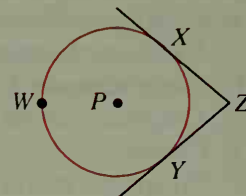


Lines \overleftrightarrow{ZX} and \overleftrightarrow{ZY} are tangent to $\odot P$.

6. \overline{PX} , if drawn, would be ? to \overleftrightarrow{XZ} .
7. If the radius of $\odot P$ is 6 and $XZ = 8$, then $PZ = \underline{\hspace{1cm}}$.
8. If $m\angle Z = 90$ and $XZ = 13$, then $XY = \underline{\hspace{1cm}}$.
9. If $m\angle XPY = 100$, then $m\widehat{XY} = \underline{\hspace{1cm}}$.
10. If $m\widehat{XW} = 135$ and $m\widehat{WY} = 125$, then $m\widehat{XWY} = \underline{\hspace{1cm}}$.
11. If $\widehat{XW} \cong \widehat{WY}$, then $\angle XPW \cong \underline{\hspace{1cm}}$.

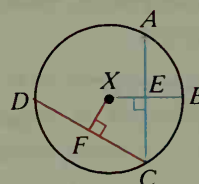


9-2

9-3

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

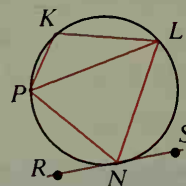
12. $m\widehat{AB} = \underline{\hspace{1cm}}$.
13. If $\widehat{AC} \cong \widehat{CD}$, then $m\widehat{CD} = \underline{\hspace{1cm}}$.
14. If $XE = 5$ and $AC = 24$, then the radius = ?.
15. If $\widehat{AC} \cong \widehat{DC}$, state the theorem that allows you to deduce that $XE = XF$.



9-4

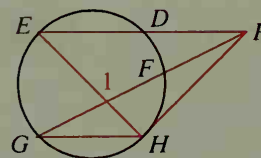
\overleftrightarrow{RS} is tangent to the circle at N .

16. If $m\angle K = 105$, then $m\angle PNL = \underline{\hspace{1cm}}$.
17. If $m\widehat{PN} = 100$, then $m\angle PLN = \underline{\hspace{1cm}}$ and $m\angle PNR = \underline{\hspace{1cm}}$.
18. If $m\angle K = 110$, then $m\widehat{PNL} = \underline{\hspace{1cm}}$ and $m\widehat{PL} = \underline{\hspace{1cm}}$.



9-5

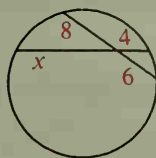
19. If $m\widehat{EF} = 120$ and $m\widehat{GH} = 90$, then $m\angle 1 = \underline{\hspace{1cm}}$.
20. If $m\widehat{EG} = 100$ and $m\widehat{DF} = 40$, then $m\angle EPG = \underline{\hspace{1cm}}$.
21. If \overline{PH} is a tangent, $m\widehat{GH} = 90$ and $m\angle GPH = 25$, then $m\widehat{FH} = \underline{\hspace{1cm}}$.



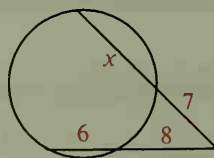
9-6

Chords, secants, and a tangent are shown. Find the value of x .

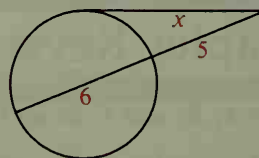
22.



23.



24.



9-7