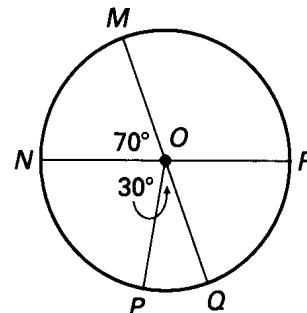


Geometry
Chapter 9 Review Part A

Name: _____

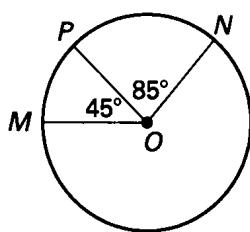
\overline{MQ} and \overline{NR} are diameters. Find the indicated measure.

1. $m\widehat{MN}$
2. $m\widehat{NQ}$
3. $m\widehat{NQR}$
4. $m\widehat{MRP}$
5. $m\widehat{QR}$
6. $m\widehat{MR}$
7. $m\widehat{QMR}$
8. $m\widehat{PQ}$
9. $m\widehat{PRN}$
10. $m\widehat{MQN}$

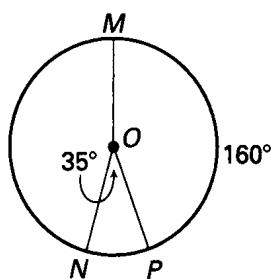


Find the measure of \widehat{MN} .

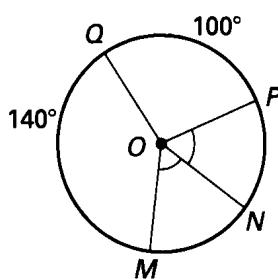
11.



12.

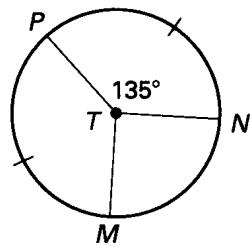


13.

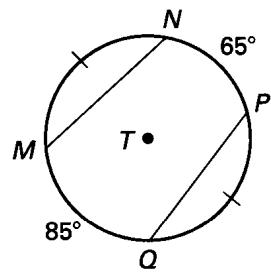


Find the measure of \widehat{MN} .

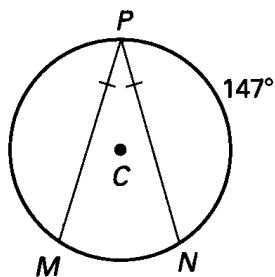
14.



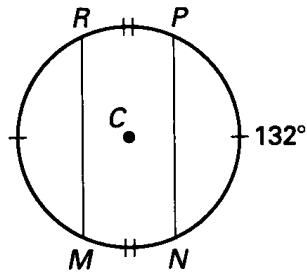
15.



16.

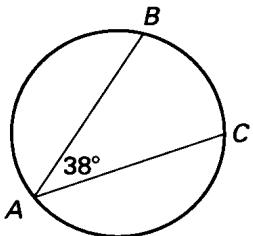


17.

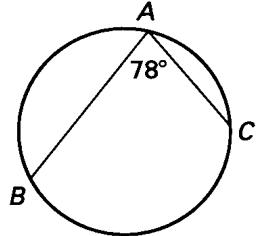


Find the measure of the indicated arc or angle.

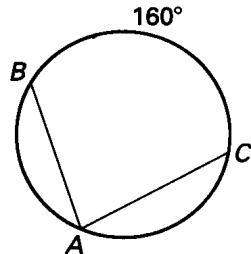
18. $m\widehat{BC} = \underline{\hspace{2cm}} ?$



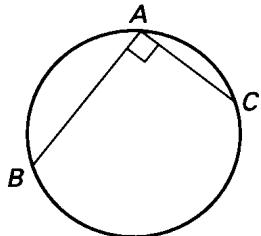
19. $m\widehat{BC} = \underline{\hspace{2cm}} ?$



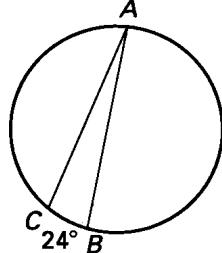
20. $m\angle BAC = \underline{\hspace{2cm}} ?$



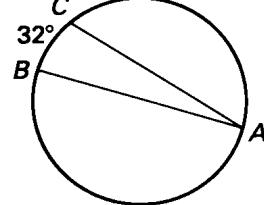
21. $m\widehat{BC} = \underline{\hspace{2cm}} ?$



22. $m\angle BAC = \underline{\hspace{2cm}} ?$



23. $m\angle BAC = \underline{\hspace{2cm}} ?$



Find the measure of the arc or angle in $\odot M$.

24. $m\angle QMP$

25. $m\angle NMO$

26. $m\angle PNO$

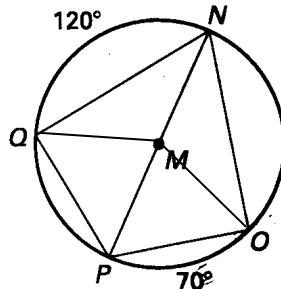
27. $m\angle QNP$

28. $m\widehat{QO}$

29. $m\widehat{NOP}$

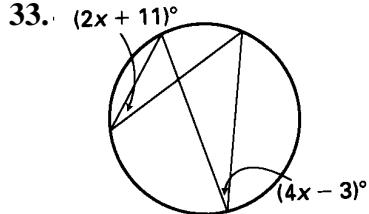
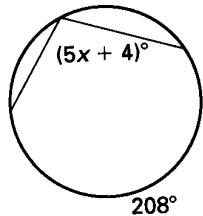
30. $m\widehat{PQ}$

31. $m\widehat{OQN}$

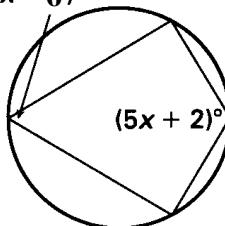


Find the value of x .

32.

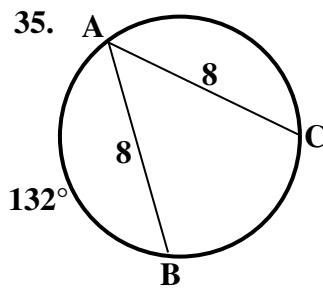


34. $(3x - 6)^\circ$

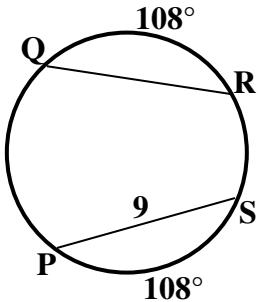


Find the indicated measure.

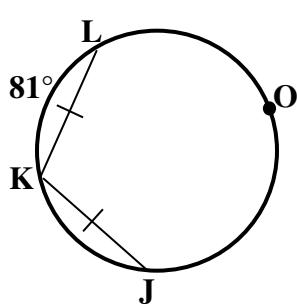
35.



36.



37.

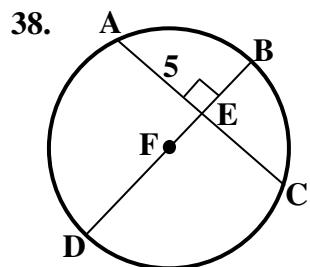


$m\widehat{AC} = \underline{\hspace{2cm}}$

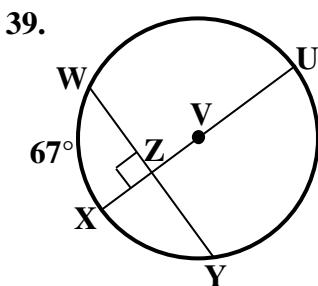
$QR = \underline{\hspace{2cm}}$

$m\widehat{LOJ} = \underline{\hspace{2cm}}$

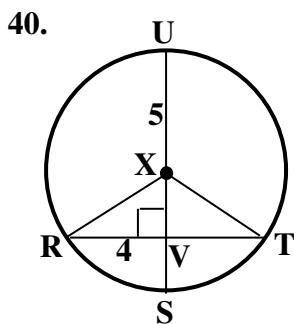
Find the indicated measure.



$$EC = \underline{\hspace{2cm}}$$

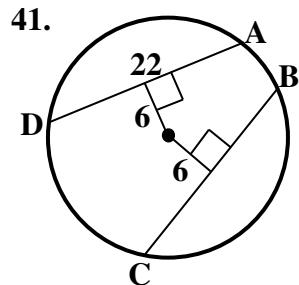


$$m\widehat{WXY} = \underline{\hspace{2cm}}$$

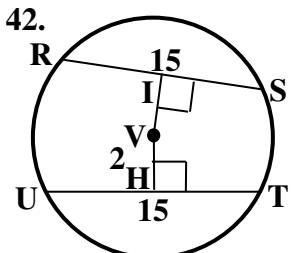


$$XV = \underline{\hspace{2cm}}$$

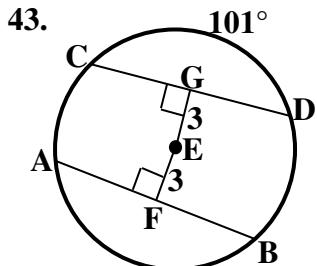
Find the indicated measure.



$$CB = \underline{\hspace{2cm}}$$

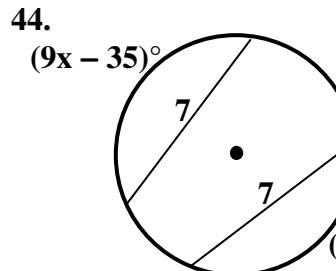


$$VI = \underline{\hspace{2cm}}$$

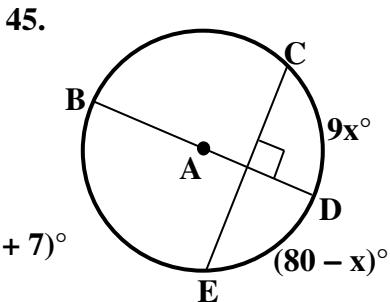


$$m\widehat{AB} = \underline{\hspace{2cm}}$$

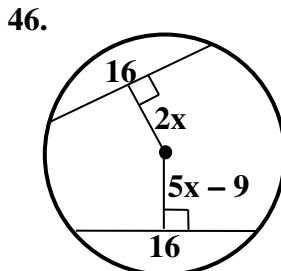
Find the value of the variable.



$$x = \underline{\hspace{2cm}}$$



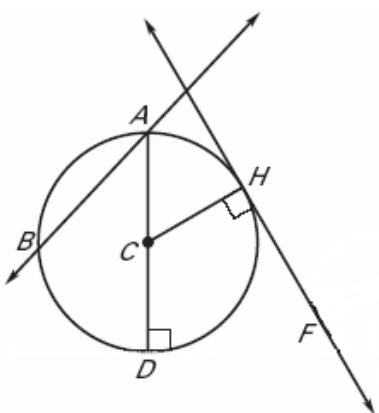
$$x = \underline{\hspace{2cm}}$$



$$x = \underline{\hspace{2cm}}$$

Tell whether the line or segment is best described as a chord, secant, tangent, diameter, or radius of $\odot C$.

47. \overline{CA}



48. \overrightarrow{AB}

49. \overline{AD}

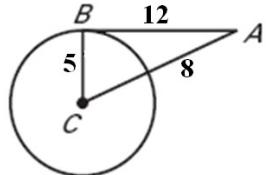
50. \overline{HF}

51. \overline{AB}

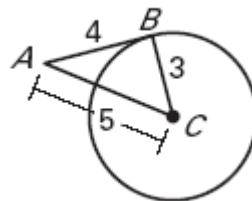
52. \overline{CH}

In the diagram, \overline{BC} is a radius of $\odot C$. Determine whether \overline{AB} is tangent to $\odot C$.

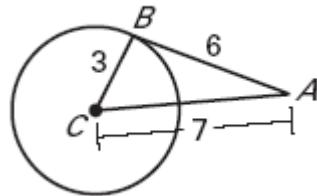
53.



54.

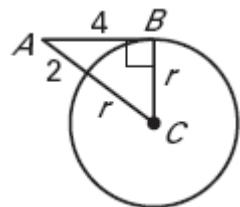


55.

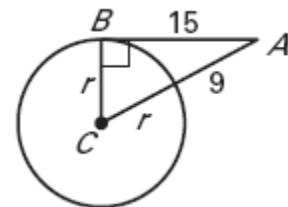


Find the value of the variable.

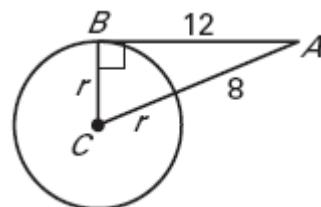
56.



57.

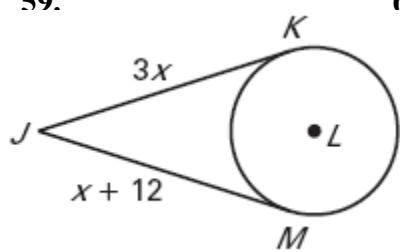


58.

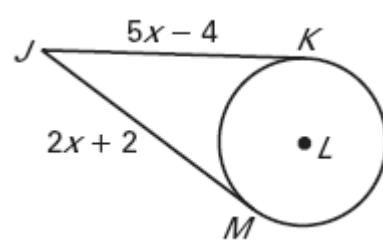


Find the value of the variable. K, M, B, and D are points of tangency.

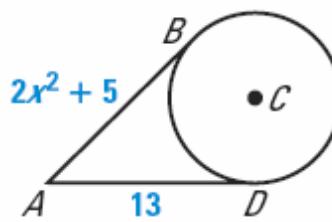
59.



60.

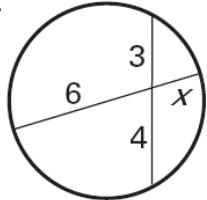


61.

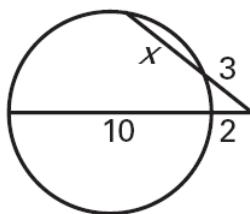


Find the value of the variable.

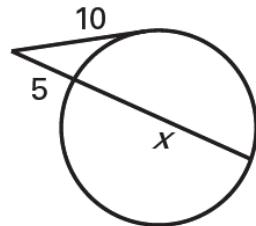
62.



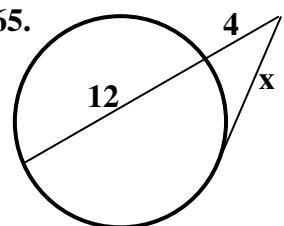
63.



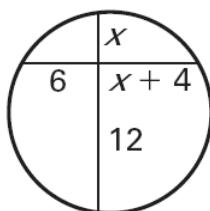
64.



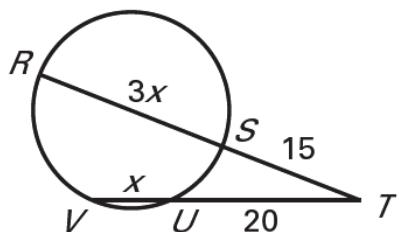
65.



66.

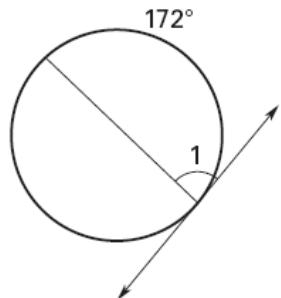


67.

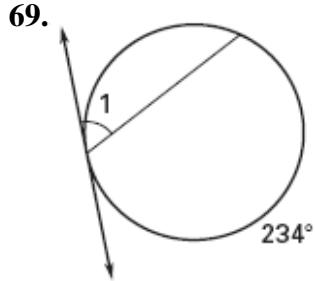


Find $m\angle l$ or the value of x .

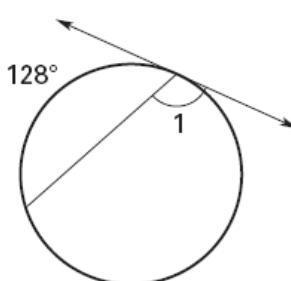
68.



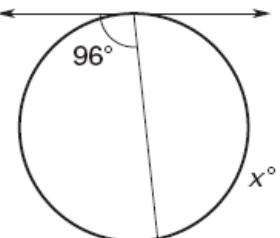
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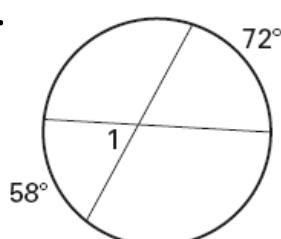
70.



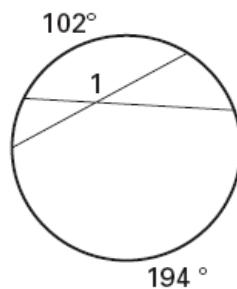
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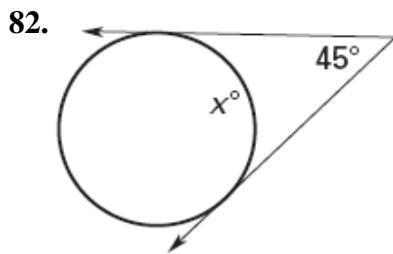
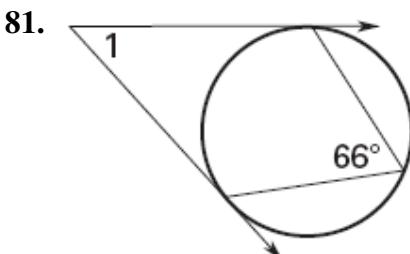
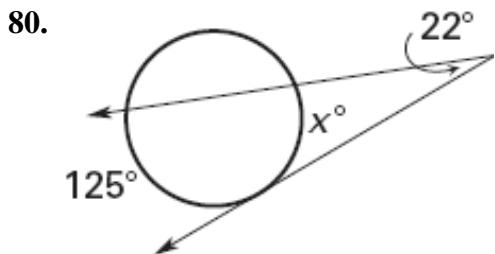
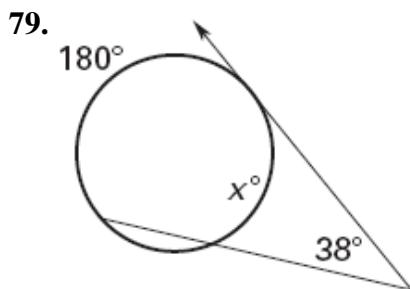
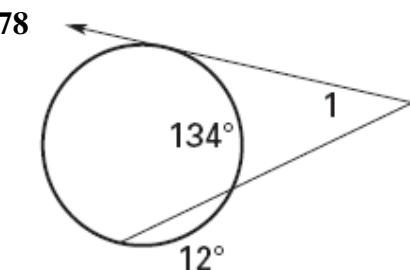
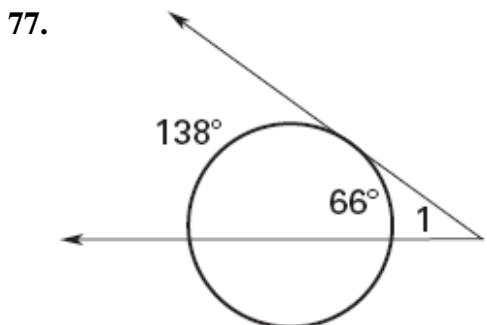
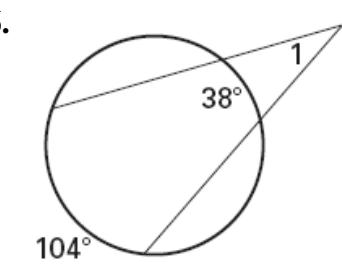
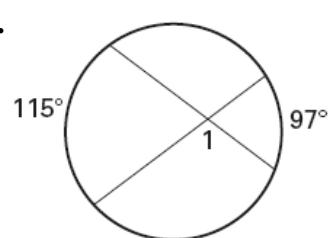
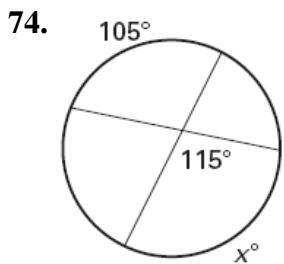


72.



73.





Match the equation of a circle with its description.

83. $x^2 + y^2 = 4$

A. center $(-1, 4)$, radius 4

84. $x^2 + y^2 = 9$

B. center $(-2, -3)$, radius 3

85. $(x + 1)^2 + (y - 4)^2 = 16$

C. center $(0, 0)$, radius 2

86. $(x + 2)^2 + (y + 3)^2 = 9$

D. center $(2, 5)$, radius 3

87. $(x + 3)^2 + (y - 5)^2 = 16$

E. center $(-3, 5)$, radius 4

88. $(x - 2)^2 + (y - 5)^2 = 9$

F. center $(0, 0)$, radius 3

Write the standard equation of a circle using the given information.

89. center (0,-4), radius 2

90. center (-3, 2), radius 5

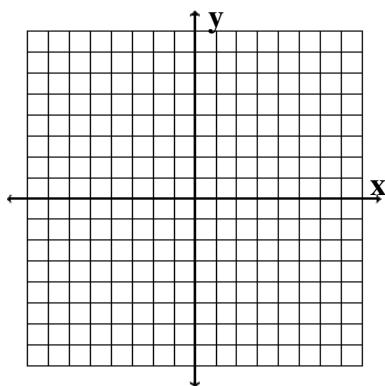
91. center (-7, 8), point on circle (-2, -4)

92. center (-3,-4) point on circle (0,2)

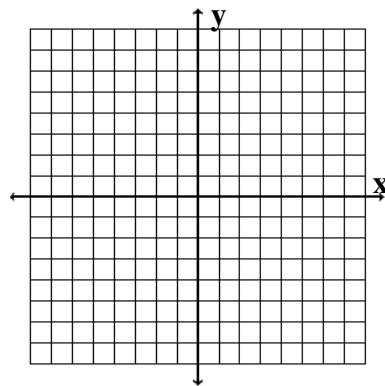
Graph the equation of the circle.

93. $x^2 + y^2 = 25$

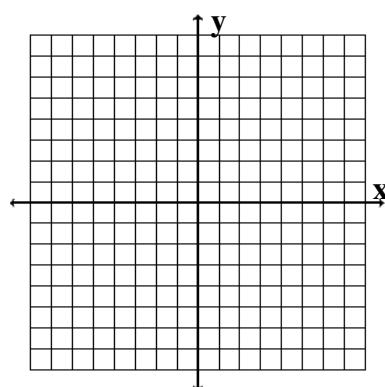
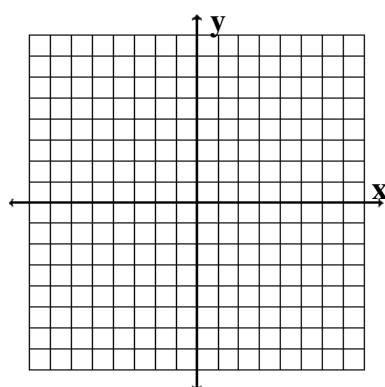
94. $x^2 + (y-4)^2 = 9$



95. $(x+1)^2 + (y-1)^2 = 4$

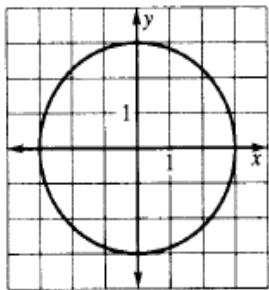


96. $(x-4)^2 + (y+2)^2 = 16$

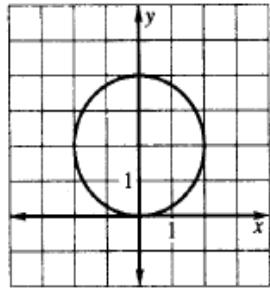


Give the coordinates of the center, the radius, and the equation of the circle.

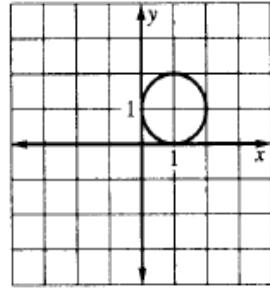
97.



98.



99.



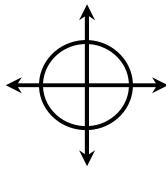
100. The point $(-3, 2)$ lies on a circle whose equation is $(x + 3)^2 + (y + 1)^2 = r^2$.

Determine the radius of the circle.

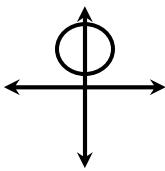
Answer Key:

- 1) 70° 2) 110° 3) 180° 4) 210° 5) 70° 6) 110° 7) 290° 8) 30° 9) 280° 10) 290° 11) 130°
 12) 165° 13) 60° 14) 90° 15) 105° 16) 66° 17) 48° 18) 76° 19) 156° 20) 80° 21) 180°
 22) 12° 23) 16° 24) 60° 25) 110° 26) 35° 27) 30° 28) 130° 29) 180° 30) 60° 31) 250°
 32) $x = 20$ 33) $x = 7$ 34) $x = 23$ 35) 132° 36) 9 37) 198° 38) 5 39) 134° 40) 3
 41) 22 42) 2 43) 101° 44) 6 45) 8 46) 3 47) radius 48) secant 49) diameter
 50) tangent 51) chord 52) radius 53) Yes 54) Yes 55) No 56) $r = 3$ 57) $r = 8$ 58) $r = 5$
 59) $x = 6$ 60) $x = 2$ 61) $x = \pm 2$ 62) $x = 2$ 63) $x = 5$ 64) $x = 15$ 65) $x = 8$ 66) $x = 4$
 67) $x = 7$ 68) 86° 69) 63° 70) 116° 71) 168° 72) 65° 73) 148° 74) 125°
 75) 74° 76) 33° 77) 36° 78) 40° 79) 104° 80) 81° 81) 48° 82) 135°
 83) C 84) F 85) A 86) B 87) E 88) D 89) $x^2 + (y + 4)^2 = 4$ 90) $(x + 3)^2 + (y - 2)^2 = 25$
 91) $(x + 7)^2 + (y - 8)^2 = 169$ 92) $(x + 3)^2 + (y + 4)^2 = 45$

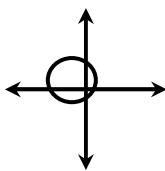
93)



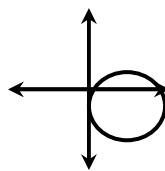
94)



95)



96)



97) $(0,0)$, $r = 3$, $x^2 + y^2 = 9$

98) $(0,2)$, $r = 2$, $x^2 + (y - 2)^2 = 4$

99) $(1,1)$, $r = 1$, $(x - 1)^2 + (y - 1)^2 = 1$

100) $r = 3$