

## 10.6 Segment Relationships in Circles CYU

Use when you get it right all by yourself

**S** Use when you did it all by yourself, but made a silly mistake

**H** Use when you could do it alone with a little help from teacher or peer

**G** Use when you completed the problem in a group

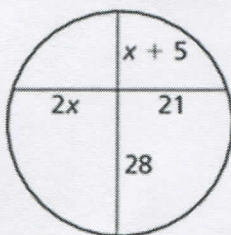
**X** Use when a question was attempted but wrong (get help)

**N** Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Chord-Chord Product Theorem	1	6, 8	
Secant-Tangent Product Theorem	2	4, 9	
Secant-Secant Product Theorem	3	5, 7	
Real World Application			10, 11

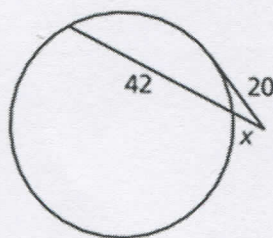
In Exercises 1–9, find the value of  $x$ .

1.



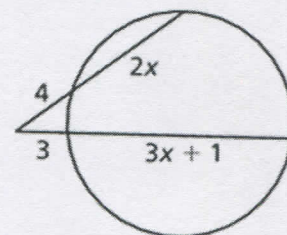
$$x=10$$

2.



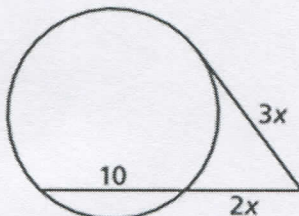
$$x=8$$

3.



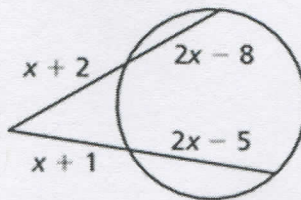
$$x=4$$

4.



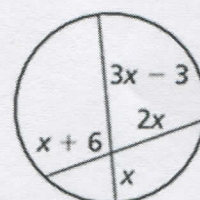
$$x=4$$

5.



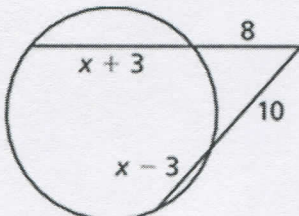
$$x=8$$

6.



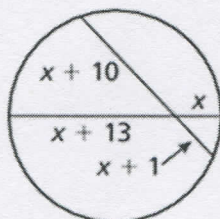
$$x=15$$

7.



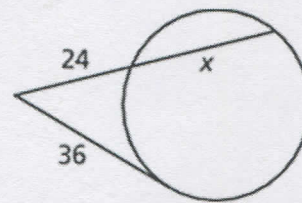
$$x=9$$

8.



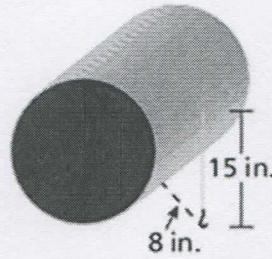
$$x=10$$

9.



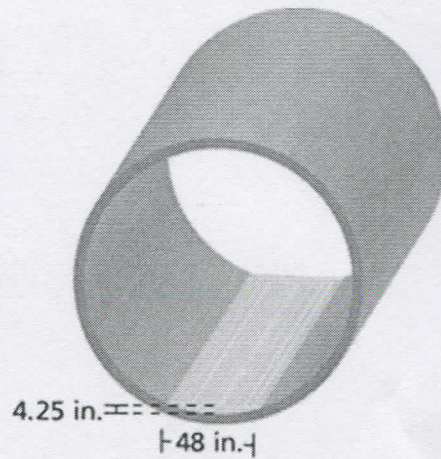
$$x=30$$

10. A large industrial winch is shown. There are 15 inches of cable hanging free off of the spool and the distance from the end of the cable to the spool is 8 inches. What is the diameter of the spool?



$$X = 20.125 \text{ in}$$

11. The diagram shows a cross-section of a large storm drain pipe with a small amount of standing water. The distance across the surface of the water is 48 inches and the water is 4.25 inches deep at its deepest point. What is the diameter of the storm drain pipe?



$$= 139.779$$

$$d \approx 140 \text{ in}$$

**CYU Reflection:** How far can you go: basic, intermediate, or advanced?

**Rate your mastery level!**

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
1	2	3	4	5	6	7	8
Basic		Intermediate			Advanced		Solved ALL!