

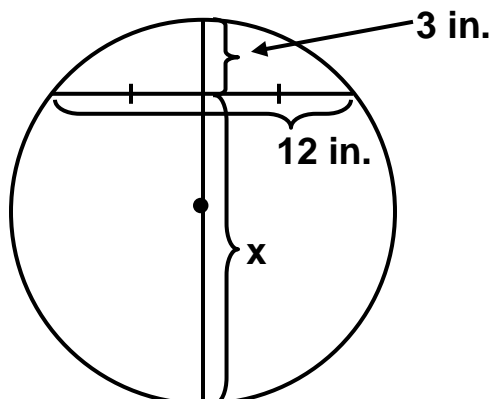
TOPIC 14-4: SPECIAL SEGMENTS IN A CIRCLE

INTERSECTING CHORDS THEOREM:

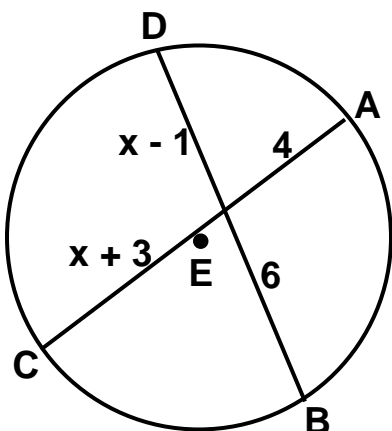
If two chords intersect in a circle, then the product of the measures of the segments of one chord is equal to the product of the measures of the segments of the other chord.

$$(\text{part})(\text{part}) = (\text{part})(\text{part})$$

EXAMPLE 1: Find the length of the radius.

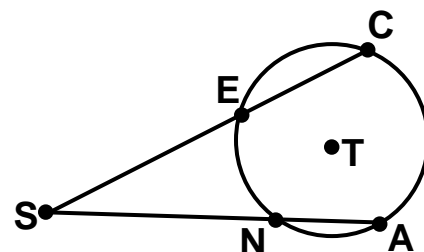


EXAMPLE 2: Find AC.



SECANT SEGMENTS: (whole segment)

EXTERNAL SECANT SEGMENTS:
(part in the exterior)

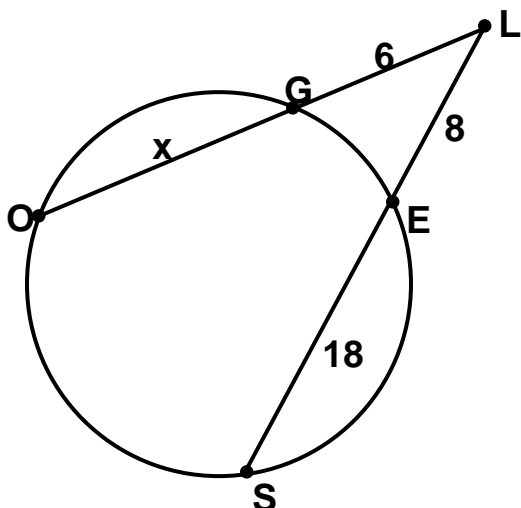


SECANTS INTERSECTING A CIRCLE THEOREM:

If two secant segments are drawn to a circle from an exterior point, 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 segment and its external secant segment.

$$(\text{whole})(\text{external part}) = (\text{whole})(\text{external part})$$

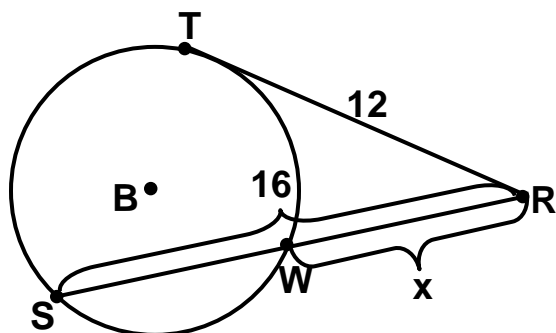
EXAMPLE 3: Find OL.

**SECANTS & TANGENTS THEOREM:**

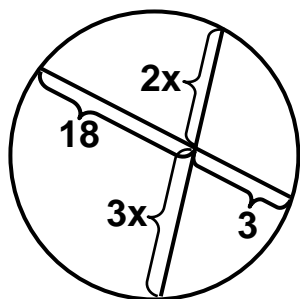
If a tangent segment and a secant segment are drawn to a circle from an exterior point, then the square of the measure of the tangent segment is equal to the product of the measures of the secant segment and its external secant segment.

$$(\text{tangent})^2 = (\text{whole})(\text{external part})$$

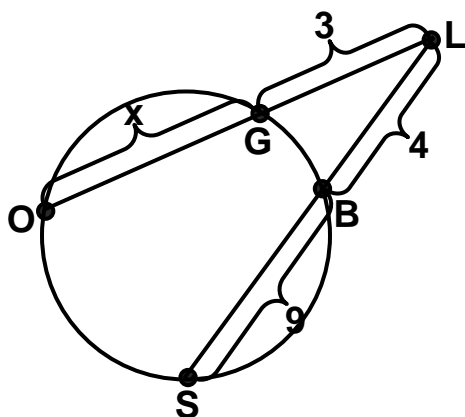
EXAMPLE 4: Find WR.



EXAMPLE 5: Find the value of 'x'.



EXAMPLE 6: Find OL.



EXAMPLE 7: Find MC.

