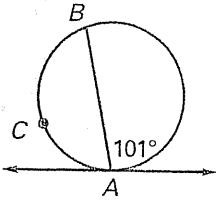


**LESSON 10.5 Practice**  
For use with pages 680-686

odds

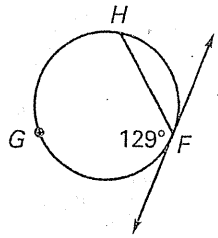
Find the indicated arc measure.

1.  $m\widehat{AB}$



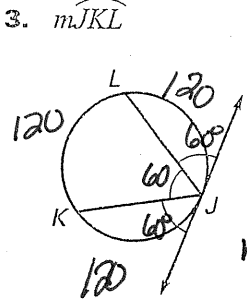
$$m\widehat{AB} = 202^\circ$$

2.  $m\widehat{FH}$



$$m\widehat{FH} = 258^\circ$$

3.  $m\widehat{JKL}$

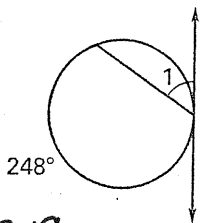


$$\frac{180}{3} = 60$$

$$m\widehat{JKL} = 240^\circ$$

Find  $m\angle 1$ .

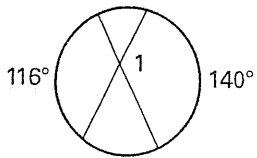
4.



$$360 - 248 = 112^\circ \div 2$$

$$m\angle 1 = 56^\circ$$

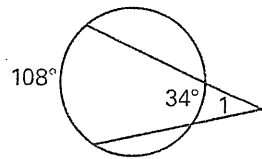
5.



$$m\angle 1 = \frac{1}{2}(140 + 116)$$

$$m\angle 1 = 128^\circ$$

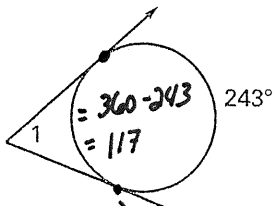
6.



$$m\angle 1 = \frac{1}{2}(108 - 34)$$

$$m\angle 1 = 37^\circ$$

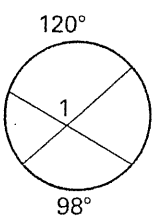
7.



$$m\angle 1 = \frac{1}{2}(243 - 117)$$

$$m\angle 1 = \frac{1}{2}(126) = 63^\circ$$

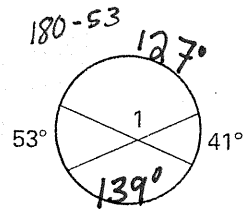
8.



$$m\angle 1 = \frac{1}{2}(120 + 98)$$

$$m\angle 1 = 109^\circ$$

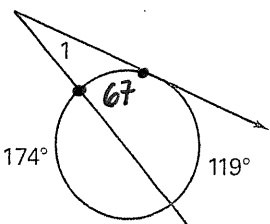
9.



$$m\angle 1 = \frac{1}{2}(127 + 139)$$

$$m\angle 1 = 133^\circ$$

10.

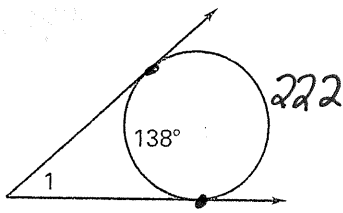


$$\begin{array}{r} 360 \\ -174 \\ \hline 186 \\ -119 \\ \hline 67 \end{array}$$

$$m\angle 1 = \frac{1}{2}(119 - 67)$$

$$m\angle 1 = 26^\circ$$

11.

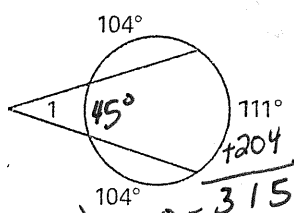


$$\begin{array}{r} 360 \\ -138 \\ \hline 222 \end{array}$$

$$m\angle 1 = \frac{1}{2}(222 - 138)$$

$$m\angle 1 = 42^\circ$$

12.



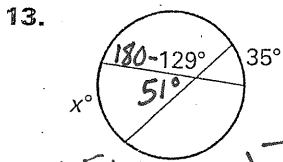
$$360 - 315 = 45$$

$$m\angle 1 = \frac{1}{2}(111 - 45)$$

$$m\angle 1 = 33^\circ$$

**LESSON 10.5 Practice** *continued*  
For use with pages 680-686

In Exercises 13-18, find the value of  $x$ .

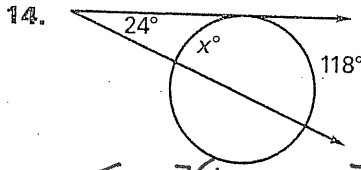


$$2[51^\circ] = \frac{1}{2}(x+35) \cdot 2$$

$$102 = x+35$$

$$\begin{array}{r} -35 \\ \hline 67 \end{array}$$

$x = 67^\circ$

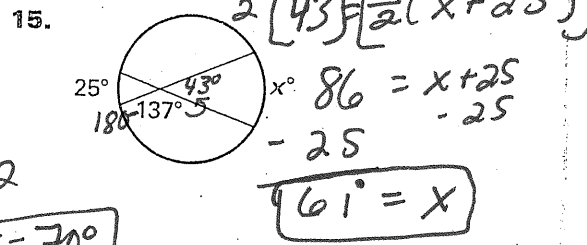


$$2[24^\circ] = \frac{1}{2}(118-x) \cdot 2$$

$$48 = 118-x$$

$$\begin{array}{r} -48 \\ \hline 70 \end{array}$$

$x = 70^\circ$

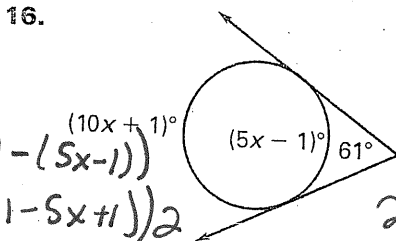


$$2[43^\circ] = \frac{1}{2}(x+25) \cdot 2$$

$$86 = x+25$$

$$\begin{array}{r} -25 \\ \hline 61 \end{array}$$

$x = 61^\circ$



$$61 = \frac{1}{2}(10x+1 - (5x-1))$$

$$61 = \frac{1}{2}(10x+1-5x+1)$$

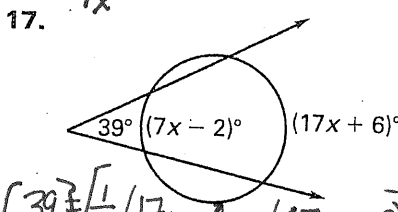
$$122 = 5x+2$$

$$\begin{array}{r} -2 \\ \hline 120 \end{array}$$

$$120 = 5x$$

$$\begin{array}{r} \phantom{0} \\ \hline 24 \end{array}$$

$x = 24$



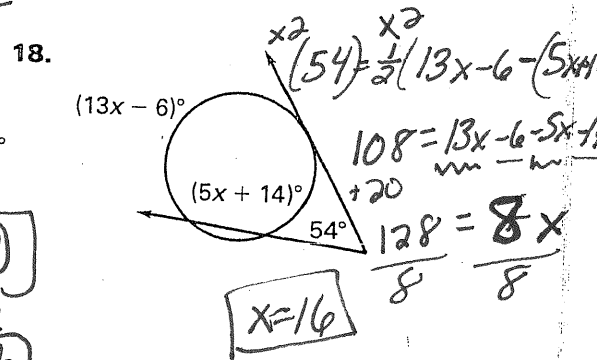
$$2[39^\circ] = \frac{1}{2}(17x+6 - (7x-2))$$

$$78 = 17x+6-7x+2$$

$$70 = 10x$$

$$\begin{array}{r} 70 \\ \hline 10 \end{array}$$

$x = 7$



$$2[54^\circ] = \frac{1}{2}(13x-6 - (5x+14))$$

$$108 = 13x-6-5x-14$$

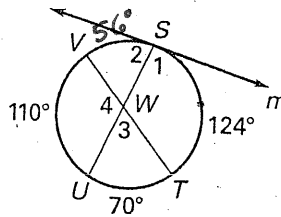
$$108 = 8x-20$$

$$128 = 8x$$

$$\begin{array}{r} 128 \\ \hline 8 \end{array}$$

$x = 16$

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



$$\angle 3 = \frac{1}{2}(70+56)$$

$$\angle 3 = 63^\circ$$

$$m\angle 2 = \frac{1}{2}(110+56)$$

$$m\angle 2 = 83^\circ$$

$$m\angle 1 = \frac{1}{2}(124+70)$$

$$m\angle 1 = 97^\circ$$

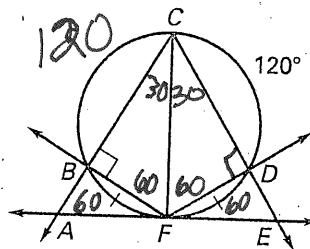
$$m\angle 4 = 180-63$$

$$m\angle 4 = 117^\circ$$

$$\widehat{VS} = 360 - (110 + 124 + 70)$$

$$\widehat{VS} = 56$$

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



$$360 - 240 = \frac{120}{2}$$

20.  $m\angle CAF$   
 $m\angle CAF = \frac{1}{2}(180-60)$   
 $= 60^\circ$
21.  $m\angle AFB$   
 $30^\circ$
22.  $m\angle CEF$   
 $60^\circ$
23.  $m\angle CFB$   
 $60^\circ$
24.  $m\angle DCF$   
 $30^\circ$
25.  $m\angle BCD$   
 $60^\circ$