

Reading:

Chapter 10.1 pg 530 – 533 and Chapter 10.2 pg 538 -541

Please submit the following assignments using Clever, Big Ideas Website, Email, or those without internet access may submit papercopy to main office.

IMPORTANT: All assignments must include First and Last Name, Course Name, Class Period.

Exercises:

pg 534 #5-10, 19-22, 29

Pg 542 #5-16

Quiz:

pg 582 #1-6, 12-16

Video Tutorials:

Chapter 10.1

[Ex 1](#)

[Ex 2](#)

[Ex 3](#)

Chapter 10.2

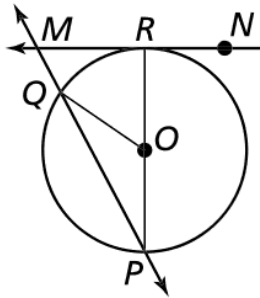
[Ex 1](#)

[Ex 2](#)

Chapter 10.1 Notes

Ex 1

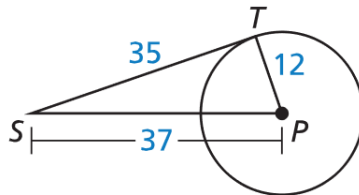
Tell whether the line, ray, or segment is best described as a *radius*, *chord*, *diameter*, *secant*, or *tangent* of $\odot O$.



- a. \overline{PR} diameter
- b. \overleftrightarrow{MN} tangent
- c. \overleftrightarrow{PQ} secant
- d. \overline{OQ} radius

Ex 2

Is \overline{ST} tangent to $\odot P$?



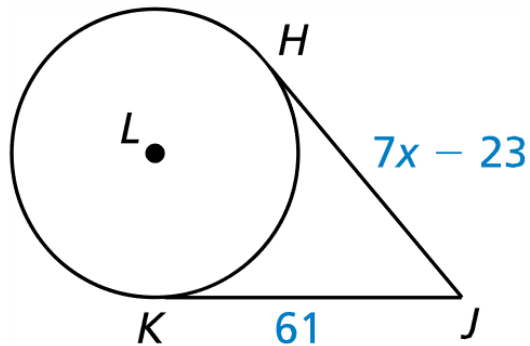
SOLUTION

Use the Converse of the Pythagorean Theorem (Theorem 9.2). Because $12^2 + 35^2 = 37^2$, $\triangle PTS$ is a right triangle and $\overline{ST} \perp \overline{PT}$. So, \overline{ST} is perpendicular to a radius of $\odot P$ at its endpoint on $\odot P$.

► By the Tangent Line to Circle Theorem, \overline{ST} is tangent to $\odot P$.

Ex 3

\overline{JH} is tangent to $\odot L$ at H , and \overline{JK} is tangent to $\odot L$ at K . Find the value of x .



$$x = 12$$

Because both tangent lines meet at the same point outside the circle the tangent segments are congruent.

$$7x - 23 = 61$$

$$7x - 23 + 23 = 61 + 23$$

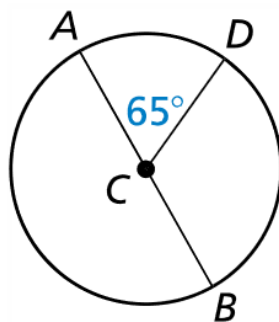
$$7x = 84$$

$$x = 12$$

Chapter 10.2

Ex 1

Find the measure of each arc of $\odot C$, where \overline{AB} is a diameter.



Recall that the central angle is congruent to the arc. Angle ACD is congruent to the arc AD.

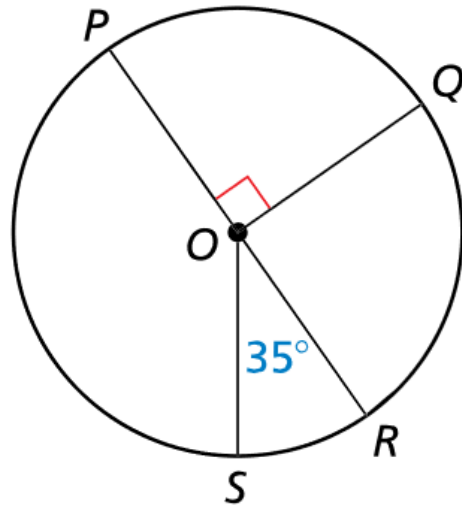
a. \widehat{AD} 65°

b. \widehat{DAB} 245°

c. \widehat{BDA} 180°

Ex 2

Find the measure of each arc.



Recall that a circle is 360 degrees, semicircle is 180, and a quarter of a circle is 90 degrees.

- a. \widehat{SQ}
- b. \widehat{RPQ}
- c. \widehat{PRS}