

CIRCLES REVIEW

Math 3

Name

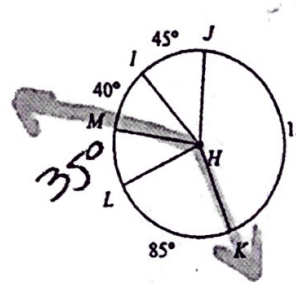
4/25-CN

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Unit Review ~ Circles

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

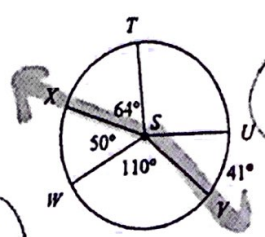
1) $m\angle KHM$



$$\begin{array}{r} 40 \\ 45 \\ \hline 85 \\ 155 \\ \hline 240 \\ 35 \\ \hline 275 \\ 325 \\ \hline 50 \end{array}$$

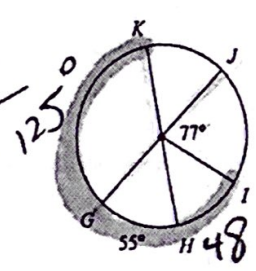
$$\begin{array}{r} 35 \\ + 85 \\ \hline 120 \end{array}$$

2) $m\angle VSX$



$$\begin{array}{r} 50 \\ 110 \\ \hline 160 \end{array}$$

3) $m\widehat{IHK}$

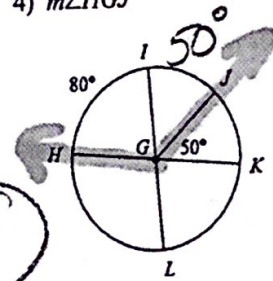


$$\begin{array}{r} 180 \\ - 55 \\ \hline 125 \end{array}$$

$$\begin{array}{r} 77 \\ 55 \\ \hline 132 \\ 180 \\ - 132 \\ \hline 48 \end{array}$$

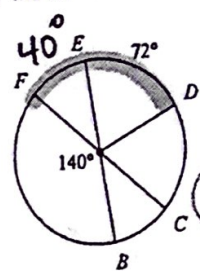
$$\begin{array}{r} 125 \\ 55 \\ \hline 180 \\ + 48 \\ \hline 228 \end{array}$$

4) $m\angle HGJ$



$$\begin{array}{r} 80 \\ 50 \\ \hline 130 \\ 180 \\ - 130 \\ \hline 50 \end{array}$$

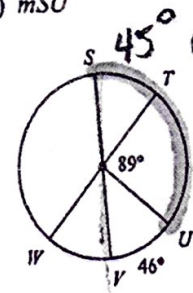
5) $m\widehat{FD}$



$$\begin{array}{r} 180 \\ - 140 \\ \hline 40 \end{array}$$

$$\begin{array}{r} 40 \\ 72 \\ \hline 112 \end{array}$$

6) $m\widehat{SU}$



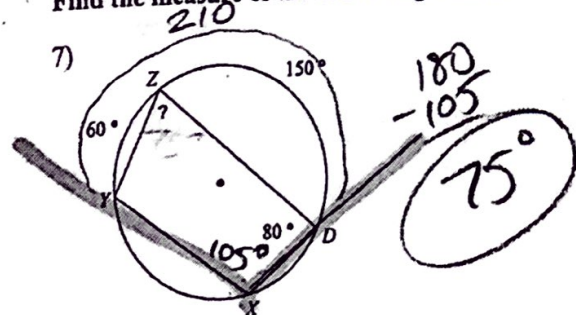
$$\begin{array}{r} 80 \\ 50 \\ \hline 130 \end{array}$$

$$\begin{array}{r} 89 \\ 46 \\ \hline 135 \end{array}$$

$$\begin{array}{r} 180 \\ - 135 \\ \hline 45 \\ 45 \\ \hline 90 \\ 89 \\ \hline 134 \end{array}$$

Find the measure of the arc or angle indicated.

7)

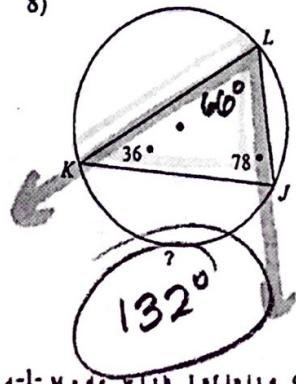


210

$$\begin{array}{r} 180 \\ - 105 \\ \hline 75 \end{array}$$

quad in \odot !

8)

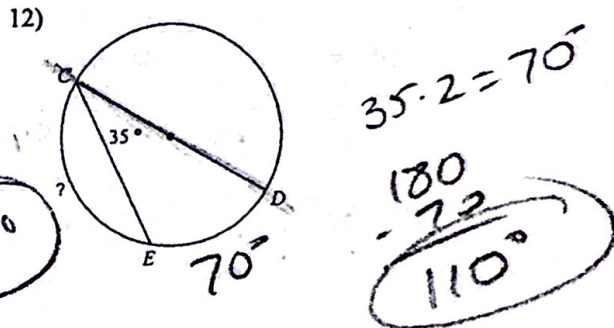
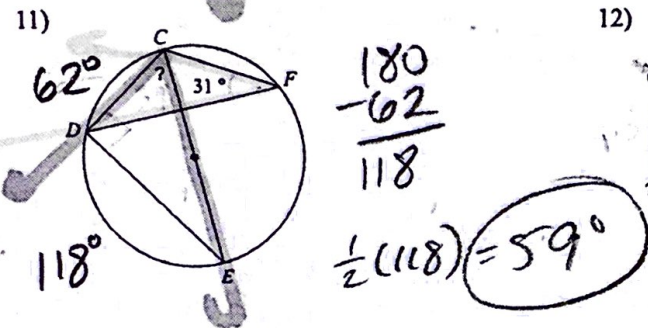
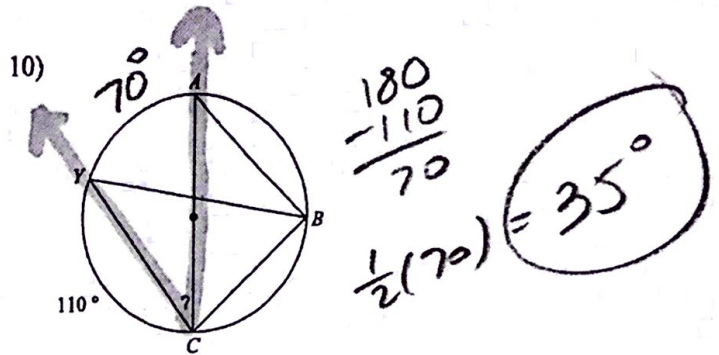
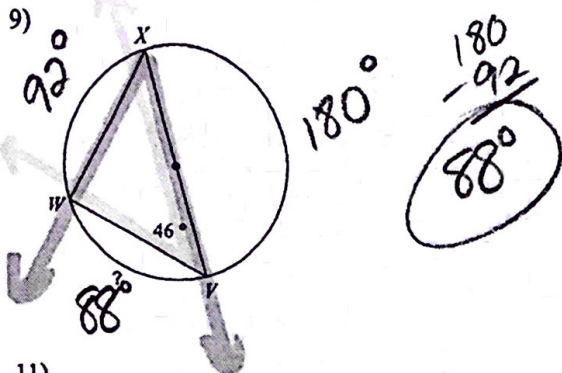


$$\begin{array}{r} 36 \\ 78 \\ \hline 114 \\ 180 \\ - 114 \\ \hline 66 \end{array}$$

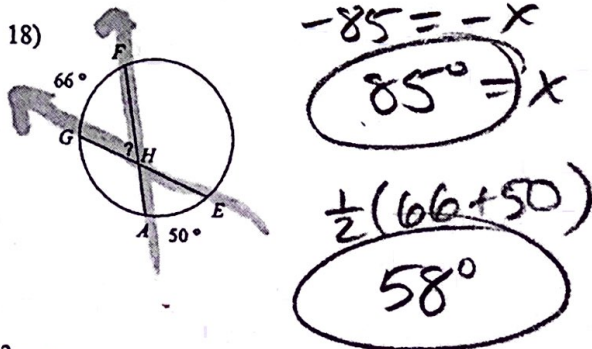
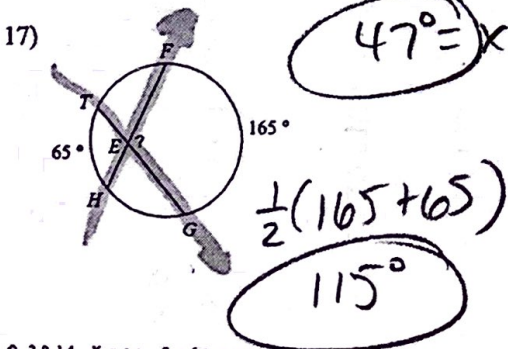
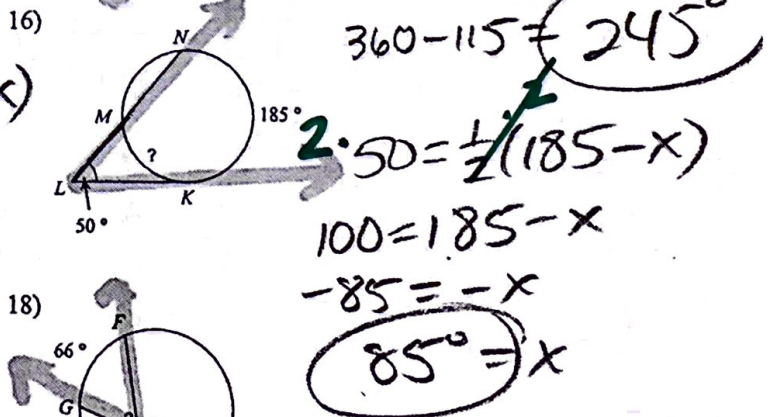
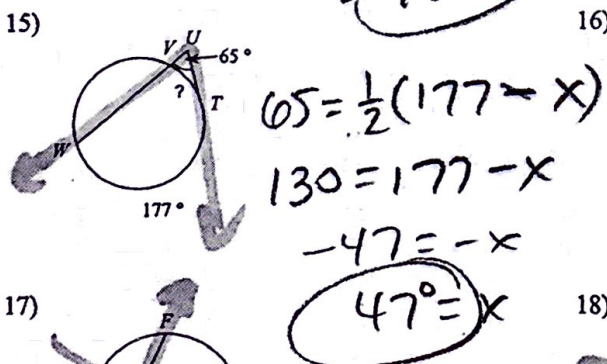
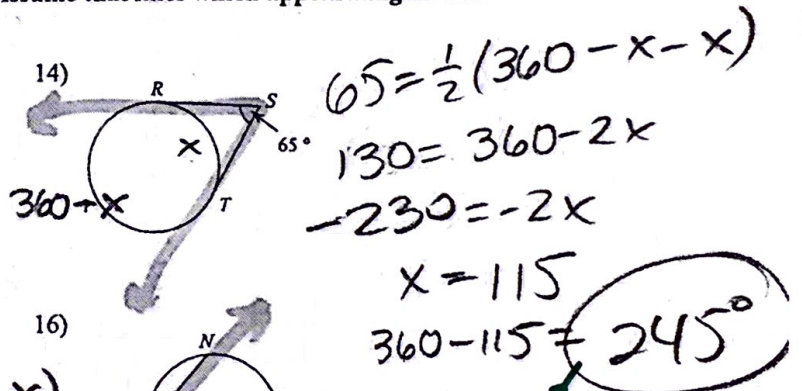
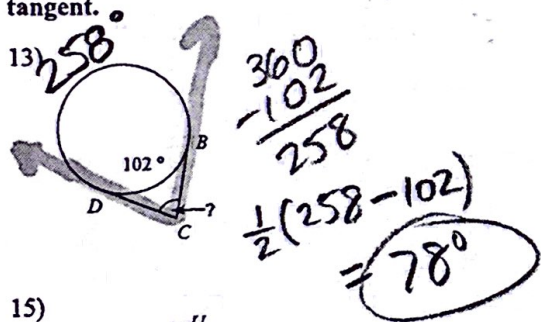
$$2 \cdot 66 =$$

$$132$$

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



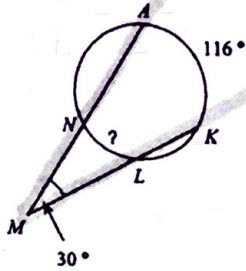
$$30 = \frac{1}{2}(116 - x)$$

$$60 = 116 - x$$

$$-56 = -x$$

$$56 = x$$

19)

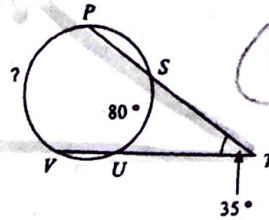


$$35 = \frac{1}{2}(x - 80)$$

$$70 = x - 80$$

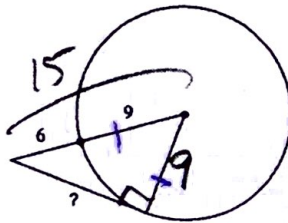
$$150 = x$$

20)



Find the segment length indicated. Assume that lines which appear to be tangent are tangent.

21)



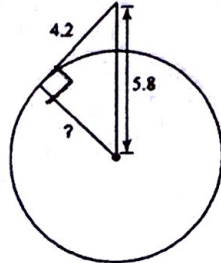
$$9^2 + x^2 = 15^2$$

$$81 + x^2 = 225$$

$$x^2 = 144$$

$$x = 12$$

22)



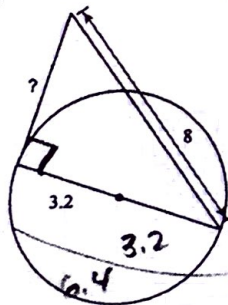
$$4.2^2 + x^2 = 5.8^2$$

$$17.64 + x^2 = 33.64$$

$$x^2 = 16$$

$$x = 4$$

23)



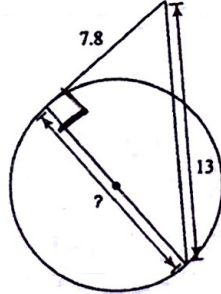
$$6.4^2 + x^2 = 8^2$$

$$40.96 + x^2 = 64$$

$$\sqrt{x^2} = \sqrt{23.04}$$

$$x = 4.8$$

24)



$$7.8^2 + x^2 = 13^2$$

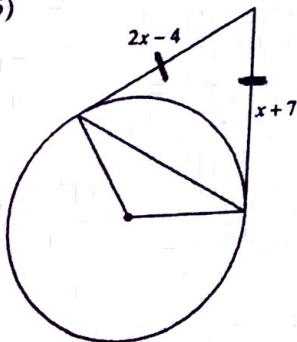
$$60.84 + x^2 = 169$$

$$x^2 = 108.16$$

$$x = 10.4$$

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

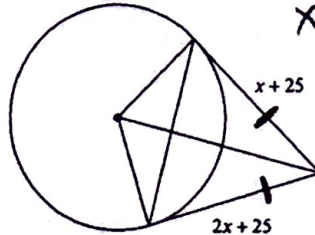
25)



$$2x - 4 = x + 7$$

$$x = 11$$

26)



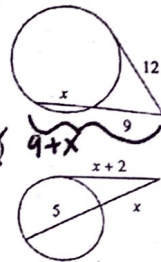
$$x + 25 = 2x + 25$$

$$0 = x$$

3

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

20) T/S



$$12^2 = 9(9+x)$$

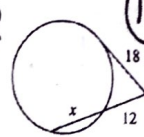
$$144 = 81 + 9x$$

$$-81 \quad -81$$

$$63 = 9x$$

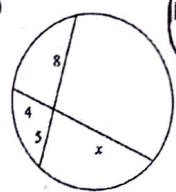
$$7 = x$$

21) T/S



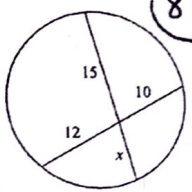
$$15 = x \quad 18^2 = 12(12+x)$$

23) C



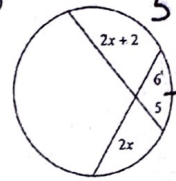
$$10 = x \quad 8 \cdot 5 = 4x$$

24) C



$$8 = x \quad 15x = 12 \cdot 10$$

25) C



$$5(2x+2) = 6(2x)$$

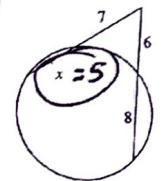
$$10x + 10 = 12x$$

$$-10x \quad -10x$$

$$10 = 2x$$

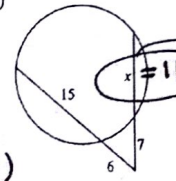
$$5 = x$$

26) S/S



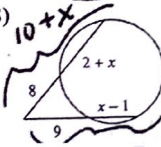
$$7(x+7) = 6(14) \quad 8 = x$$

27) S/S



$$x = 11 \quad 7(x+7) = 6(21)$$

28) S/S



$$8(10+x) = 9(x+8)$$

$$80 + 8x = 9x + 72$$

$$-72 \quad -72$$

$$8 = x$$

Use the information provided to write the standard form equation of each circle.

- 1) Center: (11, -5)
Radius: 8

$$(x - 11)^2 + (y + 5)^2 = 64$$

- 2) Center: (-10, -4)
Radius: 6

$$(x + 10)^2 + (y + 4)^2 = 36$$

Identify the center and radius of each.

3) $x^2 + y^2 - 20x + 12y + 127 = 0$

- Center: (10, -6)
Radius: 3

4) $(x + 10)^2 + (y - 5)^2 = 4$

- Center: (-10, 5)
Radius: 2