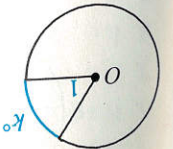
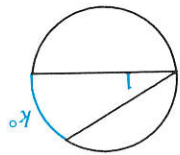


Chapter Review

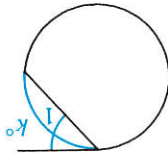
8. Relationships expressed by formulas:



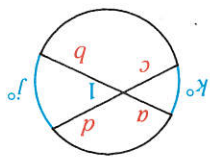
$$m\angle I = k$$



$$m\angle I = \frac{1}{2}k$$

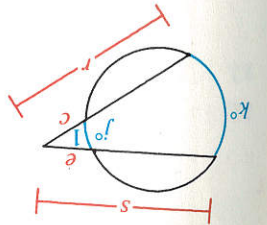


$$m\angle I = \frac{1}{2}k$$



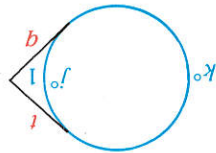
$$m\angle I = \frac{1}{2}(k + j)$$

$$a \cdot b = c \cdot d$$



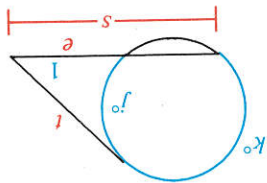
$$m\angle I = \frac{1}{2}(k - j)$$

$$s \cdot e = r \cdot c$$



$$m\angle I = \frac{1}{2}(k - j)$$

$$t = q$$



$$m\angle I = \frac{1}{2}(k - j)$$

$$s \cdot e = l^2$$

Points A, B, and C lie on $\odot O$.

1. \overline{AC} is called a $\underline{\hspace{1cm}}$, while \overrightarrow{AC} is called a $\underline{\hspace{1cm}}$.

2. \overline{OB} is called a $\underline{\hspace{1cm}}$.

3. The best name for \overline{AB} is $\underline{\hspace{1cm}}$.

4. $\triangle ABC$ is $\underline{\hspace{1cm}}$ $\odot O$.
(inscribed in/circumscribed about)

Lines \overleftrightarrow{ZX} and \overleftrightarrow{ZY} are tangent to $\odot P$.

5. \overline{PX} , if drawn, would be $\underline{\hspace{1cm}}$ to \overleftrightarrow{XZ} .

6. If the radius of $\odot P$ is 6 and if $XZ = 8$, the distance between points P and Z is $\underline{\hspace{1cm}}$.

7. If $m\angle Z = 90$ and if $XZ = 13$, the distance between points X and Y is $\underline{\hspace{1cm}}$.

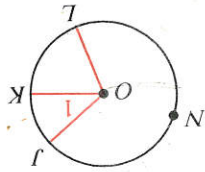
8. If $m\angle I = 42$, then $m\widehat{JK} = \underline{\hspace{1cm}}$.

9. If $m\widehat{JN} = 120$ and $m\widehat{NL} = 130$, then $m\angle JOL = \underline{\hspace{1cm}}$.

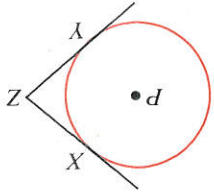
10. Suppose \overline{JO} intersects $\odot O$ at G.

a. $m\widehat{LG} = \underline{\hspace{1cm}}$

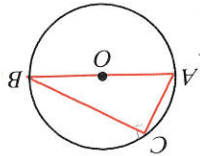
b. If $\angle NOG \cong \angle KOL$, then $\overline{NG} \underline{\hspace{1cm}} \overline{KL}$.



7-3



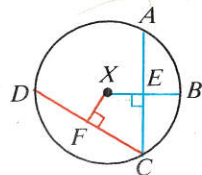
7-2



7-1

In $\odot X$, $m\widehat{AC} = 120$.

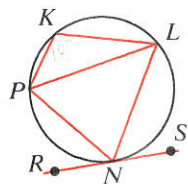
11. $m\widehat{AB} = ?$.
12. If $\widehat{AC} \cong \widehat{CD}$, then $m\widehat{CD} = ?$.
13. If $CD > AC$, then $XF \frac{?}{(</= />)} XE$.
14. If $DC = 24$ and $XF = 5$, the radius of $\odot X = ?$.



7-4

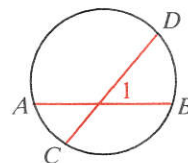
\overline{RS} is tangent to the circle at N .

15. If $m\angle K = 105$, then $m\angle PNL = ?$.
16. If $m\widehat{PN} = 100$, then $m\angle PLN = ?$ and $m\angle PNR = ?$.
17. If $m\angle K = 110$, then $m\widehat{PNL} = ?$ and $m\widehat{PL} = ?$.



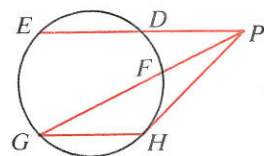
7-5

18. If $m\widehat{AC} = 40$ and $m\widehat{BD} = 60$, then $m\angle 1 = ?$.
19. If $m\widehat{AC} = 44$ and $m\angle 1 = 55$, then $m\widehat{BD} = ?$.

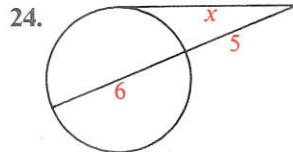
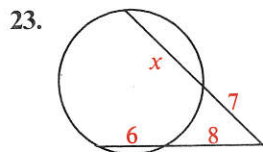
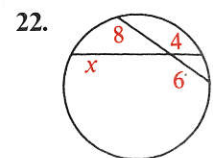


7-6

20. If $m\widehat{EG} = 100$ and $m\widehat{DF} = 40$, then $m\angle EPG = ?$.
21. If \overline{PH} is a tangent, $m\widehat{GH} = 90$ and $m\angle GPH = 25$, then $m\widehat{FH} = ?$.



Chords, secants, and a tangent are shown. Find x .



7-7

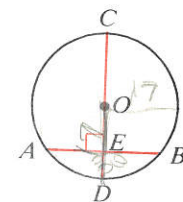
Chapter Test

Tell whether the statement is true or false.

1. It is possible to place points A , B , and C on a circle so that $m\widehat{AB} + m\widehat{BC} > m\widehat{AC}$.
2. If two circles are congruent, their diameters are congruent.
3. If a chord in one circle is congruent to a chord in another circle, the arcs of these chords must have congruent central angles.
4. Opposite angles of an inscribed quadrilateral must be congruent.

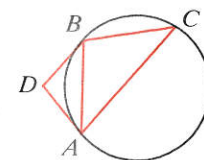
5. If a diameter is perpendicular to a chord, the diameter must bisect the chord.
6. If a line bisects a chord, that line must pass through the center of the circle.
7. If \overline{GM} intersects a circle in just one point, \overline{GM} must be tangent to the circle.
8. It is possible to draw two circles so that no common tangents can be drawn.
9. An angle inscribed in a semicircle must be a right angle.
10. When one chord is farther from the center of a circle than another chord, the chord farther from the center is the longer of the two chords.

11. In $\odot O$, if $m\widehat{AB} = 100^\circ$, then $m\widehat{AC} = ?$.
12. If the radius of $\odot O$ is 17 and $AB = 30$, then $OE = ?$.

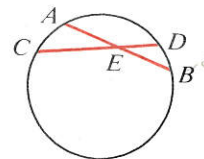


\overline{AD} and \overline{DB} are tangent to the circle.

13. If $AB = BC$ and $m\widehat{BC} = 80$, then $m\angle ABC = ?$.
14. If $m\angle D = 110$, then $m\angle BCA = ?$.

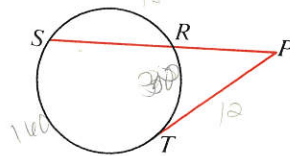


15. If $m\widehat{AC} = 50$ and $m\widehat{BD} = 38$, then $m\angle AEC = ?$.
16. If $AE = 10$, $EB = 9$, and $CE = 15$, then $ED = ?$.

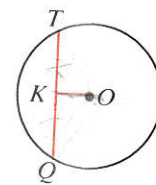


\overline{PT} is a tangent to the circle.

17. If $m\widehat{RS} = 120$ and $m\widehat{ST} = 160$, then $m\angle P = ?$.
18. If $PT = 12$ and $PS = 18$, then $PR = ?$.



19. Given: $\odot O$; $\overline{TK} \cong \overline{KQ}$
Prove: $\overline{TQ} \perp \overline{OK}$



20. Given: \overline{AD} is tangent to $\odot P$.
Prove: $\triangle BAD \sim \triangle ACD$

