

Name: _____ # _____

Geometry: Period _____

Ms. Pierre

Date: _____

Tangents Part II

Today's Objective

SWBAT use properties of tangents to identify tangent lines and find the lengths of missing segments.

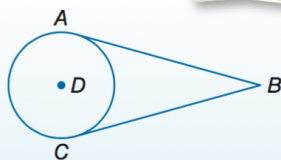
More than one line can be tangent to a circle.

Theorem 10.11

For Your
FOLDABLE

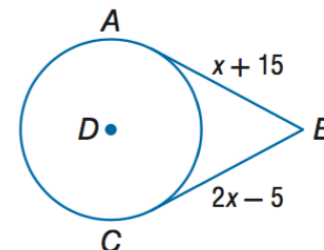
Words If two segments from the same exterior point are tangent to a circle, then they are congruent.

Example If \overline{AB} and \overline{CB} are tangent to $\odot D$, then $\overline{AB} \cong \overline{CB}$.



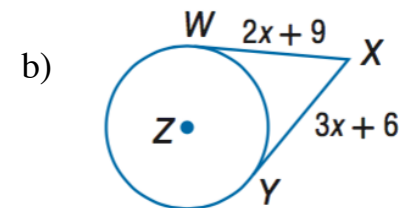
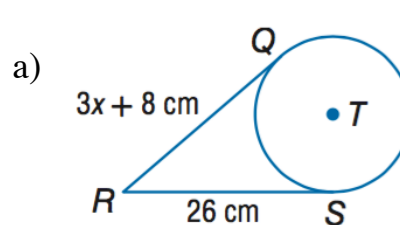
Example 1

\overline{AB} and \overline{CB} are tangent to $\odot D$. Find the value of x .



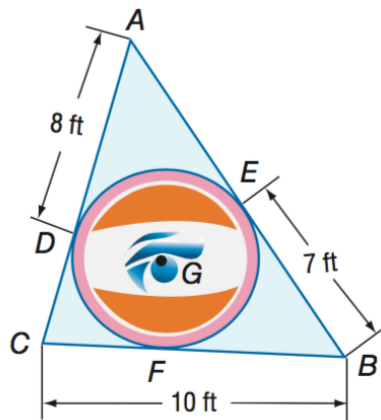
Check for Understanding

Find the value of x . Assume that segments that appear to be tangent are tangent.



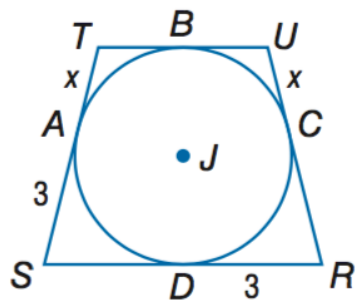
Example 2

A graphic designer is giving directions to create a larger version of the triangular logo shown below. If $\triangle ABC$ is circumscribed about $\odot G$, find the perimeter of $\triangle ABC$.



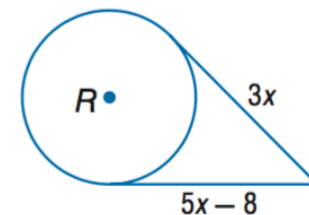
☑ Check for Understanding

Quadrilateral RSTU is circumscribed about $\odot J$. If the perimeter is 18 units find x .

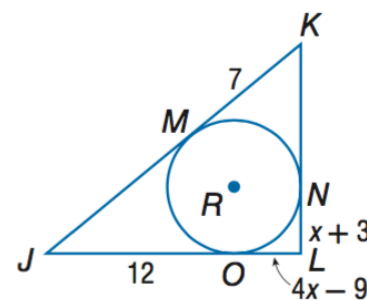


Guided Practice

1. Find the value of x . Assume that segments that appear to be tangent are tangent.



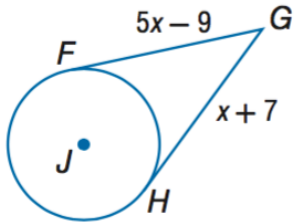
2. Find the value of x . Then find the perimeter. Assume that segments that appear to be tangent are tangent.



Independent Practice

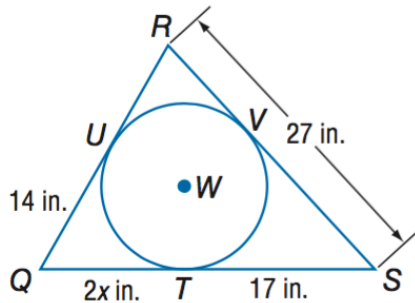
Find x . Assume that segments that appear to be tangent are tangent. Round to the nearest tenth if necessary.

1.



Find the value of x . Then find the perimeter.

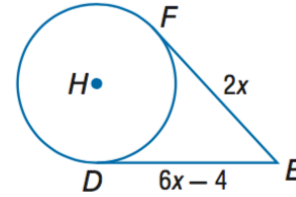
2.



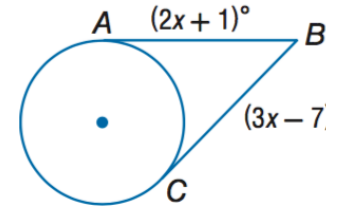
Home Work

Determine whether \overline{XY} is tangent to the given circle. Justify your answer.

1.

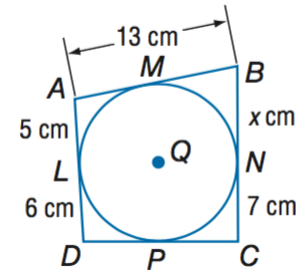


2.



Find the value of x . Then find the perimeter for question 3 **only**. Assume that segments that appear to be tangent are tangent.

3.



4.

