

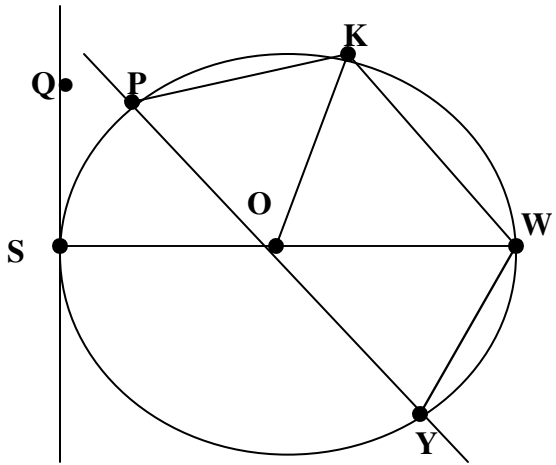
Review of Chapter 9

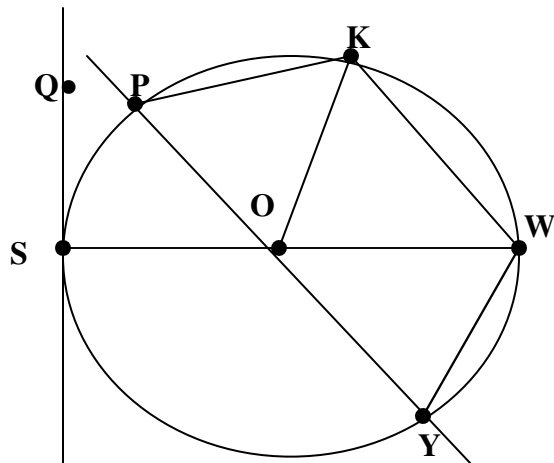
* Remember to study your vocabulary!!

Classify each statement as true or false.

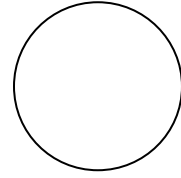
- 1) Opposite angles of an inscribed quadrilateral must be supplementary.
- 2) If a chord in one circle is congruent to a chord in another circle, the arcs of these chords must be congruent.
- 3) A diameter always bisects a chord that it intersects.
- 4) If a line bisects a chord, that line must pass through the center of the circle.
- 5) If line GM intersects a circle in just one point then it must be a tangent to the circle.

Use the given diagram to name the following.

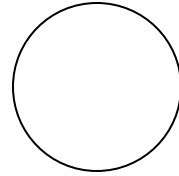
- | | |
|-------------------------------|--|
| 6) name a radius |  |
| 7) name a diameter | |
| 8) name a chord | |
| 9) name a tangent | |
| 10) name a secant | |
| 11) name a central angle | |
| 12) name a minor arc | |
| 13) name a semi-circle | |
| 14) name a major arc | |
| 15) name an inscribed polygon | |



16) circumscribe a triangle on the given circle

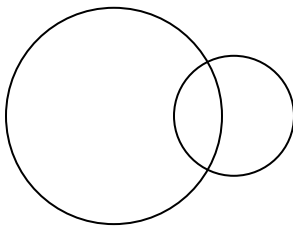


17) inscribe a pentagon in the given circle

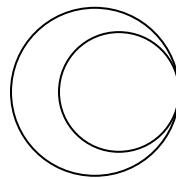


Draw in all possible common tangents for the following.

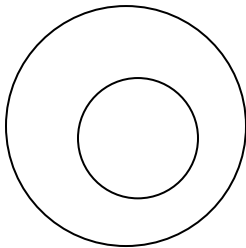
18)



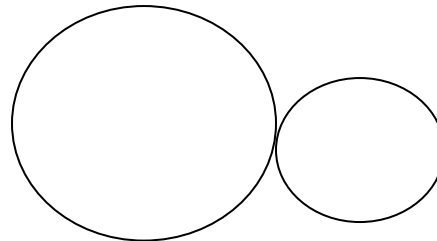
19)



20)



21)



22) At 4:00 the hands of a clock make what central angle?

Use the given diagram to find the following given that O is the center and line WX is a tangent.

23) $m\widehat{YZ} = \underline{\hspace{2cm}}$

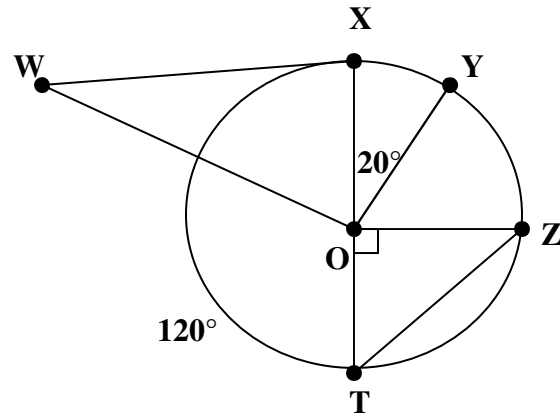
24) $m\widehat{YTX} = \underline{\hspace{2cm}}$

25) if the radius is 12, find WO

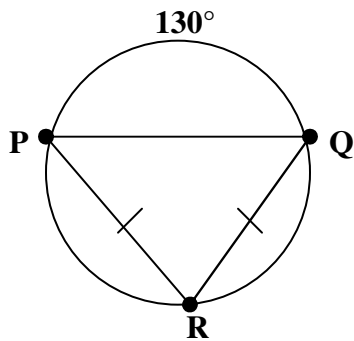
26) if the radius is 3, find TZ to the nearest hundredth.

27) $m\angle OZT = \underline{\hspace{2cm}}$

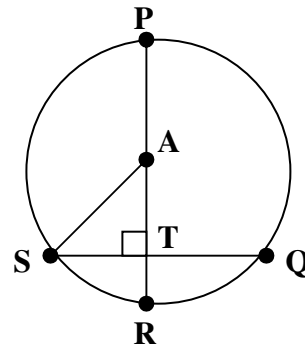
28) $m\widehat{TXY} = \underline{\hspace{2cm}}$



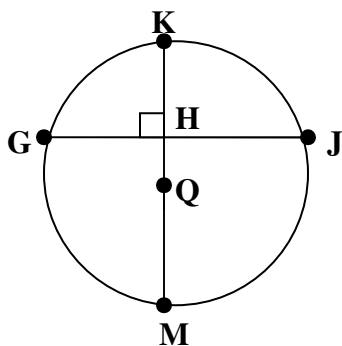
29) find the measures of arc PR and arc RQ



30) If $SQ = 12$ and $AT = 8$, find PR

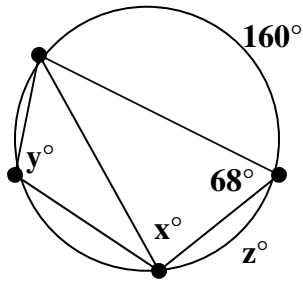


31) If arc $GMJ = 200^\circ$, find the measure of arc GK

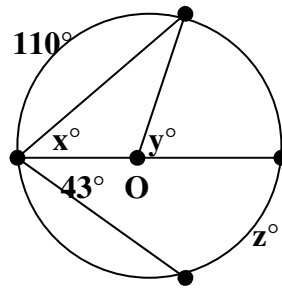


32) Sketch a circle R with radius of length $5\sqrt{3}$ and chord XY that is 5 units from R . Find the length of chord XY .

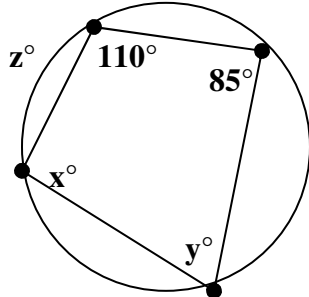
33) solve for x , y , and z



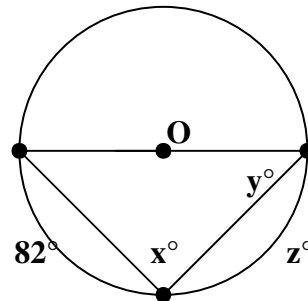
34) solve for x , y , and z



35) solve for x , y , and z



36) solve for x , y , and z



37) measure of arc DE = _____

38) $m\angle EBD =$ _____

39) measure of arc DB = _____

40) $m\angle DEB =$ _____

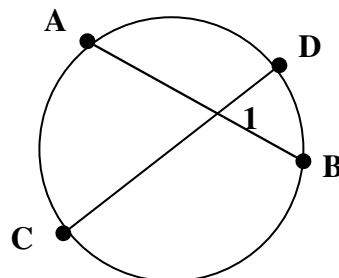
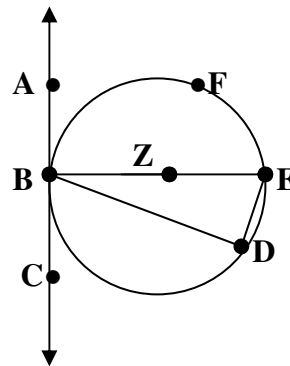
41) $m\angle BDE =$ _____

42) measure of arc BFE = _____

43) if $m\widehat{AC} = 85^\circ$ and $m\widehat{DB} = 73^\circ$,
then $m\angle 1 =$ _____

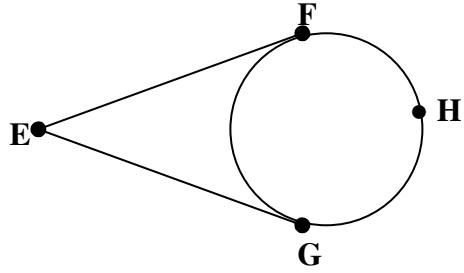
44) if $m\angle 1 = 54^\circ$ and $m\widehat{AC} = 78^\circ$, then
 $m\widehat{DB} =$ _____

Given that Z is the center and
 $m\angle DBC = 75^\circ$



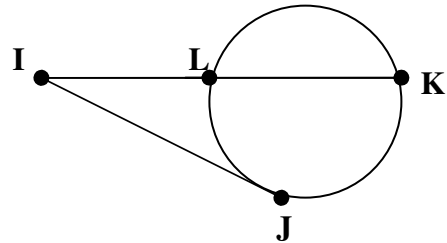
45) if $m\widehat{FHG} = 280^\circ$, then
 $m\angle E = \underline{\hspace{2cm}}$

46) if $m\angle E = 90^\circ$, then
 $m\widehat{FHG} = \underline{\hspace{2cm}}$

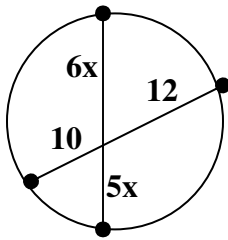


47) if $m\widehat{JK} = 120^\circ$ and $m\widehat{JL} = 40^\circ$,
 then $m\angle I = \underline{\hspace{2cm}}$

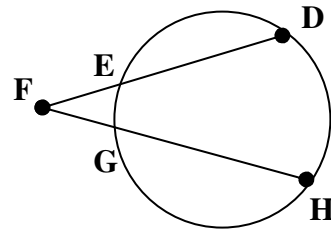
48) if $m\angle I = 45^\circ$ and $m\widehat{JL} = 55^\circ$, then
 $m\widehat{JK} = \underline{\hspace{2cm}}$



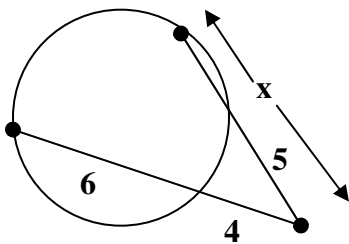
49)



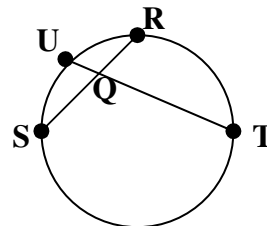
50) If $HG = 8$, $GF = 7$, and $DF = 21$,
 find EF



51)



52) If $RS = 17$, $TQ = 18$, and $QU = 4$,
 find RQ



Answer Key:

1) true	29) 115°
2) true	30) 20
3) false (they must be perpendicular)	31) 80°
4) false	32) 14.14
5) true	33) $80^\circ, 112^\circ, 64^\circ$
6) $\overline{OP}, \overline{OK}, \overline{OW}, \overline{OY}, \overline{OS}$	34) $35^\circ, 70^\circ, 86^\circ$
7) $\overline{PY}, \overline{SW}$	35) $95^\circ, 70^\circ, 80^\circ$
8) $\overline{PY}, \overline{SW}, \overline{PK}, \overline{KW}, \overline{WY}$	36) $90^\circ, 41^\circ, 98^\circ$
9) line QS	37) 30°
10) line PY	38) 15°
11) $\angle SOP, \angle POK, \angle KOW, \angle WOY$	39) 150°
12) $\widehat{SP}, \widehat{PK}, \widehat{KW}, \widehat{WY}$	40) 75°
13) $\widehat{PKY}, \widehat{SPW}$	41) 90°
14) $\widehat{PWS}, \widehat{SKY}$	42) 180°
15) quad PKWY	43) 79°
16) all sides are tangent to circle	44) 30°
17) all vertices are on circle and sides are inside circle	45) 100°
18) 2 tangents (1 top and 1 bottom)	46) 270°
19) 1 tangent (right side)	47) 40°
20) 0 tangents	48) 145°
21) 3 tangents (1 top, 1 bottom, 1 between)	49) 2
22) 120°	50) 5
23) 70°	51) 8
24) 340°	52) 8, 9
25) 24	
26) 4.24	
27) 45°	
28) 200°	