

Score : \_\_\_\_\_

Geometry

Unit 8 Review Circles

Name KEY

Date \_\_\_\_\_

Period \_\_\_\_\_

Matching: Use circle O to name the following parts. Put the CAPITAL letter of the correct answer on the line. None of the choices will be used more than once.

B 1]  $\overline{AC}$

F 2]  $\overleftrightarrow{CD}$

E 3]  $\overline{AD}$

D 4]  $\angle AOB$

C 5]  $\angle CAD$

J 6]  $\widehat{ADC}$

G 7]  $\overrightarrow{AE}$

H 8]  $\widehat{BC}$

A 9]  $\overline{OA}$

I 10]  $\widehat{BDC}$

A] radius

B] diameter

C] inscribed angle

D] central angle

E] chord

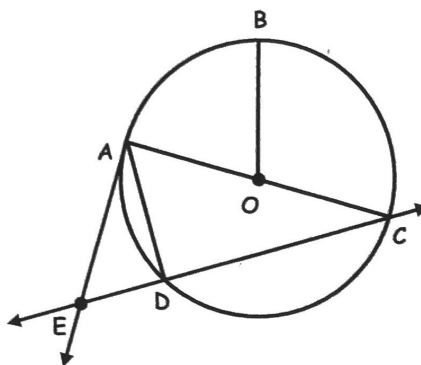
F] secant

G] tangent

H] minor arc

I] major arc

J] semicircle



31.4 11] If the radius of a circle is 5, what is the circumference?  $2 \cdot 3.14 \cdot 5$

25.4 12] If the circumference is 80, what is the diameter?  
 $r = 12.7$   
 $d = 25.4$   
 $80 = 2 \cdot 3.14 \cdot r$   
 $80 = 6.28r$   
 $\frac{80}{6.28} = \frac{6.28r}{6.28}$

61.056 13] If the radius of a circle is 14, and the measure of arc ABC =  $250^\circ$ , find the length of arc ABC.  
 $\left(\frac{250}{360}\right)(2 \cdot 3.14 \cdot 14)$

14] If the diameter of a moon is 2548 km and an orbiting lunar station is circling 32 km above the lunar surface, find the distance traveled by the lunar station in one orbit.

- OMIT -

For problems 15 - 32, find the indicated value. Assume that lines that appear to be tangent are tangent.

15]  $3^2 + x^2 = 10^2$   
 $x^2 = 91$

RS = 9.54

16]  $3^2 + x^2 = 5^2$   
 $x = 4$

OK = 5  
 KL = 8

17]  $7x - 8 = 62$   
 $7x = 70$

x = 10

18]  $100^\circ$   
 $200^\circ$   
 $60^\circ$   
 $x^\circ$

$= \frac{200 - 60}{2}$   
 $= \frac{140}{2}$

x = 70

19]  $7^2 + x^2 = 12^2$   
 $x^2 = 95$

x = 9.75

20]  $4^2 + 4^2 = x^2$   
 $16 + 16 = x^2$

JL = 5.66

Circumference = 17.77  
 $2 \cdot 3.14 \cdot 2.83$   
 $r = \frac{1}{2}(5.66) = 2.83$

21]  $7^2 + y^2 = 25^2$   
 $y^2 = 576$   
 $y = 24$

x = 48

$7^2 + y^2 = 25^2$   
 $y^2 = 576$   
 $y = 24$

22]  $45^\circ$   
 $30^\circ$

x = 120

$45 = \frac{x - 30}{2}$   
 $90 = x - 30$

Name : Trenton

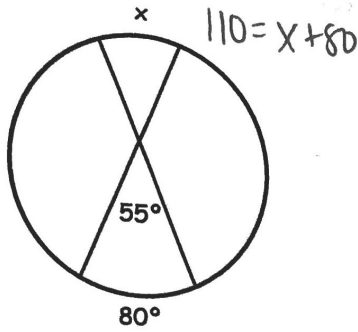
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Date : \_\_\_\_\_

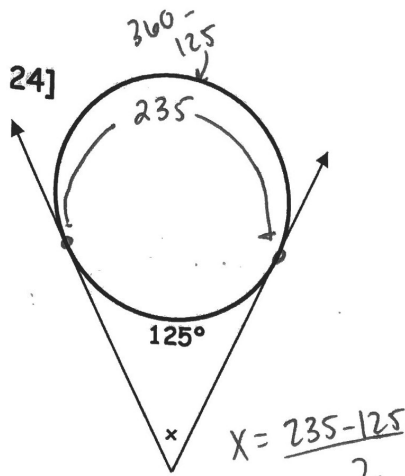
$$55 = \frac{x+80}{2}$$

23]



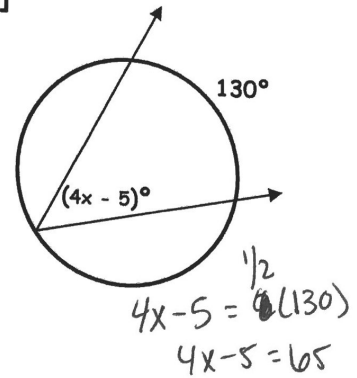
x = 30

24]



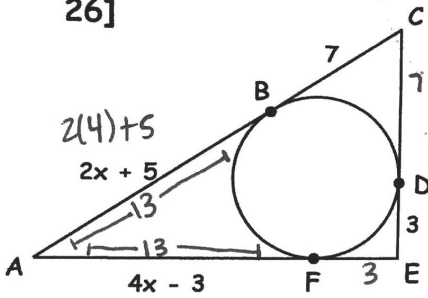
x = 55

25]



x = 17.5

26]



x = 4

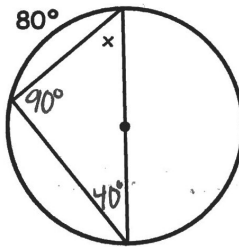
Perimeter = 46

$$4x - 3 = 2x + 5$$

$$2x = 8$$

$$x = 4$$

27]

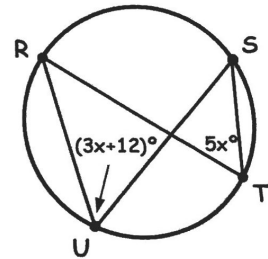


x = 50

$$x = 180 - 90 - 40$$

$$x = 180 - 130$$

28]



x = 6

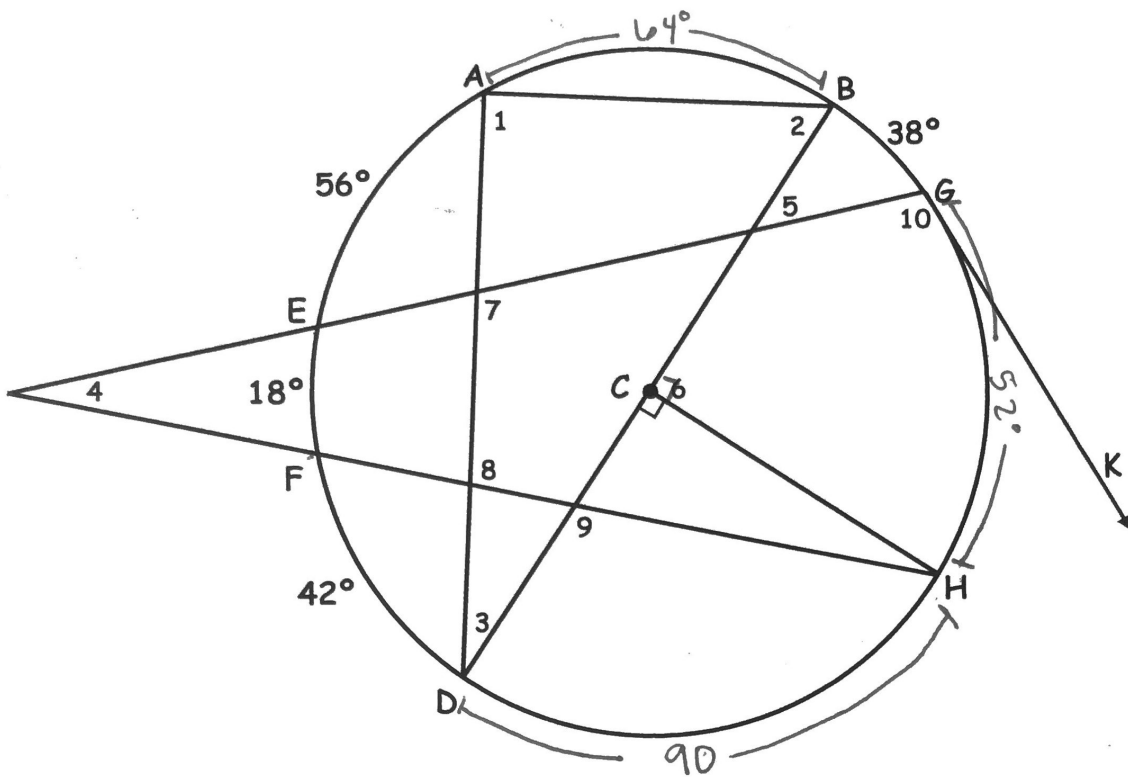
$$3x + 12 = 5x$$

$$12 = 2x$$

$$x = 6$$

Multiple choice questions

Use circle C to find the indicated measures.  $\overline{DB}$  is a diameter.  $\overrightarrow{GK}$  is a tangent.



$$29] \widehat{mAB} = \underline{64} \quad 180 - 42 - 18 - 56$$

$$30] \widehat{mGH} = \underline{52} \quad 180 - 90 - 38$$

$$31] \widehat{mDH} = \underline{90}$$

$$32] m\angle 1 = \underline{90}$$

$$33] m\angle 2 = \underline{58} \quad \frac{56 + 18 + 42}{2}$$

$$34] m\angle 3 = \underline{32}$$

$$35] m\angle 4 = \underline{17} \quad \frac{52 - 18}{2}$$

$$36] m\angle 5 = \underline{49} \quad \frac{38 + (18 + 42)}{2}$$

$$37] m\angle 6 = \underline{90}$$

$$38] m\angle 7 = \underline{99} \quad \frac{56 + (90 + 52)}{2}$$

$$39] m\angle 8 = \underline{98} \quad \frac{(52 + 64 + 38) + 42}{2}$$

$$40] m\angle 9 = \underline{114} \quad \frac{(18 + 56 + 64) + 90}{2}$$

$$41] m\angle 10 = \underline{101} \quad \frac{(52 + 90 + 42 + 18)}{2}$$