

Name: _____

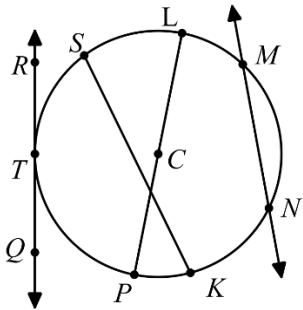
Period: _____

SM2H 6.2 Circle Vocabulary, Arc and Angle Measures 2019-2020

Fill in the blanks.

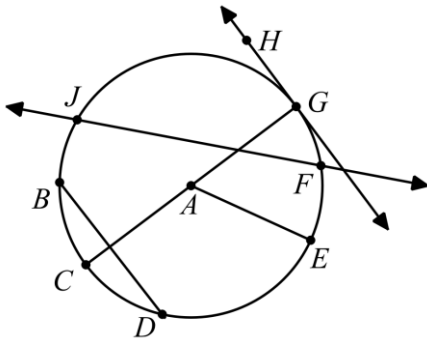
1. A _____ is a line in the plane of a circle that intersects the circle in exactly one point, called a point of _____.
2. A _____ is a segment whose endpoints are the center of a circle and a point on the circle.
3. A _____ is a segment whose endpoints are points on the circle.
4. A _____ is a chord that passes through the center of a circle.
5. A _____ is a line that intersects a circle in two points.
6. An _____ angle is an angle whose vertex is on a circle and whose sides contain chords of the circle.

Use the diagram below for problems 7-12.



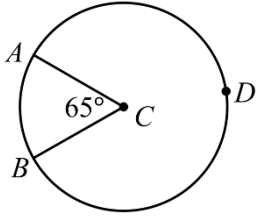
7. T is a _____.
8. Name a secant: _____
9. \overline{SK} is a _____.
10. Name a tangent: _____
11. \overline{CL} is a _____.
12. Name a diameter: _____

Use the diagram below for problems 13-20. Name all possibilities for each definition.



13. chord _____
14. tangent line _____
15. diameter _____
16. radius _____
17. point of tangency _____
18. center _____
19. central angle _____
20. secant _____

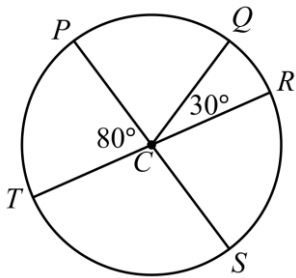
Use the diagram below for problems 21-22.



21. Name the minor arc and find its measure.

22. Name the major arc and find its measure.

In the diagram below, \overline{PS} and \overline{TR} are diameters. Find the requested arc measures.



23. $m \widehat{TS}$

24. $m \widehat{PQ}$

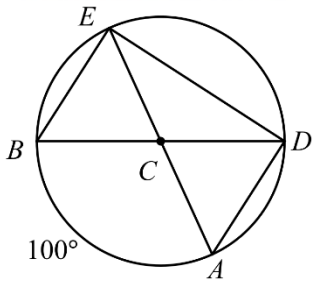
25. $m \widehat{TPQ}$

26. $m \widehat{TQR}$

27. $m \widehat{TRQ}$

28. $m \widehat{SRQ}$

For problems 29-36, use the diagram below to find the requested angle or arc measure. \overline{BD} is a diameter. Explain how you know the measure. Example: It is a central angle.



29. $m \angle BCA$

30. $m \angle BEA$

Why?

Why?

31. $m \widehat{AD}$

32. $m \angle ACD$

Why?

Why?

33. $m \angle AED$

34. $m \widehat{BAD}$

Why?

Why?

35. $m \angle BED$

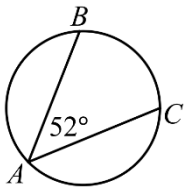
36. $m \angle BDA$

Why?

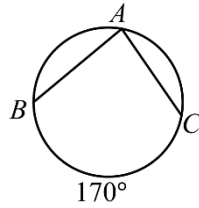
Why?

Find the measure of the inscribed angle or the intercepted arc.

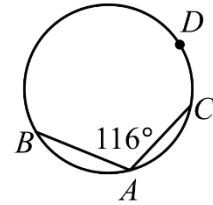
37. $m \widehat{BC} =$



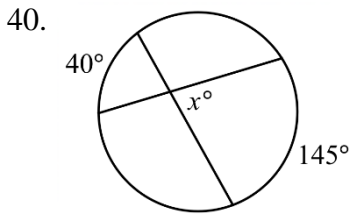
38. $m \angle BAC =$



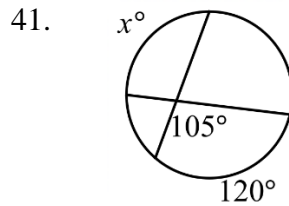
39. $m \widehat{BDC} =$



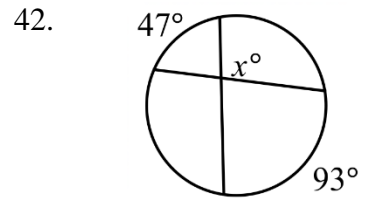
Find the value of x .



$x =$

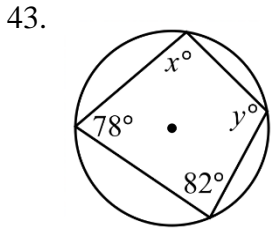


$x =$

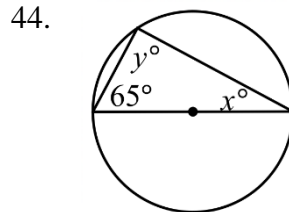


$x =$

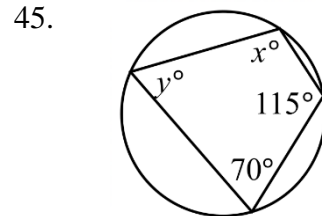
Find the values of x and y .



$x =$ $y =$

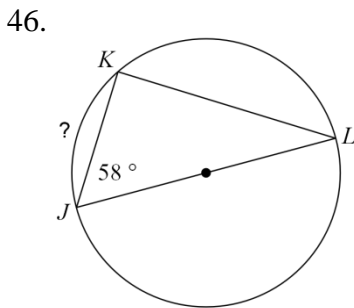


$x =$ $y =$

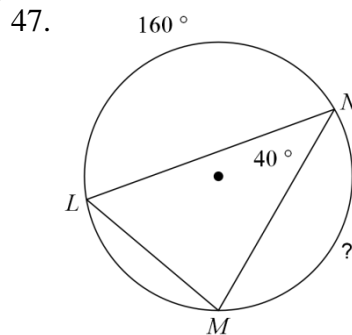


$x =$ $y =$

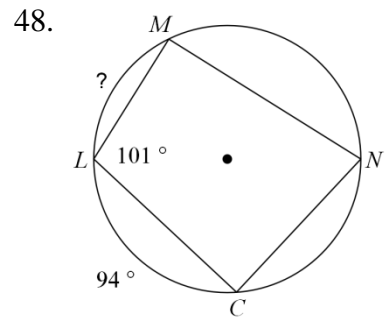
Find the measure of the arc or angle indicated.



$m \widehat{JK} =$



$m \widehat{MN} =$

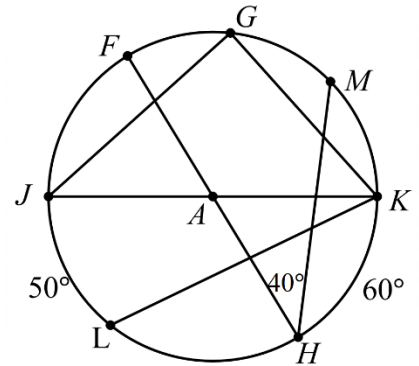


$m \widehat{LM} =$

For problems 49-56:

Find the measure of each angle or arc. **Explain** how you know the measure. Example: It is an inscribed angle.

\overline{FH} and \overline{KJ} are diameters, $m\angle FHM = 40^\circ$, $m\widehat{HK} = 60^\circ$, and $m\widehat{JL} = 50^\circ$



49. $m\widehat{JF} =$

Why?

50. $m\widehat{LH} =$

Why?

51. $m\angle JKL =$

Why?

52. $m\widehat{FM} =$

Why?

53. $m\angle HAK =$

Why?

54. $m\widehat{KF} =$

Why?

55. $m\widehat{MK} =$

Why?

56. $m\widehat{JGK} =$

Why?

Review

Find the vertex. Show your work.

57. $f(x) = -5(x - 2)^2 + 3$

58. $f(x) = 2x^2 - 8x + 9$

Factor completely.

59. $x^2 - 5x - 36$

60. $x^2 - 9x + 14$

61. $3x^2 + 24x + 45$