In a circle or in congruent circles, two minor arcs are congruent if and only if their corresponding chords are congruent.

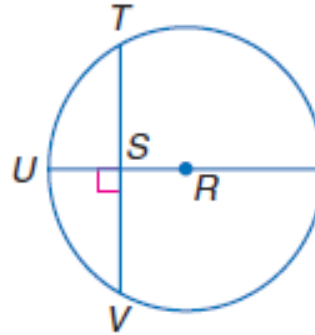
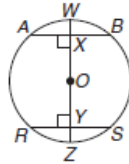


10. Circle R has a radius of 16cm. Radius RU is perpendicular to TV, TV = 22cm. If $m\widehat{TV} = 110^\circ$ find $m\widehat{UV}$, and the length of RS.

Review of Content:

Diameters and Chords

- In a circle, if a diameter is perpendicular to a chord, then it bisects the chord and its arc.
- In a circle or in congruent circles, two chords are congruent if and only if they are equidistant from the center.



11. Chords MO and PR are equidistant from the center. If the radius is 15m, find MO and PQ.

Review of Content:

Diameters and Chords

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