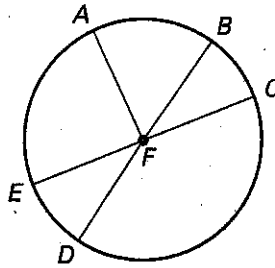**LESSON 10.2** **Practice B**
For use with pages 659–663
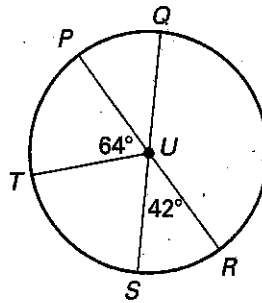
In ⊙F, determine whether the given arc is a *minor arc, major arc,* or *semicircle.*

1. $\overset{\frown}{AB}$

2. $\overset{\frown}{AE}$

3. $\overset{\frown}{EAC}$

4. $\overset{\frown}{ACD}$

5. $\overset{\frown}{CAD}$

6. $\overset{\frown}{DEB}$

7. $\overset{\frown}{BAE}$

8. $\overset{\frown}{DEC}$

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

9. $m\overset{\frown}{PQ}$

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

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

12. $m\overset{\frown}{RT}$

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

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

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

16. $m\overset{\frown}{TQR}$

17. $m\overset{\frown}{PS}$

18. $m\overset{\frown}{PTR}$

$\overset{\frown}{PQ}$ has a measure of 90° in ⊙R. Find the length of $\overline{PQ}$.

19.

20.
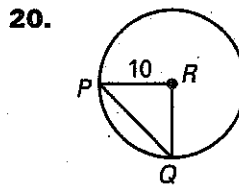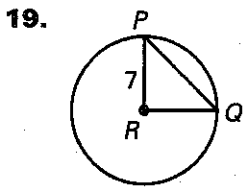
Find the indicated arc measure.

21. $m\overset{\frown}{AC}$

22. $m\overset{\frown}{ACB}$

23. $m\overset{\frown}{DAB}$
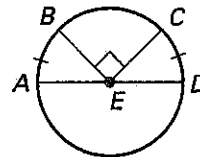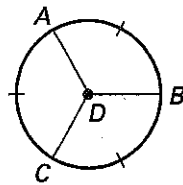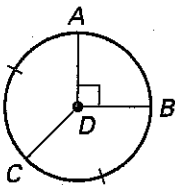
Two diameters of ⊙T are $\overline{PQ}$ and $\overline{RS}$. Find the given arc measure if $m\overset{\frown}{PR} = 35°$.

24. $m\overset{\frown}{PS}$

25. $m\overset{\frown}{PSR}$

26. $m\overset{\frown}{PRQ}$

27. $m\overset{\frown}{PRS}$

LESSON 10.2 | **Practice B** *continued*
For use with pages 659–663

Two diameters of ⊙N are $\overline{JK}$ and $\overline{LM}$. Find the given arc measure if $m\overset{\frown}{JM} = 165°$.

28. $m\overset{\frown}{JL}$ **29.** $m\overset{\frown}{JMK}$ **30.** $m\overset{\frown}{JLM}$ **31.** $m\overset{\frown}{KLM}$

Tell whether the given arcs are congruent.

32. $\overset{\frown}{JK}$ and $\overset{\frown}{QR}$

33. $\overset{\frown}{AB}$ and $\overset{\frown}{CD}$
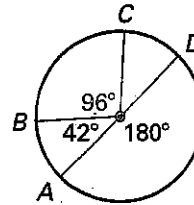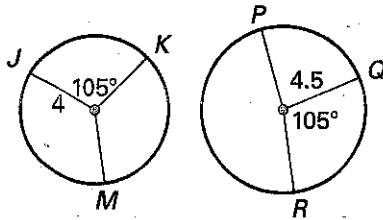
34. $\overset{\frown}{EF}$ and $\overset{\frown}{GH}$

35. $\overset{\frown}{STV}$ and $\overset{\frown}{UVT}$
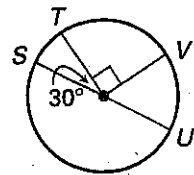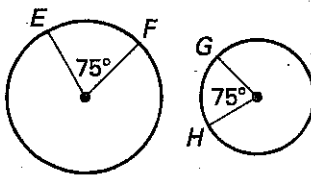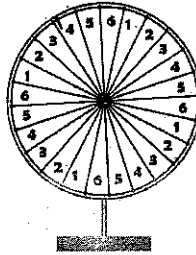
Game Shows **Each game show wheel shown is divided into congruent sections. Find the measure of each arc.**
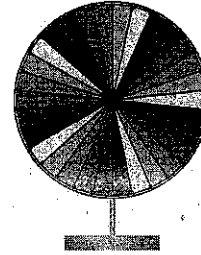
36.
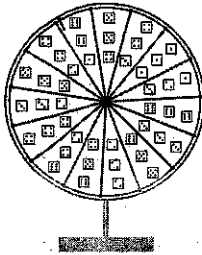
37.

38.

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.

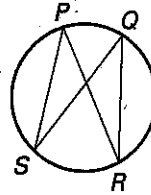**39.** What is the measure of the arc covered by the sprinkler?

40. If the sprinkler starts at the far left position, how long will it take for the sprinkler to reach the far right position?
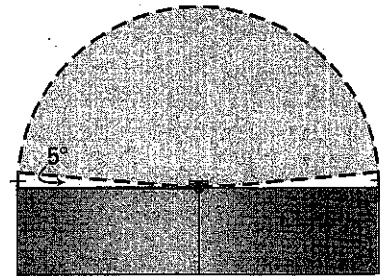
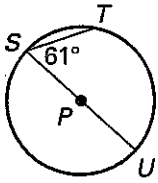**LESSON 10.4** **Practice B**
For use with pages 671–679

1. **Multiple Choice** In the figure shown, which statement is true?

   A. $\angle SPR \cong \angle PSQ$ **B.** $\angle RQS \cong \angle RPS$

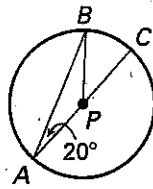   **C.** $\angle RPS \cong \angle PRQ$ **D.** $\angle PRQ \cong \angle SQR$

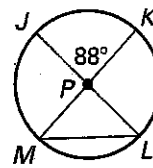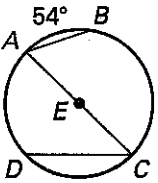**Find the measure of the indicated angle or arc in $\odot P$.**

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

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

4. $m\angle JLM$

5. $m\angle A$

6. $m\angle K$
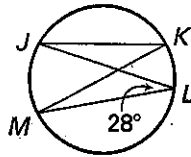
7. $m\overset{\frown}{VST}$
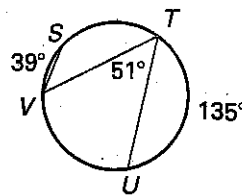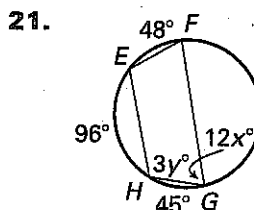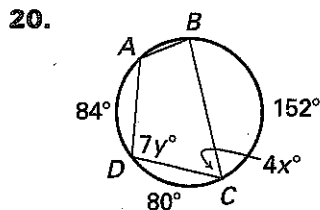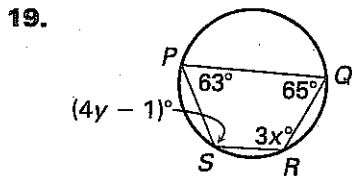
Find the measure of the indicated angle or arc in $\odot P$, given $m\overset{\frown}{LM} = 84°$ and $m\overset{\frown}{KN} = 116°$.

8. $m\angle JKL$

9. $m\angle MKL$

10. $m\angle KMN$

11. $m\angle JKM$

12. $m\angle KLN$

13. $m\angle LNM$

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

15. $m\overset{\frown}{LKJ}$
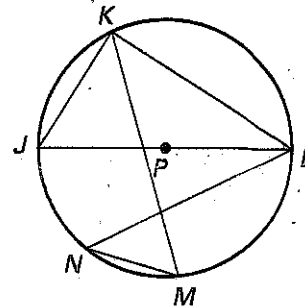
Find the values of the variables.

16.

17.

18.

19.

20.

21.
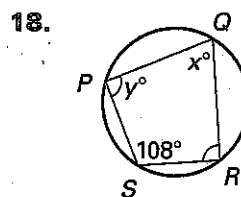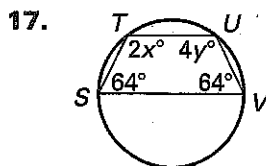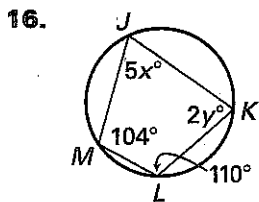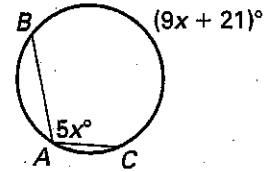
Practice B *continued*
For use with pages 671–679

22. Multiple Choice What is the value of *x* in the figure shown?
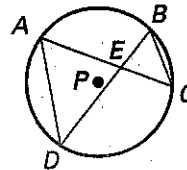
   A. 7   **B.** 12

   C. 16   **D.** 21

23. Proof Complete the proof.

   GIVEN: $\odot P$

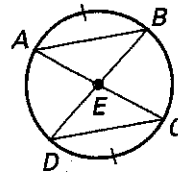   **PROVE:** $\triangle AED \sim \triangle BEC$

Statements	Reasons
1. $\odot P$	1. Given
2. _?_	2. Vertical Angles Theorem
3. $\angle CAD \cong \angle DBC$	3. _?_
4. $\triangle AED \sim \triangle BEC$	4. _?_

24. Name two other angles that could be used in Step 3 of Exercise 23.

25. Proof Complete the proof.

   GIVEN: $\overset{\frown}{AB} \cong \overset{\frown}{CD}$

   PROVE: $\triangle ABE \cong \triangle DCE$

Statements	Reasons
1. $\overset{\frown}{AB} \cong \overset{\frown}{CD}$	1. _?_
2. _?_	2. Theorem 10.3
3. _?_	3. Vertical Angles Theorem
4. $\angle BDC \cong \angle CAB$	4. _?_
5. $\triangle ABE \cong \triangle DCE$	5. _?_