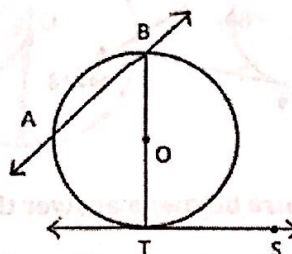


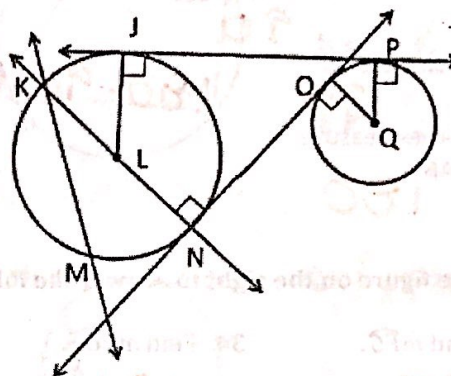
Using the figure on the right, name each of the following. (Use proper notation)

- |   |   |
|---|---|
| 1. Radius<br>$\overline{OB}, \overline{OT}$ | 2. Diameter<br>$\overline{BT}$          |
| 3. Secant<br>$\overleftrightarrow{AB}$      | 4. Tangent<br>$\overleftrightarrow{TS}$ |
| 5. Chord<br>$\overline{AB}, \overline{BT}$  | 6. Point of tangency<br>$T$             |



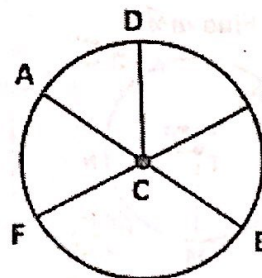
Match the notation with the term that best describes it.

- |                              |                                 |
|------------------------------|---------------------------------|
| 7. $O$ <b>E</b>              | <del>A. Center</del>            |
| 8. $\overline{NO}$ <b>F</b>  | <del>B. Chord</del>             |
| 9. $\overline{QP}$ <b>D</b>  | <del>C. Diameter</del>          |
| 10. $\overline{MK}$ <b>B</b> | <del>D. Radius</del>            |
| 11. $L$ <b>A</b>             | <del>E. Point of Tangency</del> |
| 12. $\overline{KN}$ <b>C</b> | <del>F. Tangent</del>           |
| 13. $\overline{MK}$ <b>H</b> | <del>G. Tangent</del>           |
| 14. $\overline{JP}$ <b>G</b> | <del>H. Secant</del>            |



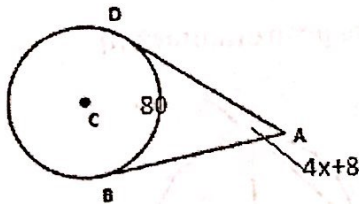
Determine whether the arc is a minor arc, a major arc, or a semicircle of Circle C. (Assume the picture is drawn to scale)

- |                             |                              |
|-----------------------------|------------------------------|
| 25. $\widehat{AE}$<br>minor | 26. $\widehat{ADB}$<br>Semi  |
| 27. $\widehat{FDE}$<br>Semi | 28. $\widehat{DFB}$<br>major |
| 29. $\widehat{BE}$<br>minor | 30. $\widehat{FA}$<br>minor  |
| 31. $\widehat{BDA}$<br>Semi | 32. $\widehat{FB}$<br>minor  |



$\overline{AB}$  and  $\overline{AD}$  are tangent to Circle C. Solve for x.

20.



$$\frac{280 - 80}{2} = 4x + 8$$

$$4x + 8 = 100$$

$$\boxed{x = 23}$$

Use the figure below to answer the following questions.

22. If  $m\angle AOB = 60$ , find  $m\widehat{AB}$ .

60

23. If  $m\angle BOC = 90$ , find  $m\widehat{BC}$ .

90

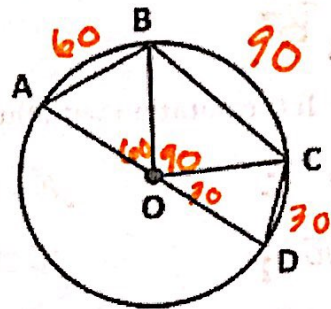
24. Find Angle COD

30

$$180 - 90 - 60$$

25. Find the measure of arc DAB

180



Use the figure on the right to answer the following questions.

33. Find  $m\widehat{FG}$ .

75

34. Find  $m\widehat{EGF}$ .

180

35. Find  $m\widehat{GE}$ .

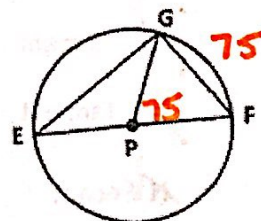
$$180 - 75$$

105

36. Find  $m\widehat{EFG}$ .

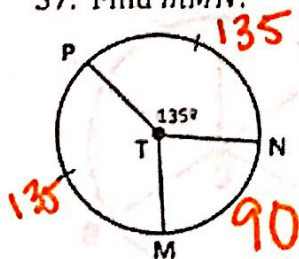
$$180 + 75$$

255

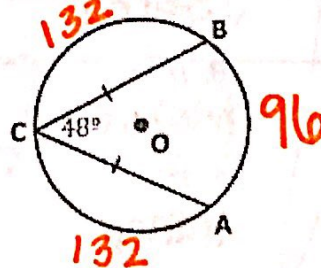


$m\angle FPG = 75^\circ$

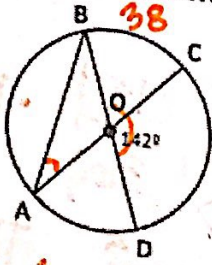
37. Find  $m\widehat{MN}$ .



40. Find  $m\widehat{BC}$ .

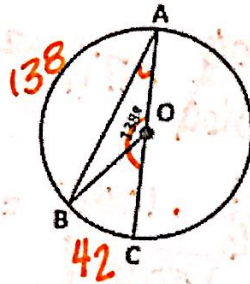


41. Find  $m\angle BAC$



$$\frac{38}{2} = 19$$

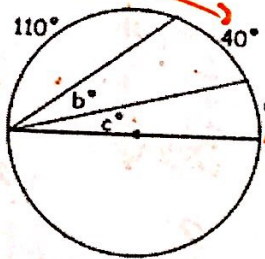
42. Find  $m\angle BAC$



$$\frac{42}{2} = 21$$

$$\frac{40}{2} = 20$$

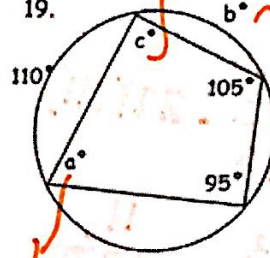
$$180 - 110 - 40 = 30$$



$$\begin{aligned} a &= \underline{30} \\ b &= \underline{20} \\ c &= \underline{15} \end{aligned}$$

$$30/2 = 15$$

19.

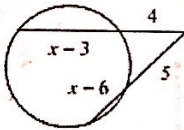


$$180 - 105 = 75$$

$$180 - 95 = 85$$

$$\begin{aligned} a &= \underline{75} \\ b &= \underline{80} \\ c &= \underline{85} \end{aligned}$$

3)



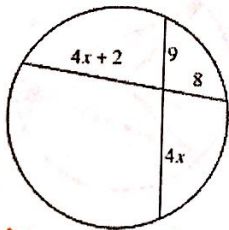
$$4(x-3+4) = 5(x-6+5)$$

$$4(x+1) = 5(x-1)$$

$$4x+4 = 5x-5$$

$$\boxed{9=x}$$

5)



$$9(4x) = 8(4x+2)$$

$$36x = 32x + 16$$

$$4x = 16$$

$$\boxed{x=4}$$

4)



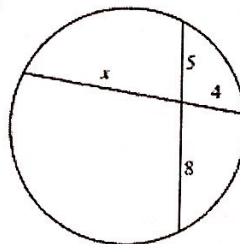
$$4(x+4) = 6^2$$

$$4x+16 = 36$$

$$4x = 20$$

$$\boxed{x=5}$$

6)

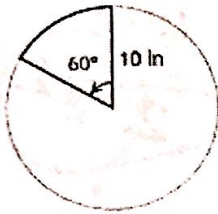


$$4x = 40$$

$$\boxed{x=10}$$

Find the area of each sector. Round your answers to the nearest tenth.

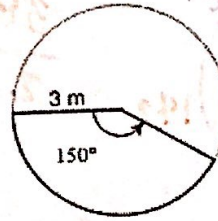
13)



$$\frac{60}{360} \cdot \pi(10)^2$$

$$\frac{1}{6} \cdot 100\pi = \boxed{\frac{50\pi}{3}}$$

14)

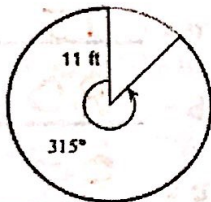


$$\frac{150}{360} \cdot \pi(3)^2$$

$$\frac{5}{12} \cdot \pi(9) = \boxed{\frac{15\pi}{4}}$$

Find the length of each arc. Round your answers to the nearest tenth.

1)

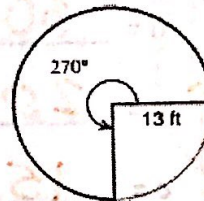


$$\frac{315}{360} \cdot 2\pi(11)$$

$$\frac{63}{72} \cdot 22\pi$$

$$= \frac{693\pi}{36} = \frac{231\pi}{12} = \boxed{\frac{77\pi}{4}}$$

2)



$$\frac{270}{360} \cdot 2\pi(13)$$

$$\frac{3}{4} \cdot 26\pi = \boxed{\frac{39\pi}{2}}$$

Find the following measurements using the figure below.

43. Find  $m\angle ABC$

90

44. Find  $m\angle CED$

43

45. Find  $m\angle BDE$

47.5

46. Find  $m\angle CBD$

43

\* 47. Find  $m\angle ABD$

~~47~~ 47

48. Find  $m\angle BCE$

47.5

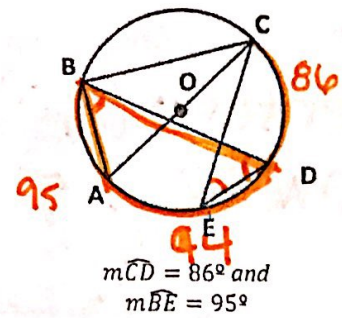
49. Find  $m\widehat{AD}$

180 - 86

~~94~~ 94

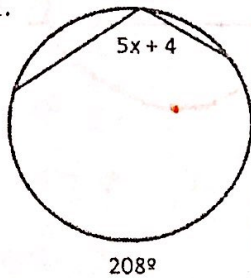
50. Find  $m\widehat{ABC}$

180



Find the value of x.

51.



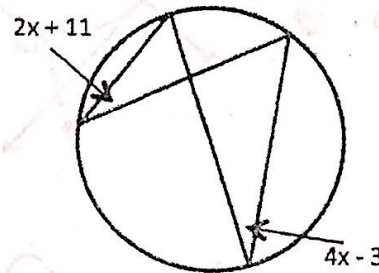
$$2(5x+4) = 208$$

$$5x+4 = 104$$

$$5x = 100$$

$$\boxed{x = 20}$$

52.

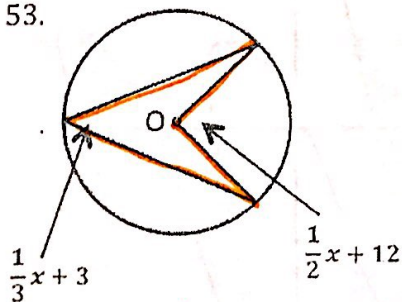


$$2x+11 = 4x-3$$

$$14 = 2x$$

$$\boxed{x = 7}$$

53.



$$2\left(\frac{1}{3}x+3\right) = \frac{1}{2}x+12$$

$$6x \left( \frac{2}{3}x+6 = \frac{1}{2}x+12 \right)$$

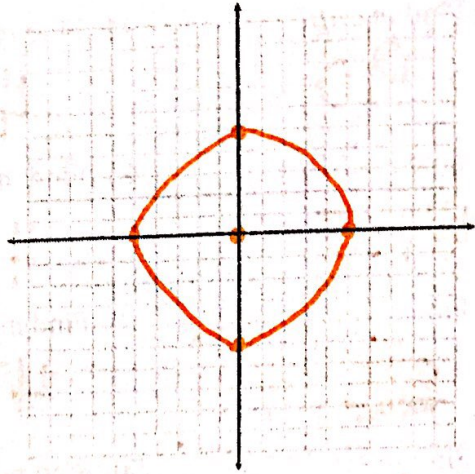
$$4x+36 = 3x+72$$

$$\boxed{x = 36}$$

Find the center and radius of the circle, and then graph the equation.

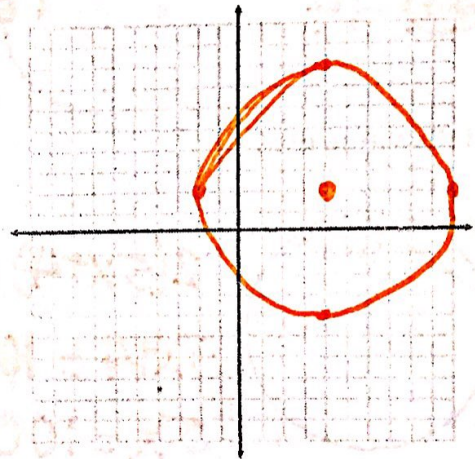
16.  $x^2 + y^2 = 25$

Center:  $(0, 0)$   
radius: 5



17.  $(x - 4)^2 + (y - 2)^2 = 36$

Center:  $(4, 2)$   
radius: 6



18.  $x^2 + y^2 - 4x + 10y + 20 = 0$

\* Convert to standard form. \*

