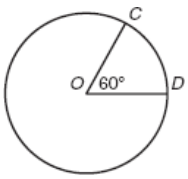
Chapter 11 Test Review

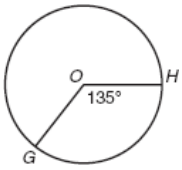
Problem Set

Determine the measure of each minor arc.

1. $\overset{\frown}{CD}$

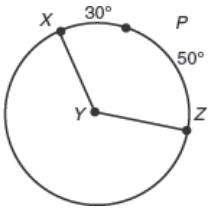


2. $\overset{\frown}{GH}$

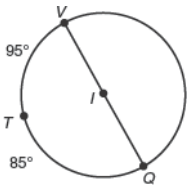


Determine the measure of each central angle.

3. $m\angle XYZ$

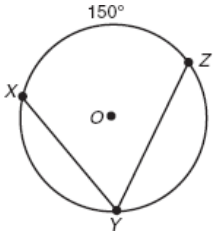


4. $m\angle VIQ$

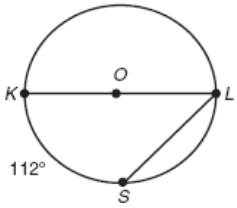


Determine the measure of each inscribed angle.

5. $m\angle XYZ$

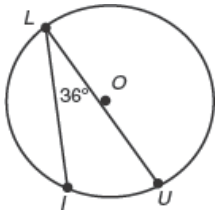


6. $m\angle KLS$

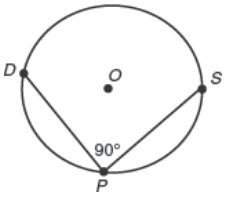


Determine the measure of each intercepted arc.

7. $m\overset{\frown}{IU}$

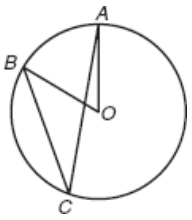


8. $m\overset{\frown}{DS}$

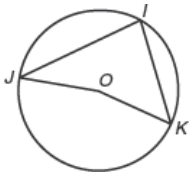


Calculate the measure of each angle.

9. The measure of $\angle AOB$ is $62°$. What is the measure of $\angle ACB$?

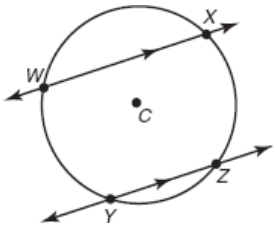


10. The measure of $\angle JOK$ is $168°$. What is the measure of $\angle JIK$?

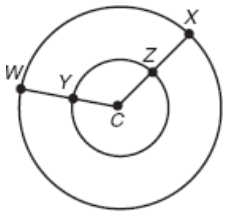


Use the given information to answer each question.

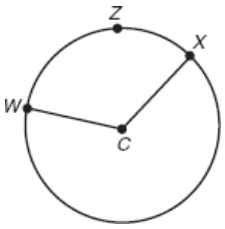
11. In circle C, $m\overset{\frown}{XZ} = 86°$. What is $m\overset{\frown}{WY}$?



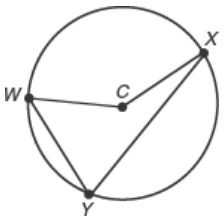
12. In circle C, $m\angle WCX = 102°$. What is $m\overset{\frown}{YZ}$?



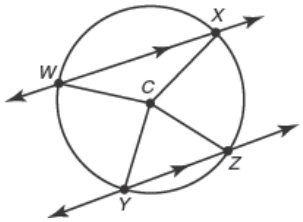
13. In circle C, $m\overset{\frown}{WZ} = 65°$ and $m\overset{\frown}{XZ} = 38°$. What is $m\angle WCX$?



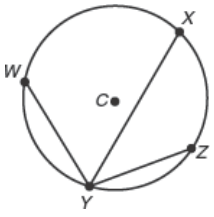
14. In circle C, $m\angle WCX = 105°$. What is $m\angle WYX$?



15. In circle C, $m\angle WCY = 83°$. What is $m\angle XCZ$?



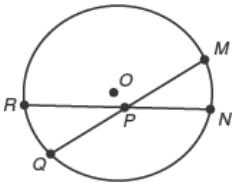
16. In circle C, $m\angle WYX = 50°$ and $m\angle XYZ = 30°$. What is $m\overset{\frown}{WXZ}$?



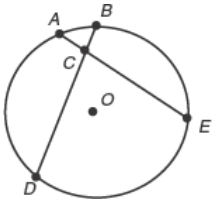
Problem Set

Write an expression for the measure of the given angle.

17. $m\angle RPM$

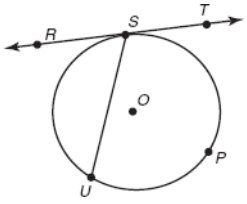


18. $m\angle ACD$

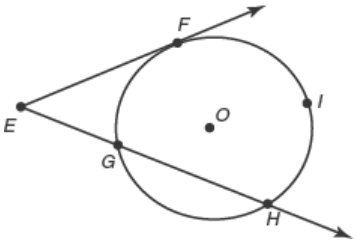


List the intercepted arc(s) for the given angle.

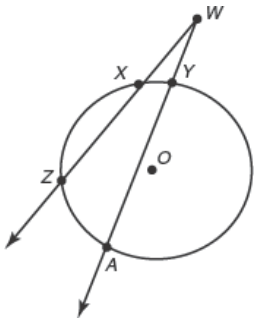
19. $\angle RSU$



20. $\angle FEH$

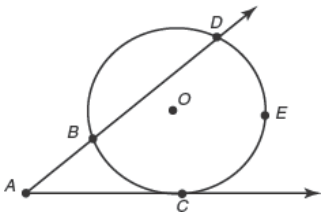


21. $\angle ZWA$

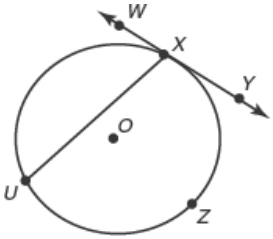


Write an expression for the measure of the given angle.

22. $m\angle DAC$



23. $m\angle UXY$

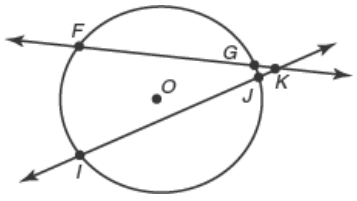


Use the diagram shown to determine the measure of each angle or arc.

24. Determine $m\overset{\frown}{FI}$.

$m\angle K = 20°$

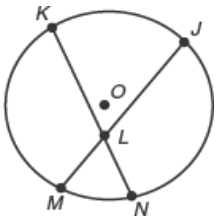
$m\overset{\frown}{GJ} = 80°$



25. Determine $m\angle KLJ$.

$m\overset{\frown}{KM} = 120°$

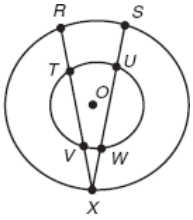
$m\overset{\frown}{JN} = 100°$



26. Determine $m\angle X$.

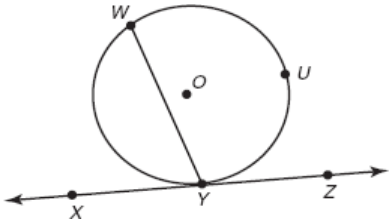
$m\overset{\frown}{VW} = 50°$

$m\overset{\frown}{TU} = 85°$



27. Determine $m\angle WYX$.

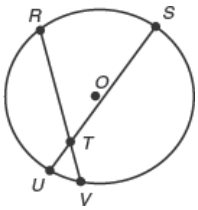
$m\overset{\frown}{WUY} = 300°$



28. Determine $m\overset{\frown}{RS}$.

$m\overset{\frown}{UV} = 30°$

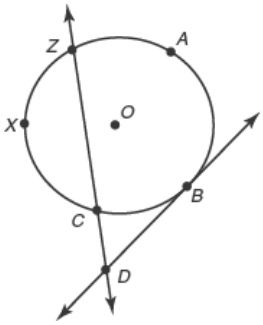
$m\angle RTS = 80°$



29. Determine $m\angle D$.

$m\overset{\frown}{ZXC} = 150°$

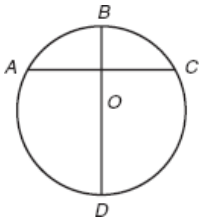
$m\overset{\frown}{CB} = 30°$



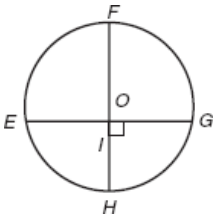
Problem Set

Use the given information to answer each question. Explain your answer.

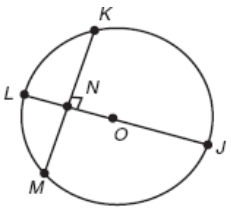
30. If diameter $\overline{BD}$ bisects $\overline{AC}$, what is the angle of intersection?



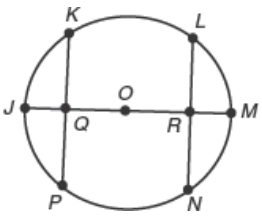
31. If diameter $\overline{FH}$ intersects $\overline{EG}$ at a right angle, how does the length of $\overline{EI}$ compare to the length of $\overline{IG}$?



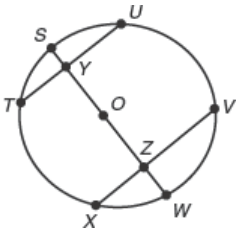
32. How does the measure of $\overset{\frown}{KL}$ and $\overset{\frown}{LM}$ compare?



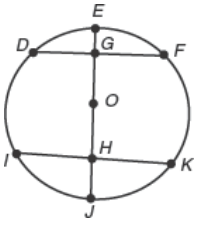
33. If $\overline{KP} \cong \overline{LN}$, how does the length of $\overline{QO}$ compare to the length of $\overline{RO}$?



34. If $\overline{YO} \cong \overline{ZO}$, what is the relationship between $\overline{TU}$ and $\overline{XV}$?

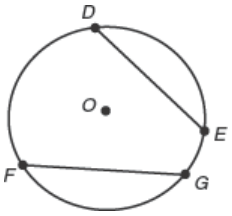


35. If $\overline{GO} \cong \overline{HO}$ and diameter $\overline{EJ}$ is perpendicular to both, what is the relationship between $\overline{GF}$ and $\overline{HK}$?

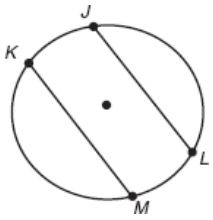


Compare each measurement. Explain your answer.

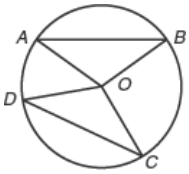
36. If $\overline{DE} \cong \overline{FG}$, how does the measure of $\overset{\frown}{DE}$ and $\overset{\frown}{FG}$ compare?



37. If $\overset{\frown}{KM} \cong \overset{\frown}{JL}$, how does the measure of $\overline{JL}$ and $\overline{KM}$ compare?

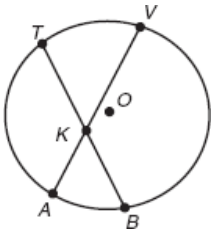


38. If $\angle AOB \cong \angle DOC$, what is the relationship between $\overline{AB}$ and $\overline{DC}$?

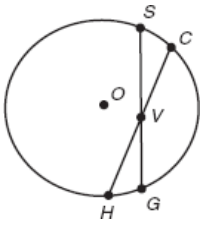


Use each diagram and the Segment Chord Theorem to write an equation involving the segments of the chords.

39.



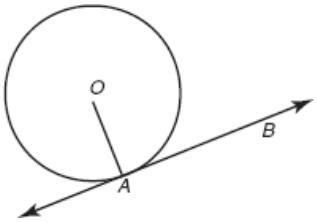
40.



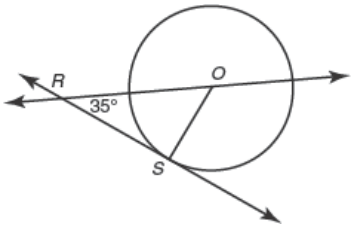
Problem Set

Calculate the measure of each angle. Explain your reasoning.

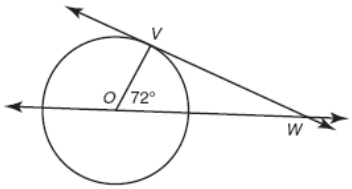
41. If $\overline{OA}$ is a radius, what is the measure of $\angle OAB$?



42. If $\overline{RS}$ is a tangent segment and $\overline{OS}$ is a radius, what is the measure of $\angle ROS$?

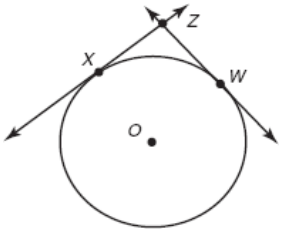


43. If $\overline{VW}$ is a tangent segment and $\overline{OV}$ is a radius, what is the measure of $\angle VWO$?

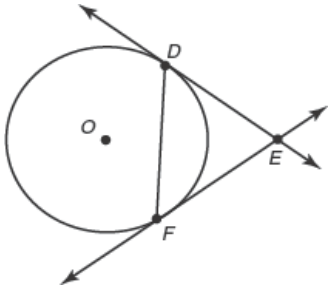


Write a statement to show the congruent segments.

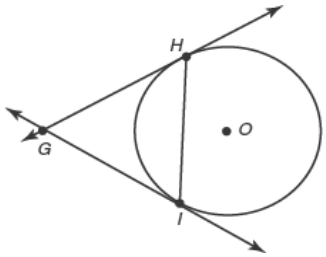
44. $\overleftrightarrow{XZ}$ and $\overleftrightarrow{ZW}$ are tangent to circle *O*.



45. $\overleftrightarrow{DE}$ and $\overleftrightarrow{FE}$ are tangent to circle *O*.

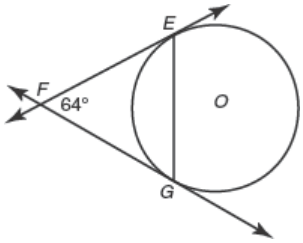


46. $\overleftrightarrow{GH}$ and $\overleftrightarrow{GI}$ are tangent to circle *O*.

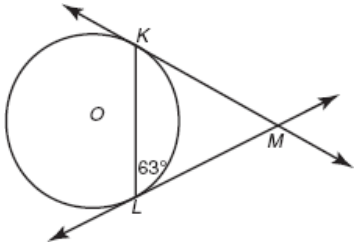


Calculate the measure of each angle. Explain your reasoning.

47. If $\overline{EF}$ and $\overline{GF}$ are tangent segments, what is the measure of $\angle EGF$?

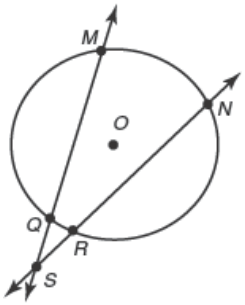


48. If $\overline{KM}$ and $\overline{LM}$ are tangent segments, what is the measure of $\angle KML$?

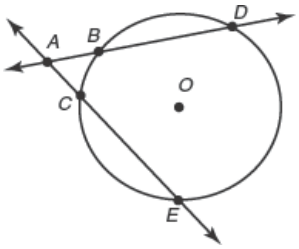


Use each diagram and the Secant Segment Theorem to write an equation involving the secant segments.

49.

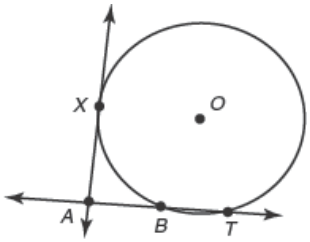


50.

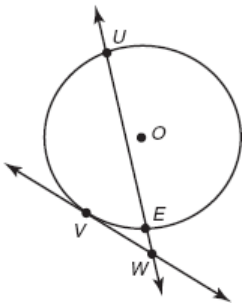


Use each diagram and the Secant Tangent Theorem to write an equation involving the secant and tangent segments.

51.

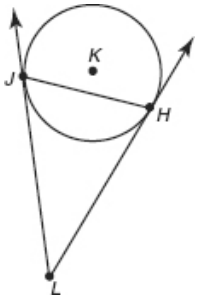


52.

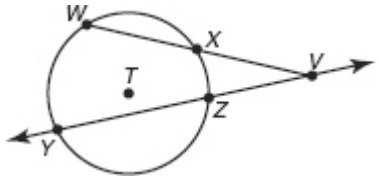


Tangents and Secants

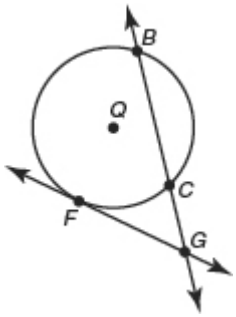
53. In the figure shown, rays *LJ* and *LH* are tangent to circle *K*, and the measure of angle *LJH* is $71°$. What is the measure of angle *JLH*? Explain your reasoning.



54. In the figure shown, $WV = 36$ inches, point *X* is a midpoint of segment *WV*, and $YV = 40$ inches. What is *YZ*? Explain your reasoning.



55. In the figure shown, line *FG* is tangent to circle *Q*, $BC = 10$ feet, and $CG = 4$ feet. What is *FG*? Explain your reasoning.



Study Chap 11 and your assignments!

The summary in the back of Chap 11 will be a good study guide!