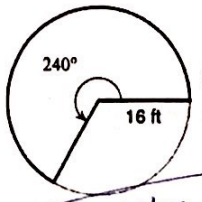
Unit 5B Review - Circles NAME Key

Arc Length and Area of a Sector

Find each requested measurement.

1. central angle = 67°, radius = 3 m
   Find area of sector.

$A = \frac{67\pi}{40}$ or 5.26 m^2

2. 

Find arc length.

$L = \frac{64\pi}{3}$ or 67.02 ft

3. arc length = 17 in, radius = 4 in
   Find central angle in radians.

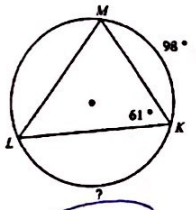
$\theta = 4.25°$

4. area of sector = 34 cm^2, central angle = $\frac{\pi}{6}$
   Find radius.

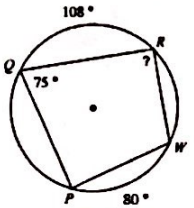
$r = 8.06$ cm

Inscribed Angles

Solve for each indicated measurement.

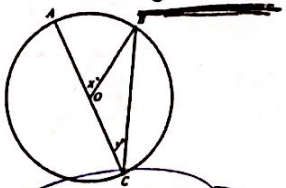
5. 

140°

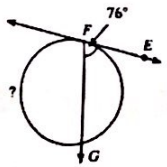
6. 

91°

7. $\overarc{AB} = 40°$

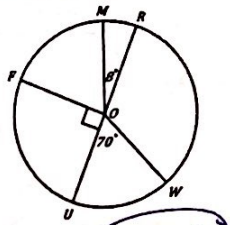


x = 40°
y = 20°

8. 

208°

9. Find arc MRF.

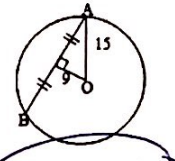


278°

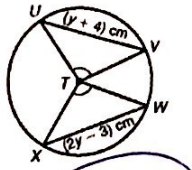
Chords

Solve for each indicated measurement.

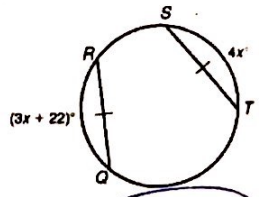
10. Find length of AB



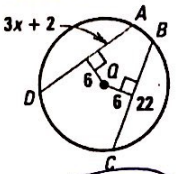
AB = 24

11. 

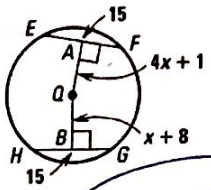
y = 7

12. 

X = 22

13. 

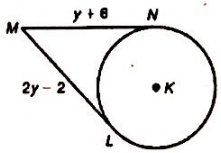
X = 3

14. 

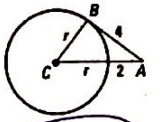
X = 7/3

Tangents

Solve for the variable.

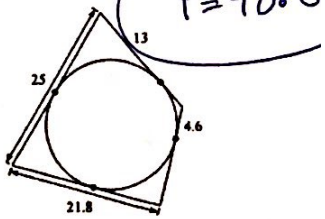
15. 

y = 8

16. 

r = 3

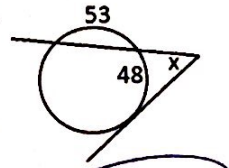
17. Find perimeter



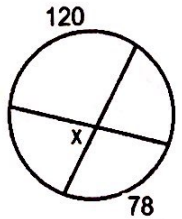
P = 78.8

Angles Formed By Secants, Tangents, and Chords

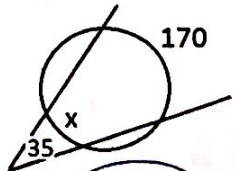
Solve for x.

18. 

X = 105.5°

19. 

81°

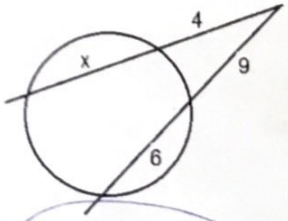
20. 

100°

Lengths Formed By Secants, Tangents, and Chords

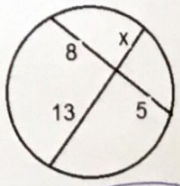
Solve for x.

21.



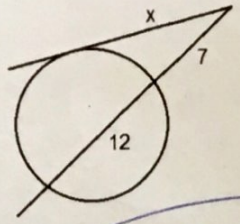
$X = 29.75$

22.



$X = 3.08$

23.

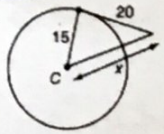


$X = \sqrt{133} = 11.53$

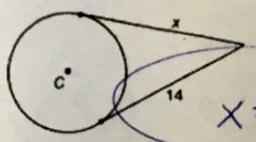
For each in circle C, find the value of x. Assume segments that appear to be tangent are tangent.

$X = 25$

6.

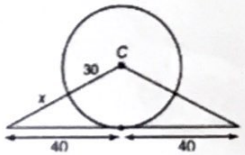


7.



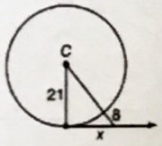
$X = 14$

8.



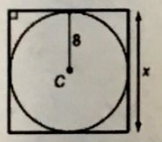
$X = 20$

9.



$X = 20$

10.



$X = 16$