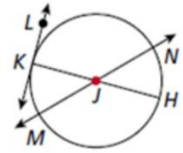


Advanced Geometry Chapter 10 Review – Circles

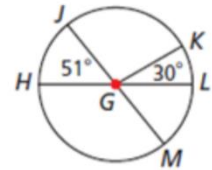
Name: _____

1. Use the figure to name each of the following:
 - a. Tangent
 - b. Secant
 - c. Chord

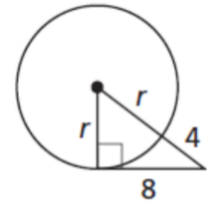


2. G is the center of the circle. Find each of the following and determine if it represents a major arc, minor arc, or semicircle:

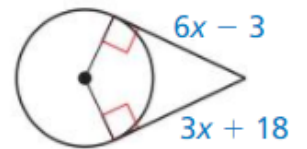
- a. $m\widehat{KM}$
- b. $m\widehat{HMK}$
- c. $m\widehat{JK}$
- d. $m\widehat{MJK}$
- e. $m\widehat{HML}$



3. Find the value of r.

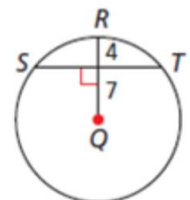


4. Using the figure to the right:
 - a. Solve for x.

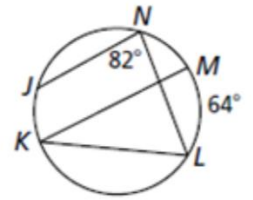


- b. If the radius of the circle is 15 units, what is the distance from the center of the circle to the external point where the two tangents meet?

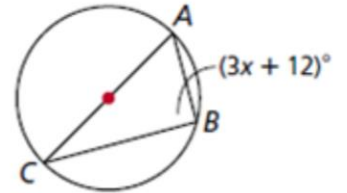
5. Q is the center of the circle. Find the length of chord ST. Then, find the area of Triangle SQT.



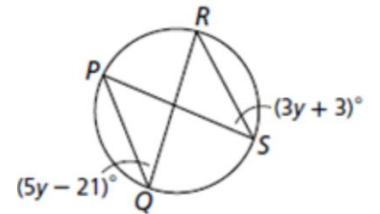
6. Find each of the following:
 a. $m\widehat{L}$
 b. $m\angle MKL$



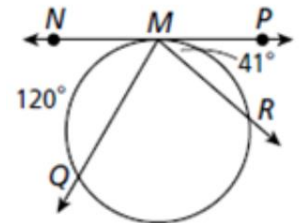
7. Solve for x.



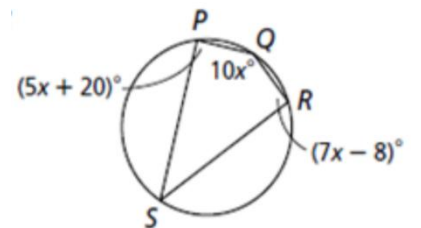
8. Find $m\angle RSP$.



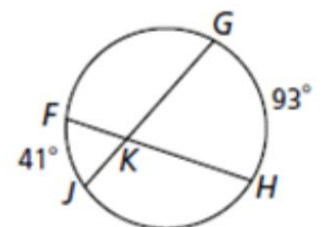
9. Find each of the following:
 a. $m\widehat{MR}$
 b. $m\angle QMR$



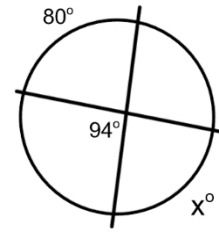
10. The quadrilateral is inscribed in the circle. Find $m\angle Q$.



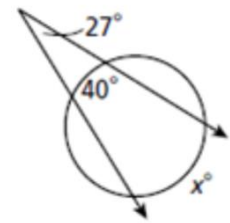
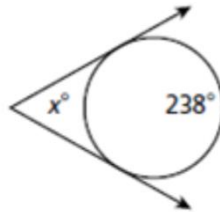
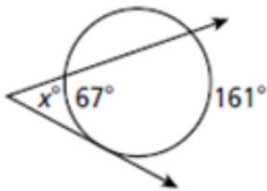
11. Find $m\angle GKH$.



12. Solve for x .



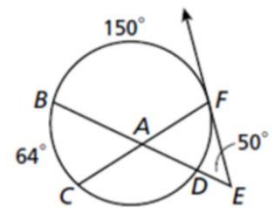
13. Find the value of x for each figure below.



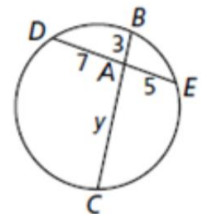
14. Use the figure to the right to find each measure:

a. $m\widehat{DF}$

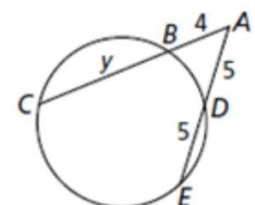
b. $m\widehat{CD}$



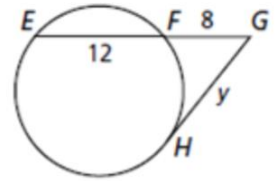
15. Solve for y and find the length of chord BC .



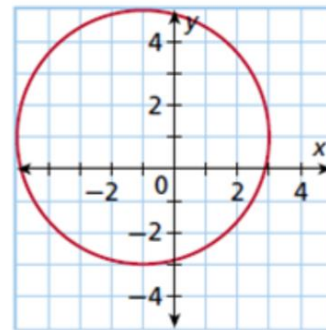
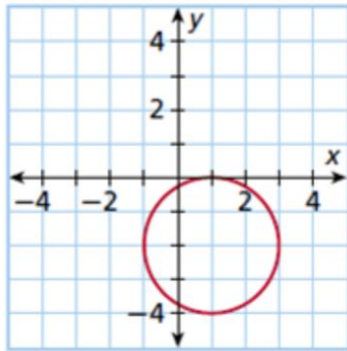
16. Solve for y .



17. Solve for y .



18. Write the equation for the circle in each graph below:



19. Write the equation of a circle that:

a. Passes through $(2, 2)$ and has a center at $(1, 1)$.

b. Passes through $(-5, 1)$ and has a center at $(1, -2)$.

20. Write the equation for each circle from the given equation below. Identify the radius and the center.

a. $x^2 + y^2 - 20x - 4y + 30 = 0$

b. $x^2 + y^2 - 6x - 28y + 185 = 0$