

Name: _____ # _____

Geometry: Period _____

Ms. Pierre

Date: _____

Intersecting Secants (Length)

Today's Objective

SWBAT determine the lengths of segments formed by secants intersecting outside a circle.

A special relationship exists among secants and external secant segments.

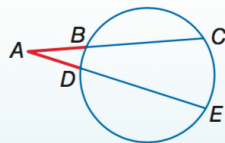
Theorem 10.16

Secant Segments Theorem

For Your

FOLDABLE

Words If two secants intersect in the exterior of a circle, then the product of the measures of one secant segment and its external secant segment is equal to the product of the measures of the other secant and its external secant segment.



Example

$$AB \cdot AC = AD \cdot AE$$

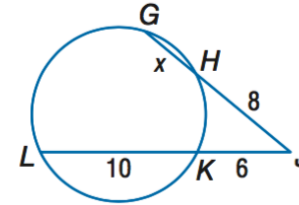
Outside · Whole = Outside · Whole

$$O \cdot W = O \cdot W$$

*Remember by saying "OW equals OW."

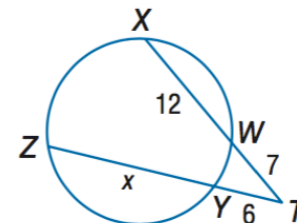
Example 1

Find x .



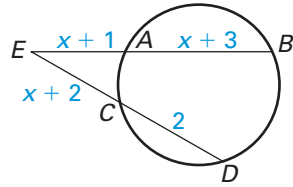
Check for Understanding

Find x .



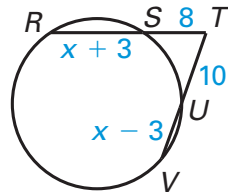
Example 2

Find EB and ED.



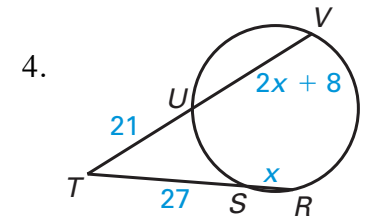
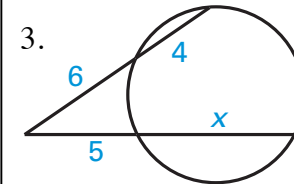
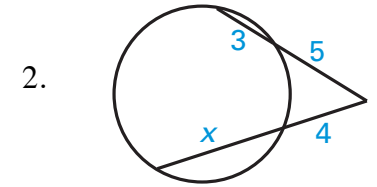
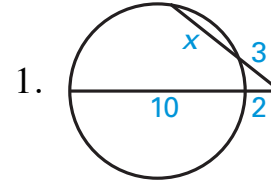
☑ Check for Understanding

Find RT and TV.



Guided Practice

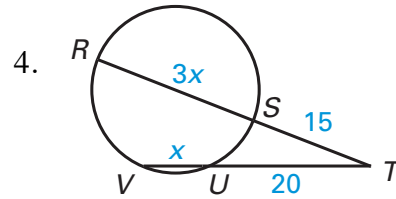
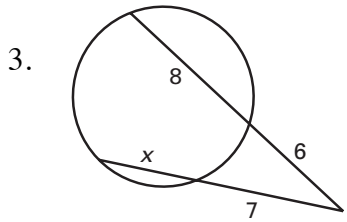
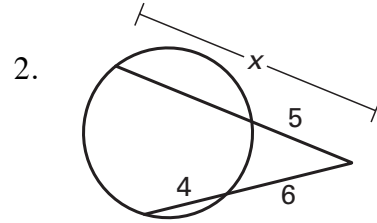
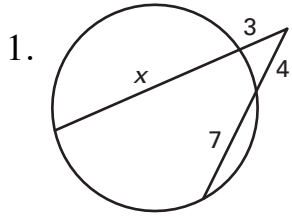
Find the value of x .





Independent Practice

Find the value of x .



Home Work

Find the value of x .

