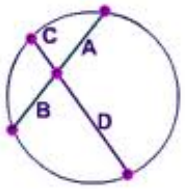
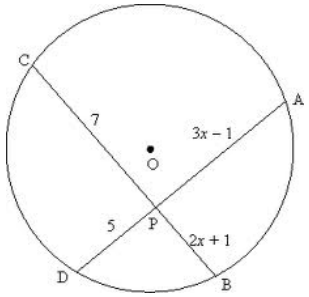
Formal Geometry **9.7 Guided Notes**

Chord-Chord Power Theorem: If two chords intersect in a circle, then the products of the lengths of the chord segments are equal.

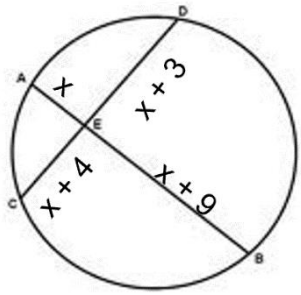


Examples 1 – 2: Find the variable.

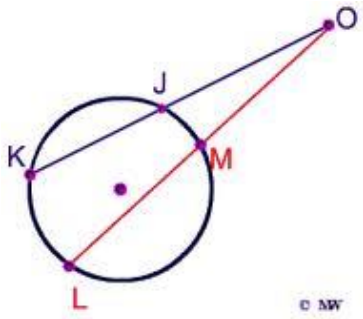
1)



2)

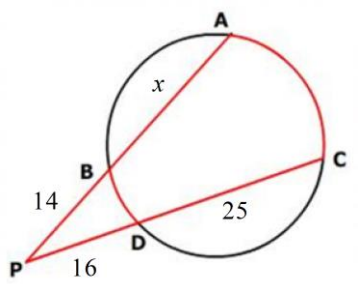


Secant-Secant Power Theorem: If two secants intersect in the exterior of a circle, then the product of the measures of one secant segment and its exterior secant segment is equal to the product of the measures of the other secant segment and its exterior secant segment.

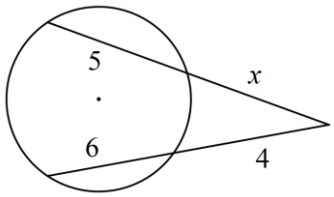


Example 3 – 4: Find *x*.

3)

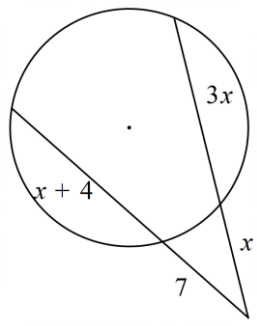


4)

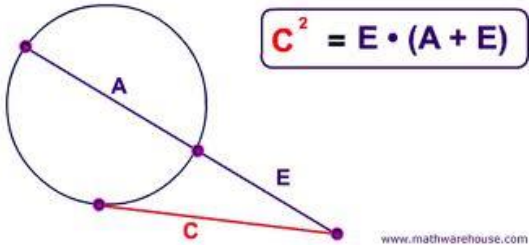


Example 5: Find *x*.

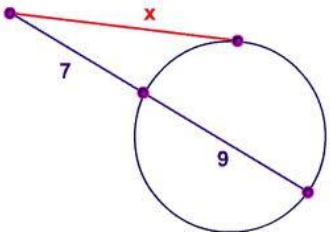
5)



Tangent-Secant Power Theorem: If a tangent and a secant intersect in the exterior of a circle, then the square of the measure of the tangent is equal to the product of the measures of the secant segment and its exterior secant segment.



Example 6: Find *x*.



Example 7: Find *x* and *y*.