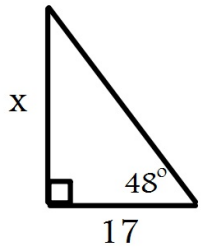
Spiral Review:

1. Solve for x.



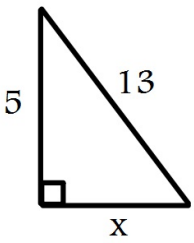
2. Find the sum of the interior angles of a nonagon.

3. Factor

a.) $x^2 + 12x + 32$

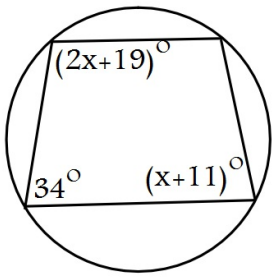
b.) $x^2 - x = 72$

4. Solve for x.



10.1 – 10.5 Review

1. Find x.



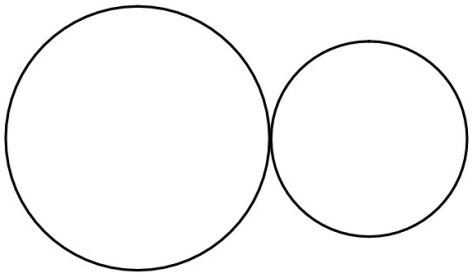
$2x+19+x+11=180$

$3x+30=180$

$3x=150$

$x=50$

2. Draw all common tangents.

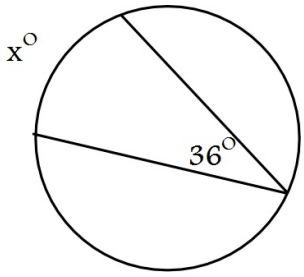


3. Draw

a.)an inscribed angle

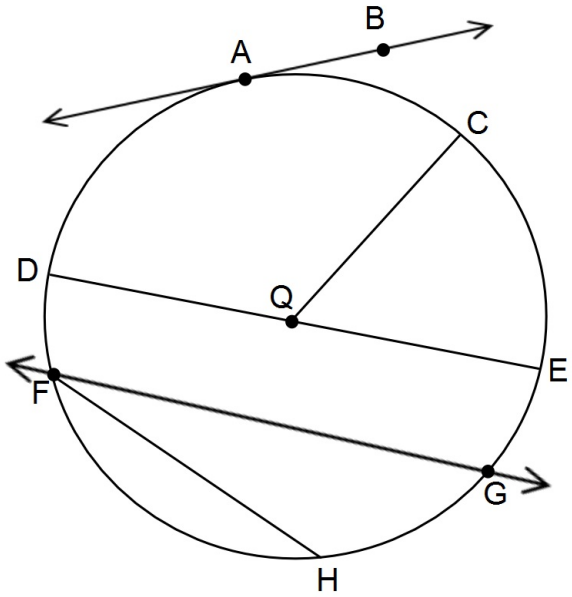
b.) minor and major arc

4. Find x.



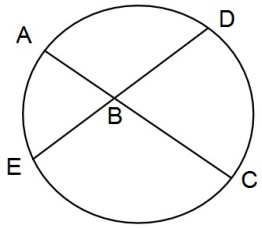
10.6 Review

1. Name a radius.
   $\overline{CQ}$
2. Name a chord.
   $\overline{FH}$
3. Name a diameter.
   $\overline{DE}$
4. Name a central angle.
   $\angle DQC$
5. Name an inscribed angle.
   $\angle GFH$
6. Name a tangent.
   $\overleftrightarrow{AB}$
7. Name a secant.
   $\overleftrightarrow{FG}, \overleftrightarrow{FG}$
8. Name the point of tangency
   A



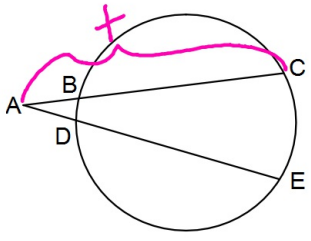
p. 750 10.7 Special Segments in a Circle

Chord Segments form when two segments intersect inside a circle.
example: $\overline{ED}, \overline{AC}$



If two chords intersect in a circle, then the product of the lengths of the chord segments are =.
example: Part · Part = Part · Part

Secant Segments have exactly 1 endpoint on the circle.
example:

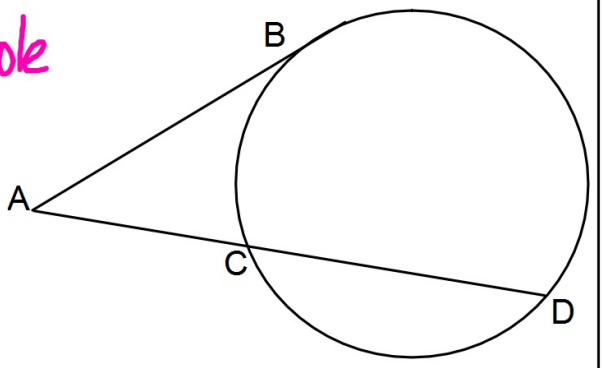


If two secants intersect in the exterior of a circle, then....
outside · whole = outside · whole

p. 750 10.7 Special Segments in a Circle

Tangent Segments have 1 endpoint on the circle and are both the outside and whole segment.

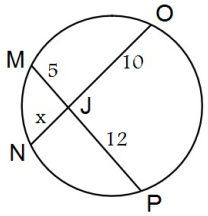
example: outside·whole = outside·whole



If a tangent and a secant intersect in the exterior of a circle, then....

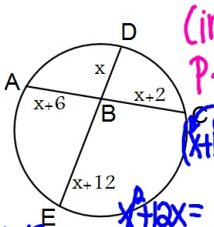
Example 1: Find x. Assume that segments that appear to be tangent are tangent.

1.



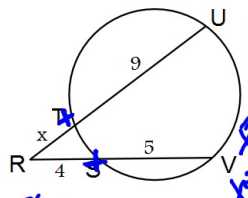
(inside)
P·P = P·P
12·5 = 10·x
60 = 10x
10 10
x = 6

2.



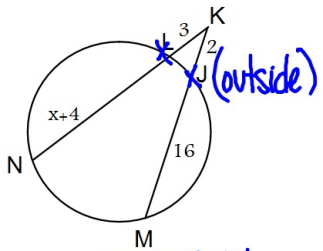
(inside)
P·P = P·P
(x+12)(x) = (x+6)(x+2)
$x^2+12x = x^2+8x+12$
x^2 x^2
$12x = 8x+12$
$4x = 12$
$x = 3$

3.



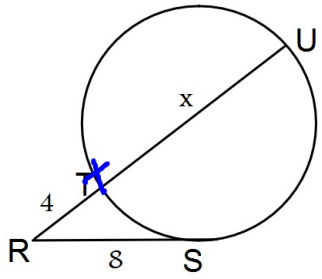
(outside)
O·W = O·W
x(x+9) = 4(9)
$x^2+9x = 36$
−36 −36
$x^2+9x-36 = 0$
(x+12)(x−3) = 0
x = −12, x = 3

4.



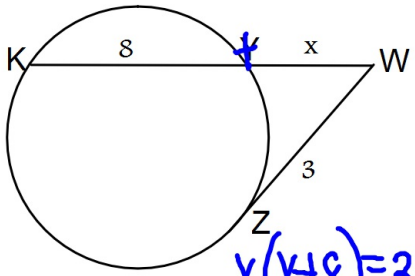
(outside)
O·W = O·W
3(x+3+3) = 2(18)
3x+12+9 = 36
3x+21 = 36
−21 −21
3x = 15
3 3
x = 5

1.



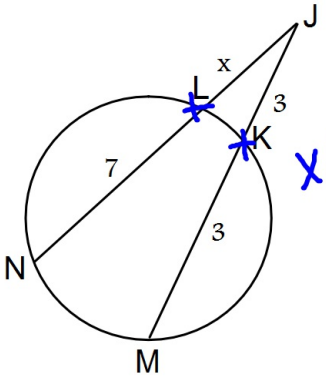
$4(x+4)=8\cdot 8$

2.



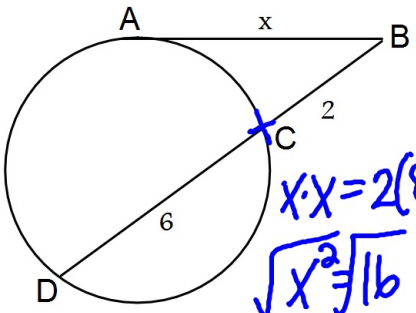
$x(x+8)=3\cdot 3$

3.



$x(x+7)=3(6)$

4.



$x\cdot x=2(8)$

$\sqrt{x^2}=\sqrt{16}$

$x=4$

Turn-in:

Quick Check 10.7

HW:

Worksheet