

Geometry

3 – Circles and Angles

Practice

Name: _____ Date: _____

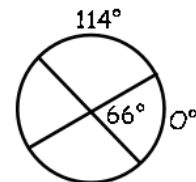
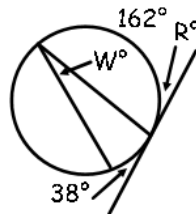
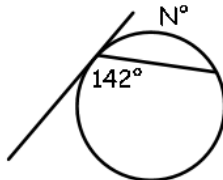
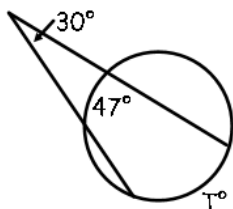
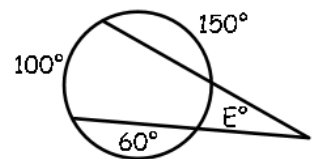
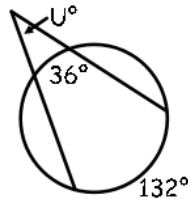
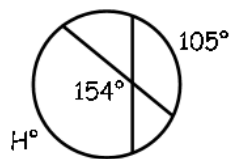
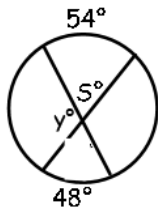
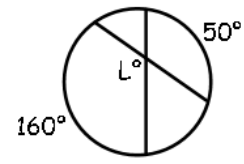
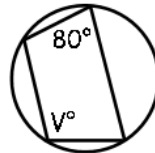
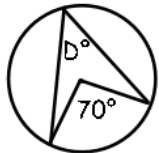
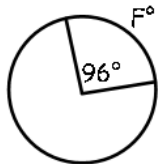
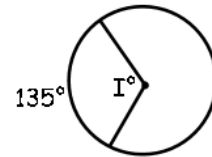
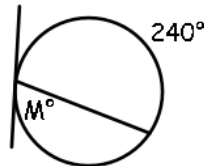
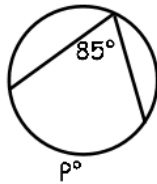
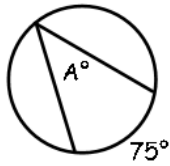
What did the Mama Lion say when she saw her cub chasing a hunter around a tree?

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



Geometry

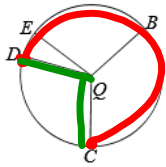
Name _____

Unit 3 Quiz Review

Date _____

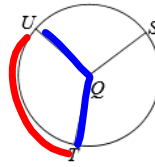
If an angle is given, name the arc it makes. If an arc is given, name its central angle.

1) \widehat{CED}



$\angle CQD$
or
 $\angle DQC$

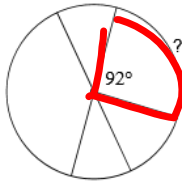
2) $\angle TQU$



\widehat{UT}
or
 \widehat{TU}

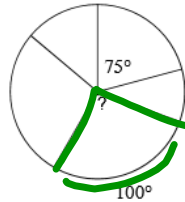
Find the measure of the arc or central angle indicated. Assume that lines which appear to be diameters are actual diameters.

3)



$\angle \text{central} = \widehat{\text{arc}}$
92°

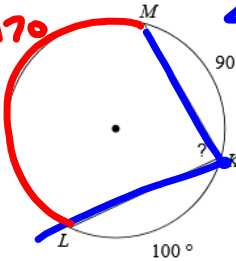
4)



100°

Find the measure of the arc or angle indicated.

5)



360
- 90

270
- 170

100

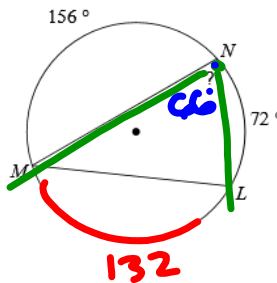
$\angle \text{arc} = \frac{\widehat{\text{arc}}}{2}$
 $x = \frac{170}{2}$
 $x = 85^\circ$

360
- 72

288
- 156

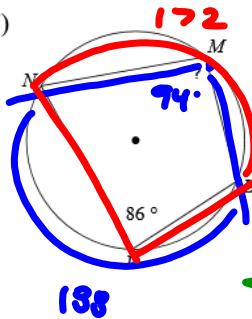
132

6)



$\angle \text{arc} = \frac{\widehat{\text{arc}}}{2}$
 $= \frac{132}{2} = 66$

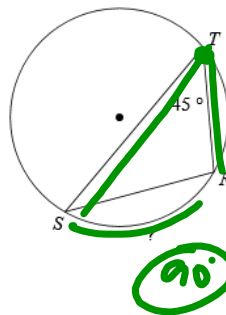
7)



180
- 86

94

8)



$\angle \text{arc} = \frac{\widehat{\text{arc}}}{2}$
 $45 = \frac{\widehat{\text{arc}}}{2}$
 $90 = \widehat{\text{arc}}$

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

9) $\angle_{out} = \frac{\widehat{big} - \widehat{small}}{2}$
 $= \frac{147 - 51}{2}$
 $= \frac{96}{2}$
 $\angle_{out} = 48^\circ$

10) $\angle_{in} = \frac{\widehat{arc} + \widehat{arc}}{2}$
 $= \frac{101 + 125}{2}$
 $= \frac{226}{2}$
 $\angle_{in} = 113^\circ$

11) $\angle_{out} = \frac{\widehat{big} - \widehat{small}}{2}$
 $2(35) = \frac{(x - 55)}{2}$
 $70 = x - 55$
 $+55 \quad +55$
 $125 = x$

12) $\angle_{in} = \frac{\widehat{arc} + \widehat{arc}}{2}$
 $113 = \frac{173 + x}{2}$
 $226 = 173 + x$
 $-173 \quad -173$
 $53 = x$

Solve for x. Assume that lines which appear tangent are tangent.

13) $\angle_{in} = \frac{\widehat{arc}}{2}$
 $2(2+9x) = \frac{19x-6}{2}$
 $4 + 18x = 19x - 6$
 $4 = x - 6$
 $x = 10$

14) $\angle_{out} = \frac{\widehat{big} - \widehat{small}}{2}$
 $x+23 = \frac{175 - 105}{2}$
 $= \frac{70}{2}$
 $x+23 = 35$
 $-23 \quad -23$
 $x = 12$

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

15) $m\widehat{CGE}$

$73 + x = 180$
 $-73 \quad -73$
 $x = 107$

$124 + 107 = 231^\circ$

16) $m\widehat{JIL}$

$180 + 47 = 227$

Answers to Unit 3 Quiz Review

- 1) $\angle CQD$
- 5) 85°
- 9) 48°
- 13) 10

- 2) \widehat{TU}
- 6) 66°
- 10) 113°
- 14) 12

- 3) 92°
- 7) 94°
- 11) 125°
- 15) 231°

- 4) 100°
- 8) 90°
- 12) 53°
- 16) 227°