

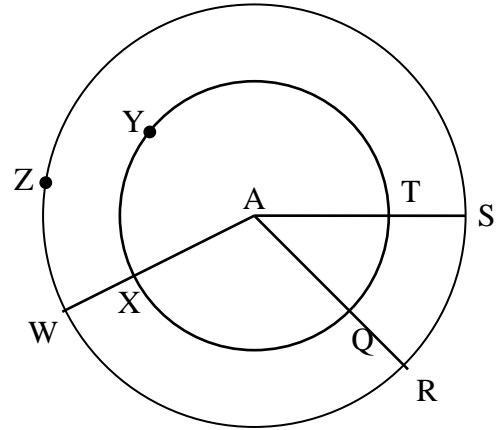
Ch. 10 Circle Review

I. Central Angles



1. Both circles are centered at A. $m\angle SAR = 32^\circ$, $m\angle RAW = 112^\circ$, $AR = 5$ in, $AQ = 3$ in.

- a. $m\widehat{SR} =$ _____
- b. $m\widehat{TYX} =$ _____
- c. $m\widehat{WR} =$ _____
- d. $m\widehat{XQ} =$ _____
- e. $m\widehat{TX} =$ _____
- f. $m\widehat{SW} =$ _____
- g. $m\widehat{SZW} =$ _____
- h. $m\widehat{TQ} =$ _____

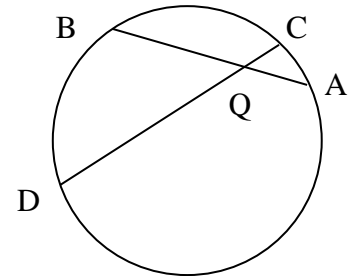
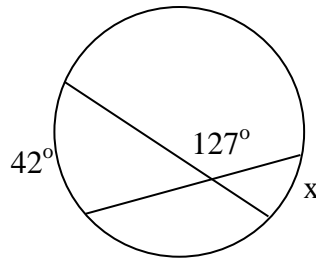
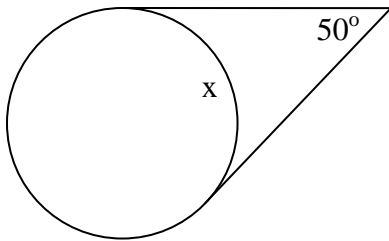


II. Interior and Exterior Angles



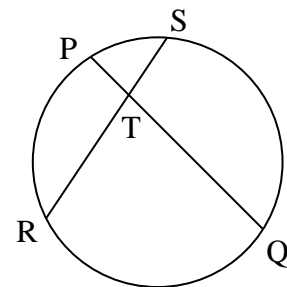
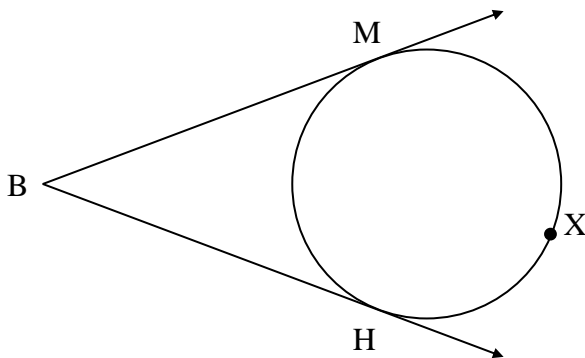
- 3. $x =$ _____
- 4. $x =$ _____

5. $m\angle BQD = 48^\circ$, $m\widehat{AC} = 16^\circ$, $m\widehat{BD} =$ _____



6. $m\widehat{MXH} = 285^\circ$. $m\angle HBM =$ _____

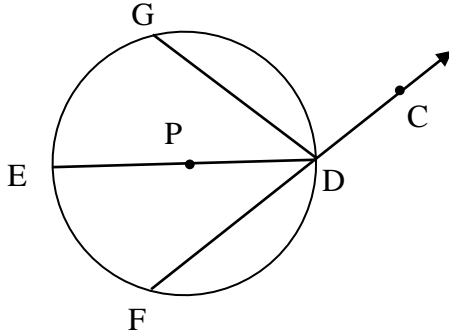
7. $m\widehat{QS} = 125$, $m\widehat{PRQ} = 220$, $m\widehat{RQS} = 215$
 $m\angle RTQ =$ _____



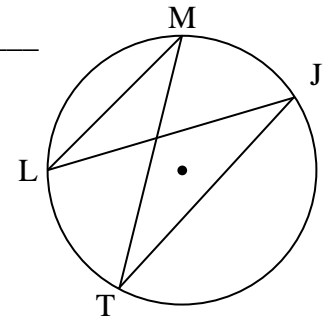
III. Inscribed Angles



8. In circle P, $m\widehat{DG} = 114^\circ$, $m\widehat{DF} = 122^\circ$.
 $m\angle CDG = \underline{\hspace{2cm}}$, $m\angle FDE = \underline{\hspace{2cm}}$



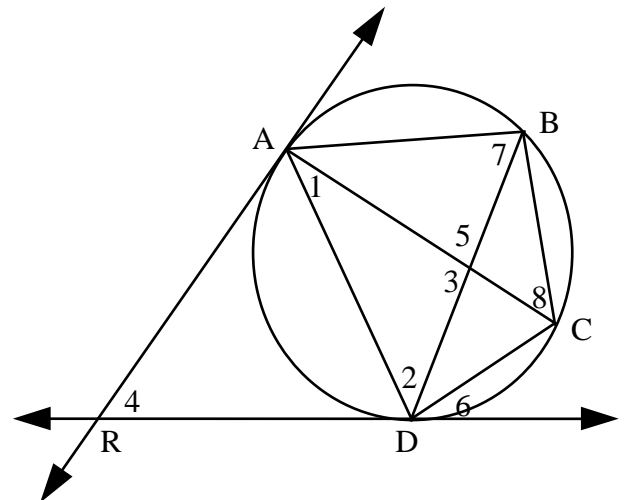
9. If $m\angle L = (3x + 7)^\circ$, $m\angle M = (4x + 3)^\circ$ and $m\angle T = (5x - 9)^\circ$, then $m\angle J = \underline{\hspace{2cm}}$



10. If quadrilateral ABCD is inscribed in circle P, $m\angle A = (7x + 12)^\circ$, $m\angle B = (3x + 58)^\circ$ and $m\angle C = (9x + 8)^\circ$, then $m\angle D = \underline{\hspace{2cm}}$

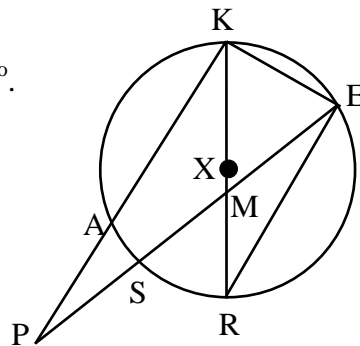
IV. Putting it all together

11. $m\widehat{AD} = 130^\circ$, $m\widehat{BC} = 80^\circ$, $m\widehat{AB} = 70^\circ$.
- | | |
|--|---|
| a. $m\widehat{ABC} = \underline{\hspace{2cm}}$ | f. $m\angle 4 = \underline{\hspace{2cm}}$ |
| b. $m\widehat{DC} = \underline{\hspace{2cm}}$ | g. $m\angle 5 = \underline{\hspace{2cm}}$ |
| c. $m\angle 1 = \underline{\hspace{2cm}}$ | h. $m\angle 6 = \underline{\hspace{2cm}}$ |
| d. $m\angle 2 = \underline{\hspace{2cm}}$ | i. $m\angle 7 = \underline{\hspace{2cm}}$ |
| e. $m\angle 3 = \underline{\hspace{2cm}}$ | j. $m\angle 8 = \underline{\hspace{2cm}}$ |



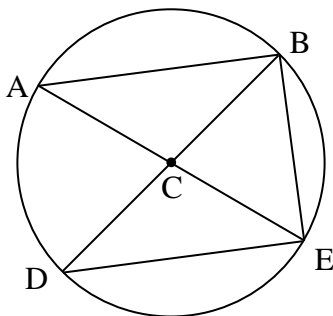
12. In circle X, $m\widehat{AK} = 108^\circ$, $m\angle KRE = 30^\circ$ and $m\angle KME = 52^\circ$.

- a. $m\widehat{RS} =$ _____ b. $m\widehat{AS} =$ _____
 c. $m\angle KPE =$ _____ d. $m\angle AKE =$ _____



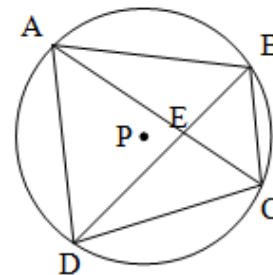
13. In circle C, $m\widehat{AB} = 116^\circ$. Find each indicated measure.

- a. $m\angle ABD =$ _____
 b. $m\angle BCE =$ _____
 c. $m\angle BAE =$ _____
 d. $m\angle ACD =$ _____



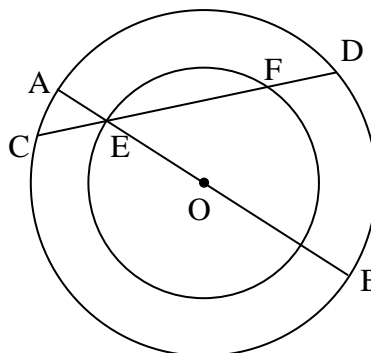
14. In circle P, $m\angle EDC = 27$, $m\angle BCE = 50$ and $m\angle ECD = 44$.

- a. $m\angle ADE =$ _____
 b. $m\angle DAB =$ _____
 c. $m\widehat{AC} =$ _____
 d. $m\widehat{DC} =$ _____
 e. $m\angle DEC =$ _____



15. Both circles are centered at O.

$m\widehat{EF} = 80$, $m\widehat{AC} = 20$. $m\widehat{BD} =$ _____



V. Segments

Tangent - Secant



Secant - Secant



Chord - Chord

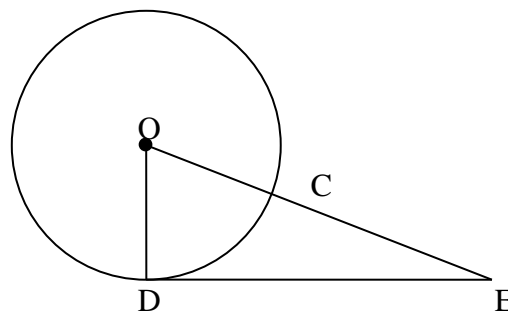


Writing Equations of circles



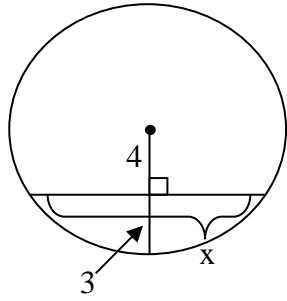
\overline{DE} is tangent to circle O.

16. _____ If $DE = 12$ and $DO = 9$, then $CE =$?_._
 17. _____ If $m\angle DOE = 60^\circ$ and $OD = 9$, then $CE =$?_._
 18. _____ If $DO = 5$ and $CE = 8$, then $DE =$?_._
 19. _____ If $DE = 36$ and $OE = 39$, then $DO =$?_._

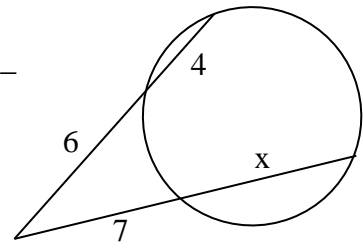


Solve for x.

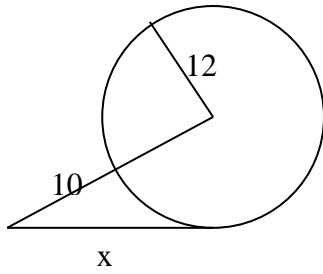
20. _____



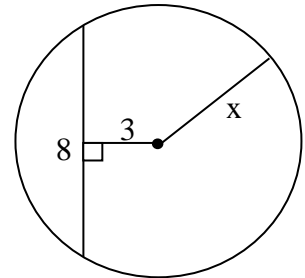
21. _____



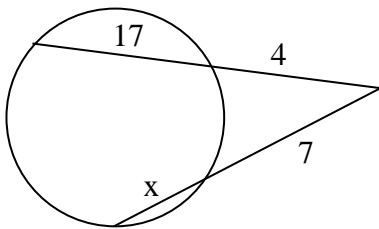
22. _____



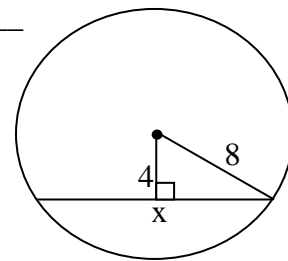
23. _____



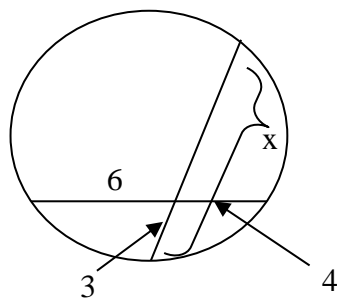
24. _____



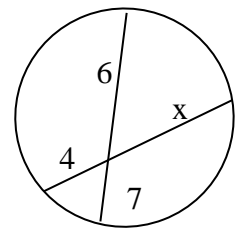
25. _____



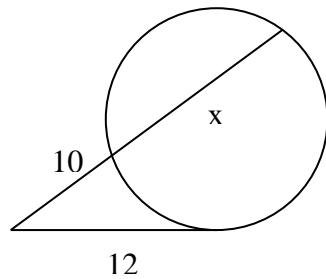
26. _____



27. _____



28. _____

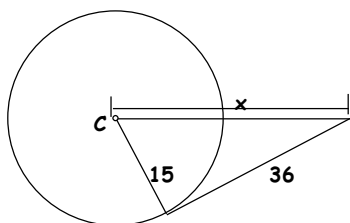


29. Suppose a chord of a circle is 26 meters long and it is 5 meters away from the center. Find the length of the radius. (Draw a diagram and round to nearest 10th.)

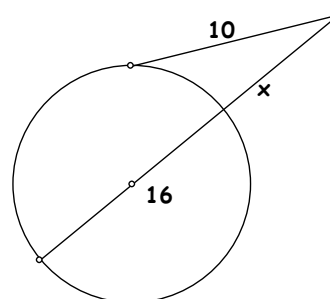
30. Suppose a diameter is 34'' long and a chord is 30'' long. Find the distance between the chord and the center

31. Write the equation of the circle with center (4,-2) and radius 7.

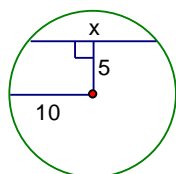
32. Find x:



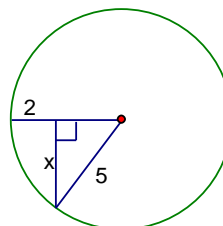
34. Find x.



33. Find x.



35. Find x.



36. Graph the circle with the given equation. **Label the center and the measure of the radius on the graph.**

$$x^2 + (y - 2)^2 = 9$$

For 37 - 41, draw one diagram.

_____37. If you have circle O with a chord \overline{AB} and the distance to the chord is \overline{OC} , what is the midpoint of \overline{AB} ?

_____38. If you extend OC to intersect the circle at K, name 2 congruent arcs.

_____39. If \overline{KD} is a diameter, then name 2 more congruent arcs.

_____40. Name the longest segment in the diagram.

_____41. If \overline{BX} is a diameter, name the point of intersection of \overline{BX} and \overline{KD} .

42. Find the measure of \widehat{CD} if $m\widehat{AE} = 120^\circ$

