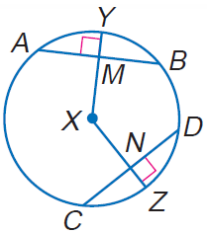
Name: _____

# 9.REV.3 · End of Chapter Review

Past due on: _____ Period: _____

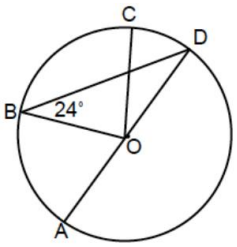
Given: $\odot X$, $\overline{XM} \cong \overline{XN}$, $AB = 30$, $XY = 21$, and $m\widehat{CZ} = 40$. Find each measure. If necessary, round to two decimal places.

1. $AM$
2. $CD$
3. $MX$
4. $DX$
5. $m\widehat{CD}$
6. $m\widehat{BY}$



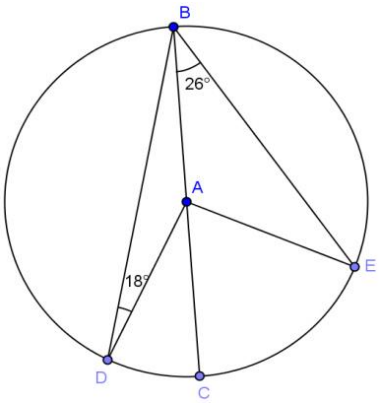

Given: $\odot O$, $\overline{AD}$ is a diameter, $CO = 18$ millimeters

7. Find $m\angle AOB$
8. Find the length of $\widehat{AB}$.
9. If $m\angle AOB : m\angle COD$ is 3:4, find $m\angle BOC$.
10. Find the area of the sector formed by $BOC$.

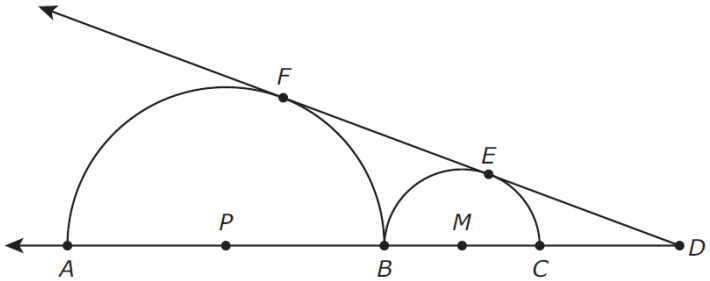



Given: $\odot A$, $\overline{BC}$ is a diameter, $AE = 6$ inches, $m\angle BDA = 18°$, $m\angle ABE = 26°$

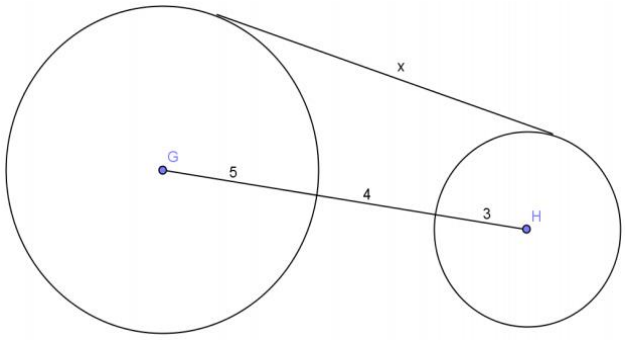
11. Find $m\angle DAB$ in degrees and in radians.
12. Find $m\angle BAE$.
13. Find $m\angle DAE$.
14. Find the length of $\widehat{DB}$.
15. Find the area of the quadrilateral $BEAD$.



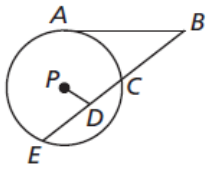

16. The figure shows two semicircles with centers $P$ and $M$. The semicircles are tangent to each other at point $B$, and $\overleftrightarrow{DE}$ is tangent to both semicircles at $E$ and $F$. If $PB = BC = 6$. What is $ED$?



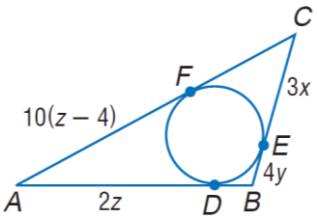
17. Use the Common Tangent Procedure to find the length of $x$, the common tangent between the two circles. Approximate to two decimal places.



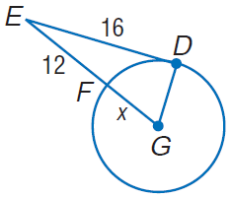

18. In the figure, $AB = 12$, $BC = 8$, $DE = 6$, $PD = 4$, and $A$ is a point of tangency. Find the radius of $\odot P$.




19. Find the values of x, y, and z if $CF = 6(3 - x)$ and $DB = 12y - 4$. Then find the perimeter of $\triangle ABC$.




20. $\overline{DE}$ is tangent to $\odot G$. Use the Tangent to a Circle Theorem to find the value of $x$.




21. A circle is centered at $M(-2, -5)$ and passes through $E(1, 4)$, which is a point of tangency. Find the equation of the tangent that passes through $E$.

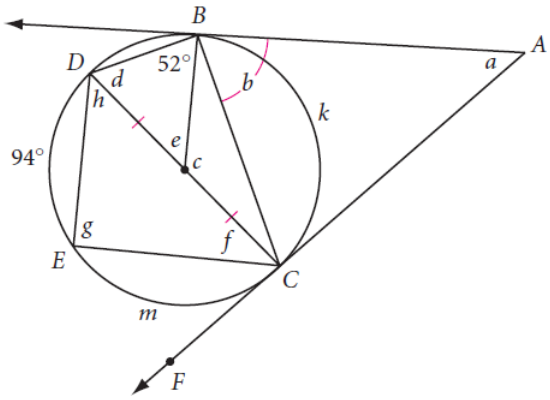
22. Given: $\overrightarrow{AB}$ & $\overrightarrow{AC}$ are tangents; $\overline{CD}$ is a diameter. Find the lettered angle and arc measures.

$a =$_____ $b =$_____ $c =$_____

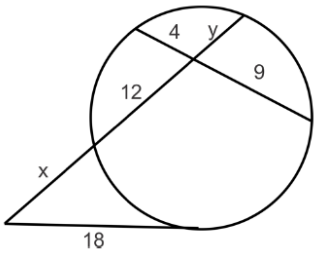
$d =$_____ $e =$_____ $f =$_____

$g =$_____ $h =$_____ $k =$_____

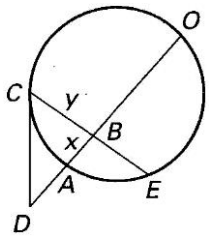
$m =$_____



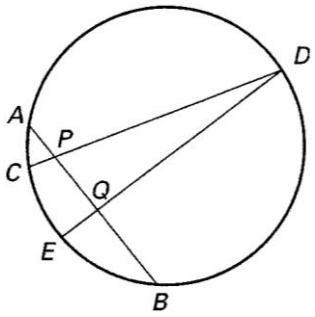
23. Use Power Theorems to set up and solve equations to find the values of $x$ and $y$.



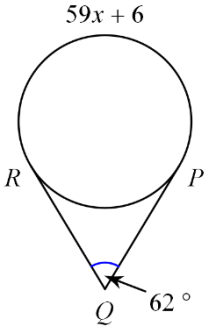

24. In the diagram shown, $BE = 7$, $BO = 14$, $AD = 6$, and $CD = 12$. Use Power Theorems to set up and solve equations to find the values of $x$ and $y$.



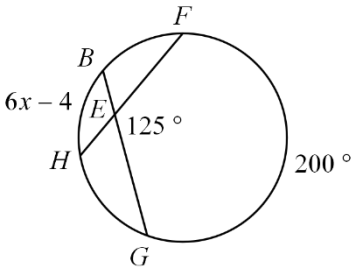

25. In the figure shown, let $AP = x$, $PQ = x + 2$, $QB = x + 4$, $CP = 2$, $PD = 6x$, $EQ = y$, and $QD = 14$. Use Power Theorems to set up and solve equations to find the values of $x$ and $y$.




26. Find the value of $x$.

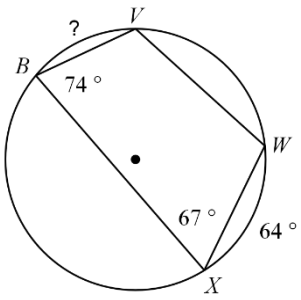



27. Find the value of $x$.



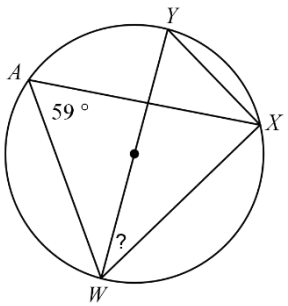

Find the indicated angle or arc measures.

28. $m\widehat{VW}$
29. $m\widehat{BVW}$
30. $m\widehat{BV}$
31. $m\angle BVW$
32. $m\angle XWV$
33. $m\widehat{BX}$

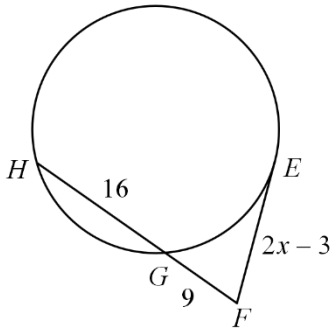



Find the indicated angle or arc measures.

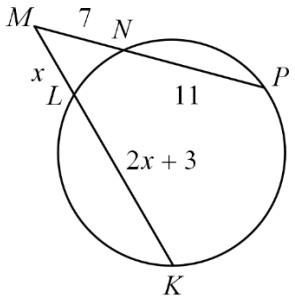
34. $m\widehat{WX}$
35. $m\angle WYX$
36. $m\widehat{XY}$
37. $m\angle XWY$



38. Find the value of $x$.



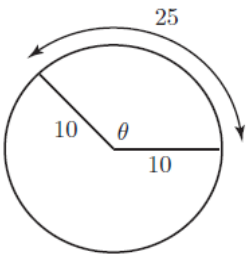

39. Find the value of $x$.




40. A sprinkler rotates 300° while watering grass and shoots out water a distance of 20 feet. What area of grass is watered?

41. A 12-inch pizza it cut into 8 slices. You eat one slice of pizza. How many square inches of pizza did you eat?

42. Consider the circle shown. Find the measure of $\theta$ in radians and in degrees; round to the nearest tenth.




43. Consider the circle shown with measurements given in centimeters. Find the measure of $\theta$, the area of sector *BOA*, and the area of the segment.