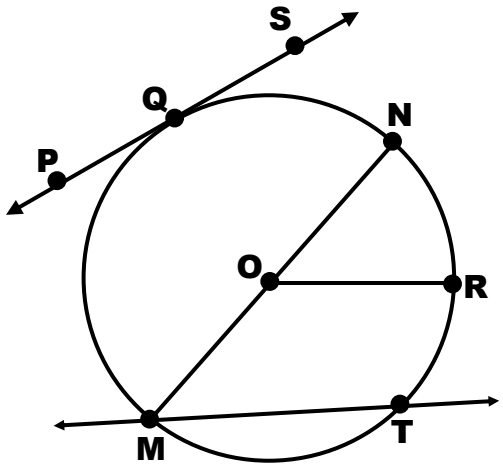
TOPIC 16-1: LINES THAT INTERSECT CIRCLES

Name each of the following:



Center:_____

All Radii:_____

All Chords:_____

All Secants:_____

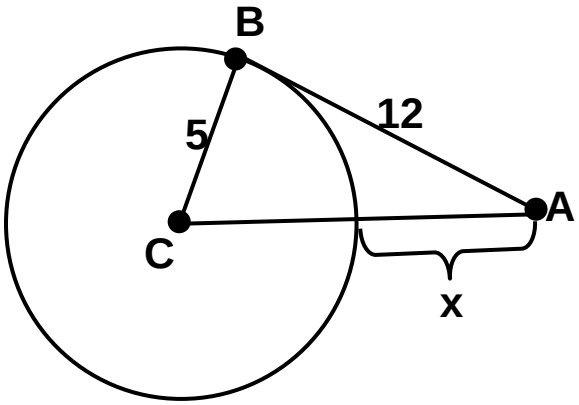
Diameter:_____

Tangent:_____

Point of Tangency_____

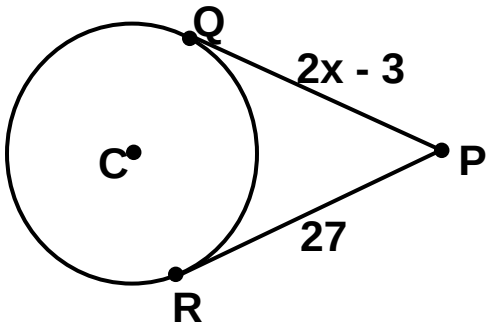
THEOREM: If a line is tangent to a circle, then it is PERPENDICULAR to the radius drawn to the point of tangency.

Refer to ⊙ C with tangent $\overline{AB}$. Find 'x'.



THEOREM: If two segments from the same EXTERIOR point are tangent to a circle, then they are congruent.

Find the value of 'x'.

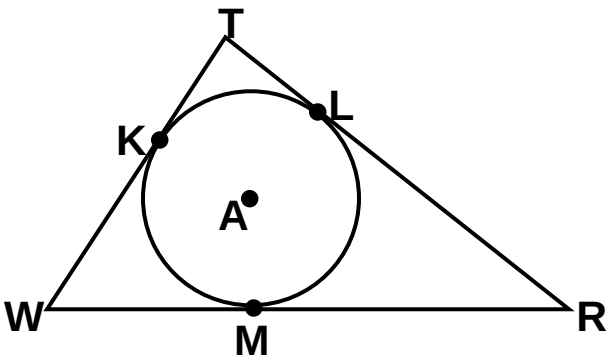


x = _____

When circles are inscribed in polygons, the polygons are said to be CIRCUMSCRIBED polygons.

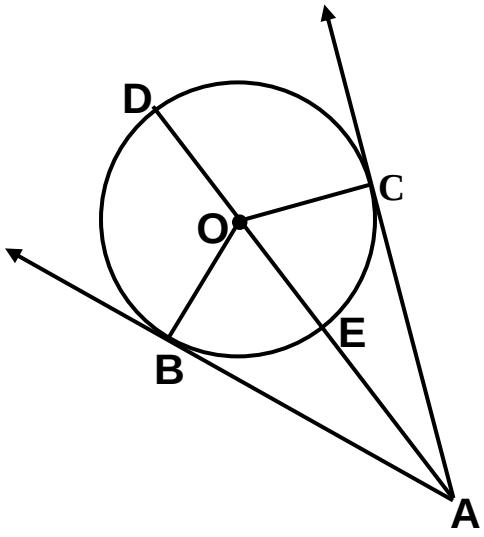
In such polygons, each side is TANGENT to the circle.

ΔTRW is circumscribed about $\odot$A. If the perimeter of ΔTRW is 50, TK = 3, and WM = 9.5, find TR.



TR = _____

Given that OA = 12, OB = 6, and m∠BAC = 60°, find the following:



a) OC = _____

b) ED = _____

c) AB = _____

d) AC = _____

e) m∠BAO = _____

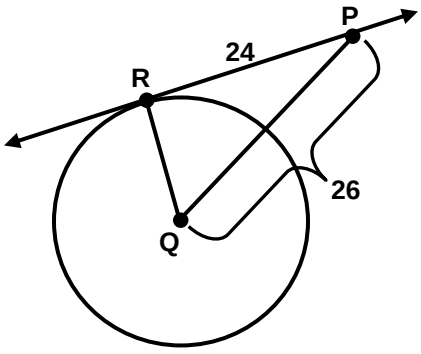
f) m∠OCA = _____

g) m∠AOC = _____

h) m∠EOC = _____

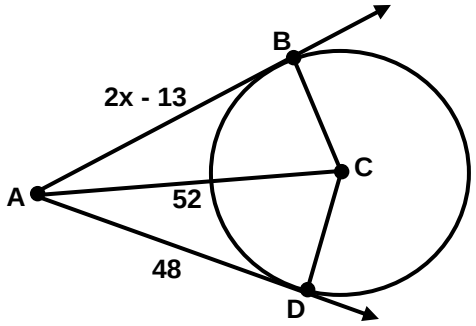
i) EA = _____

In the figure below, $\overleftrightarrow{RP}$ is tangent to circle Q at R. Find the radius of circle Q.



r = _____

Find the indicated values.



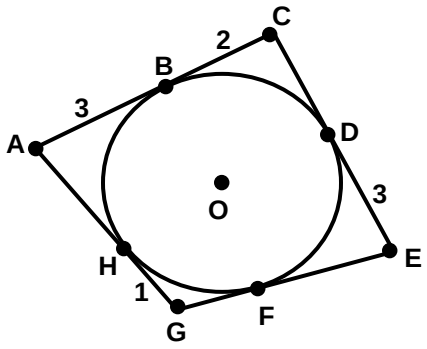
x = _____

m∠ABC = _____

BC = _____

Diameter of circle C = _____

Find the perimeter of the polygon that circumscribes the circle.



P = _____