

Name \_\_\_\_\_

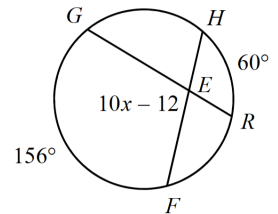
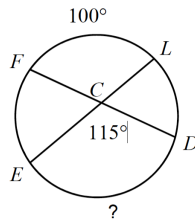
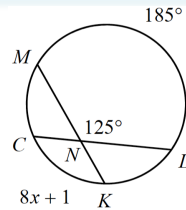
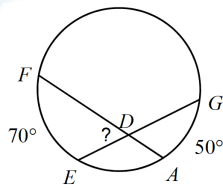
Write your questions here!

# 11.4 More Chords, Secants and Tangents

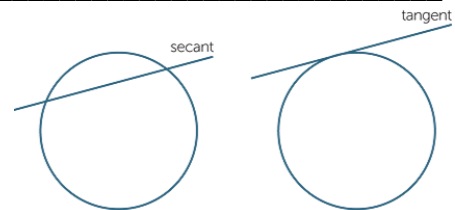
Angles:

**Theorem #1:** \_\_\_\_\_  
\_\_\_\_\_

Examples of Theorem #1



**Definition:** A secant is \_\_\_\_\_

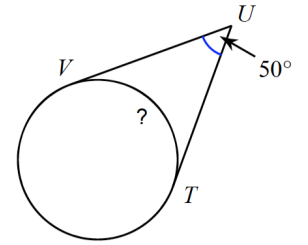
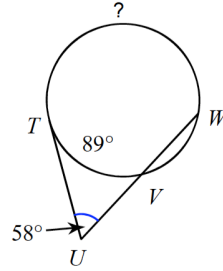
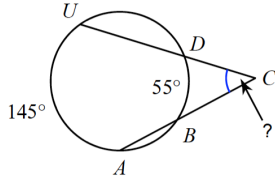


**Theorem #2:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

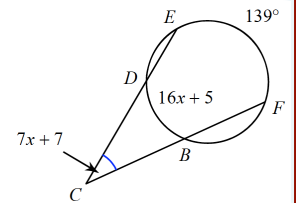
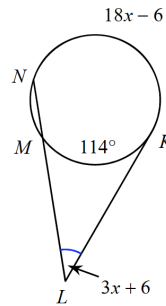
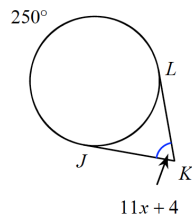
Write your questions here!

Examples of Theorem #2

Solve for the missing angle:



You try! Solve for x:



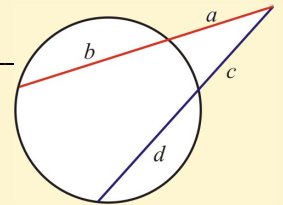
## Segment Lengths

**Theorem #3:** \_\_\_\_\_

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**Theorem #4** \_\_\_\_\_

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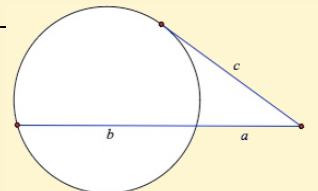
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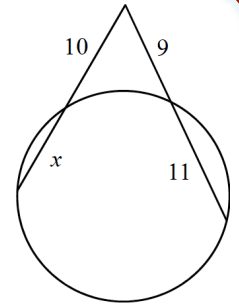
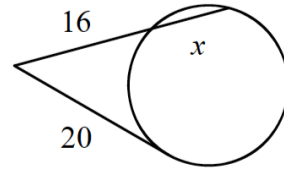
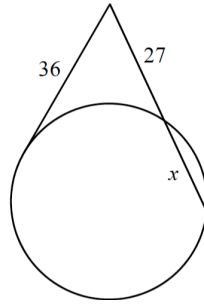
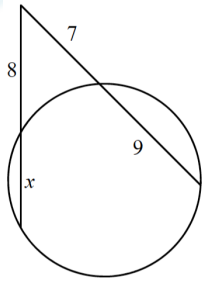


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Write your questions here!

Examples of Theorems #3 and #4



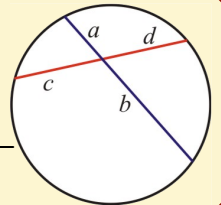
Theorem #5:

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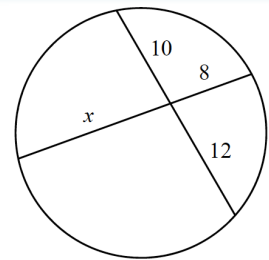
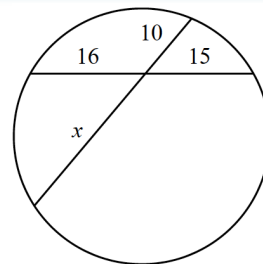
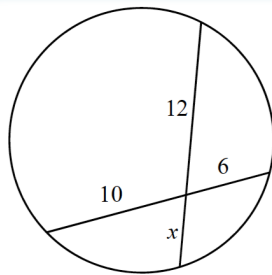
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Examples of Theorem #5



Now, summarize your notes here!

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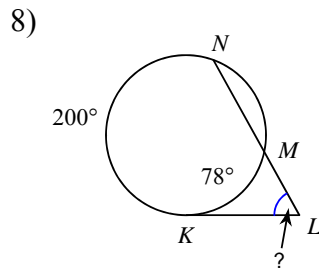
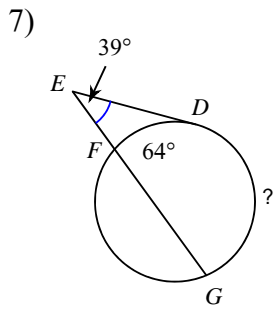
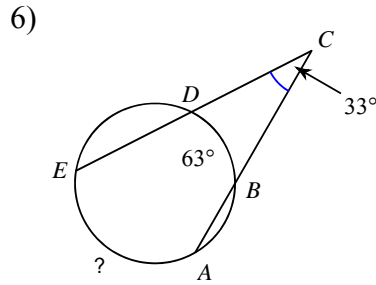
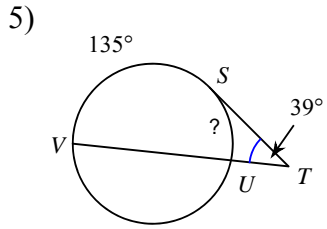
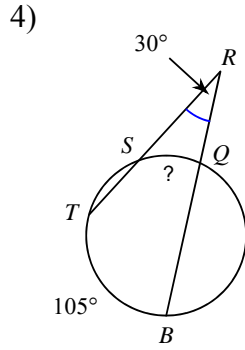
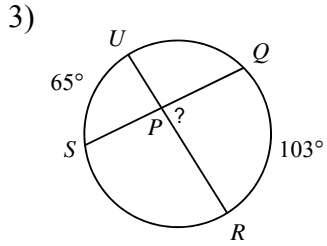
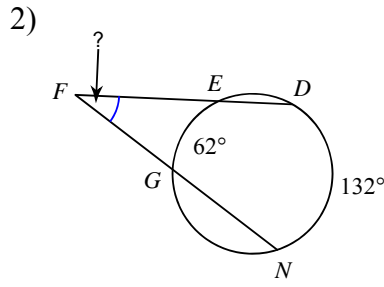
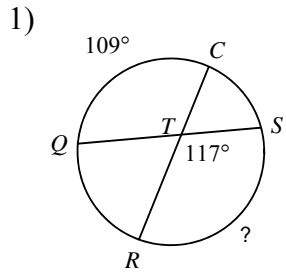
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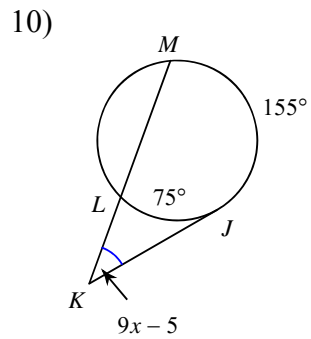
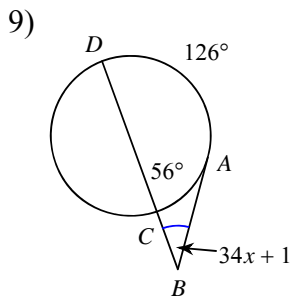
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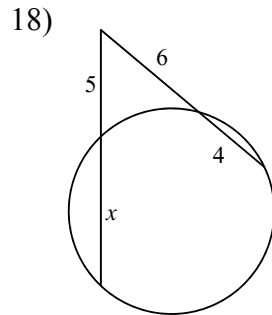
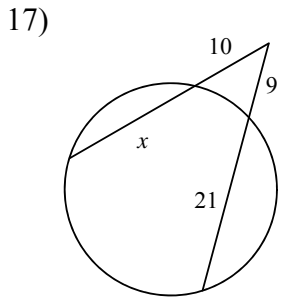
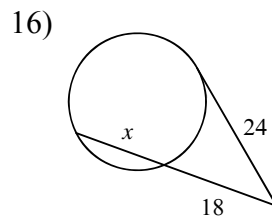
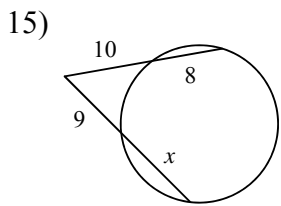
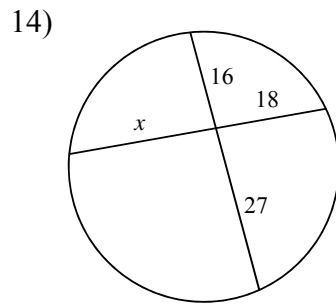
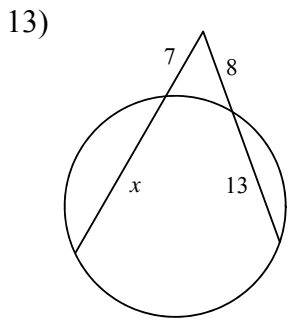
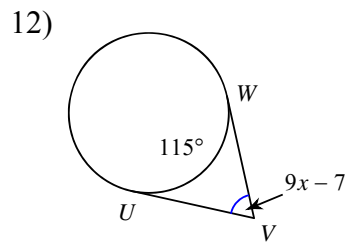
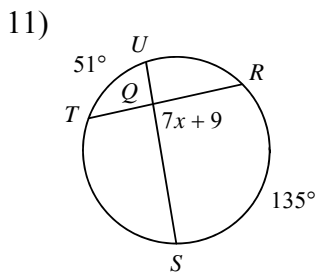
Practice 11.4

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.



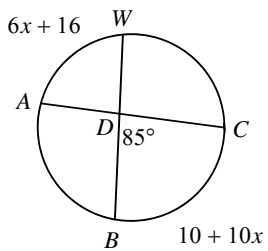
Solve for  $x$ . Assume that lines which appear tangent are tangent.



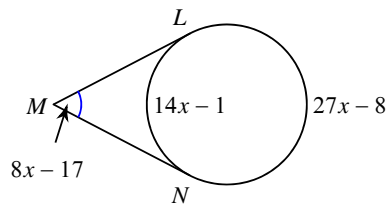


**Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.**

19) Find  $m\widehat{AW}$

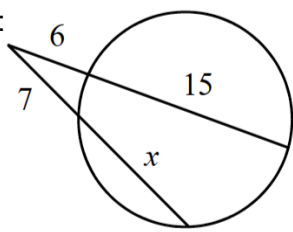


20) Find  $m\angle NML$



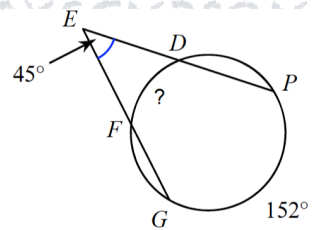
# 11.4 Application and Extension

1. Find the missing **variable**:

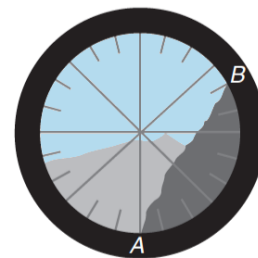


2.

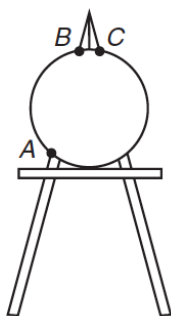
Solve for  $x$ :



3. Brust looked through his Sullyscope at a mountainous landscape. The figure shows what he saw. Based on the view, approximately what angle does the side of the mountain that runs from A to B make with the horizontal?



4.



Sully is a self-portrait painter. He places a circular canvas on his A-frame easel and carefully centers it. The apex of the easel is  $30^\circ$  and the measure of arc BC is  $22^\circ$ . What is the measure of arc AB?

5. Sullivision wants to increase its audience and launches another satellite. The satellite has a viewing angle of the Earth formed by two tangents of  $22^\circ$ .

Draw a picture to represent the scenario here →



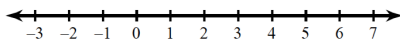
a. Find the measure of the arc of Earth's surface viewable from the satellite.

b. If the radius of the Earth is about 3960 miles, calculate the distance from the earth's surface to the satellite.

Solve each equation for x!

1. Solve and graph.

$$-2(m+3) < -3 - 3m$$



2.  $2(x-4) = 2x - 9$

Algebra Review

Factor Completely (Double factor)

3.  $6r^2 - 15r + 6$

Factor!

4.  $9x^2 - 12x + 4$

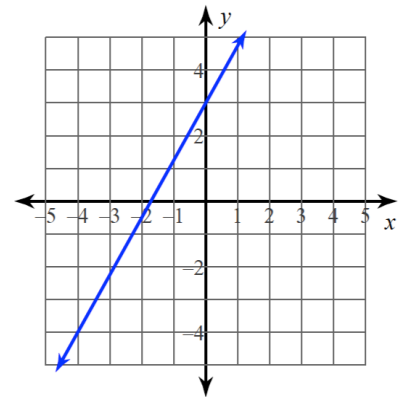
5. Solve the linear system by substitution:

$$\begin{aligned} y &= 6x - 2 \\ -6x + 2y &= -4 \end{aligned}$$

6. Find the equation of the line:

m = \_\_\_\_\_

b = \_\_\_\_\_



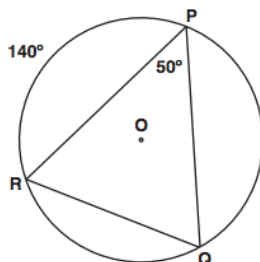
Equation: \_\_\_\_\_

Multiple Choice:

In the circle shown below, the measure of  $\widehat{PR} = 140^\circ$  and the measure of  $\angle RPQ = 50^\circ$ .

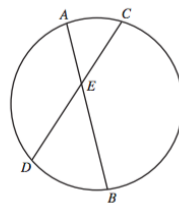
Find the measure of arc PQ.

- A.  $50^\circ$
- B.  $60^\circ$
- C.  $70^\circ$
- D.  $120^\circ$



Gridded Response:

In the circle below,  $\overline{AB}$  and  $\overline{CD}$  are chords intersecting at E.



If  $AE = 5$ ,  $BE = 12$ , and  $CE = 6$ , what is the length of  $DE$ ?

	/	/	
.	.	.	.
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9