Geometry   April 6th to 10th Assignments   Mr. Weinert

Reading:

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

Please submit the following assignments using Clever, Email photo, or those without internet access may submit paper copy to main office. Hardcopies will not be graded immediately as a precaution.

IMPORTANT: All assignments emailed or turned in must include First and Last Name, Course Name, Class Period.

Assignment from the book or available on Clever/Big Ideas:

1. Clever only: Check-in assignment. Due Wednesday 10/8!
2. p. 534 #5-10, 19-22, 29
3. p. 542 #5-16

Quiz from the book or on Clever/Big Ideas:

　　　p. 582 #1-6, 12-16

Video Tutorials from Clever/Big Ideas:

Chapter 10.1

　　　Ex 1

　　　Ex 2

　　　Ex 3

Chapter 10.2

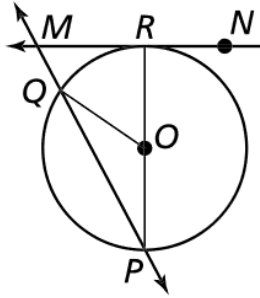　　　Ex 1

　　　Ex 2

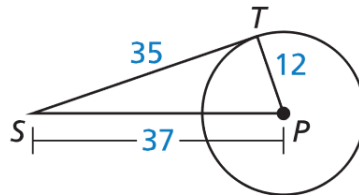# Chapter 10.1 Notes and Practice

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. $\overline{QO}$ radius

Ex 2

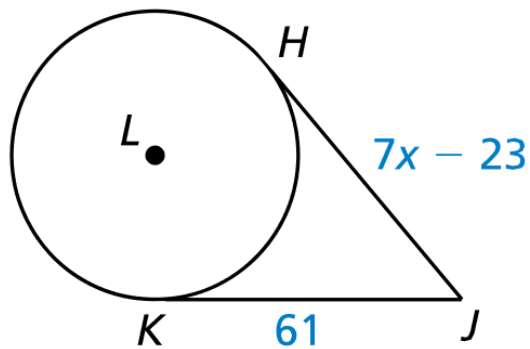Is $\overline{ST}$ tangent to $\odot P$?

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.

Because both tangent lines meet at the same point outside the circle the tangent segments are congruent.
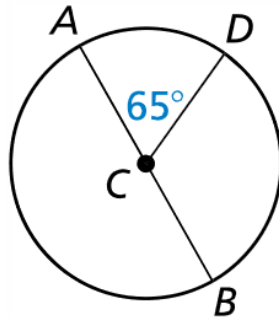
$7x - 23 = 61$

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

$7x = 84$

x =12

$x = 12$

Chapter 10.2 Notes and Practice

Ex 1

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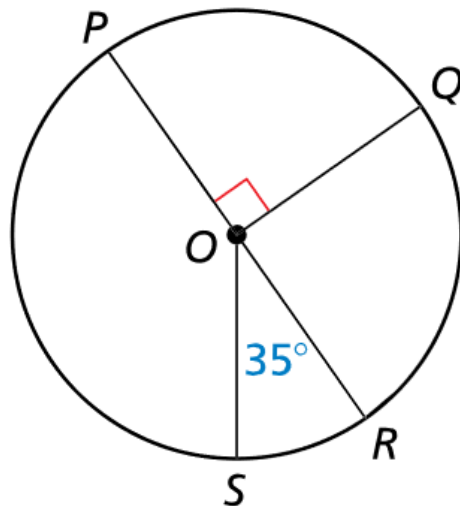where $\overline{AB}$ is a diameter.

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

a. $\overset{\frown}{AD}$ 65°

b. $\overset{\frown}{DAB}$ 245°

c. $\overset{\frown}{BDA}$ 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. $\overset{\frown}{SQ}$

b. $\overset{\frown}{RPQ}$

c. $\overset{\frown}{PRS}$