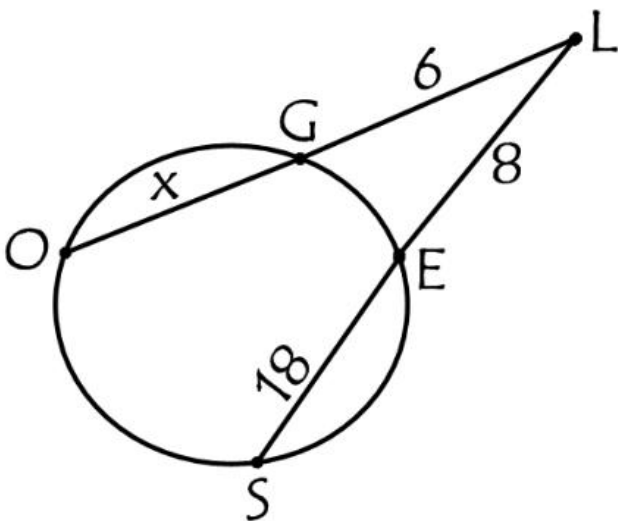


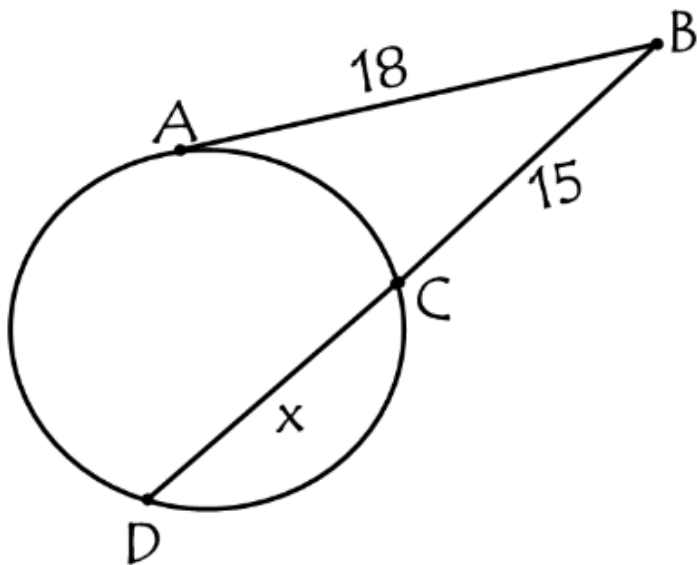
9.7 Special Segments in a Circle

- If two chords intersect in a circle, then the products of the measures of the segments of the chords are equal.
- If two 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.
- 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.

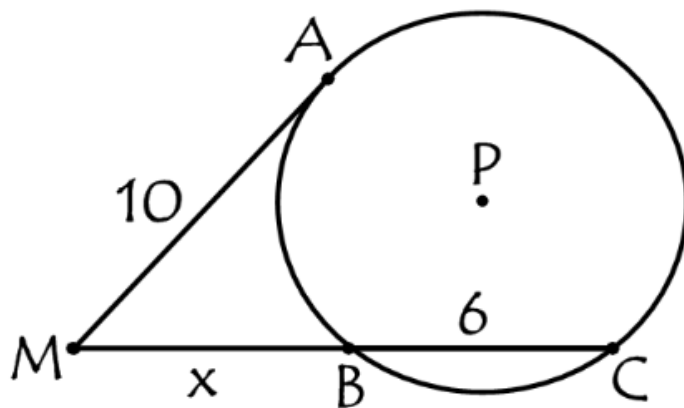
Example 1: Find OG .



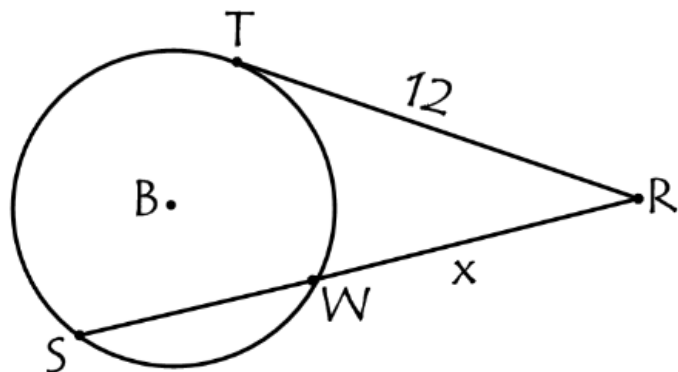
Example 2: Find the value of x to the nearest tenth.



Example 3: \overline{MA} is tangent to $\odot P$. Find the value of x .

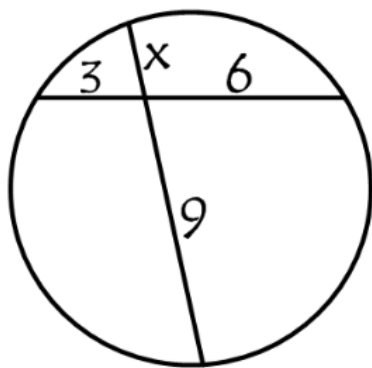


Example 4: \overline{RT} is tangent to $\odot B$. Find the value of x .

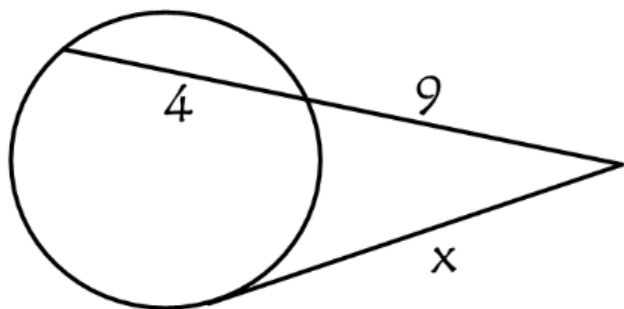


Example 5: Find the value of x to the nearest tenth. Assume that segments that appear to be tangent are tangent.

a)



b)



Example 6:

In $\odot A$, $\overline{TS} \perp \overline{RE}$ with $TS = 10$ and $RE = 3$. Find each measure.

a) TE and ES

b) PE

c) PR

d) Radius of $\odot A$

