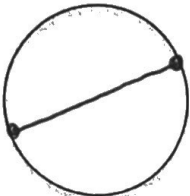

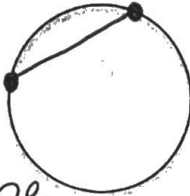
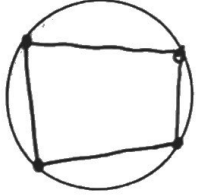






Name KEY

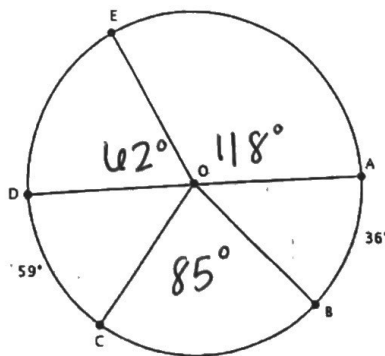
Geometry - Central and Inscribed Angles REVIEW

1) Create a picture and write the definition for each term.

<p>Diameter A segment whose endpoints are on the circle and passes through the center</p> 	<p>Radius A segment whose endpoints are the center and a point on the circle.</p> 
<p>Chord A segment whose endpoints are on a circle, but does not pass through the center.</p> 	<p>Inscribed Polygon Polygon with all points on the circle.</p> 
<p>Central Angle an angle whose vertex lies on the center of the circle.</p> 	<p>Inscribed Angle an angle whose vertex lies on the circle.</p> 
<p>Major Arc an arc that measures 180° or more.</p> 	<p>Minor Arc an arc that measures less than 180°</p> 

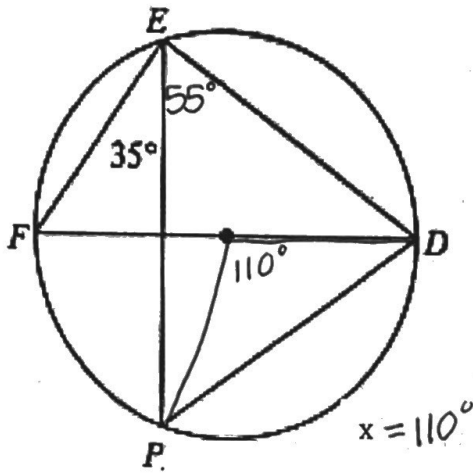
2) \overline{AD} is a diameter and $m\widehat{CE} = 121^\circ$. Find the measure of the arc listed below.

- a) \widehat{DE} 62°
- b) \widehat{AE} 118°
- c) \widehat{BDA} 324°
- d) \widehat{BC} 85°

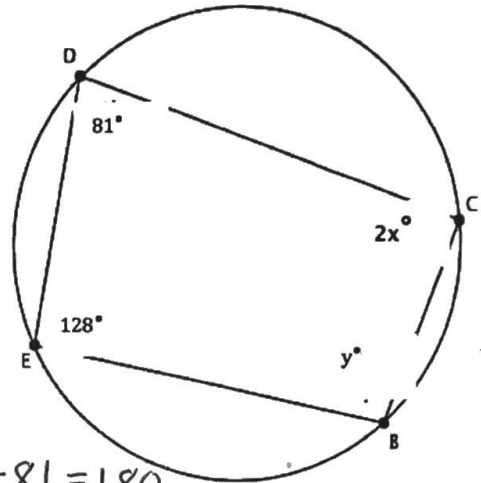


Find the value of x and y

5)



6)



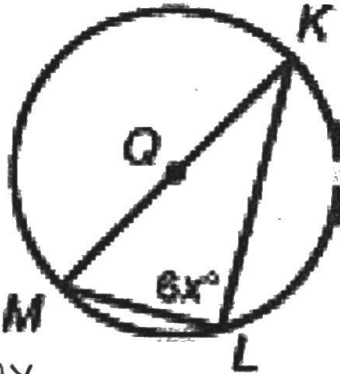
$$y + 81 = 180$$

$$y = 99$$

$$2x + 128 = 180$$

$$x = 26$$

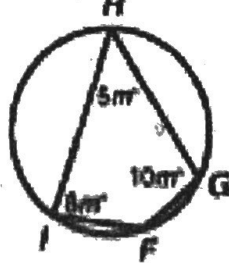
7)



$$90 = 6x$$

$$x = 15$$

8)



$$8m + 10m = 180$$

$$m = 10$$

$$m\angle F = \underline{130^\circ}$$

$$m\angle G = \underline{100^\circ}$$

$$m\angle H = \underline{50^\circ}$$

$$m\angle I = \underline{80^\circ}$$

9) Use the figure below to answer the following questions. \overline{AB} is a diameter of a circle with a radius of 15 feet.

a) What is the measure of $\angle ACB$?

$$90^\circ$$

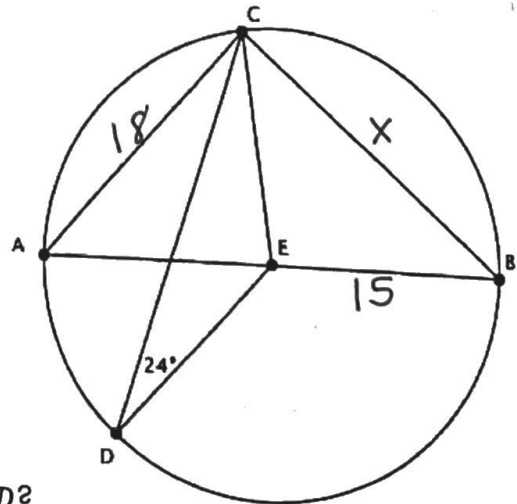
b) If $AC = 18$, what is BC ?

$$30^2 = 18^2 + x^2$$

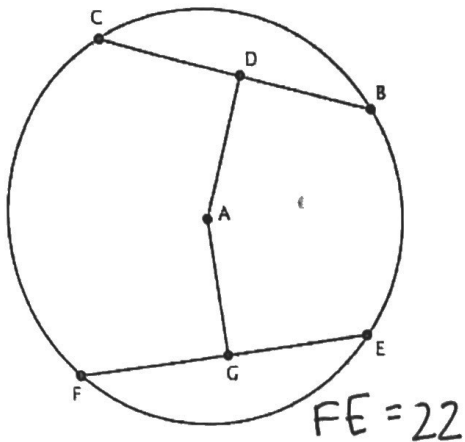
$$900 = 324 + x^2 \quad x = 24$$

c) If $\angle CDE = 24^\circ$, find the measure of $\angle CED$?

$$180 - 24 - 24 = 132^\circ$$

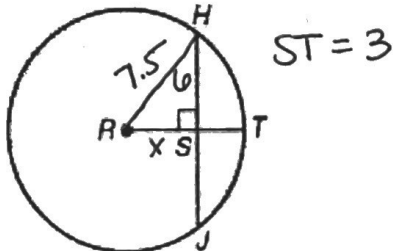


10) If $BC = 22$, find FE .



12)

The diameter of $\odot R$ is 15 units, and $HJ = 12$ units. What is the length of \overline{ST} ?



$$x^2 + 6^2 = 7.5^2$$

$$x^2 + 36 = 56.25$$

$$x^2 = 20.25$$

$$x = 4.5$$

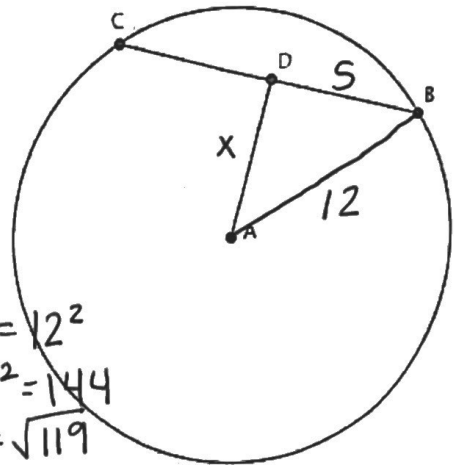
14) Name the center and radius of the circle with the equation $(x - 4)^2 + y^2 = 4$.

center: $(4, 0)$
radius: 2

15) Write the standard equation of a circle with center $(2, -3)$ and a radius of 5.

$$(x - 2)^2 + (y + 3)^2 = 25$$

11) Circle A is shown with a radius of 12. If $BC = 10$, find AD .



$$5^2 + x^2 = 12^2$$

$$25 + x^2 = 144$$

$$x = \sqrt{119}$$

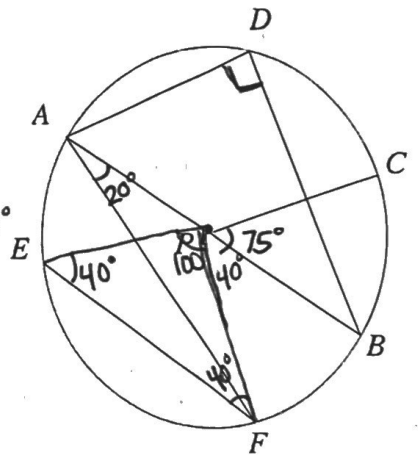
13)

In $\odot P$, \overline{AB} is a diameter, $m\angle CPB = 75^\circ$, $\overline{AB} \parallel \overline{EF}$, and $m\angle BAF = 20^\circ$. Calculate each of the following:

a. $m\widehat{FB} = 40^\circ$

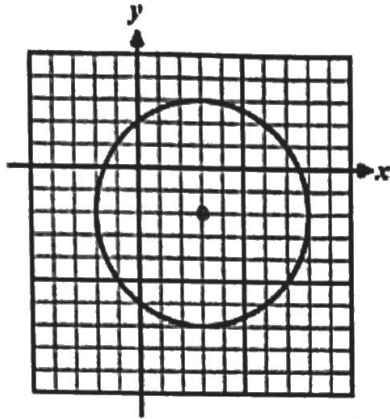
b. $m\widehat{EF} = 100^\circ$

c. $m\angle ADB = 90^\circ$



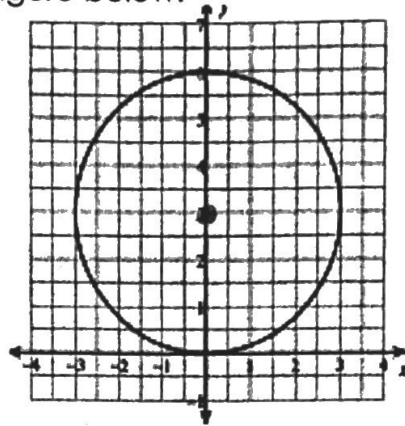
16) Write the equation of the circle in the figure below.

a.



$$(x-3)^2 + (y+2)^2 = 25$$

b.



$$(x)^2 + (y-3)^2 = 9$$

17) Write the equation of the circle that has endpoints of its diameter at $(-7, -9)$ and $(-19, -9)$.

Diameter: 12

Radius: 6

center: $(-13, -9)$

$$(x+13)^2 + (y+9)^2 = 36$$

18) Put the equation of a circle into standard form. Then identify the center and radius: $x^2 - 18x + y^2 - 10y = -6$

$$(x-9)^2 + (y-5)^2 = -6 + 81 + 25$$

$$(x-9)^2 + (y-5)^2 = 100$$

center: $(9, 5)$

radius: 10