

# GUIDED PRACTICE

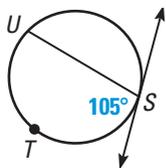
## Concept Check ✓

1. If a chord of a circle intersects a tangent to the circle at the point of tangency, what is the relationship between the angles formed and the intercepted arcs?

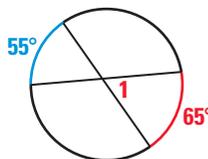
## Skill Check ✓

Find the indicated measure or value.

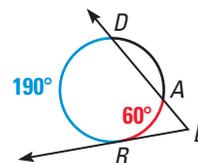
2.  $m\widehat{STU}$



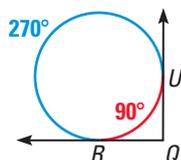
3.  $m\angle 1$



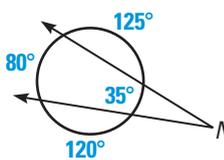
4.  $m\angle DBR$



5.  $m\angle RQU$



6.  $m\angle N$



7.  $m\angle 1$



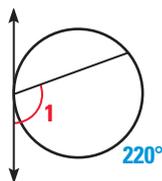
# PRACTICE AND APPLICATIONS

### STUDENT HELP

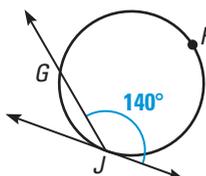
**Extra Practice** to help you master skills is on p. 822.

## FINDING MEASURES Find the indicated measure.

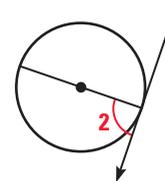
8.  $m\angle 1$



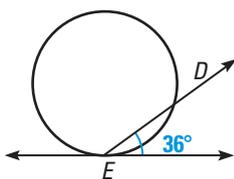
9.  $m\widehat{GHJ}$



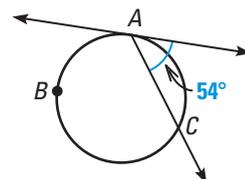
10.  $m\angle 2$



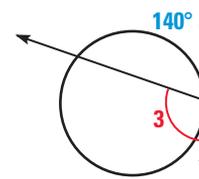
11.  $m\widehat{DE}$



12.  $m\widehat{ABC}$

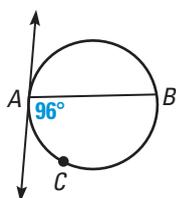


13.  $m\angle 3$

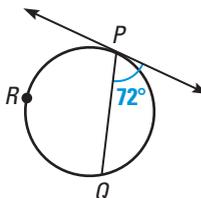


## USING ALGEBRA Find the value of $x$ .

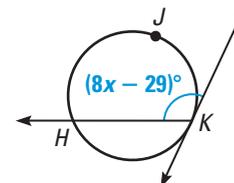
14.  $m\widehat{AB} = x^\circ$



15.  $m\widehat{PQ} = (5x + 17)^\circ$



16.  $m\widehat{HJK} = (10x + 50)^\circ$

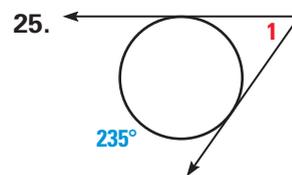
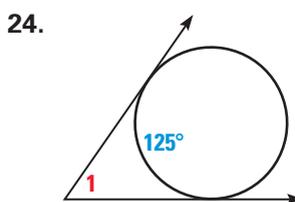
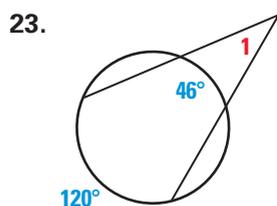
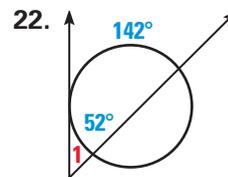
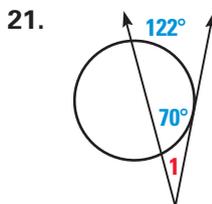
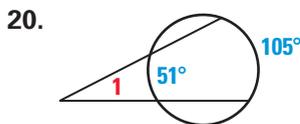
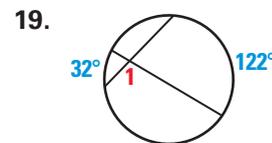
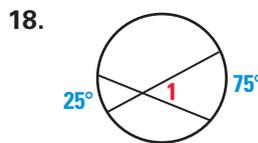
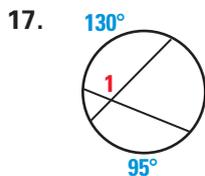


### STUDENT HELP

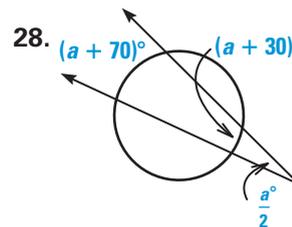
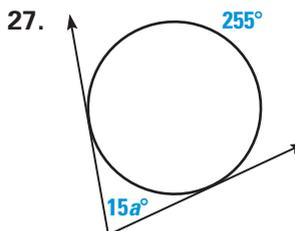
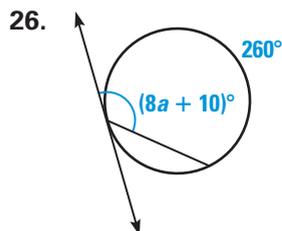
#### HOMEWORK HELP

- Example 1: Exs. 8–13
- Example 2: Exs. 14–16
- Example 3: Exs. 17–25
- Example 4: Exs. 26–28
- Example 5: Ex. 35

**FINDING ANGLE MEASURES** Find  $m\angle 1$ .



**USING ALGEBRA** Find the value of  $a$ .



**FINDING ANGLE MEASURES** Use the diagram at the right to find the measure of the angle.

29.  $m\angle 1$

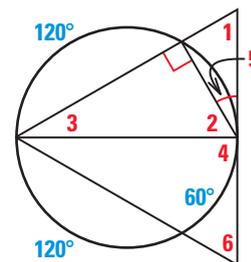
30.  $m\angle 2$

31.  $m\angle 3$

32.  $m\angle 4$

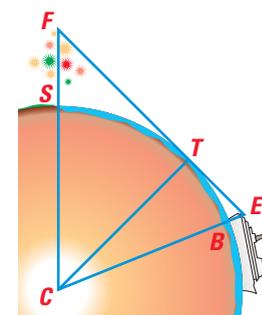
33.  $m\angle 5$

34.  $m\angle 6$



**STUDENT HELP**  
**APPLICATION LINK**  
 Visit our Web site  
[www.mcdougallittell.com](http://www.mcdougallittell.com)

35. **FIREWORKS** You are watching fireworks over San Diego Bay  $S$  as you sail away in a boat. The highest point the fireworks reach  $F$  is about 0.2 mile above the bay and your eyes  $E$  are about 0.01 mile above the water. At point  $B$  you can no longer see the fireworks because of the curvature of Earth. The radius of Earth is about 4000 miles and  $\overline{FE}$  is tangent to Earth at  $T$ . Find  $m\widehat{SB}$ . Give your answer to the nearest tenth of a degree.



Not drawn to scale