

NAME Ruby

Arc Length and Area of a Sector
Find each requested measurement.

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

$A = 5.26 \text{ m}^2$

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

$\theta = 243.63^\circ$

Equation of a Circle
Determine the center and radius of each circle.

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

Center: $(5, -6)$ $r = 3$

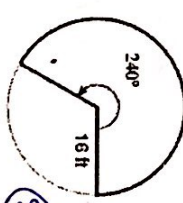
7. $x^2 + y^2 + 8x - 4y + 11 = 0$

$(x+4)^2 + (y-2)^2 = 9$

Center: $(-4, 2)$

$r = 3$

2.



Find arc length.

$s = 66.99 \text{ ft}$

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

$r = 6.09 \text{ cm}$

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

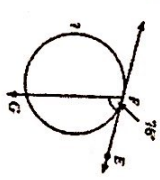
Center: $(9, 0)$ $r = \sqrt{60}$

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

$(x+12)^2 + (y+5)^2 = 9$

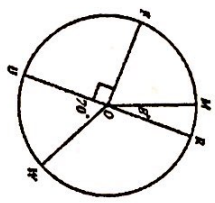
Center: $(-12, -5)$ $r = 3$

12.



208°

13. Find arc MR.

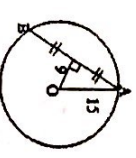


278°

Chords

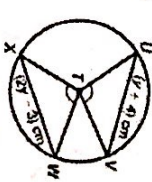
Solve for each indicated measurement.

14. Find length of AB



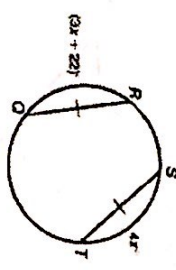
$AB = 24$

- 15.



$y = 7$

- 16.

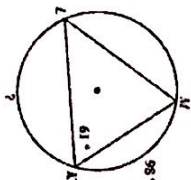


$x = 22$

Inscribed Angles

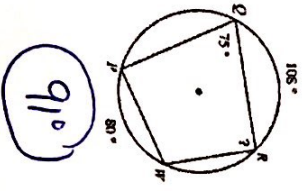
Solve for each indicated measurement.

9.



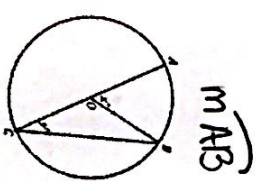
140°

10.



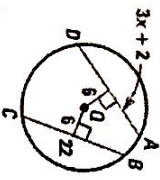
91°

11.



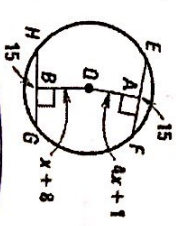
$x = 40^\circ$
 $y = 20^\circ$

17.



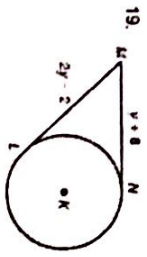
$x = 3$

18.

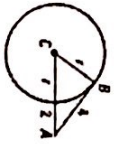


$x = 7/3$

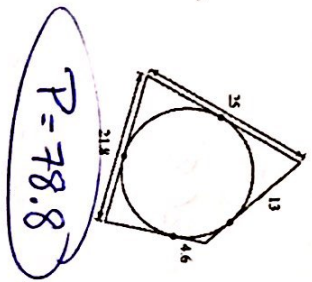
Tangents
Solve for the variable.



$y = 8$



$r = 3$



$P = 78.8$

Fun with Factorial
Factor.

28. $4x^2 - 9$

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

29. $-6g^2 + 7g^4$

$g^2(-6g + 7g^2)$

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

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

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

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

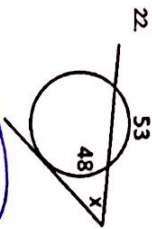
32. $3x+2$

$3x+2$

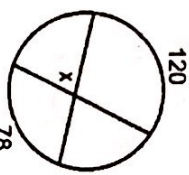
33. $20x^2 + 13x + 2$

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

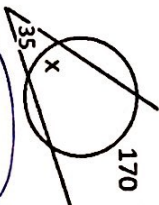
Angles Formed By Secants, Tangents, and Chords
Solve for x.



$x = 105.5^\circ$

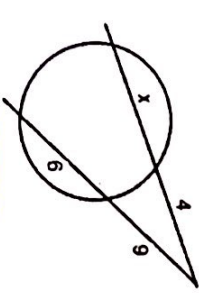


$x = 81^\circ$

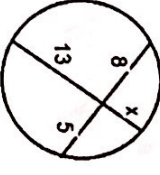


$x = 100^\circ$

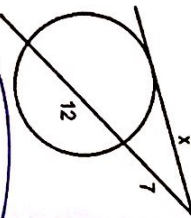
Lengths Formed By Secants, Tangents, and Chords
Solve for x.



$x = 29.75$



$x = 3.08$



$x = \sqrt{133}$
or 11.53