



# 12-1 Solve It!

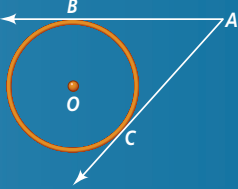




**SOLVE IT!**

**Getting Ready!**

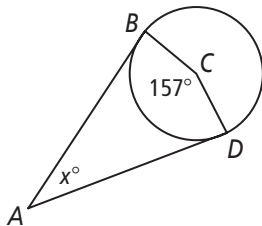
Draw a diagram like the one at the right. Each ray from Point A touches the circle in only one place no matter how far it extends. Measure  $\overline{AB}$  and  $\overline{AC}$ . Repeat the procedure with a point farther away from the circle. Consider any two rays with a common endpoint outside the circle. Make a conjecture about the lengths of the two segments formed when the rays touch the circle.



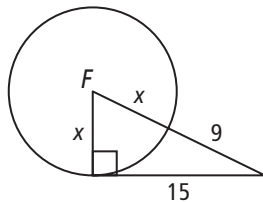
Be sure your segments touch the circle at only one point.

## 12-1 Lesson Quiz

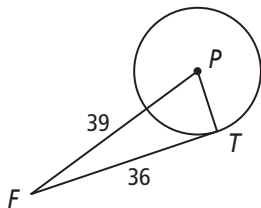
1. Do you UNDERSTAND?  $\overline{AD}$  and  $\overline{AB}$  are tangent to  $\odot C$ . What is the value of  $x$ ?



2. What is the radius of  $\odot F$ ?



3.  $\overline{FT}$  is tangent to  $\odot P$  at  $T$ . What is  $PT$ ?



### Answers

#### Solve It!

The two segments have the same length.

#### Lesson Quiz

1. 23
2. 8
3. 15