Geometry Unit 4A – Circles

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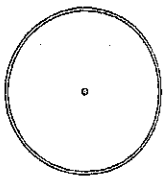
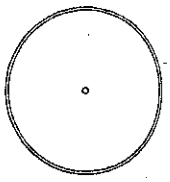
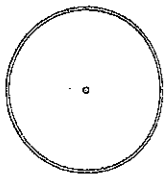
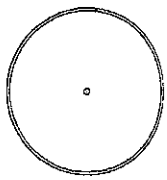
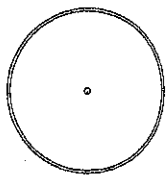
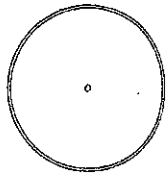
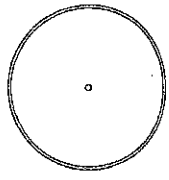
Tuesday February 23	Central Angle Pages 3-4
Wednesday February 24	Central Angle Pages 5-8
Thursday February 25	Inscribed Angles Pages 9-10
Friday February 26	Inscribe Angles Page 11
Monday February 29	**QUIZ**
Tuesday March 1	Angles with vertex inside the circle Page 12-13
Wednesday March 2	Angles with vertex outside the circle Page 14
Thursday March 3	Angles with vertex inside and outside the circle Pages 15-17
Friday March 4	Angles with vertex inside and outside the circle Pages 18-20
Monday March 7	**QUIZ** Page 21
Tuesday March 8	Inscribed Quadrilaterals Page 22
Wednesday March 9	Inscribed Quadrilaterals TBA
Thursday March 10	Review/Practice test Pages 23-24
Friday March 11	**TEST**

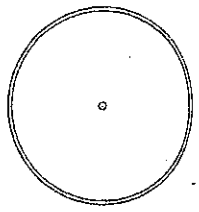
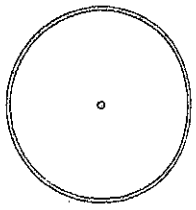
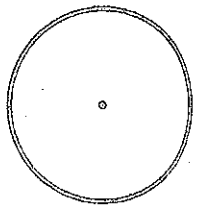
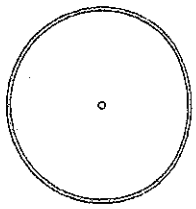
Name: _____ Date: _____

Circles: Vocabulary and Central Angles

UNIT QUESTION: What special properties are found with the parts of a circle?
MMC9-12.G.C.1-5, MMC9-12.G.GMD.1-3

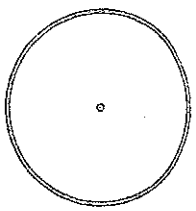
Today's Question: What are the parts of a circle? MMC9-12.G.C.2

Circle		
Chord		
Diameter		
Radius		
Secant		
Tangent		
Point of Tangency		

Central Angle		
Minor Arc		
Major Arc		
Semicircle		

You must remember:

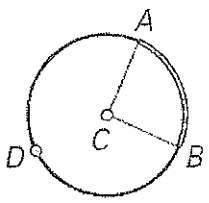
- A circle has _____ degrees
- A semicircle has _____ degrees
- Vertical Angles are _____
- Linear Pairs are _____

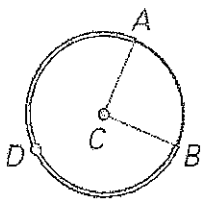
Congruent Arcs		

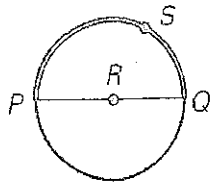
Name: _____ Date: _____

Central Angles Classwork – Practice

Name the arc shown in bold and classify it (minor, major, or semi).

1. 

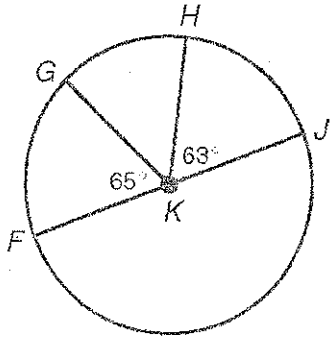
2. 

3. 

Find each measure.

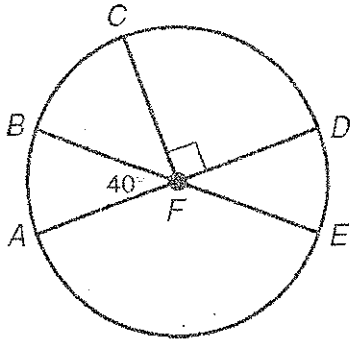
4. m*HJ* _____

5. m*FH* _____



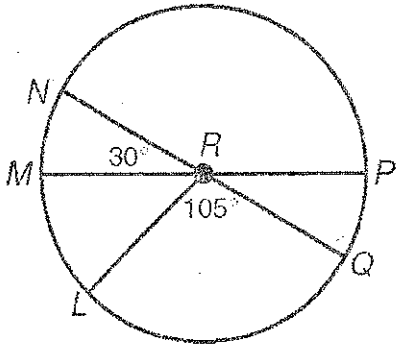
6. m*CE* _____

7. m*BD* _____

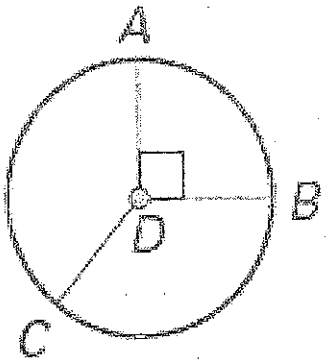


8. m*LN* _____

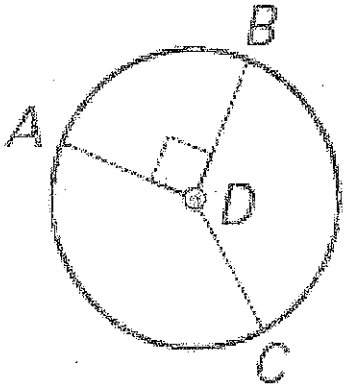
9. m*LNP* _____



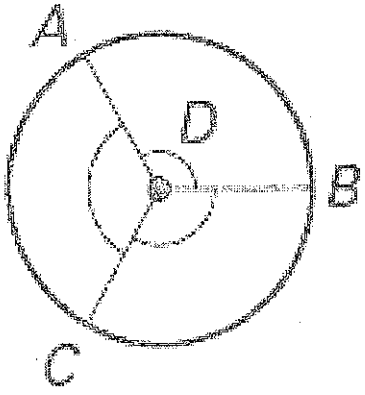
10. mAB _____



11. $mACB$ _____



12. mCA _____



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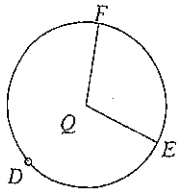
Name_____

Arcs and Central Angles

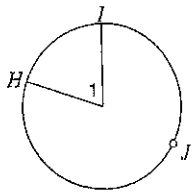
Date_____ Period____

Name the arc made by the given angle.

1) $\angle FQE$

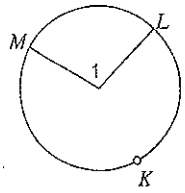


2) $\angle 1$

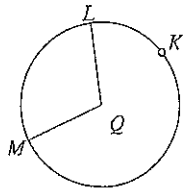


Name the central angle of the given arc.

3) $\overset{\frown}{ML}$

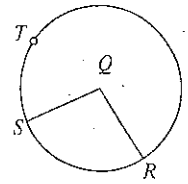


4) $\overset{\frown}{ML}$

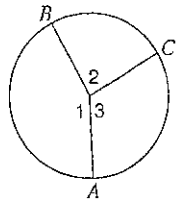


If an angle is given, name the arc it makes. If an arc is given, name its central angle.

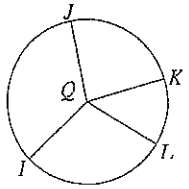
5) $\overset{\frown}{RS}$



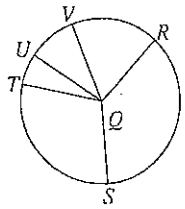
6) Major arc for $\angle 1$



7) $\angle KQL$

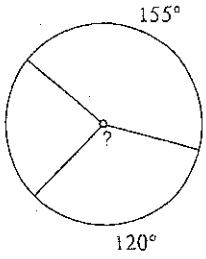


8) $\overset{\frown}{SVT}$

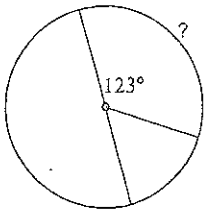


Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

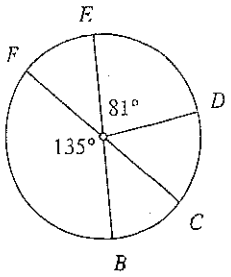
9)



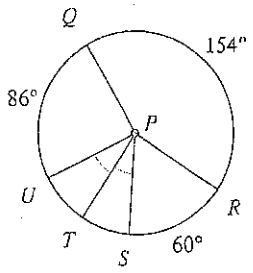
10)



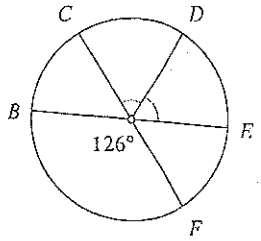
11) $m\widehat{CFD}$



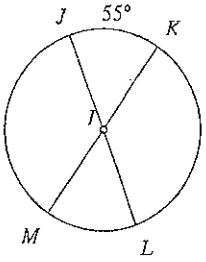
12) $m\angle SPQ$



13) $m\widehat{EFC}$

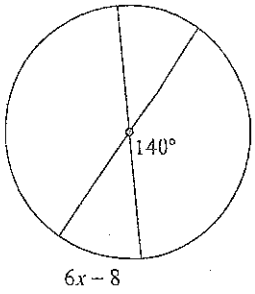


14) $m\angle MIJ$

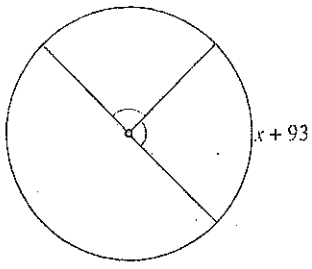


Solve for x. Assume that lines which appear to be diameters are actual diameters.

15)

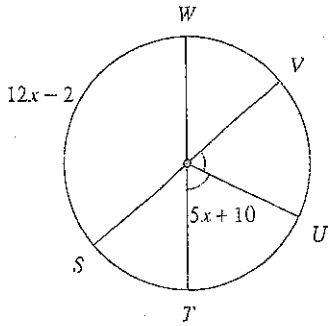


16)

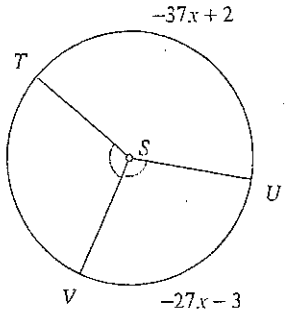


Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

17) $m\widehat{WV}$



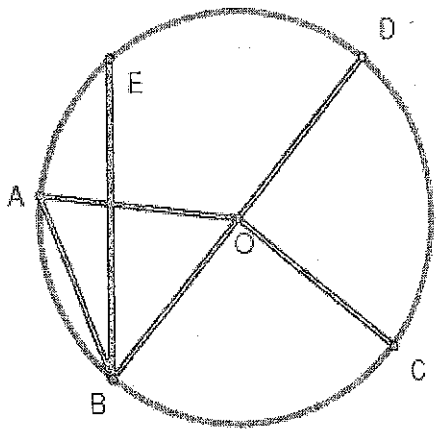
18) $m\angle VST$



Name: _____ Date: _____

Central Angles Homework

1. Identify and name each of the following from ⊙O. Be sure to use the correct notation. BD is a diameter.



_____ a. Two different central angles

_____

_____ b. A minor arc

_____ c. A major arc

_____ d. A semicircle

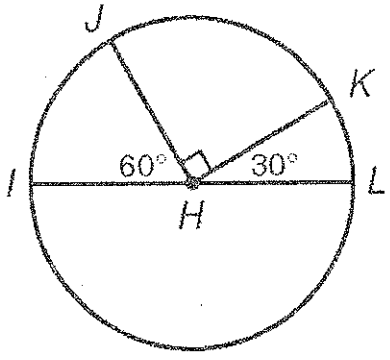
_____ e. Two different chords

_____

_____ f. The central angle subtended by AD

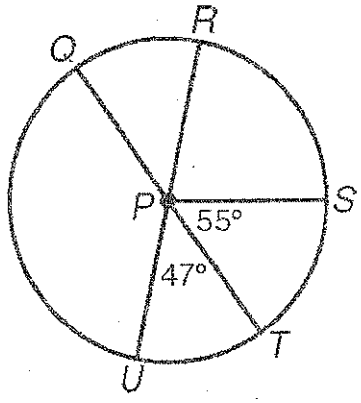
Find each measure.

IL is a diameter.



2. mLK _____, mIK _____

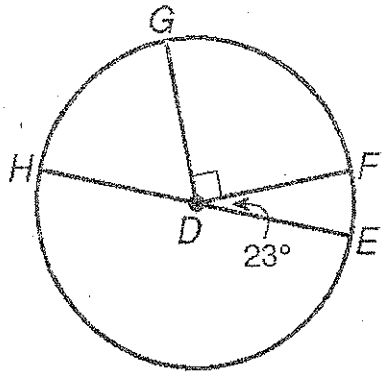
RU & QT are diameters.



3. mQS _____, $m\,RQT$ _____

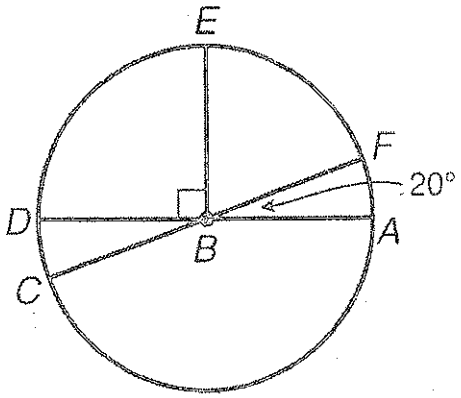
HE is a diameter

4. mHG _____, $mFEH$ _____

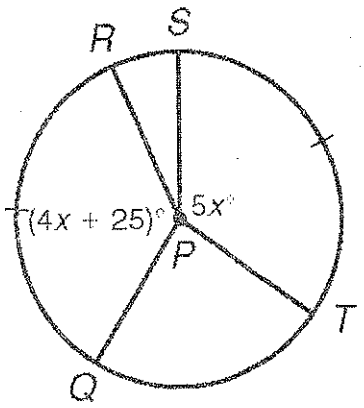


DA and FC are diameters.

5. mEF _____, $m\,CEA$ _____

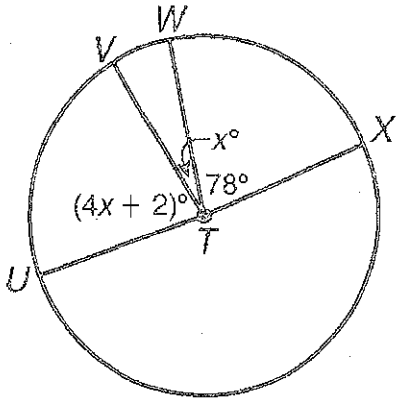


6. $\angle QPR$ _____



UX is a diameter.

7. $\angle UTW$ _____, mUV _____



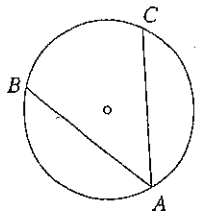
Kuta Software - Infinite Geometry Name_____

Inscribed Angles

Date_____ Period____

State if each angle is an inscribed angle. If it is, name the angle and the intercepted arc.

1)



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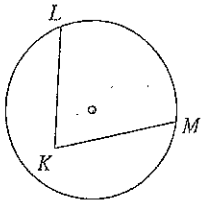

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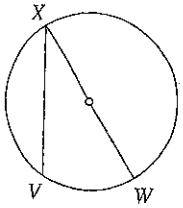
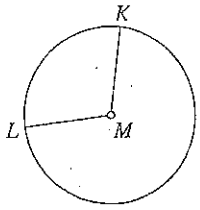
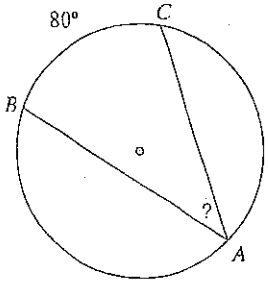


4)

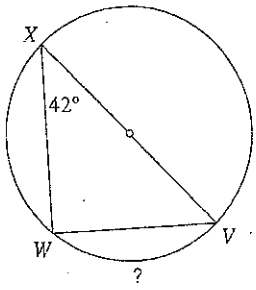


Find the measure of the arc or angle indicated.

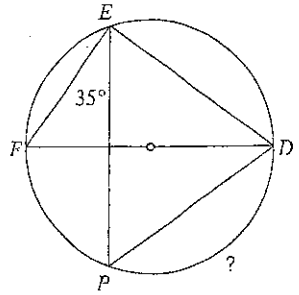
5)



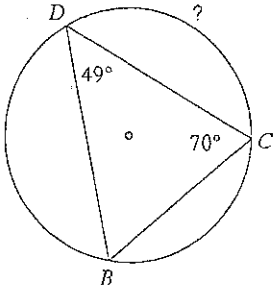
6)



7)

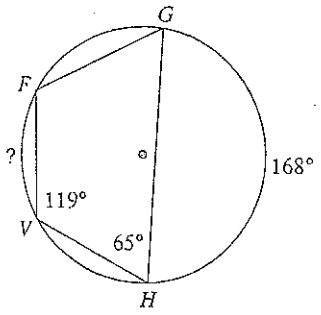


8)

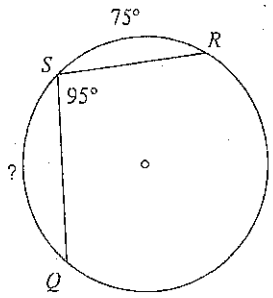


9a

9)

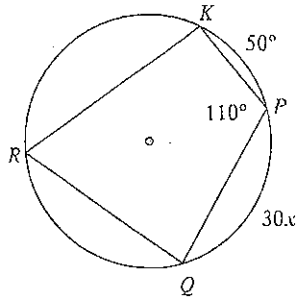


10)

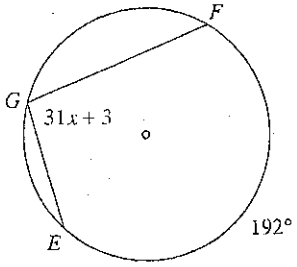


Solve for x.

11)

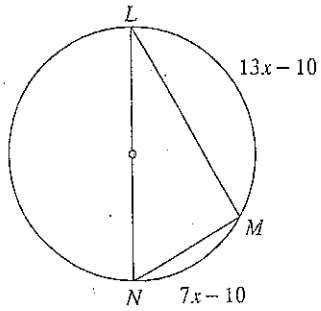


12)

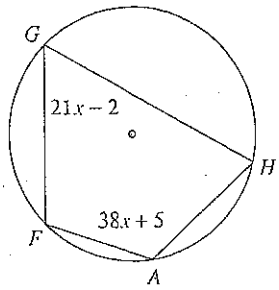


Find the measure of the arc or angle indicated.

13) Find $m\angle NLM$

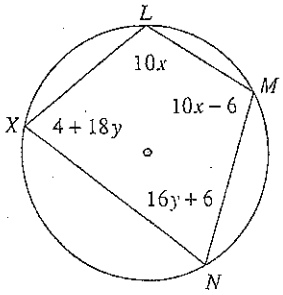


14) Find $m\widehat{FGH}$

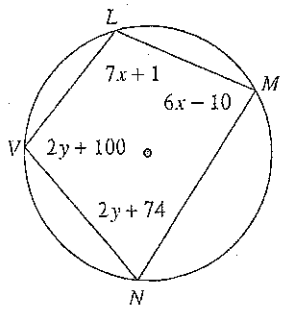


Solve for x and y.

15)



16)



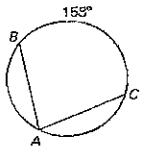
9b

Name _____ Date _____

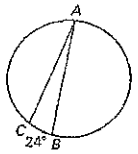
LESSON 6.4 Practice

Find the indicated measure.

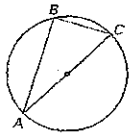
1. $m\angle A$



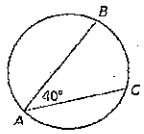
2. $m\angle A$



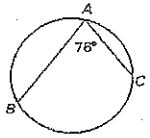
3. $m\angle B$



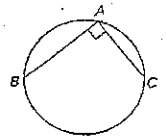
4. $m\widehat{BC}$



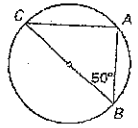
5. $m\widehat{BC}$



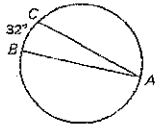
6. $m\widehat{BC}$



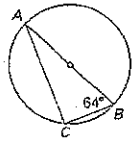
7. $m\angle C$



8. $m\angle A$



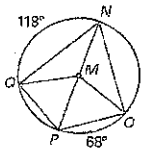
9. $m\widehat{BC}$



Name _____ Date _____

LESSON 6.4 Practice *continued*

Find the indicated measure in ⊙M.



10. $m\angle PNO$

11. $m\angle QNP$

12. $m\widehat{PQ}$

13. $m\widehat{QO}$

14. $m\angle NMO$

15. $m\widehat{NOP}$

16. $m\angle QMP$

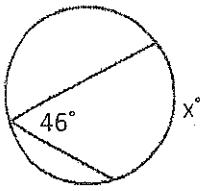
17. $m\widehat{OQN}$

Geometry SHOW WORK Name_____

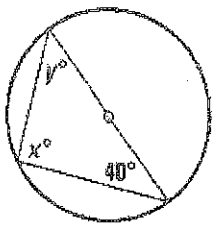
12-3 worksheet Inscribed angle = $\frac{1}{2}$ · intercepted arc

Find the value of each variable.

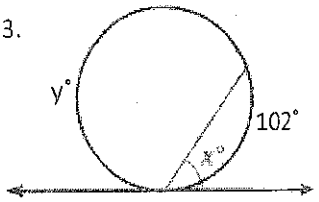
1.



2.

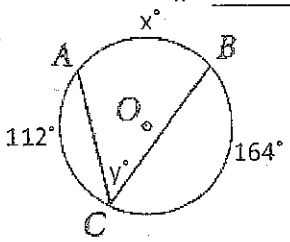


3.



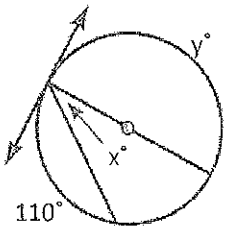
x = _____

4.



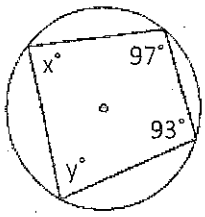
x = _____ y = _____

5.



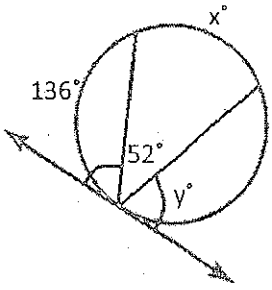
x = _____ y = _____

6.



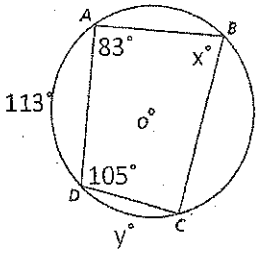
x = _____ y = _____

7.



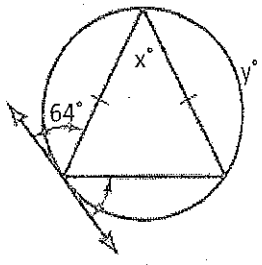
x = _____ y = _____

8.



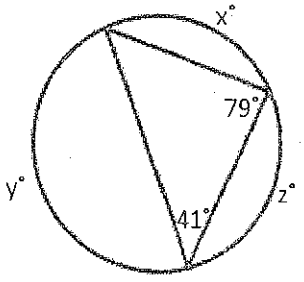
x = _____ y = _____

9.



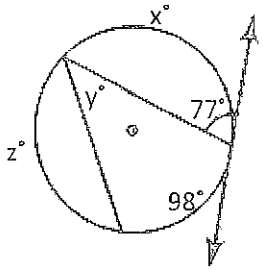
x = _____ y = _____

10.



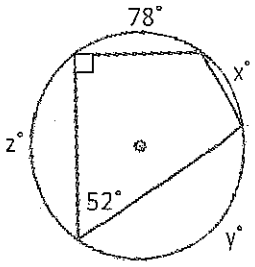
x = _____ y = _____

11.



x = _____ y = _____

12.

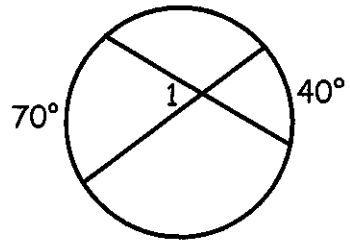


x = _____ y = _____ z = _____ x = _____ y = _____ z = _____ x = _____ y = _____ z = _____

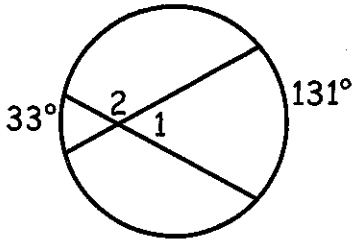
Math 2 Unit 3
Ch 6.5 Interior Angles

Name _____

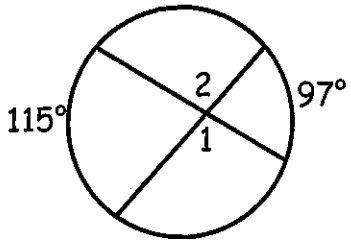
1. $m\angle 1 =$ _____



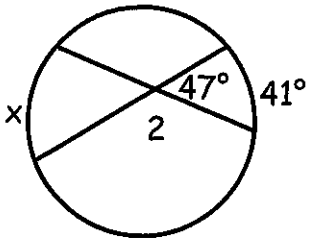
2. $m\angle 1 =$ _____ $m\angle 2 =$ _____



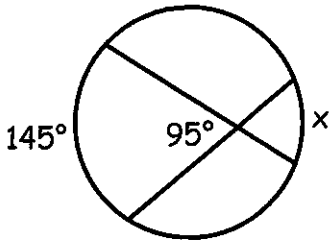
3. $m\angle 1 =$ _____ $m\angle 2 =$ _____



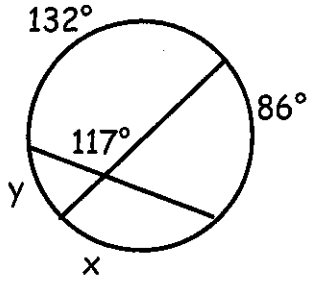
4. $m\angle 2 =$ _____ $x =$ _____



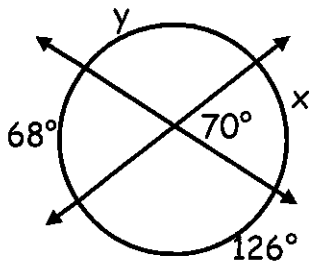
5. $x =$ _____



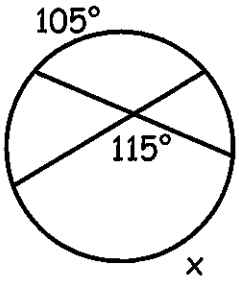
6. $x =$ _____ $y =$ _____



7. $x =$ _____ $y =$ _____

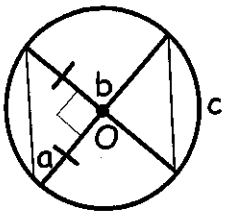


8. $x =$ _____

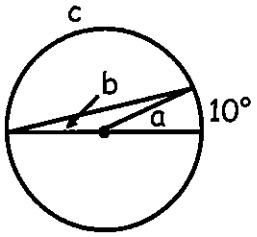


Find the measures of $\angle a$, $\angle b$, and $\overset{\frown}{c}$.

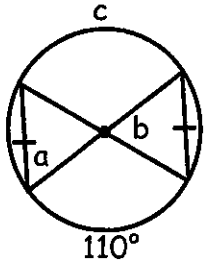
9. a = _____
b = _____
c = _____



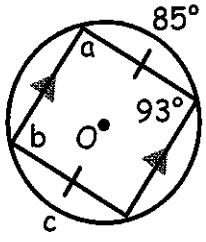
10. a = _____
b = _____
c = _____



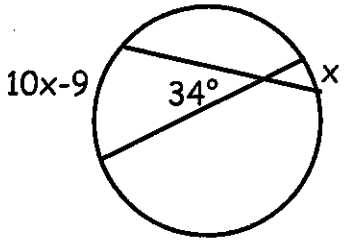
11. a = _____
b = _____
c = _____



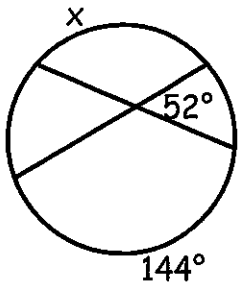
12. a = _____
b = _____
c = _____



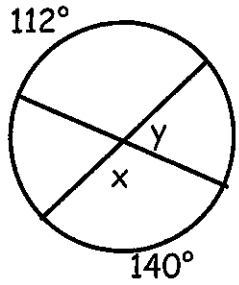
13. $x =$ _____



14. $x =$ _____

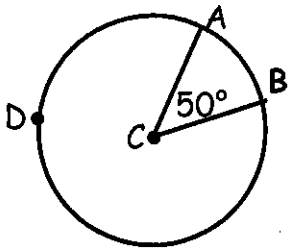


15. $x =$ _____ $y =$ _____

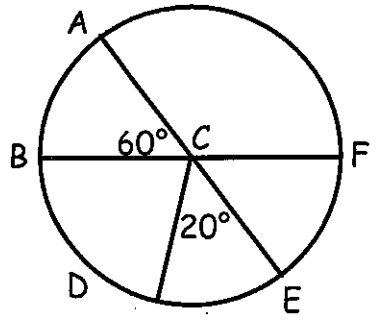


Decide if the following angles are Central, Inscribed, or Inside. Then find the value of the indicated measure.

16. $m\overset{\frown}{AB} =$ _____ $m\overset{\frown}{ADB} =$ _____



17.



$\overline{AE}$ and $\overline{BF}$ are diameters.

$m\overset{\frown}{AB} =$ _____ $m\overset{\frown}{BE} =$ _____

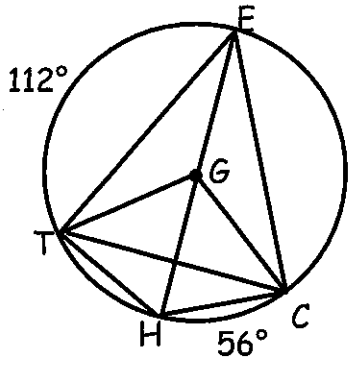
$m\overset{\frown}{BEF} =$ _____ $m\overset{\frown}{AFD} =$ _____

$m\overset{\frown}{EF} =$ _____ $m\overset{\frown}{AF} =$ _____

$m\overset{\frown}{EAF} =$ _____ $m\overset{\frown}{DE} =$ _____

$m\overset{\frown}{FB} =$ _____ $m\overset{\frown}{AEB} =$ _____

18.



$m\angle HEC =$ _____ $m\angle TEH =$ _____

$m\overset{\frown}{HT} =$ _____ $m\overset{\frown}{TC} =$ _____

$m\angle EGC =$ _____ $m\overset{\frown}{ECH} =$ _____

$m\angle TGH =$ _____ $m\overset{\frown}{CTE} =$ _____

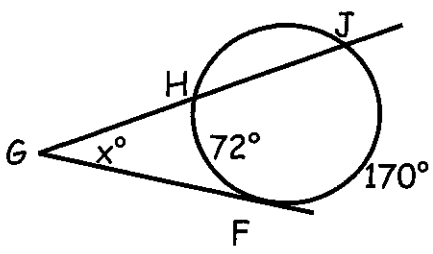
$m\angle TEC =$ _____ $m\angle ETH =$ _____

$m\angle TCE =$ _____ $m\angle ETC =$ _____

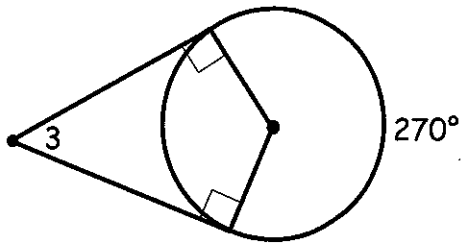
GPS Geometry
Ch 6.5 Exterior Angles

Name _____

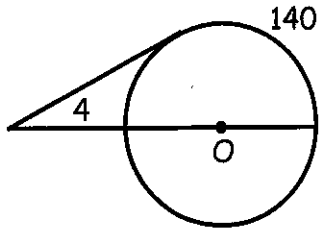
1. x = _____



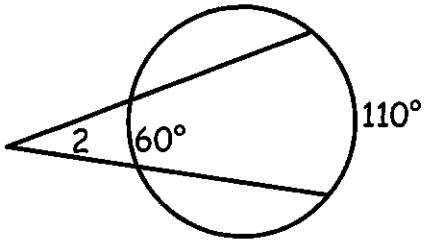
2. $m\angle 3$ = _____



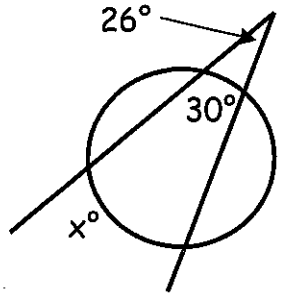
3. $m\angle 4$ = _____



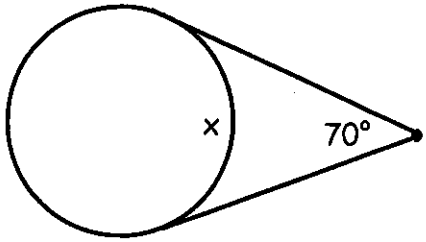
4. $m\angle 2$ = _____



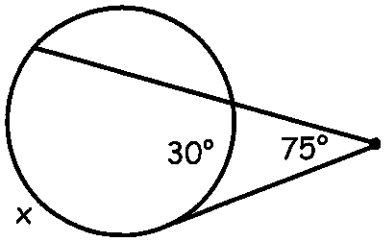
5. x = _____



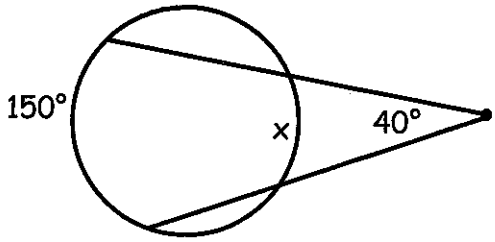
6. x = _____



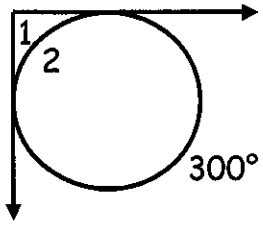
7. x = _____



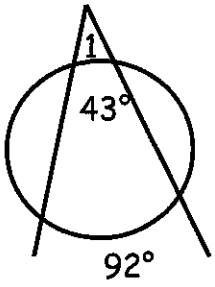
8. x = _____



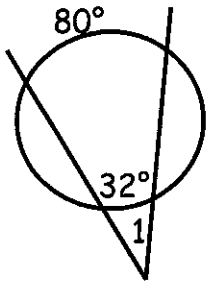
9. $m\angle 1$= _____ $m\overset{\frown}{Arc2}$= _____



10. $m\angle 1$= _____



11. $m\angle 1$= _____



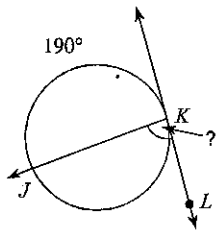
Math 2 Support Name_____

Angles Inside and Outside Circles Worksheet

Date_____

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

1)



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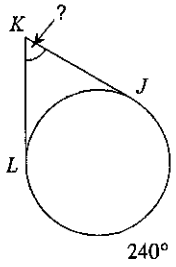

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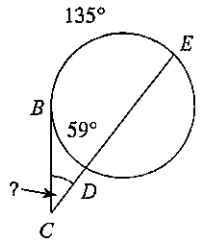

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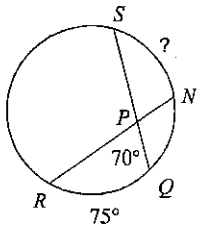

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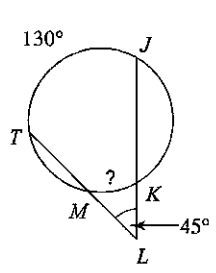

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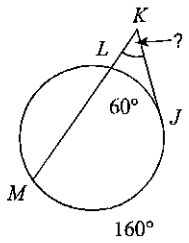

15

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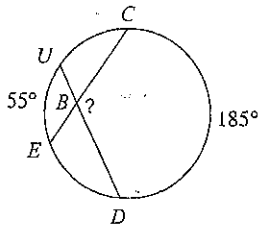

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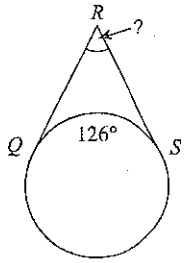

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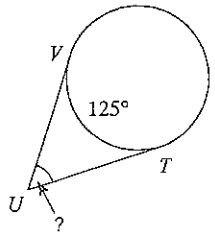

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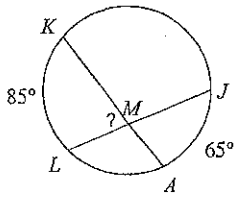

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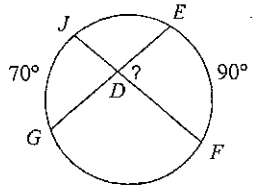

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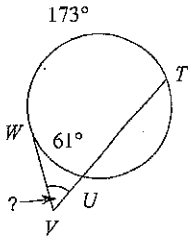
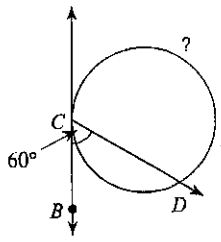


16

13)



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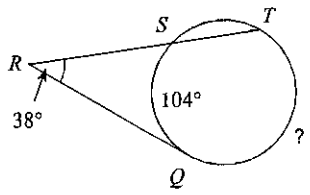

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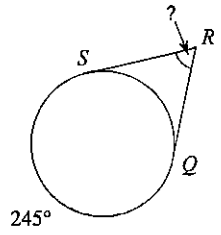

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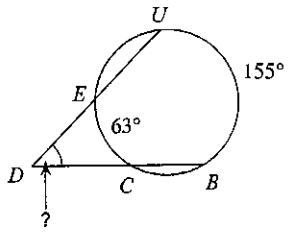

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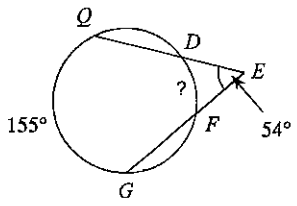

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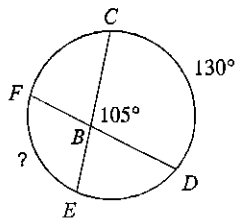
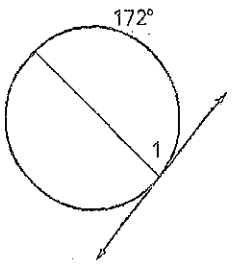


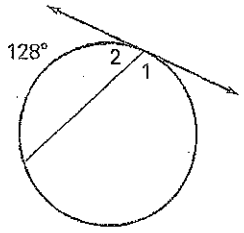
17

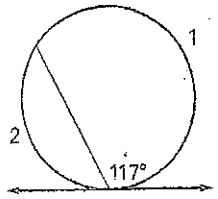
Name _____ Date _____

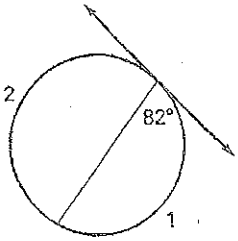
LESSON 65 **Practice** Vertex on, inside, & outside the circle.

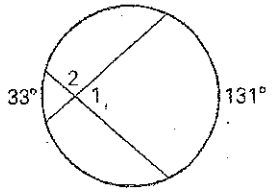
Find the measure of each numbered angle or arc.

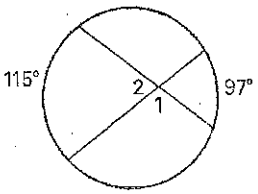
1. 

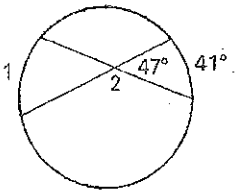
2. 

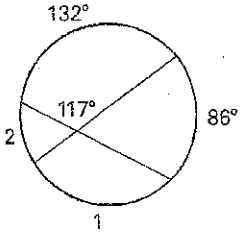
3. 

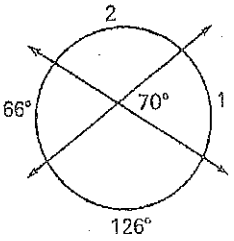
4. 

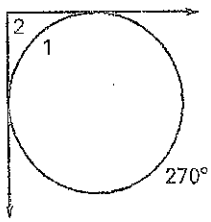
5. 

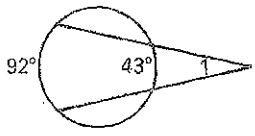
6. 

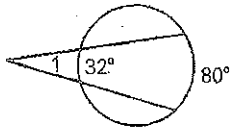
7. 

8. 

9. 

10. 

11. 

12. 

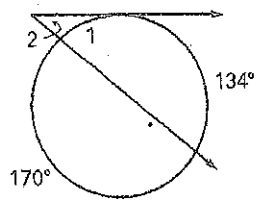
18

Name _____ Date _____

LESSON 6.5 **Practice** *continued*

Find the measure of each numbered angle or arc.

13.



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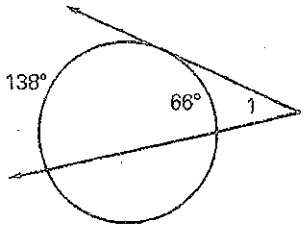

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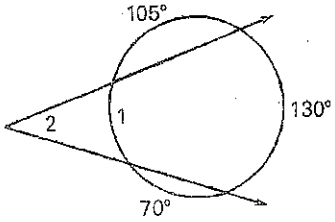
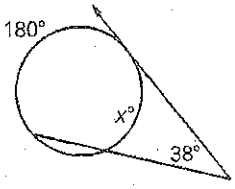


Find the value of x.

16.



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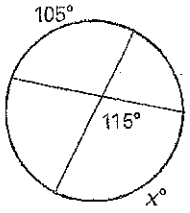

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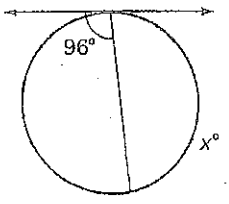

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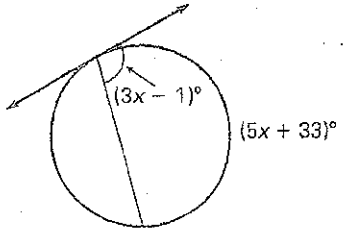

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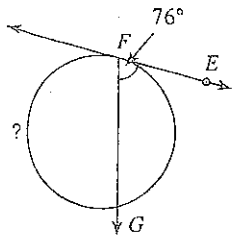
Kuta Software - Infinite Geometry Name_____

Secant-Tangent and Tangent-Tangent Angles

Date_____ Period____

Find the measure of the arc or angle indicated. Assume that lines which appear tangent are tangent.

1)



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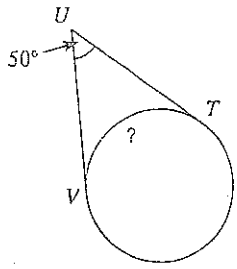

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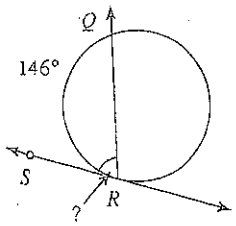

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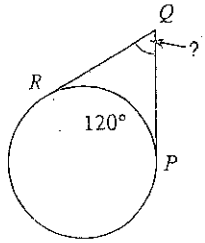

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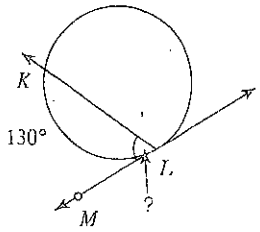

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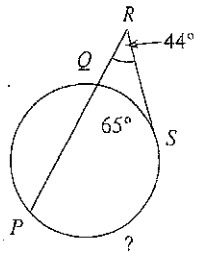

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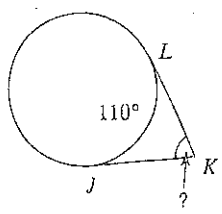

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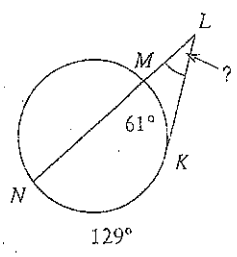


CCGPS Geometry | Circles and Volumes | Practice

Name: _____ Date: _____

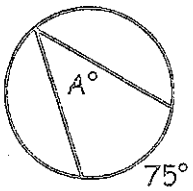
What did the Mama Lion say when she saw her cub chasing a hunter around a tree?

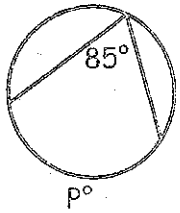
To find out, figure out the degree measure of each lettered angle and arc in the circles below. Then place the corresponding letter above each number.

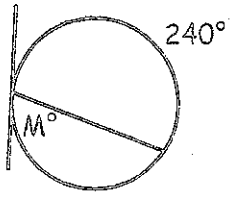
203	66	19	60	37.5	76	129	107	135	60	25	51	203	37.5	100	25

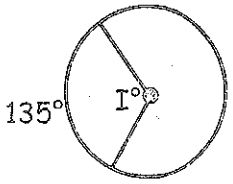
135	107	66	105	35	129	66	48	76	66	107	107	66	

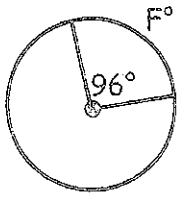
170	105	37.5	129	19	135	107	203	129	66	48	81	96	66	66	35

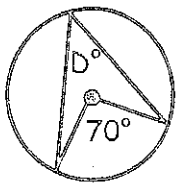


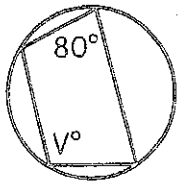


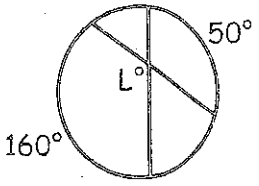


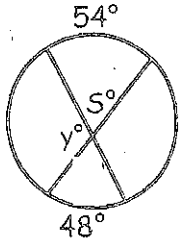


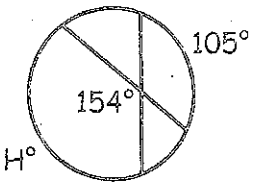


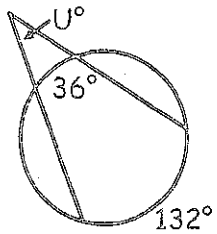


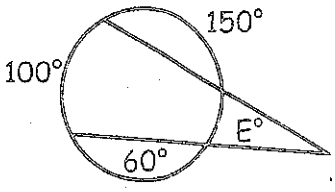


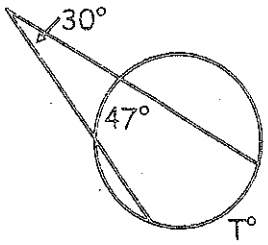


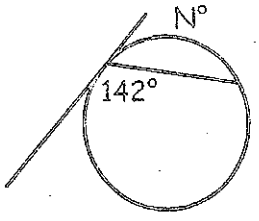


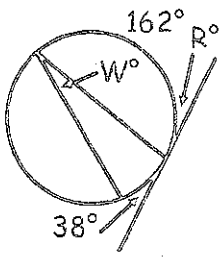


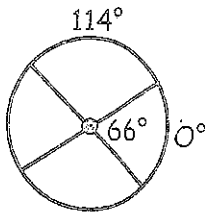












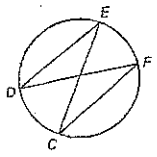
21

Name _____ Date _____

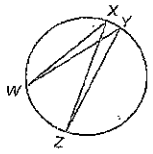
LESSON 6.4 **Practice** *continued*

Name two pairs of congruent angles.

18.

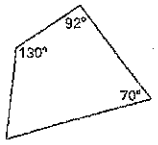


19.



Decide whether a circle can be circumscribed about the quadrilateral.

20.



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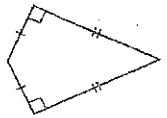

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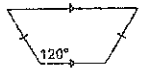
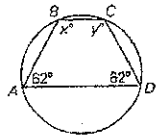


Find the values of the variables.

23.



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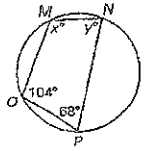

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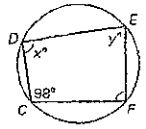
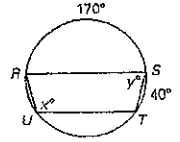


Name _____ Date _____

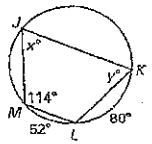
LESSON 6.4 **Practice** *continued*

Find the values of the variables.

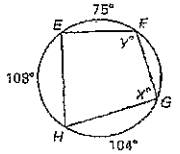
26.



27.

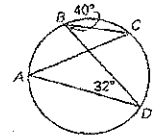


28.

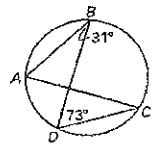


Find $m\angle A$ and $m\angle C$.

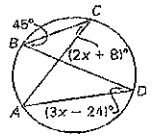
29.



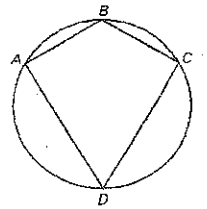
30.



31.

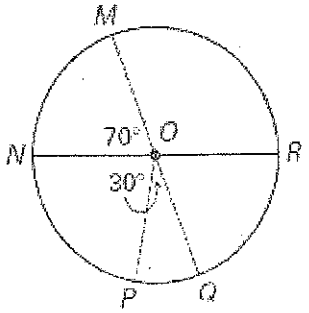
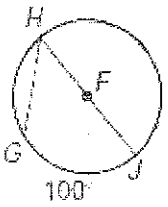
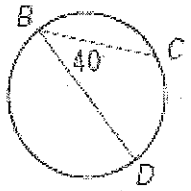
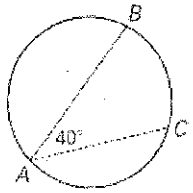
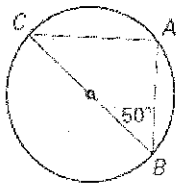
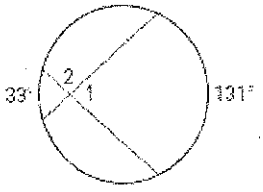
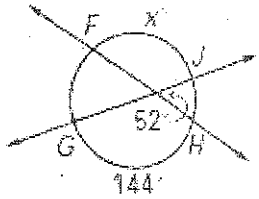
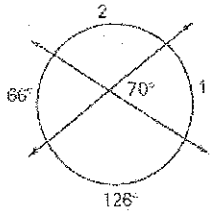
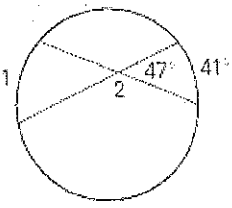


32. **Stained Glass** You are making the stained glass ornament shown at the right. The kite is symmetric, so $\angle A \cong \angle C$, $\overline{BD}$ is a diameter of the circle, and $m\angle D = 60°$. What are the measures of $\angle A$, $\angle B$, and $\angle C$?



Name: _____ Date: _____

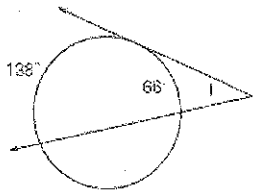
Use the following to review for you test. **Work the Practice Problems on a separate sheet of paper.**

What you need to know & be able to do	Things to remember		
Find the measure of arcs from central angles.	Angle = Arc		1. Find $m\widehat{MN}$ 2. Find $m\widehat{QNR}$ 3. Find $m\widehat{MR}$ 4. Find $m\widehat{PRN}$
Find the measure of arcs and angles with inscribed angles	Angle = $\frac{\text{Arc}}{2}$	5. Find $m\angle GHJ$ 	6. Find $m\widehat{CD}$ 
		7. Find $m\widehat{BC}$ 	8. Find $m\angle C$ 
Find the measure of arcs and angles if the angle is inside the circle	Angle = $\frac{\text{Arc} + \text{Arc}}{2}$	9. Find $m\angle 1$ and $m\angle 2$ 	10. Find the value of x. 
		11. Find 1 & 2 	12. Find 1 & 2 

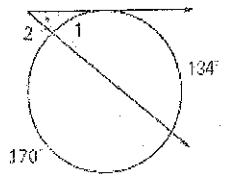
Find the measure of arcs and angles if the angle is outside the circle.

$$\text{Angle} = \frac{\text{Large Arc} - \text{Small Arc}}{2}$$

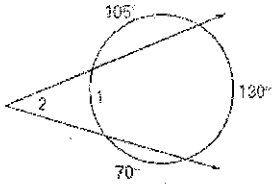
13. Find 1.



14. Find 1 & 2.



15. Find 1 & 2.



16. Find the value of x.