

Unit 6 Review - Circles

NAME _____

Arc Length and Area of a Sector

Find each requested measurement.

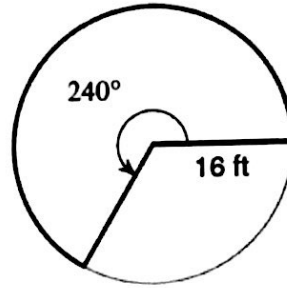
1. central angle = 67° , radius = 3 m
Find area of sector.

5.26 m^2

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

243.51°

2.



Find arc length.

67.02 ft

4. area of sector = 34 cm^2 , central angle = 105°
Find radius.

$r = 6.09 \text{ cm}$

Equation of a Circle

Determine the center and radius of each circle.

5. $(x-5)^2 + (y+6)^2 = 9$ C: (5, -6)
R: 3

6. $(x-9)^2 + y^2 = 60$ C: (9, 0)
R: 7.75

7. $x^2 + y^2 + 8x - 4y + 11 = 0$

C: (-4, 2)

R: 3

8. $x^2 + y^2 + 24x + 10y + 160 = 0$

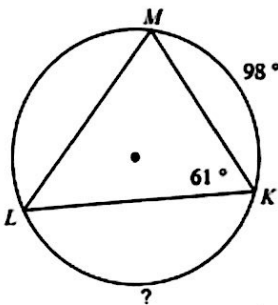
C: (-12, -5)

R: 3

Inscribed Angles

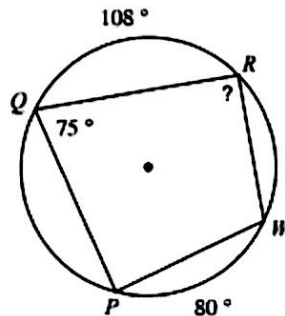
Solve for each indicated measurement.

9.



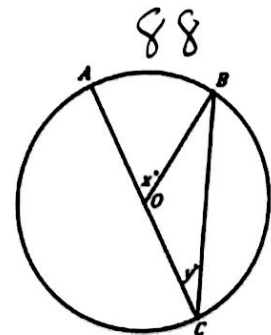
$? = 140$

10.



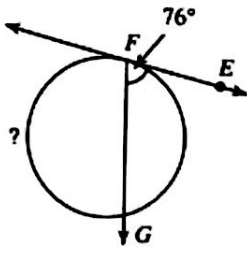
$? = 91$

11.



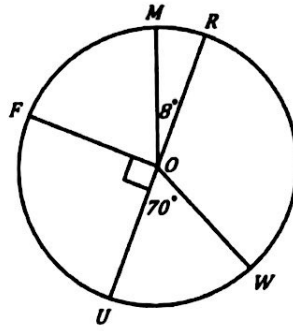
$x = 88$
 $y = 44$

12.



≈ 208

13. Find arc MRF.

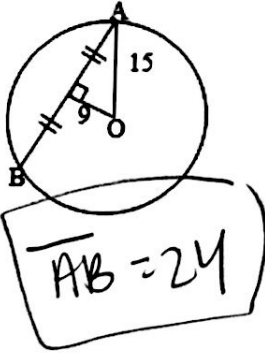


$\widehat{MRF} = 278$

Chords

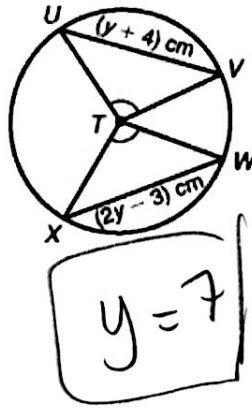
Solve for each indicated measurement.

14. Find length of AB



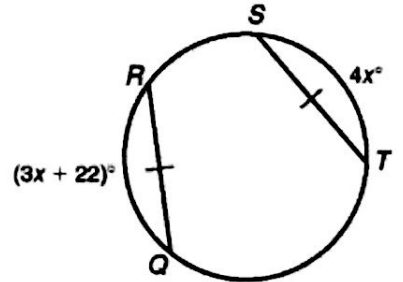
$AB = 24$

15.



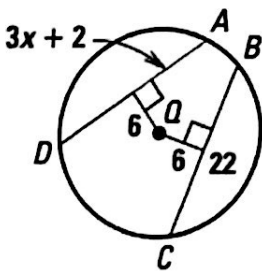
$y = 7$

16.



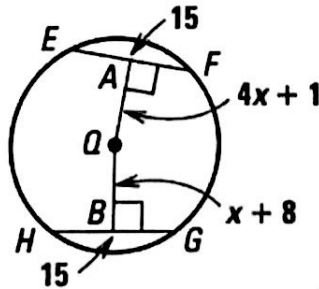
$x = 22$

17.



$x = 6.6667$

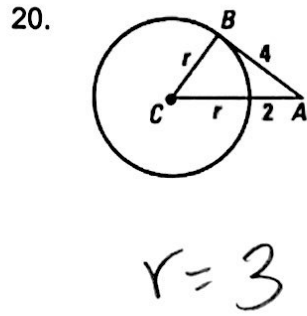
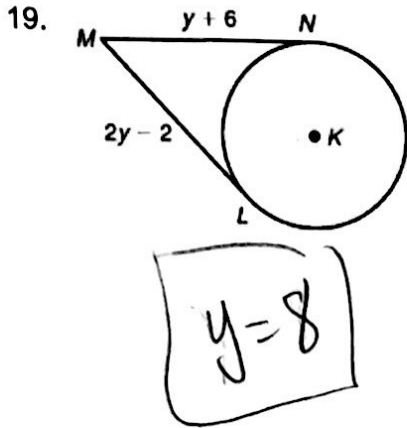
18.



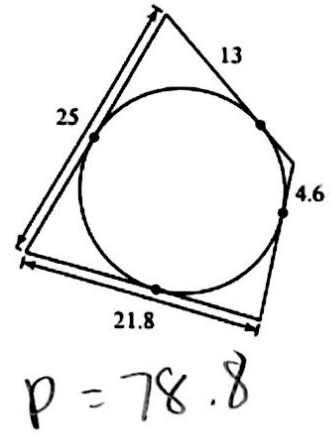
$x = 2.3333$

Tangents

Solve for the variable.

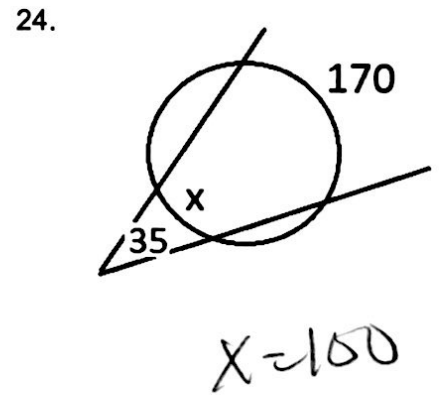
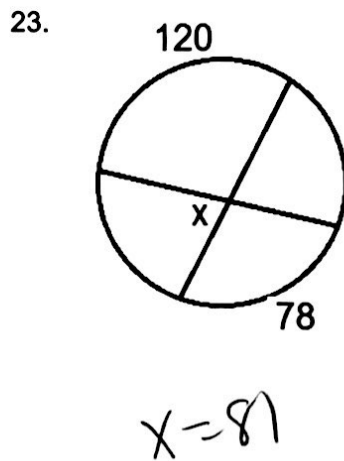
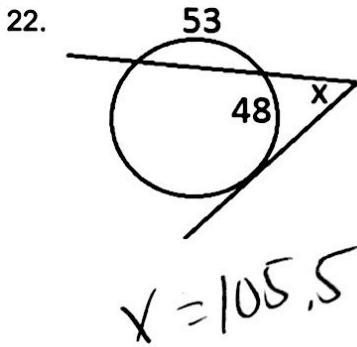


21. Find perimeter.



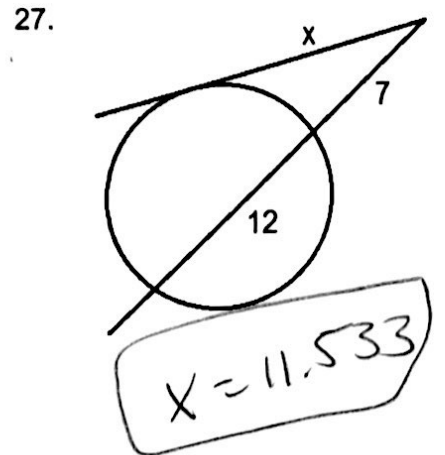
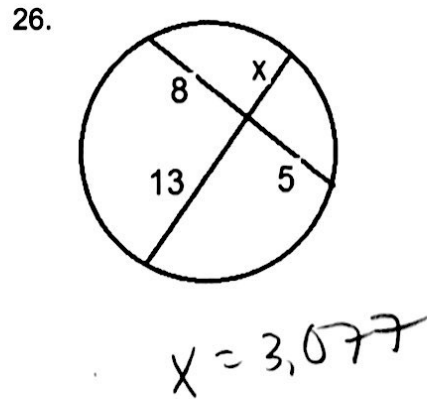
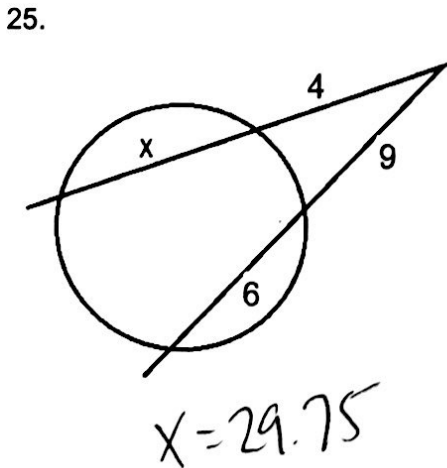
Angles Formed By Secants, Tangents, and Chords

Solve for x.



Lengths Formed By Secants, Tangents, and Chords

Solve for x.



Fun with Factoring!!

Factor.

28. $4x^2 - 9$

$$(2x+3)(2x-3)$$

29. $-6g^7 + 7g^4$

$$g^4(-6g^3 + 7)$$

30. $w^2 - 5w + 6$

$$(w-6)(w+1)$$

31. $5a^3 - 10a^2 - 15a$

$$5a(a-3)(a+2)$$

32. $3x+2$

DNE

33. $20x^2 + 13x + 2$

$$(4x+1)(5x+2)$$