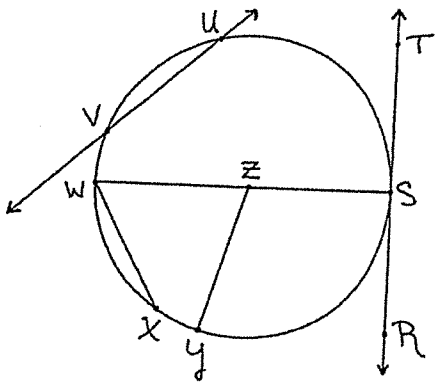
Unit 6 Review Guide

Name: Key

1. Accurately name the following figures from the given diagram:



a. Circle: $\odot Z$

b. Chord: $\overline{VU}$, $\overline{WX}$

c. Radius: $\overline{ZS}$, $\overline{ZW}$, $\overline{ZY}$

d. Diameter: $\overline{WS}$

e. Minor arc: $\overset{\frown}{SY}$, $\overset{\frown}{WY}$, (2 Letters)

f. Major Arc: $\overset{\frown}{SVY}$, (3 Letters)

g. Central angle: $\angle SZY$, $\angle WZY$, $\angle SZW$ (From the Center)

h. Inscribed angle: $\angle ZWX$ (From the edge)

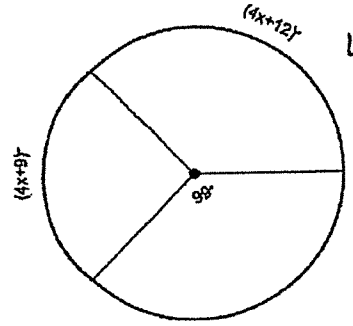
i. Tangent: $\overleftrightarrow{TS}$

j. Secant: $\overleftrightarrow{UV}$

½ pt each (No partial credits)

Use 3.14 for π. Round answers to the nearest tenth, if necessary.

2) Find the value of x.



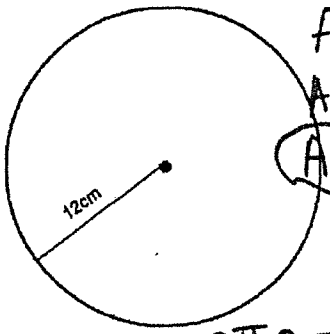
$4x+12+4x+9°+99°=360°$

$8x+120=360°$

$\frac{8x}{8}=\frac{240}{8}$

$x=30$

3) Find the area and circumference of the circle.



$A=\pi r^2$

$A=3.14(12)^2$

$A=452.16 cm^2$

$C=2\pi r=2(3.14)(12)$

$C=75.36cm$

4) Find the measure of the indicated arc/angle.

a. Measure of Arc HG

93°

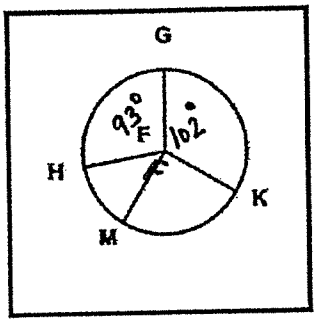
(A)

b. Measure of Arc HK

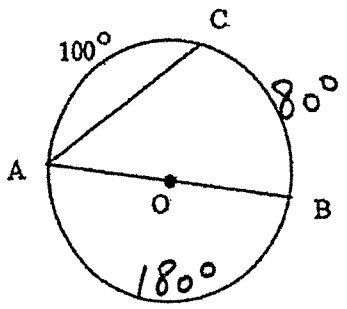
$360°-93°-102°=165°$

c. Measure of ∠HFK

165° (Same as Arc HK)



(B) Find m∠A

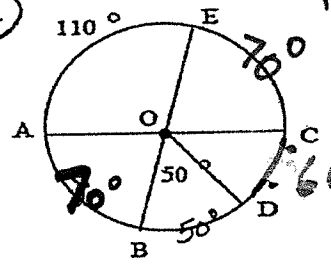


$m\overset{\frown}{CB}=360°-180°-100=80°$

$m\angle A=\frac{m\overset{\frown}{CB}}{2}=\frac{80°}{2}$

$m\angle A=40°$

(C)



* Find the measurement of every Arc First

find m$\overset{\frown}{DC}$ 60°

find m$\overset{\frown}{EAB}$ 180°

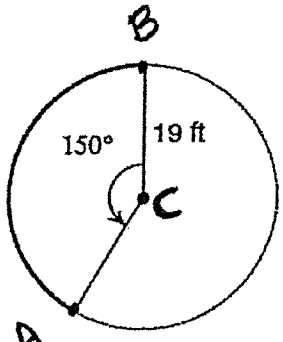
find m$\overset{\frown}{ACB}$ $110°+70°+60°+50°=290°$

find m∠AOB 70°

5. Use the diagram below to find:

a. Length of Arc AB.

$\frac{150°}{360°} \cdot 2\pi(19) = 49.7 \text{ ft}$



b. Area of the sector ABC.

$\frac{150°}{360°} \cdot \pi(19)^2 = 472.3 \text{ ft}^2$

6. A sprinkler is set to rotate 65° and the water reaches all of the grass in a lawn up to 6 yards away from it. How much of the lawn is watered by this one sprinkler?

Area

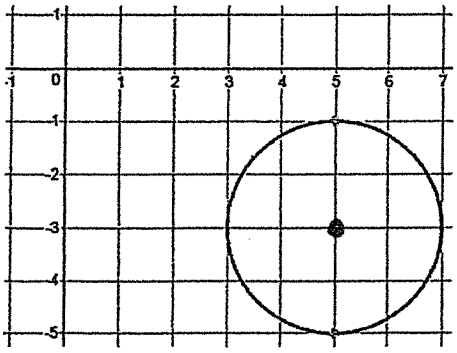
$\frac{65°}{360°} \cdot \pi(6)^2 = 20.41 \text{ yd}^2$

7. If You bought a 16 in pizza and you like to eat the crust part of a pizza. if you ate a slice with angle measure of 120°, What length of the crust did you eat.

diameter

$\frac{120°}{360°} \cdot 2\pi(8) = 16.74 \text{ in}$ / or $\frac{120°}{360°} \cdot 16\pi = 16.74 \text{ in}$

8. Identify the center and radius of this circle from the graph below, then write the equation for it.

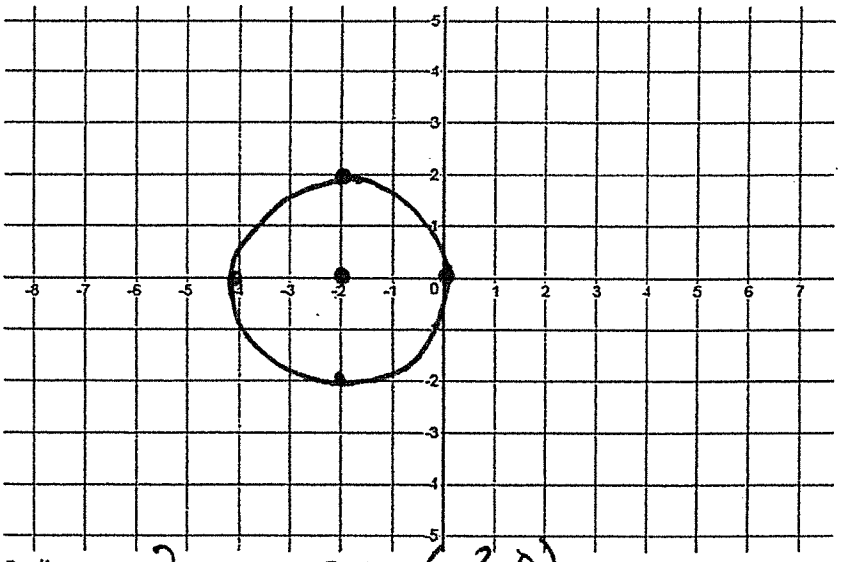


Radius: $\frac{(15-(-3))}{2}$ Center: (5, -3)

Equation: $(x-5)^2 + (y+3)^2 = 4$

9) Identify the center and radius from the equation of this circle, then graph it.

$(x+2)^2 + y^2 = 4$ $(-2, 0)$ $r = 2$



Radius: 2 Center: $(-2, 0)$

10) $x^2 + (y-3)^2 = 9$ Radius = $(0, 3)$

Center = 3