

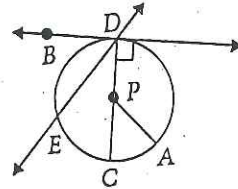
Take this test on your own paper, then check your solutions with the key.

1-4, Use the diagram at right

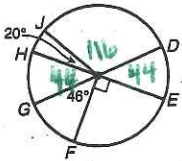
1.  $\overline{BD}$  is a ? 2.  $\overline{ED}$  is a ?

3.  $\overline{ED}$  is a ? 4.  $\overline{DC}$  is a ?

1. tangent
2. chord
3. secant
4. diameter

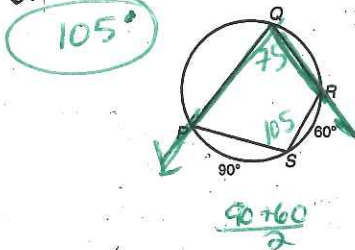


5. Which of these arcs has a measure of  $134^\circ$ ?

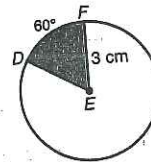


- A  $\overline{FJ}$       C  $\overline{EG}$   
 B  $\overline{DF}$       D  $\overline{DH}$

6. Find  $m\angle RSP$ .



7. Find the area of sector DEF.



$$\left(\pi 3^2\right) \left(\frac{60}{360}\right)$$

$$4.71 \text{ cm}^2$$

#8-14, Use the diagram indicated at right.

8. If  $\overline{EB}$  is a diameter, then ? is a right angle.

$\angle BDE$  or  $\angle EBY$

9.  $m\overline{VR} = 120$ ;  $m\angle 3 =$  ?

$$360 - 120 = 240$$

$$120^\circ$$

10. If  $m\angle CDE = 110$ , then  $m\overline{CAE} =$  ?

$$220^\circ$$

11.  $m\overline{SV} = 130$ ;  $m\angle VWS =$  ?

$$360 - 130 = 230$$

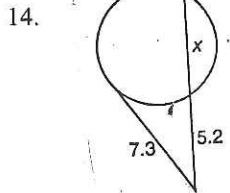
$$\frac{230 - 130}{2} = 50^\circ$$

12.  $m\overline{QR} = 70$ ;  $m\overline{UT} = 32$ .  $m\angle 2 =$  ?

$$\frac{70 - 32}{2} = 19^\circ$$

13.  $m\overline{VU} = 40$ ;  $m\overline{QR} = 75$ .  $m\angle 1 =$  ?

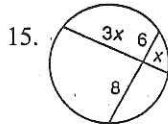
$$\frac{40 + 75}{2} = 57.5^\circ$$



$$x = 5.04$$

$$7.3^2 = 5.2(5.2 + x)$$

$$53.29 = 26.24 + 5.2x$$



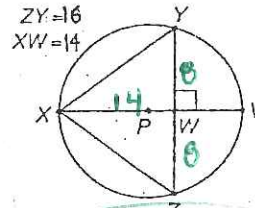
$$x = 4$$

$$3x \cdot x = 6 \cdot 8$$

$$3x^2 = 48$$

$$x = 4$$

16.



$$XZ = 16.12$$

$$8^2 + 14^2 = x^2$$

17. Graph the circle:  $(x - 4)^2 + (y + 3)^2 = 4$

18. Write the equation of the circle with center  $(-1, 6)$  and radius of  $\sqrt{7}$ .

$$(x + 1)^2 + (y - 6)^2 = 7$$

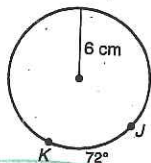
19. The center of a circle is  $(4, -5)$ .  $(2, -8)$  is a point on the circle. Find the radius of circle.

$$2^2 + 3^2 = r^2$$

$$13 = r^2$$

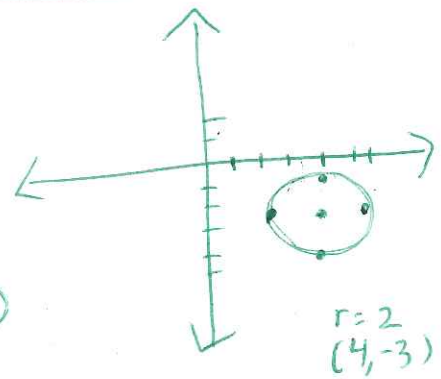
$$r = 3.61$$

20. Find the length of  $\overline{JK}$ .



$$\frac{72}{360} (2\pi 6)$$

$$7.54 \text{ cm}$$



$$r = 2$$

$$(4, -3)$$