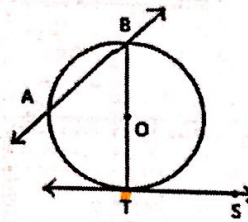


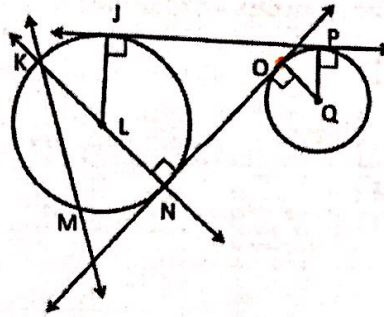
Using the figure on the right, name each of the following. (Use proper notation)

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



Match the notation with the term that best describes it.

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



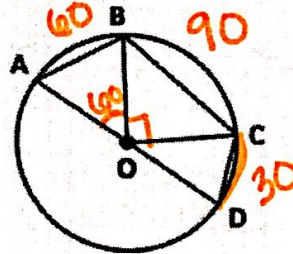
Use the figure below to answer the following questions.

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

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

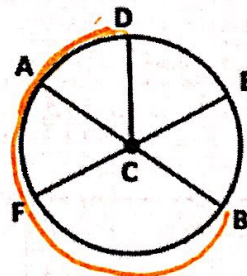
24. Name the inscribed polygon in the figure.

Trapezoid



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}
minor | 26. \widehat{ADB}
Semi |
| 27. \widehat{FDE}
Semi | 28. \widehat{DFB}
major |
| 29. \widehat{BE}
minor | 30. \widehat{FA}
minor |
| 31. \widehat{BDA}
Semi | 32. \widehat{FB}
minor |



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

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

75

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

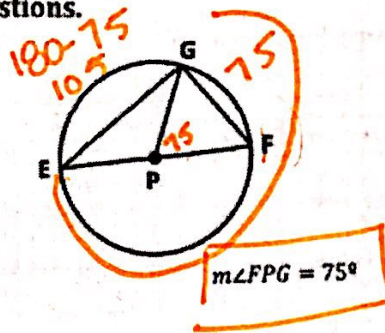
180

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

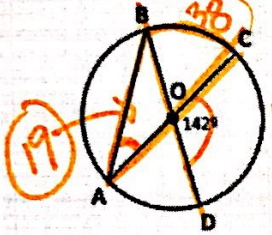
105

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

$180 + 75 = 255$



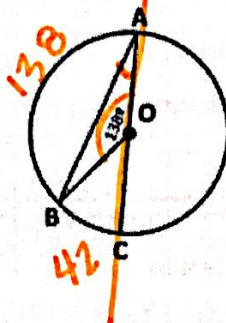
41. Find $m\angle BAC$



$180 - 142 = 38$

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

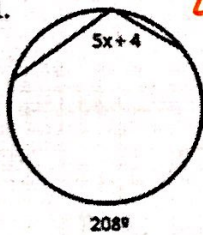
42. Find $m\angle BAC$



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

Find the value of x.

51.



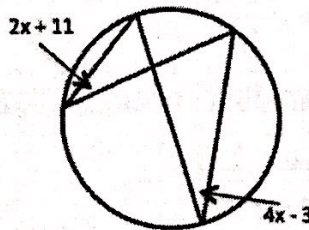
$2(5x+4) = 208$

$10x+8 = 208$

$10x = 200$

$x = 20$

52.



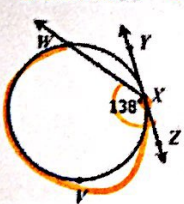
$2x+11 = 4x-3$

$11 = 2x-3$

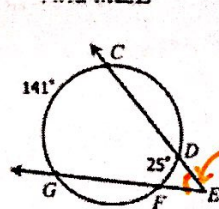
$14 = 2x$

$7 = x$

7. Find Arc \widehat{WV}



$138(2) = 276$



$\frac{141-25}{2} = 58$

9. Find the value of x.



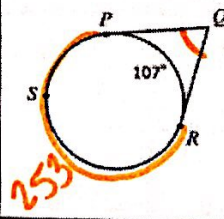
$\frac{219-89}{2} = 4x+1$

$65 = 4x+1$

$64 = 4x$

$16 = x$

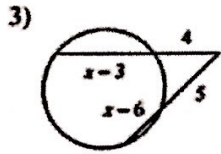
10. Find $m\angle Q$



$\frac{253-107}{2} = 73$

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

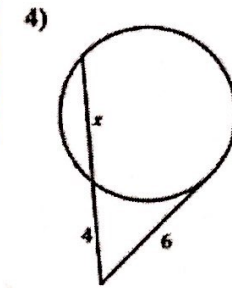
$$4(x+1) = 5(x-1)$$



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

$$4 = x-5$$

$$\boxed{9 = x}$$

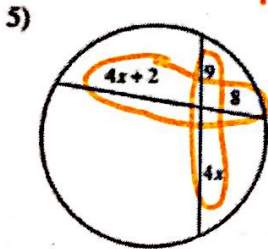


$$4(x+4) = 6^2$$

$$4x+16 = 36$$

$$4x = 20$$

$$\boxed{x = 5}$$

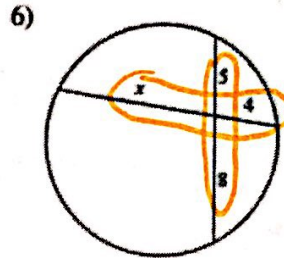


$$9(4x) = 8(4x+2)$$

$$36x = 32x + 16$$

$$4x = 16$$

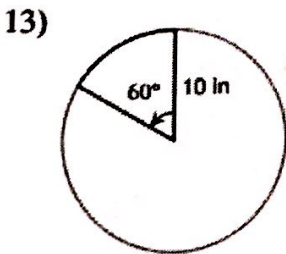
$$\boxed{x = 4}$$



$$40 = 4x$$

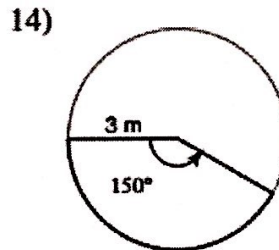
$$\boxed{10 = x}$$

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



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

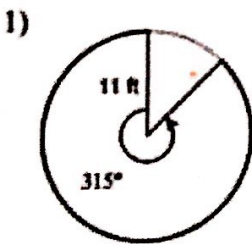
$$= \boxed{52.36}$$



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

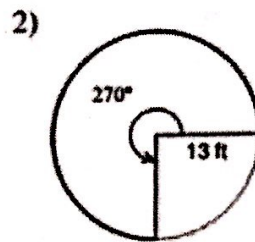
$$= \boxed{11.78}$$

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



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

$$= \boxed{60.48}$$



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

$$= \boxed{61.26}$$

Find the center and radius of each circle.

1. $(x - 4)^2 + (y - 3)^2 = 16$

center : (4, 3)
radius : 4

2. $(x - 5)^2 + (y - 10)^2 = 54$

C : (5, 10)
r : $\sqrt{54}$

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

C : (0, 0)
r : 2

4. $(x + 2)^2 + (y - 3)^2 = 36$

C : (-2, 3)
r : 6

5. $(x + 5)^2 + (y + 3)^2 = 1$

C : (-5, -3)
r : 1

6. $(x - \frac{1}{2})^2 + (y + \frac{3}{4})^2 = \frac{1}{4}$

C : ($\frac{1}{2}$, $-\frac{3}{4}$)
r : $\frac{1}{2}$

Given the center and radius, write the equation of each circle. (Leave in standard form.)

7. Center = (0, 3), Radius = 4

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

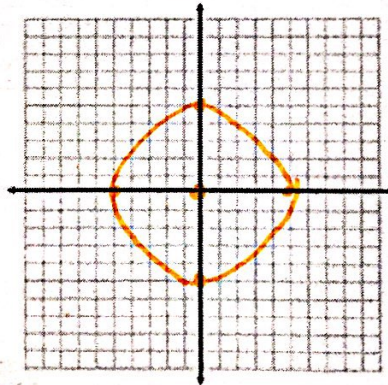
8. Center = (-2, 5), Radius = 9

$(x + 2)^2 + (y - 5)^2 = 81$

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

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

C : (0, 0)
r : 5



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

C : (4, 2)
r : 6

