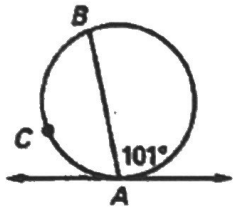
7.5 Angles Inside, Outside, and On

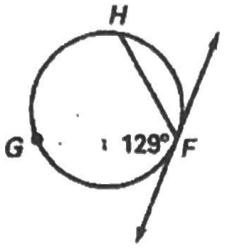
Name: _____

Find the indicated arc measure.

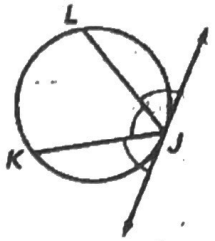
1. $m\overset{\frown}{AB}$ 202°



2. $m\overset{\frown}{FH}$ 102°

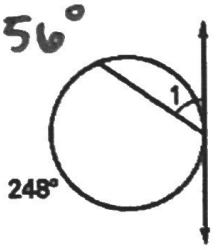


3. $m\overset{\frown}{JKL}$ 240°

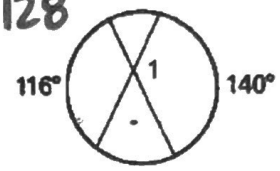


Find $m\angle 1$.

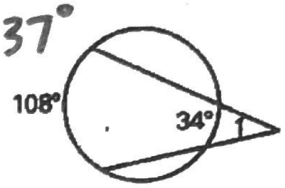
4. 56°



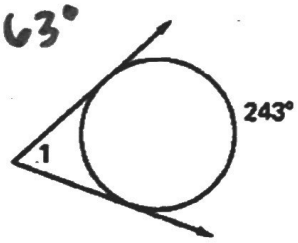
5. 128°



6. 37°

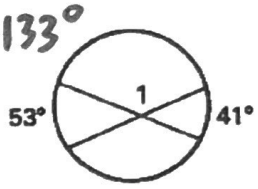


7. 63°

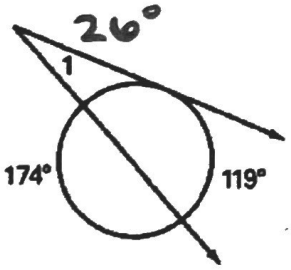


8. 120° 109°

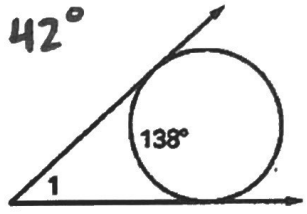
9. 133°



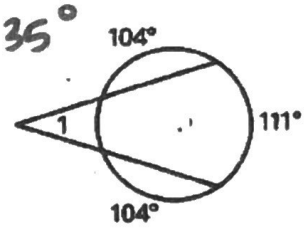
10. 26°



11. 42°

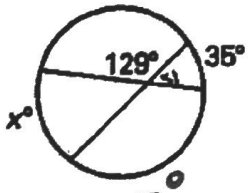


12. 35°



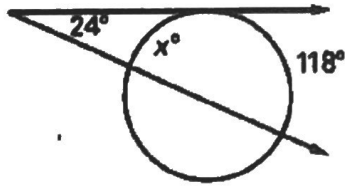
In Exercises 13–15, find the value of x.

13.



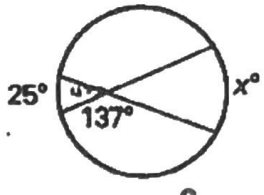
67°

14.



70°

15.

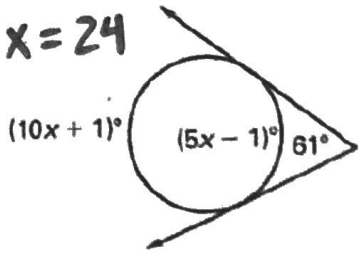


61°

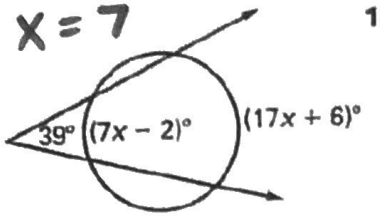
Name: _____

In Exercises 16–18, find the value of x.

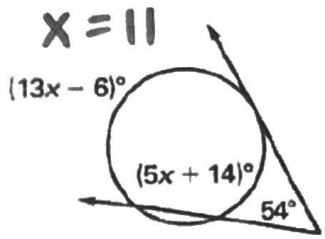
16. $x = 24$



17. $x = 7$



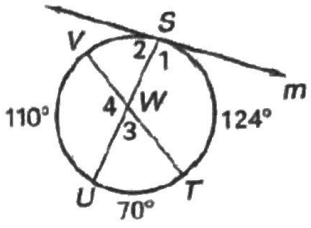
18. $x = 11$



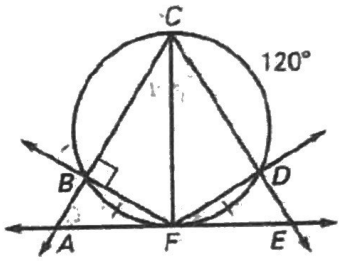
19. Angle Measures In the diagram shown, m is tangent to the circle at the point S. Find the measures of all the numbered angles.

$\angle 1 = 97°$ $\angle 3 = 63°$

$\angle 2 = 83°$ $\angle 4 = 117°$



Use the diagram shown to find the measure of the angle.



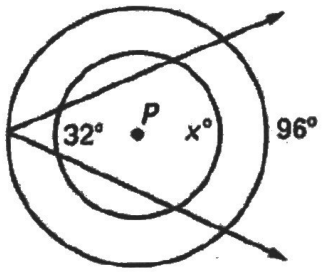
20. $m\angle CAF$ $60°$ **21.** $m\angle AFB$ $30°$

22. $m\angle CEF$ $60°$ **23.** $m\angle CFB$ $60°$

24. $m\angle DCF$ $30°$ **25.** $m\angle BCD$ $60°$

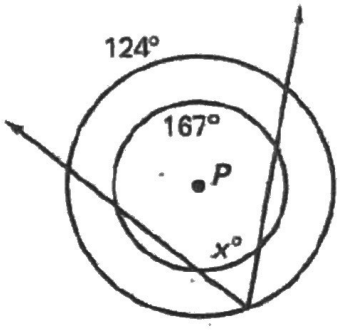
In Exercises 26 and 27, the circles have center P. Find the value of x.

26.



$x = 128$

27.



$x = 43$