

Unit 6 Review - Circles

NAME _____

Arc Length and Area of a Sector

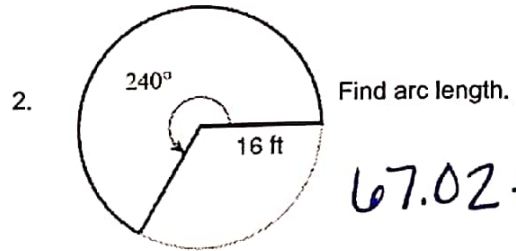
Find each requested measurement.

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°



67.02 ft

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

6.09 cm

Equation of a Circle

Determine the center and radius of each circle.

5. $(x - 5)^2 + (y + 6)^2 = 9$

$(5, -6) \quad r = 3$

6. $(x - 9)^2 + y^2 = 60$

$(9, 0) \quad r = 2\sqrt{15}$

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

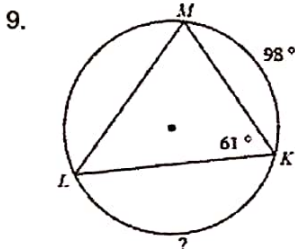
$(-4, 2) \quad r = 3$

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

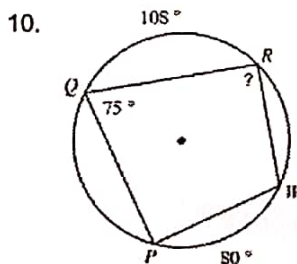
$(-12, -5) \quad r = 3$

Inscribed Angles

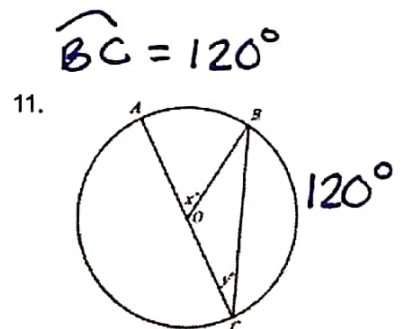
Solve for each indicated measurement.



140°

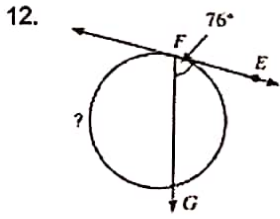


91°



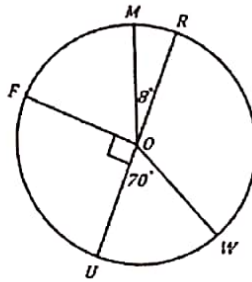
$x = 60^\circ$

$y = 30^\circ$



208°

13. Find arc MRF.

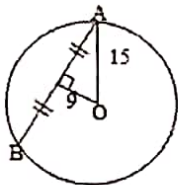


278°

Chords

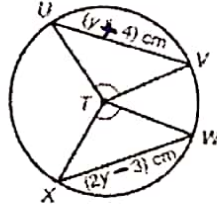
Solve for each indicated measurement.

14. Find length of AB



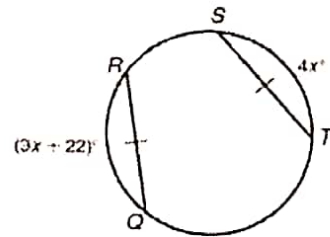
24

15.



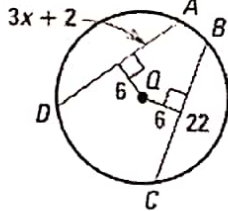
$y = 7$

16.



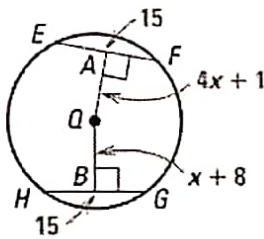
$x = 22$

17.



$x = 3$

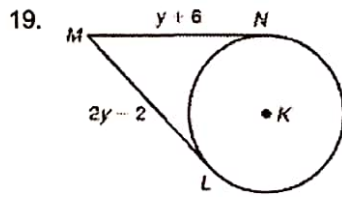
18.



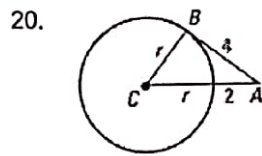
$x = 2.33$

Tangents

Solve for the variable.

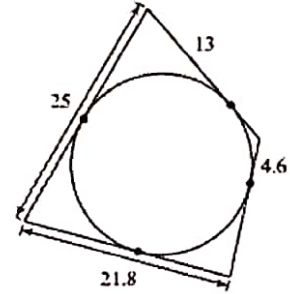


$y = 8$



$r = 3$

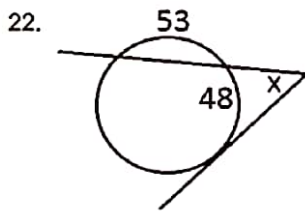
21. Find perimeter.



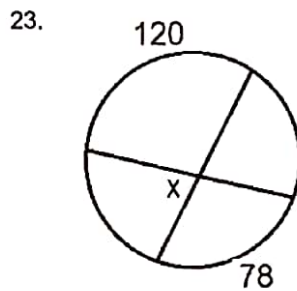
78.8

Angles Formed By Secants, Tangents, and Chords

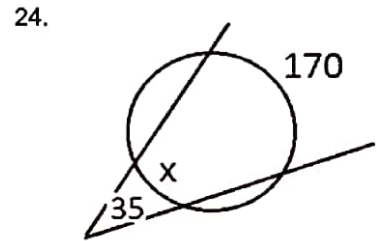
Solve for x.



105.5°



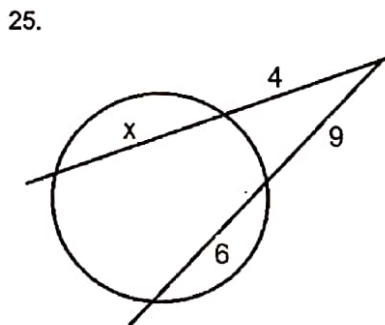
81°



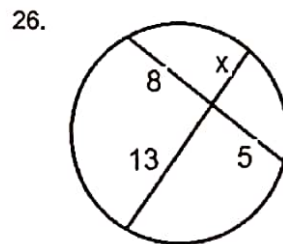
100°

Lengths Formed By Secants, Tangents, and Chords

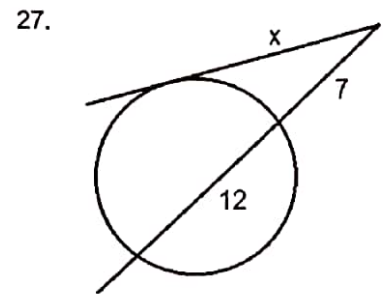
Solve for x.



29.75



3.08



11.53

Fun with Factoring!!

Factor.

28. $4x^2 - 9$

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

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

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

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

$$(w-3)(w-2)$$

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

$$5a(a-3)(a+1)$$

32. $3x+2$

DNF

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

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