

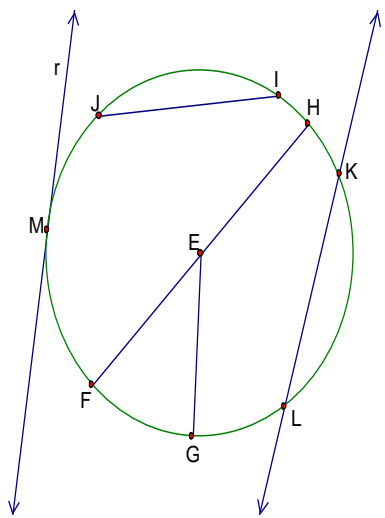
1. Define *secant*:

2. Define *inscribed angle*:

3. Define *major arc*:

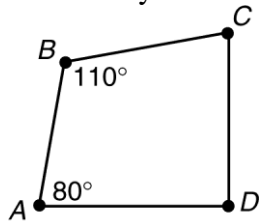
4. Define *point of tangency*:

5. Complete the following theorem with the correct word or words: **If two inscribed angles of a circle intercept the same arc, then the angles are _____.**
6. Complete the following theorem with the correct word or words: **If a right triangle is inscribed in a circle, then the hypotenuse is the _____ of the circle.**
7. Complete the following theorem with the correct word or words: **A quadrilateral can be inscribed in a circle if and only if its opposite angles are _____.**
8. Complete the following theorem with the correct word or words: **If a tangent and a chord intersect at a point on the circle, then the measure of each angle formed is _____ the measure of its intercepted arc.**
9. Identify all the parts of Circle E:



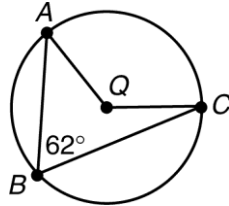
- | | |
|--------------------|-------|
| 9. | |
| a. \overline{IJ} | _____ |
| b. \overline{FH} | _____ |
| c. \overline{EG} | _____ |
| d. \overline{KL} | _____ |
| e. line r | _____ |
| f. point M | _____ |
| g. point E | _____ |

10. What must be the measures of $\angle C$ and $\angle D$ so that a circle may be circumscribed about $ABCD$ below?

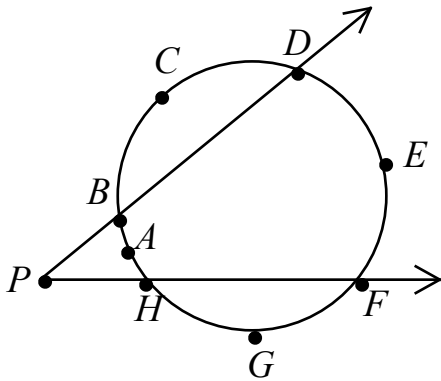


Not drawn to scale

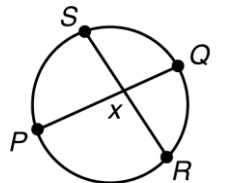
11. Find $m\widehat{AC}$.



12. In the figure shown (not drawn to scale), $m\widehat{BCD} = 106^\circ$, $m\widehat{DEF} = 96^\circ$, $m\widehat{FGH} = 138^\circ$, and $m\widehat{HAB} = 20^\circ$. Find $m\angle FPD$.



13. Given: $m\widehat{SQ} = 106^\circ$, $m\widehat{PR} = 120^\circ$
Find $m\angle x$.



Not drawn to scale

10. $m\angle C =$ _____

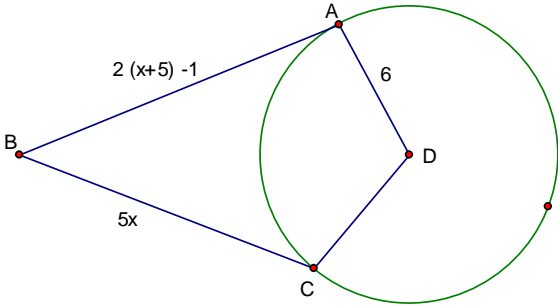
$m\angle D =$ _____

11. $m\widehat{AC}$ _____

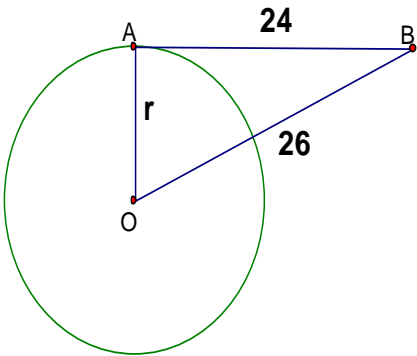
12. $m\angle FPD =$ _____

13. $m\angle x =$ _____

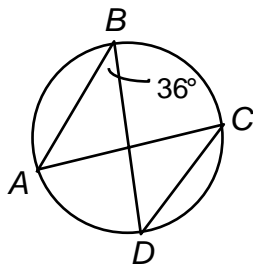
14. In the figure below, \overline{AB} is tangent to $\odot D$ at A
 And \overline{BC} is tangent to $\odot D$ at C . What is the value of x ?



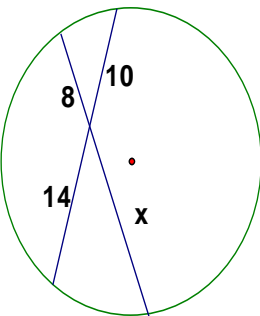
15. You are standing at point B . Point B is 26 feet from the center of the circular water storage tank and 24 feet from point A . \overline{AB} is tangent to $\odot O$ at A . Find the radius of the tank.



16. Find $m\widehat{ABD}$ and $m\angle C$.



17. Find the value of x .



18. Find the equation of the circle with center $(5, -2)$ and radius of 2.

14. _____

15. _____

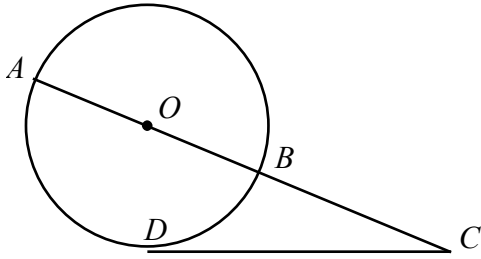
16. $m\widehat{ABD} =$ _____

$m\angle C =$ _____

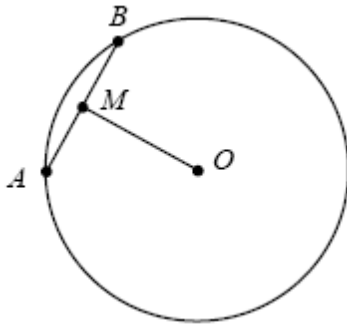
17. _____

18. _____

19. Find the diameter of Circle O. $BC=8$ and $DC=20$



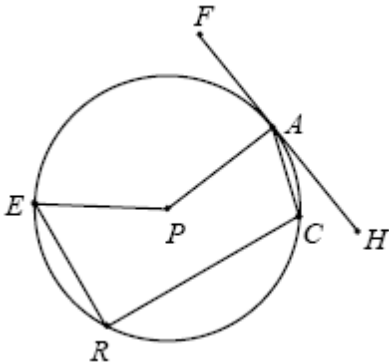
(PE) 20. In the diagram below, M is the midpoint of chord AB on circle O , $AB = 16$ centimeters, and $OM = 15$ centimeters.



What is the radius of circle O ?

- A. 15 cm
- B. 17 cm
- C. 23 cm
- D. 34 cm

(PE) 21. Use circle P below:



Which angle represents a central angle?

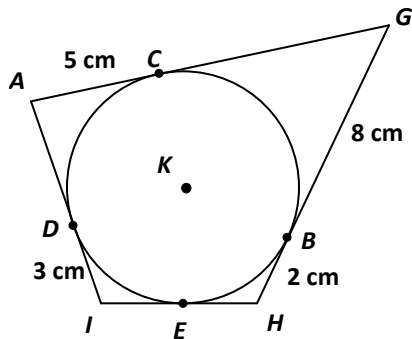
- A. $\angle FAP$
- B. $\angle ERC$
- C. $\angle PAC$
- D. $\angle EPA$

19. _____

20. _____

21. _____

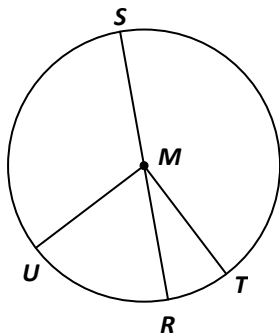
(SE) 22. All of the segments shown in the figure below are tangents to $\odot K$.



Given the measures in the figure above, what is the perimeter of quadrilateral $AGHI$?

- A. 18 cm
- B. 26 cm
- C. 31 cm
- D. 36 cm

(SE) 23. \overline{SR} is the diameter of $\odot M$, $m\angle RMT = x + 15^\circ$, $m\angle UMR = 3x + 15^\circ$, and $m\angle SMT = 4x - 10^\circ$.



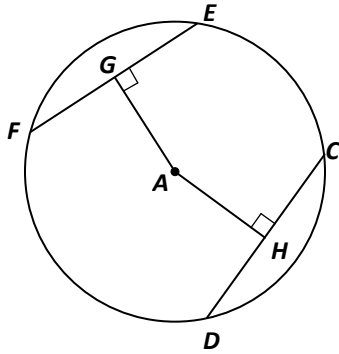
What is the value of x ?

- A. 35
- B. 25
- C. 20
- D. 5

22. _____

23. _____

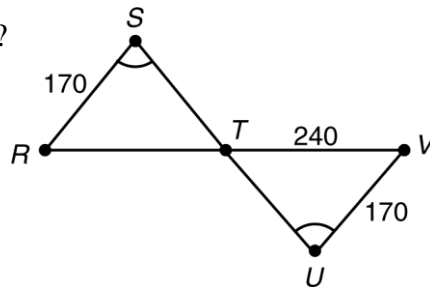
(SE) 24. In $\odot A$, $\overline{CD} \cong \overline{FE}$, $CH = 4x + 2$, and $FE = 6x + 10$.



What is the value of x ?

- A. -4
- B. -3
- C. 3
- D. 4

(LTMR) 25. Which postulate or theorem can be used to determine the measure of \overline{RT} ?



(LTMR) 26. Draw and label a $30^\circ, 60^\circ, 90^\circ$ triangle and label the sides with the rule we use to find the value of each side.

(LTMR) 27. Write an equation for the line passing through the point $(-5, -2)$ that has a slope of 3 .

24. _____

25. _____

26. Draw and label the triangle in the space below:

27. _____