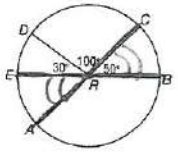
Mult of 3

NAME _____ DATE _____ PERIOD _____

10-2 Skills Practice

Measuring Angles and Arcs

$\overline{AC}$ and $\overline{EB}$ are diameters of ⊙R. Identify each arc as a *major arc*, *minor arc*, or *semicircle* of the circle. Then find its measure.



1. $m\overset{\frown}{EA}$

2. $m\overset{\frown}{CB}$

3. $m\overset{\frown}{DC}$ minor arc 100°

4. $m\overset{\frown}{DEB}$

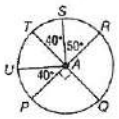
5. $m\overset{\frown}{AB}$

6. $m\overset{\frown}{CDA}$ semicircle 180°

$\overline{PR}$ and $\overline{QT}$ are diameters of ⊙A. Find each measure.

7. $m\overset{\frown}{UPQ}$

8. $m\overset{\frown}{PQR}$



9. $m\overset{\frown}{UTS}$ $m\overset{\frown}{PR}=180$ $m\overset{\frown}{UT}=180-50-40-40=50$ $m\overset{\frown}{UTS}=50+40=90°$

10. $m\overset{\frown}{RS}$

11. $m\overset{\frown}{RSU}$

12. $m\overset{\frown}{STP}$ $40+50+40=130°$

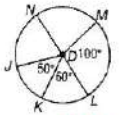
13. $m\overset{\frown}{PQS}$

14. $m\overset{\frown}{PRU}$

Use ⊙D to find the length of each arc. Round to the nearest hundredth.

15. $\overset{\frown}{LM}$ if the radius is 5 inches $\frac{100}{360}=\frac{l}{2\pi r}\rightarrow\frac{100}{360}\times\frac{l}{10\pi}$ $1000\pi=360l$

16. $\overset{\frown}{MN}$ if the diameter is 3 yards $l\approx 8.73$ inches



17. $\overset{\frown}{KL}$ if $JD = 7$ centimeters

18. $\overset{\frown}{NJK}$ if $NL = 12$ feet $m\overset{\frown}{NJK}=180-60=120$ $\frac{120}{360}=\frac{l}{\pi d}$ $\frac{120}{360}=\frac{l}{12\pi}$ $1440\pi=360l$ $\frac{1440\pi}{360}=\frac{360l}{360}$ $12.57\text{ ft}\approx l$

19. $\overset{\frown}{KLM}$ if $DM = 9$ millimeters

20. $\overset{\frown}{JK}$ if $KD = 15$ inches

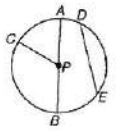
Lesson 10-2

NAME _____ DATE _____ PERIOD _____

10-1 Skills Practice

Circles and Circumference

For Exercises 1–7, refer to ⊙P.



1. Name the circle.

2. Name a radius.

3. Name a chord. $\overline{DE}$ and $\overline{AB}$

4. Name a diameter.

5. Name a radius not drawn as part of a diameter.

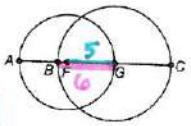
6. Suppose the diameter of the circle is 16 centimeters. Find the radius. $2r=d$ $2\cdot r=16$ $r=8$ cm

7. If $PC = 11$ inches, find AB.

The diameters of ⊙F and ⊙G are 5 and 6 units, respectively. Find each measure.

8. BF $6-5=1$

9. AB $AF=5$ $BF=1$ $\therefore AB=4$



Find the diameter and radius of a circle with the given circumference. Round to the nearest hundredth.

10. $C = 36$ m

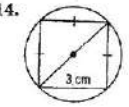
11. $C = 17.2$ ft

12. $C = 81.3$ cm $C=2\pi r$ $81.3=2\pi r$ $\frac{81.3}{2\pi}=\frac{2\pi r}{2\pi}$ $r\approx 12.71$ cm $d\approx 25.41$ cm

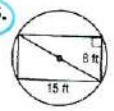
13. $C = 5$ yd

Find the exact circumference of each circle.

14.



15.



diameter/hypotenuse

$8^2+15^2=d^2$ $64+225=d^2$ $289=d^2$ $d=\sqrt{289}$ $d=17$

$C=\pi d$ $=\pi\cdot 17$ $C=17\pi$ ft

Lesson 10-1

X

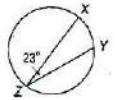
NAME _____ DATE _____ PERIOD _____

10-4 Skills Practice

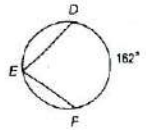
Inscribed Angles

Find each measure.

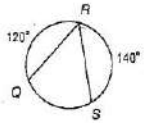
1. $m\widehat{XY}$



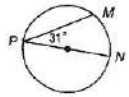
2. $m\angle E$



3. $m\angle R$



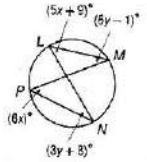
4. $m\widehat{MP}$



ALGEBRA Find each measure.

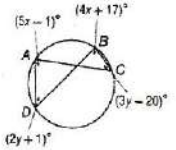
5. $m\angle N$

6. $m\angle L$



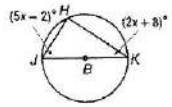
7. $m\angle C$

8. $m\angle A$



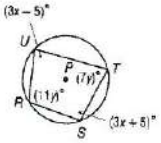
9. $m\angle J$

10. $m\angle K$



11. $m\angle S$

12. $m\angle R$



Lesson 10-4

Odd #

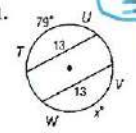
NAME _____ DATE _____ PERIOD _____

10-3 Skills Practice

Arcs and Chords

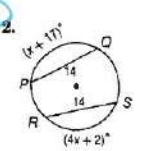
ALGEBRA Find the value of x in each circle.

1. ≅ chords → ≅ arcs



$x = 79$

2.



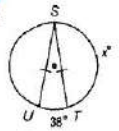
3. ≅ arcs → ≅ chords

$2x - 12 = 36$

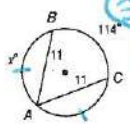
$2x = 48$

$x = 24$

4.



5. ≅ chords → ≅ arcs

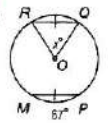


$114 + 2x = 360$

$2x = 246$

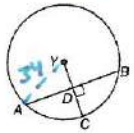
$x = 123$

6.



Radius that is perpendicular bisects chord and arc.

In ⊙Y the radius is 34, $AB = 60$, and $m\widehat{AC} = 71$. Find each measure.



7. $m\widehat{BC} = m\widehat{AC} = 71$

8. $m\widehat{AB}$

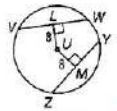
9. $AD = \frac{1}{2}AB = \frac{1}{2} \cdot 60 = 30$

10. BD

11. YD $30^2 + x^2 = 34^2$

12. DC

13. In ⊙U, $VW = 20$ and $YZ = 5x$. What is x?

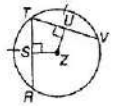


$VW = YZ$

$20 = 5x$

$x = 4$

14. In ⊙Z, $\widehat{TR} \cong \widehat{TV}$, $SZ = x + 4$, and $UZ = 2x - 1$. What is x?



$900 + x^2 = 1156$

$\sqrt{x^2} = \sqrt{256}$

$x = 16$

If chords are equidistant from the center, they are ≅

Lesson 10-3