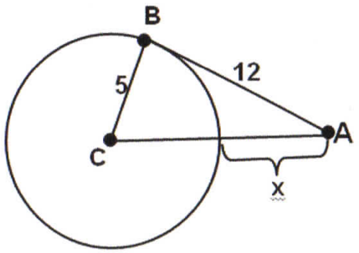
TANGENTS

Tangent Theorem: The tangent line (or segment, or ray) is ________________________ to the ____________ of the circle at the point of tangency. (Use this to solve right triangle problems with circles.)

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

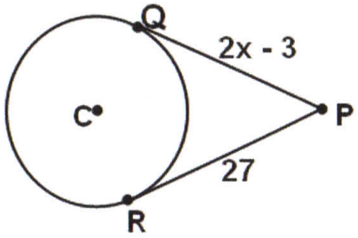
x = ________



Equivalent Tangent Theorem: If two segments from the same ________________ point are tangent to a circle, then they are ________________.

Find x.

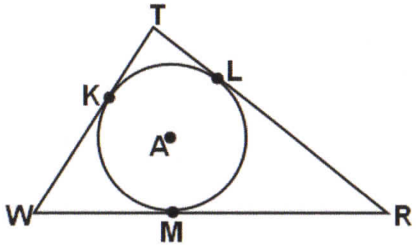
x = ________



When circles are inscribed in polygons, the polygons are said to be _______________________ polygons. In such polygons, each side is ________________ to the circle.

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

TR = ________



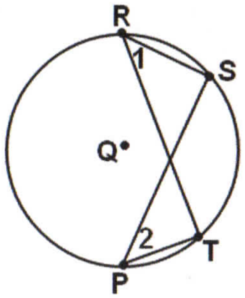
INSCRIBED ANGLES

If two ________________________ angles of a circle or congruent circles intercept congruent arcs or the same arc, then the angles are ____________________.

In circle Q, $m\overset{\frown}{ST} = 68°$.
Find the $m\angle 1$ and $m\angle 2$.

$m\angle 1$ = ________

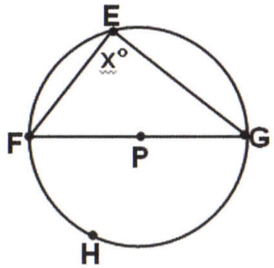
$m\angle 2$ = ________



If an inscribed angle of a circle intercepts a _______________________, then the angle is a ____________ angle.

Find x.

x = ________



If a quadrilateral is inscribed in a circle, then its ________________ angles are _________________________.

Quadrilateral QRST is inscribed in circle C. If $m\angle T = 105°$ and $m\angle S = 97°$, find $m\angle Q$ and $m\angle R$.

$m\angle Q$ = ________

$m\angle R$ = ________