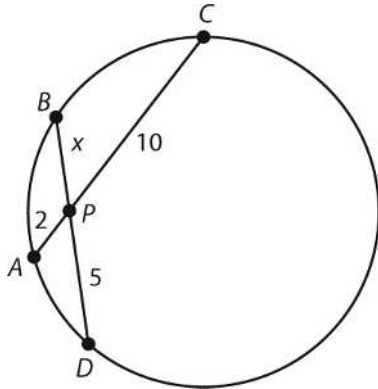


MODULE
15

Angles and Segments in Circles

Module Quiz: B

For 1–2, use the diagram and information below.



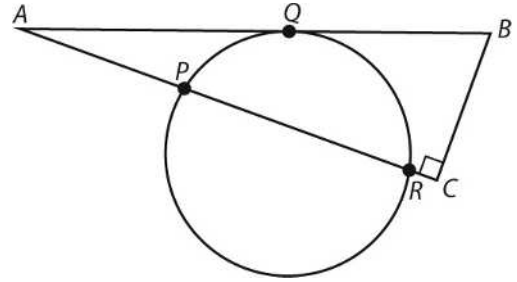
1. What is the value of x ?

2. If $m\widehat{BC} = 60^\circ$ and $m\widehat{AD} = 30^\circ$, what is $m\angle BPC$?

3. In a circle, what is the difference between a secant line and a tangent line?

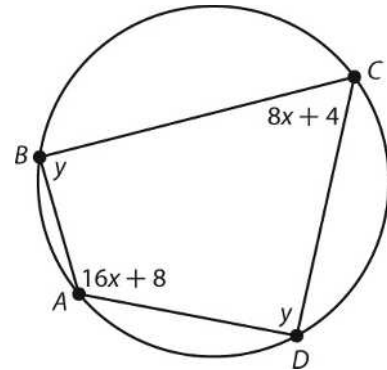
4. Chords \overline{AB} and \overline{BD} form an inscribed angle of $5x$ degrees. If $m\widehat{AD} = 70^\circ$, what is the value of x ?

5. A quadrilateral is inscribed in a circle. If angles 1 and 2 are opposite angles of the quadrilateral, $m\angle 1 = 79$, and $m\angle 2 = (1 + 4x)^\circ$, what is the value of x ?



6. In the figure above, $m\angle ABC = 70^\circ$ and \overline{AB} is tangent to the circle. If $m\widehat{PQ} = 60^\circ$, what is $m\widehat{QR}$?

For 7–9, use the diagram below.



7. What is the measure of $\angle ABC$?

8. What is the measure of $\angle DAB$?

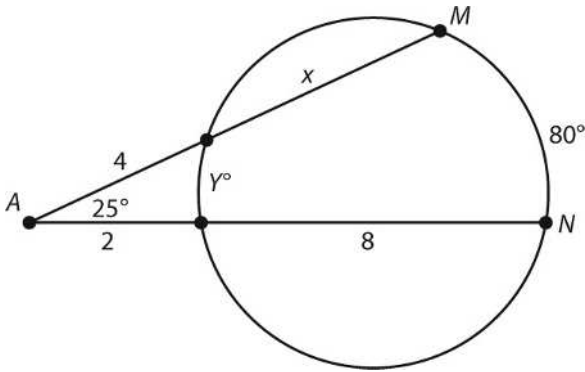
MODULE
15

Angles and Segments in Circles

Module Quiz: B

9. Explain why \overline{CA} must be a diameter of the circle.

For 10–11, use the diagram below.



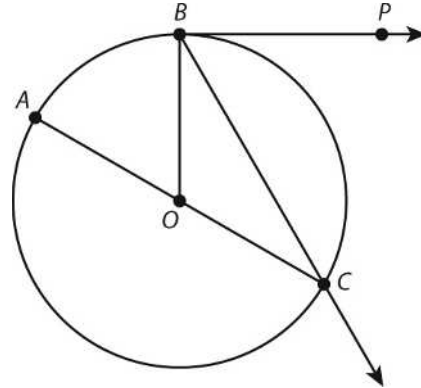
10. Find the value of x .

11. Find the value of y .

12. Chords \overline{AB} and \overline{CD} intersect within a circle at point P . If $m\widehat{AC} = 48^\circ$ and $m\angle DPB = 80^\circ$, what is $m\widehat{DB}$

13. In the circle centered at point O , $m\widehat{AB} = 40^\circ$, $m\widehat{BC} = x^\circ$, and $m\widehat{AC} = 65^\circ$. What is the value of x ?

For 14–16, use the circle centered at point O below.

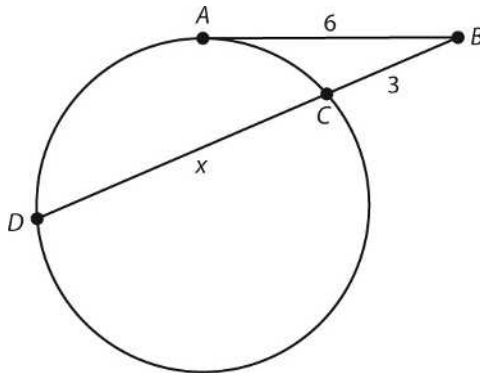


14. If $m\angle BOC = 120^\circ$, find $m\angle PBC$.

15. Find $m\angle \widehat{AB}$.

16. Is \overline{AC} a diameter of the circle? Explain.

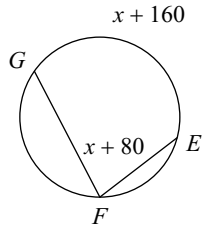
17. What is the value of x in the diagram below?



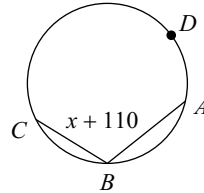
Assignment

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

1) Find $m\widehat{EG}$

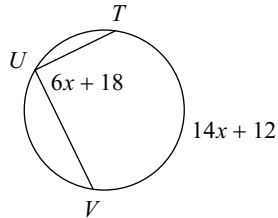


2) $m\widehat{ADC} = x + 220$
Find $m\widehat{ADC}$

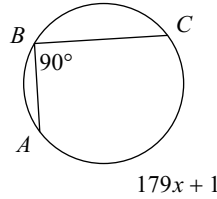


Solve for x . Assume that lines which appear tangent are tangent.

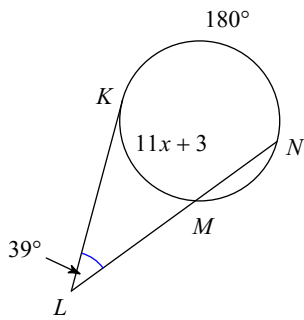
3)



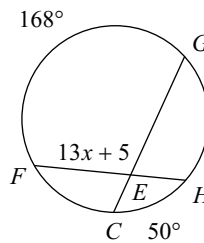
4)



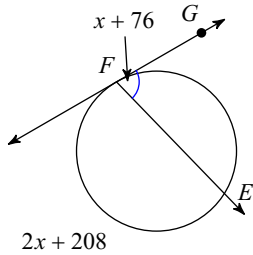
5)



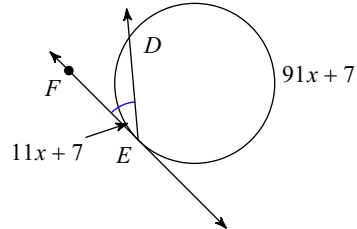
6)



7)

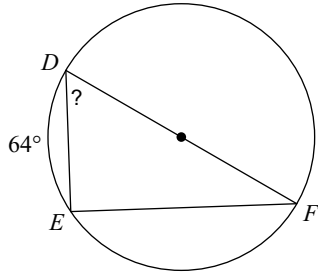


8)

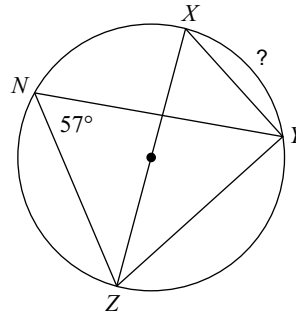


Find the measure of the arc or angle indicated.

9)

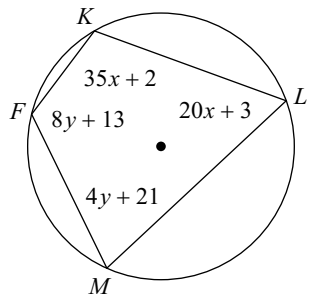


10)



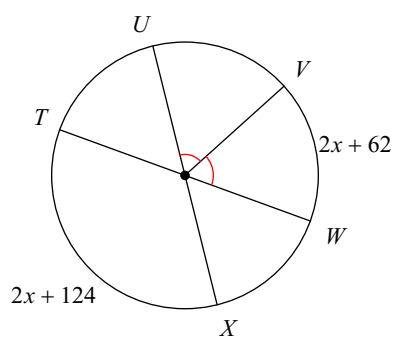
Solve for x and y .

11)



Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

12) $m\widehat{XT}$



13) $m\angle DBE$

