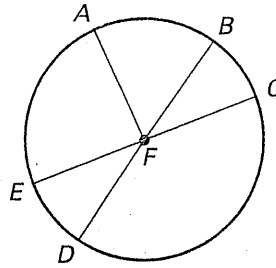


LESSON 10.2 Practice
For use with pages 659-663

answer key

In $\odot F$, determine whether the given arc is a *minor arc*, *major arc*, or *semicircle*.



1. \widehat{AB}
minor arc

2. \widehat{AE}

3. \widehat{EAC}
semicircle

4. \widehat{ACD}

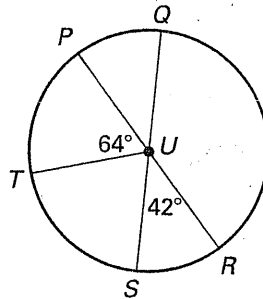
5. \widehat{CAD}
major arc

6. \widehat{DEB}

7. \widehat{BAE}
minor arc

8. \widehat{DEC}

In the figure, \overline{PR} and \overline{QS} are diameters of $\odot U$. Find the measure of the indicated arc.



9. $m\widehat{PQ}$
42°

10. $m\widehat{ST}$

11. $m\widehat{TPS}$
 $180 + 64 + 42$
 $= 286^\circ$

12. $m\widehat{RT}$

13. $m\widehat{RQS}$
 $360 - 42$
 318°

14. $m\widehat{QR}$

15. $m\widehat{PQS}$
 $180 + 42$
 $= 222^\circ$

16. $m\widehat{TQR}$

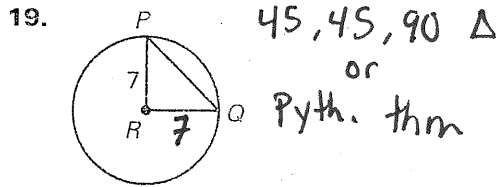
17. $m\widehat{PS}$
 $180 - 42$
 138°

18. $m\widehat{PTR}$

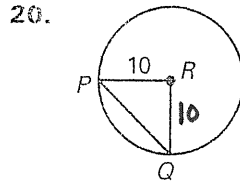
LESSON
10.2

Practice *continued*
For use with pages 659-663

\widehat{PQ} has a measure of 90° in $\odot R$. Find the length of \overline{PQ} .

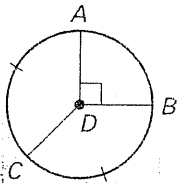


$PQ = 7\sqrt{2}$



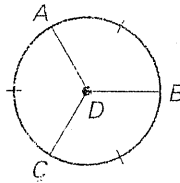
Find the indicated arc measure.

21. $m\widehat{AC}$

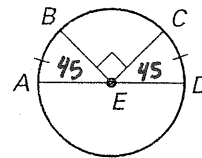


$360 - 90 = \frac{270}{2}$
 135°

22. $m\widehat{ACB}$



23. $m\widehat{DAB}$



$180 + 45 = 225^\circ$

Two diameters of $\odot T$ are \overline{PQ} and \overline{RS} . Find the given arc measure if $m\widehat{PR} = 35^\circ$.

24. $m\widehat{PS}$

$180 - 35$
 $= 145^\circ$

25. $m\widehat{PSR}$

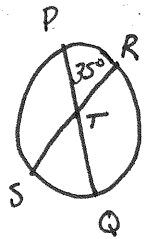
$360 - 35$
 325°

26. $m\widehat{PRQ}$

180°

27. $m\widehat{PRS}$

$180 + 35$
 $= 215^\circ$



Two diameters of $\odot N$ are \overline{JK} and \overline{LM} . Find the given arc measure if $m\widehat{JM} = 165^\circ$.

28. $m\widehat{JL}$

$180 - 165$
 $= 15^\circ$

29. $m\widehat{JMK}$

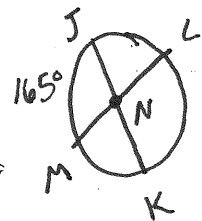
180°

30. $m\widehat{JLM}$

$360 - 165$
 195°

31. $m\widehat{KLM}$

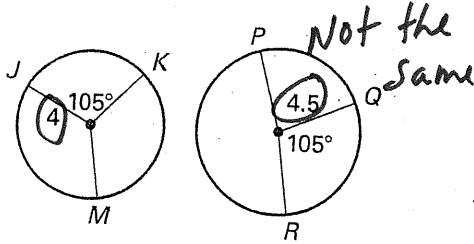
$180^\circ + 165^\circ$
 345°



LESSON 10.2 Practice *continued*
For use with pages 659-663

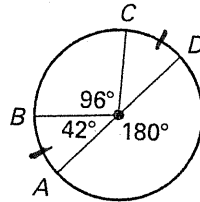
Tell whether the given arcs are congruent.

32. \widehat{JK} and \widehat{QR}



NO,

33. \widehat{AB} and \widehat{CD}

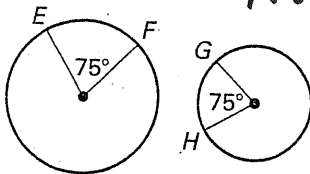


$$360 - 180 - 96 - 42 = m\widehat{CD}$$

$$42^\circ = m\widehat{CD}$$

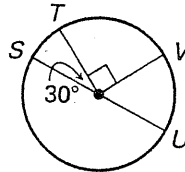
$$\widehat{AB} \cong \widehat{CD}$$

34. \widehat{EF} and \widehat{GH}



No, doesn't give radius

35. \widehat{STV} and \widehat{UVT}



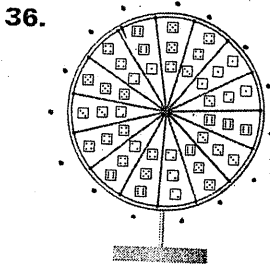
$$m\widehat{STV} = 90 + 30 = 120^\circ$$

$$m\widehat{UVT} = 180 - 30 = 60^\circ$$

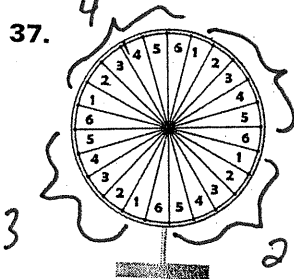
$$m\widehat{UVT} = 90 + 60 = 150^\circ$$

$$\widehat{STV} \neq \widehat{UVT}$$

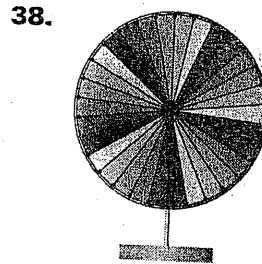
Game Shows Each game show wheel shown is divided into congruent sections. Find the measure of each arc.



$$\frac{360}{15} = 24^\circ$$



$$4 \times 6 = 24 \quad \frac{360}{24} = 15^\circ$$



In Exercises 39 and 40, use the following information.

Sprinkler A water sprinkler covers the area shown in the figure. It moves through the covered area at a rate of about 5° per second.

39. What is the measure of the arc covered by the sprinkler?

$$180^\circ - 10^\circ = 170^\circ$$

40. If the sprinkler starts at the far left position, how long will it take for the sprinkler to reach the far right position?

$$\frac{170}{5} = 34 \text{ sec.}$$

