HOMEWORK Mon 11/3 p.207-208 #1-20 all

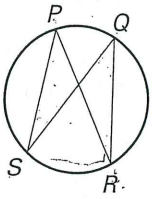
LESSON 6.4

Exercise Set A

MM2G3b Understand and use properties of central, inscribed, and related angles.

MM2G3d Justify measurements and relationships in circles using geometric and algebraic properties.

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

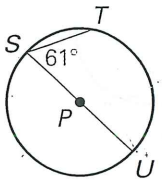


A. $\angle SPR \cong \angle PSQ$ **B.** $\angle RQS \cong \angle RPS$

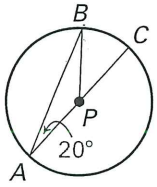
C. $\angle RPS \cong \angle PRQ$ **D.** $\angle PRQ \cong \angle SQR$

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

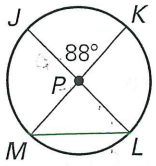
2. $m\overset{\frown}{ST}$



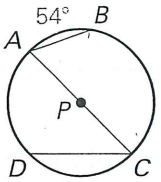
3. $m\overset{\frown}{AB}$



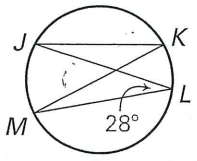
4. $m\angle JLM$



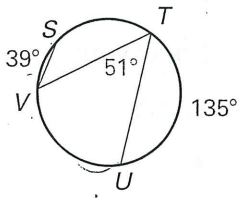
5. $m\angle A$



6. $m\angle K$



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



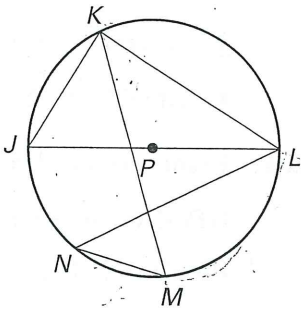
Find the measure of the indicated angle or arc in $\odot P$, given $m\overset{\frown}{LM} = 84°$ and $m\overset{\frown}{KN} = 116°$.

8. $m\angle JKL$ **9.** $m\angle MKL$

10. $m\angle KMN$ **11.** $m\angle JKM$

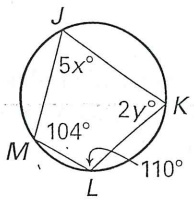
12. $m\angle KLN$ **13.** $m\angle LNM$

14. $m\overset{\frown}{MJ}$ **15.** $m\overset{\frown}{LKJ}$

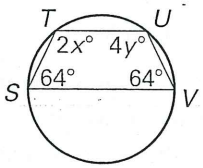


In Exercises 16–18, find the values of the variables.

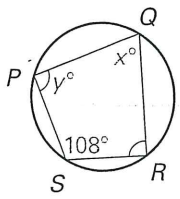
16.



17.



18.

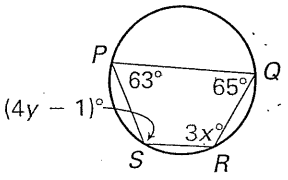


UNIT 6

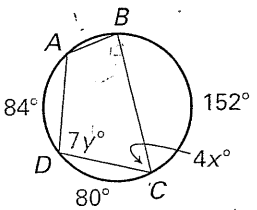
Exercise Set A *(continued)*

In Exercises 19–21, find the values of the variables.

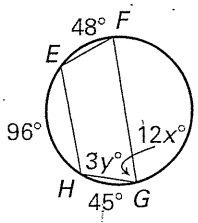
19.



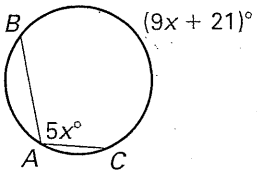
20.



21.



22. Multiple Choice What is the value of x in the figure shown?



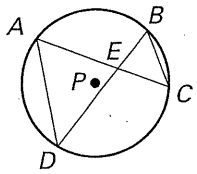
A. 7 **B.** 12

C. 16 **D.** 21

23. Proof Copy and complete the proof.

GIVEN: $\odot P$

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

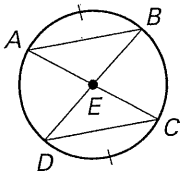


Statements	Reasons
1. $\odot P$	1. Given
2. ?	2. Vertical Angles Theorem (Two angles are vertical angles if their sides form two pairs of opposite rays. The Vertical Angles Theorem states that vertical angles are congruent.)
3. $\angle CAD \cong \angle DBC$	3. ?
4. $\triangle AED \sim \triangle BEC$	4. ?

24. Proof Copy and 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 6.5
3. ?	3. Vertical Angles Theorem (Two angles are vertical angles if their sides form two pairs of opposite rays. The Vertical Angles Theorem states that vertical angles are congruent.)
4. $\angle BDC \cong \angle CAB$	4. ?
5. $\triangle ABE \cong \triangle DCE$	5. ?

UNIT 6

HOMEWORK Mon 11/3 p. 207-208 #1-20 all

LESSON 6.4 **Exercise Set A**

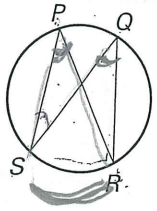
MM2G3b Understand and use properties of central, inscribed, and related angles.

MM2G3d Justify measurements and relationships in circles using geometric and algebraic properties.

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

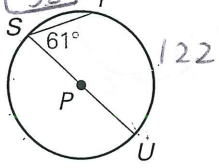
A. $\angle SPR \cong \angle PSQ$ **B.** $\angle RQS \cong \angle RPS$

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

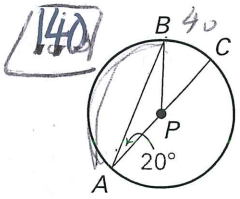


Find the measure of the indicated angle or arc in $\odot P$.

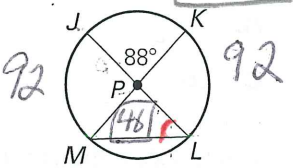
2. $m\overset{\frown}{ST}$ 58



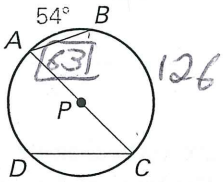
3. $m\overset{\frown}{AB}$ 140



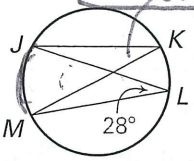
4. $m\angle JLM$ 46°



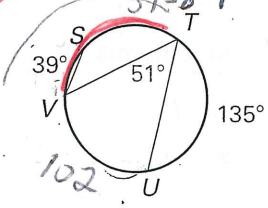
5. $m\angle A$ 63



6. $m\angle K$ $m\angle K = 28°$



7. $m\overset{\frown}{VST}$ $ST = 84$ 123°



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. $m\angle JKL$ 90°

9. $m\angle MKL$ 42°

10. $m\angle KMN$ 58°

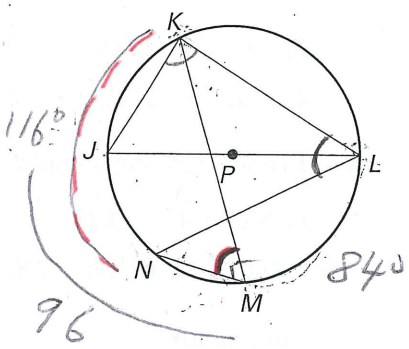
11. $m\angle JKM$ 48°

12. $m\angle KLN$ 58°

13. $m\angle LNM$ 42°

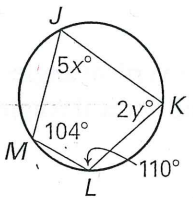
14. $m\overset{\frown}{MJ}$ 96°

15. $m\overset{\frown}{LKJ}$ 180°



In Exercises 16–18, find the values of the variables.

16.



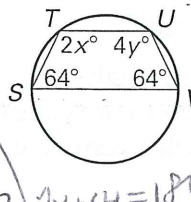
$5x + 110 = 180$

$x = 14$

$2y + 104 = 180$

$y = 38$

17.



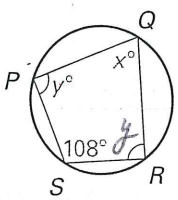
$2x + 64 = 180$

$x = 58$

$64 + 4y = 180$

$y = 29$

18.



$y = 90°$

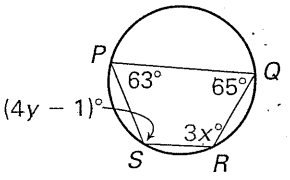
$x = 72°$

UNIT 6

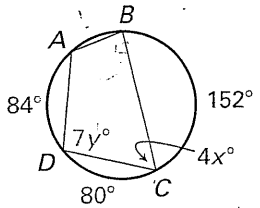
Exercise Set A *(continued)*

In Exercises 19–21, find the values of the variables.

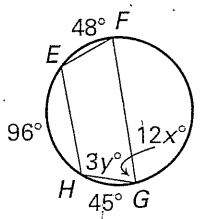
19.



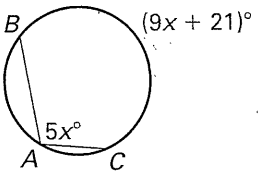
20.



21.



22. **Multiple Choice** What is the value of x in the figure shown?



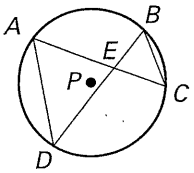
A. 7 **B.** 12

C. 16 **D.** 21

23. **Proof** Copy and complete the proof.

GIVEN: $\odot P$

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

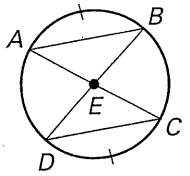


Statements	Reasons
1. $\odot P$	1. Given
2. ?	2. Vertical Angles Theorem (Two angles are vertical angles if their sides form two pairs of opposite rays. The Vertical Angles Theorem states that vertical angles are congruent.)
3. $\angle CAD \cong \angle DBC$	3. ?
4. $\triangle AED \sim \triangle BEC$	4. ?

24. **Proof** Copy and 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 6.5
3. ?	3. Vertical Angles Theorem (Two angles are vertical angles if their sides form two pairs of opposite rays. The Vertical Angles Theorem states that vertical angles are congruent.)
4. $\angle BDC \cong \angle CAB$	4. ?
5. $\triangle ABE \cong \triangle DCE$	5. ?