

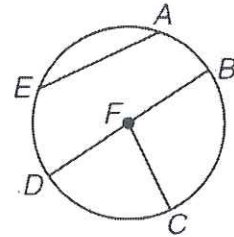
Chapter 10 Review  
Geometry

Name:

Key

Use the picture to the right for #1-5.

- Name the circle:  $\odot F$
  - Name a radii of the circle:  $\overline{FC}$
  - Name a major arc:  $\widehat{AED}$
  - Name a minor arc:  $\widehat{CD}$
5. If  $BD = 8$  inches what is  $FC$ ?

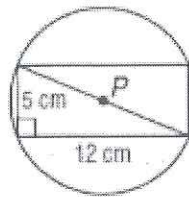


$\frac{8}{2} = 4$  inches

6. What is the exact circumference of  $\odot P$ ?

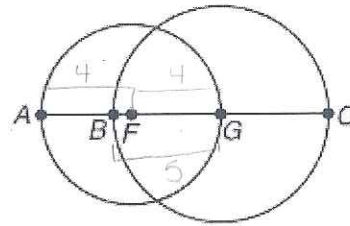
$d^2 = 25 + 144$   
 $d^2 = 169$   
 $d = 13$

$C = 13\pi$



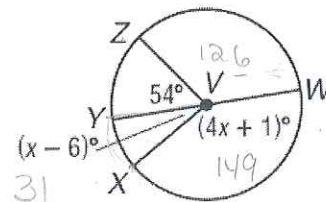
The diameters of  $\odot F$  and  $\odot G$  are 8 and 10 units, respectively. Find each measure.

7.  $BF = 1$                       8.  $AB = 3$



9. In  $\odot V$ ,  $\overline{YW}$  is a diameter. Find each measure.

$m\angle XVW = 149$                        $m\angle ZVW = 126$   
 $m\widehat{YX} = 31$                                $m\widehat{XW} = 149$



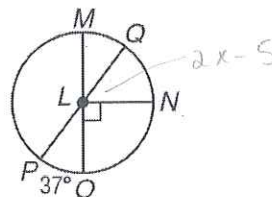
10. In  $\odot L$ ,  $m\angle QLN = 2x - 5$ . Find  $x$ .

$90 - 37 = 53$

$2x - 5 = 53$

$2x = 58$

$x = 29$



$x - 6 + 4x + 1 = 180$

$5x - 5 = 180$

$5x = 185$

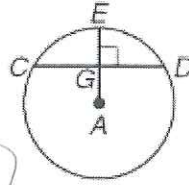
$x = 37$

13. If  $CG = 5x + 2$  and  $GD = 7x - 12$ , find  $x$ .

$$5x + 2 = 7x - 12$$

$$14 = 2x$$

$$x = 7$$



14. In  $\odot P$ ,  $m\widehat{SV} = 120$  and  $m\angle RPS = 76$ . Find each measure.

$$m\angle PRS = \underline{52}$$

$$m\widehat{RSV} = \underline{196}$$

$$m\widehat{RT} = \underline{120}$$

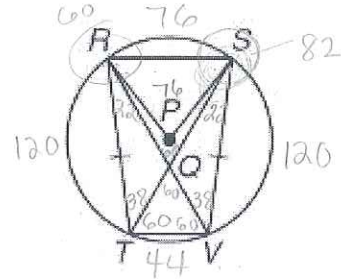
$$m\angle RVT = \underline{60}$$

$$m\angle QRS = \underline{60}$$

$$m\angle STV = \underline{60}$$

$$m\widehat{TV} = \underline{44}$$

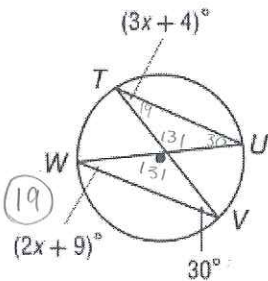
$$m\angle SVT = \underline{98}$$



76

Find each measure.

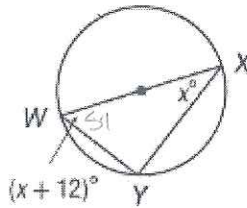
15.  $m\angle W = 19$ ,  $m\angle U = 30$



$$2x + 9 = 3x + 4$$

$$5 = x$$

16.  $m\angle W = 51$ ,  $m\angle X = 39$

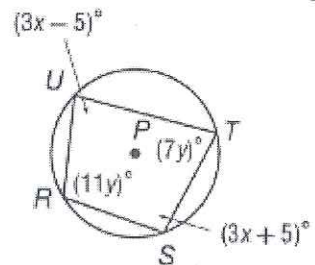


$$x + x + 12 = 90$$

$$2x = 78$$

$$x = 39$$

17.  $m\angle R = 110$ ,  $m\angle S = 95$



$$11y + 7y = 180$$

$$18y = 180$$

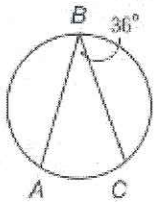
$$y = 10$$

$$3x - 5 + 3x + 5 = 180$$

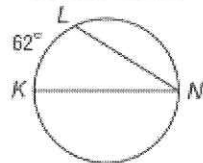
$$6x = 180$$

$$x = 30$$

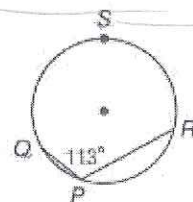
18.  $m\widehat{AC} = 72$



19.  $m\angle N = 31$



20.  $m\widehat{QSR} = 226$



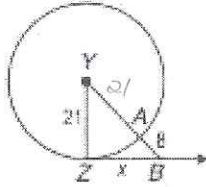
Find x. Assume that segments that appear to be tangent are tangent.

22.

$$29^2 = 21^2 + x^2$$

$$x^2 = 400$$

$$x = 20$$



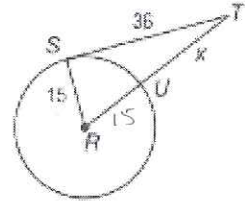
23.

$$(x+15)^2 = 15^2 + 36^2$$

$$(x+15)^2 = 1521$$

$$x+15 = 39$$

$$x = 24$$



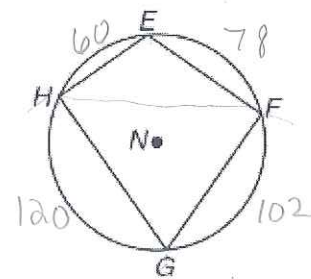
24. Quadrilateral EFGH is inscribed in  $\odot N$  such that  $m\widehat{FG} = 102$ ,  $m\widehat{GH} = 120$ ,  $m\widehat{HG} = 180$ . Find each measure.

$$m\angle E = 111$$

$$m\angle F = 90$$

$$m\angle G = 69$$

$$m\angle H = 90$$

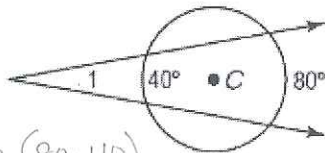


$$m\angle E = (120 + 102) \div 2$$

$$m\angle G = (60 + 78) \div 2$$

Find each measured angle that is labeled.

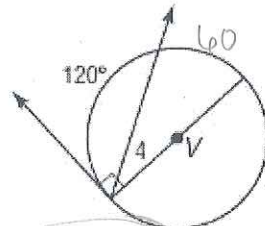
28.



$$\angle 1 = \frac{1}{2}(80 - 40)$$

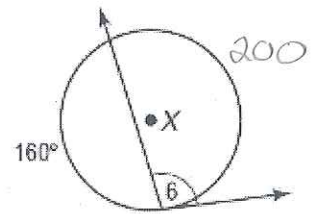
$$\angle 1 = 20$$

29.



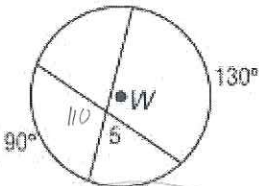
$$\angle 4 = 30$$

30.



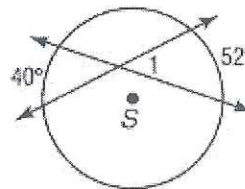
$$\angle 6 = 100$$

31.



$$\angle 5 = 70$$

32.



$$\angle 1 = (52 + 40) \div 2 = 46$$

Find x.

33.



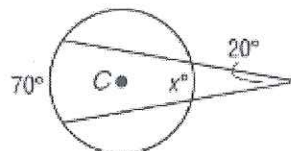
$$50 = \frac{1}{2}(360 - x - x)$$

$$100 = 360 - 2x$$

$$-260 = -2x$$

$$x = 130$$

34.

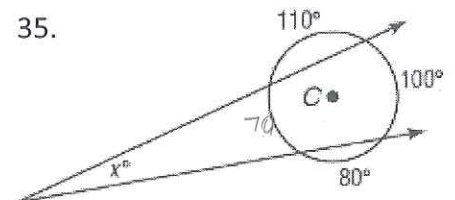


$$20 = \frac{1}{2}(70 - x)$$

$$40 = 70 - x$$

$$x = 30$$

35.



$$x = \frac{1}{2}(110 - 80)$$

$$x = 15$$

Write an equation for each circle.

36. center at  $(-7, 11)$ ,  $r = 8$

$$(x+7)^2 + (y-11)^2 = 64$$

37. center at  $(12, -9)$ ,  $d = 22$

$$(x-12)^2 + (y+9)^2 = 121$$

38. a circle with center at  $(-5, 3)$  and a radius with endpoint  $(2, 3)$

$$(x+5)^2 + (y-3)^2 = 49$$

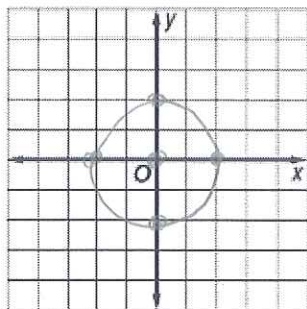
39. a circle whose diameter has endpoints  $(4, 6)$  and  $(-2, 6)$

$$C = \left( \frac{4-2}{2}, \frac{6+6}{2} \right) = (1, 6) \quad r = 3$$

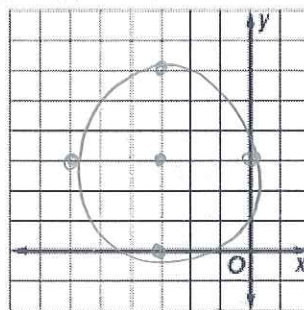
$$(x-1)^2 + (y-6)^2 = 9$$

Graph each equation.

40.  $x^2 + y^2 = 4$



41.  $(x+3)^2 + (y-3)^2 = 9$



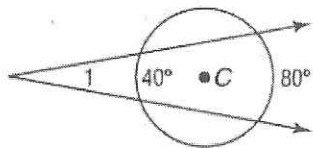




10-6

Find each measure.

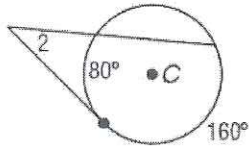
1.  $m\angle 1$



$$\angle 1 = \frac{1}{2}(80 - 40)$$

$$\angle 1 = 20^\circ$$

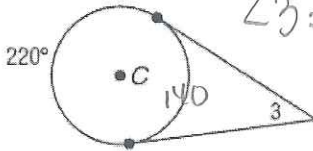
2.  $m\angle 2$



$$\angle 2 = \frac{1}{2}(160 - 80)$$

$$\angle 2 = 40^\circ$$

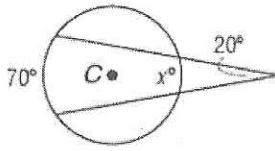
3.  $m\angle 3$



$$\angle 3 = \frac{1}{2}(220 - 140)$$

$$\angle 3 = 40^\circ$$

4.  $x$

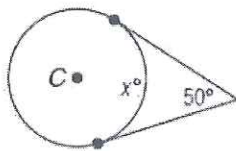


$$20 = \frac{1}{2}(70 - x)$$

$$40 = 70 - x$$

$$x = 30^\circ$$

5.  $x$

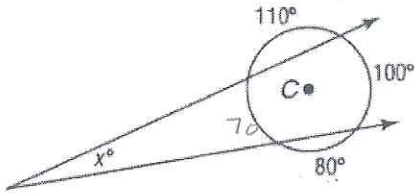


$$50 = \frac{1}{2}(360 - x - x)$$

$$-260 = -2x$$

$$x = 130$$

6.  $x$

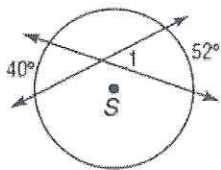


$$x = \frac{1}{2}(30)$$

$$x = 15^\circ$$

Find each measure.

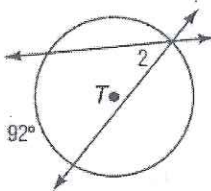
1.  $m\angle 1$



$$\angle 1 = \frac{1}{2}(52 + 40)$$

$$\angle 1 = 46^\circ$$

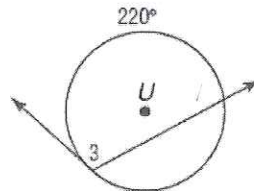
2.  $m\angle 2$



$$\angle 2 = \frac{1}{2}(92)$$

$$\angle 2 = 46^\circ$$

3.  $m\angle 3$



$$\angle 3 = \frac{1}{2}(220)$$

$$\angle 3 = 110^\circ$$