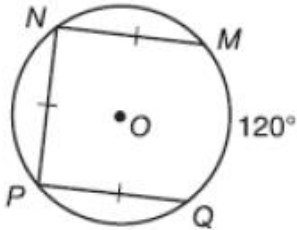
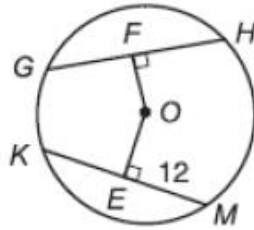


In each circle, O is the center. Find each measure.

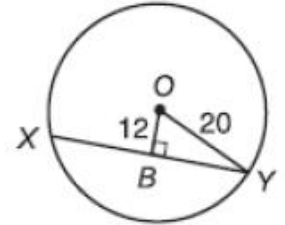
1. $m\widehat{NP} = 90^\circ$



2. $KM = 24$



3. $XY = 16$



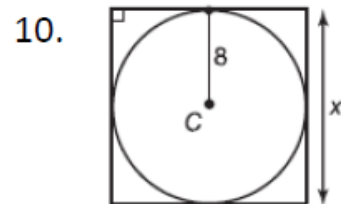
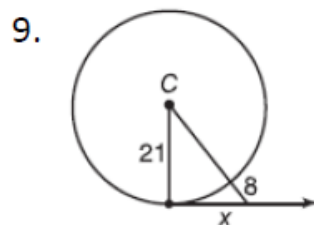
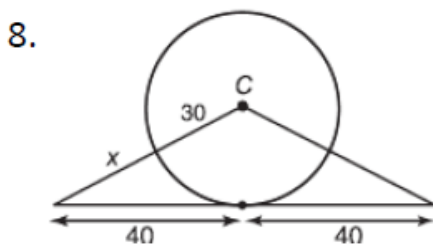
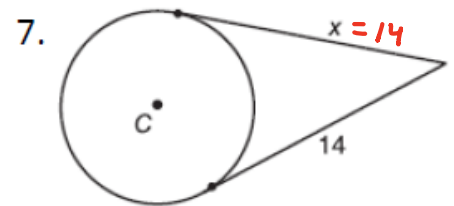
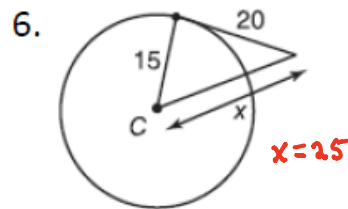
4. Suppose a chord is 20 inches long and is 24 inches from the center of the circle. Find the length of the radius.

$4\sqrt{61}$

5. Suppose a chord of a circle is 5 inches from the center and is 24 inches long. Find the length of the radius.

13

For each in circle C, find the value of x . Assume segments that appear to be tangent are tangent.

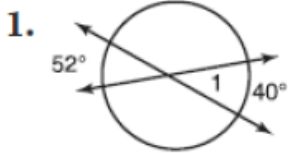


$x = 20$

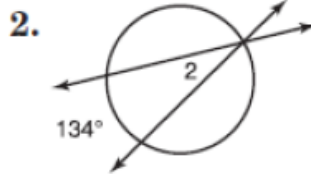
$x = 20$

$x = 16$

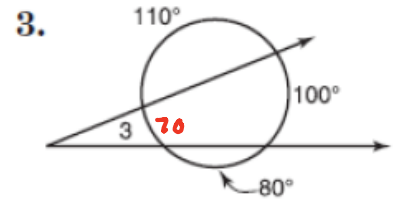
Find the measure of each numbered angle.



$m\angle 1 = 46^\circ$

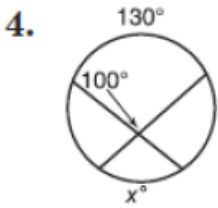


$m\angle 2 = 67^\circ$

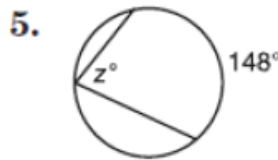


$m\angle 3 = 15^\circ$

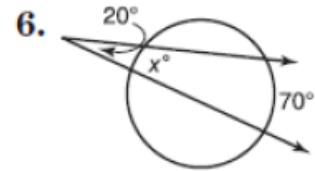
In each circle, find the value of x .



$x = 70^\circ$



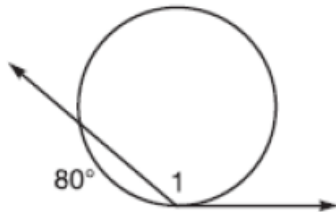
$z = 74^\circ$



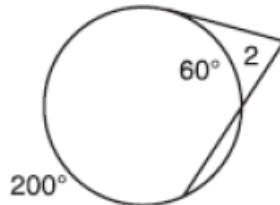
$x = 30^\circ$

Find the measure of each angle. Assume segments that appear to be tangent are tangent.

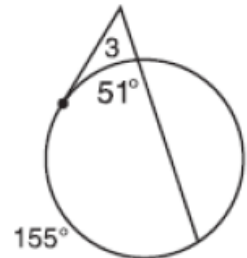
1. $m\angle 1 = 130^\circ$



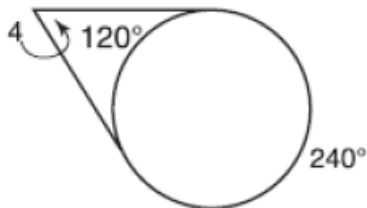
2. $m\angle 2 = 70^\circ$



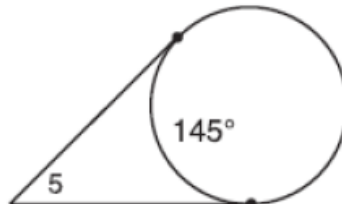
3. $m\angle 3 = 52^\circ$



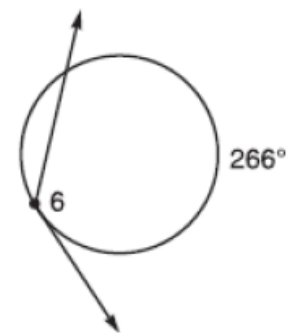
4. $m\angle 4 = 60^\circ$



5. $m\angle 5 = 35^\circ$



6. $m\angle 6 = 133^\circ$



Find the coordinates of the center of the circle and the measure of the radius given:

1) $(x + 1)^2 + y^2 = 121$

$C: (-1, 0) \quad r = 11$

2) $(x - 4)^2 + (y - 1)^2 = .49$

$C: (4, 1) \quad r = 7$

Write an equation of a circle with the given center that passes thru the given point.

3) center: (2, 3) point: (0, 5)

$(x - 2)^2 + (y - 3)^2 = 8$

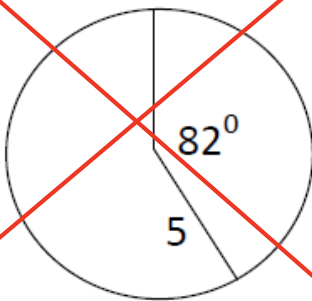
Given the two endpoints of a diameter, find the center and radius of a circle.

4) endpoint: (3, 6) and endpoint: (-1, -2) $C: (1, 2)$

$(x - 1)^2 + (y - 2)^2 = 20$

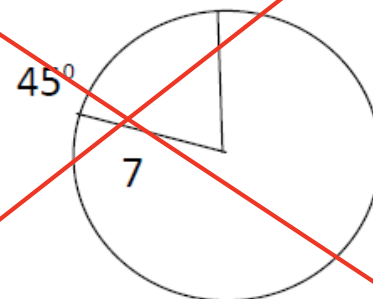
~~Find the length of the minor arc.~~

5)



~~Find the area of shaded portion.~~

6)

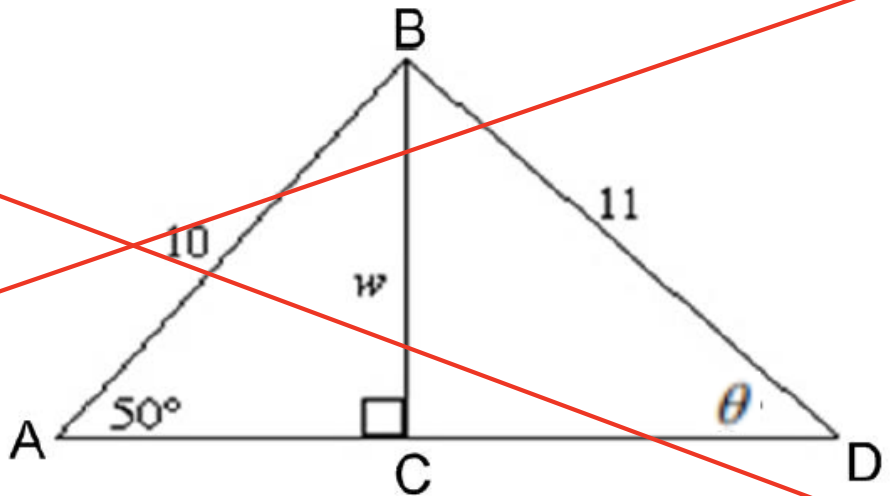


1)

AC: _____

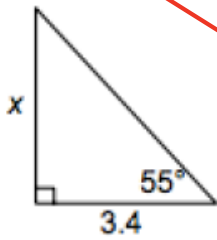
BC: _____

θ : _____

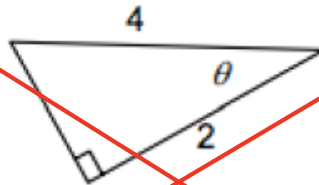


Find the missing information.

2. $x =$ _____



3. $\theta =$ _____



6. Give the picture, find the following sides:

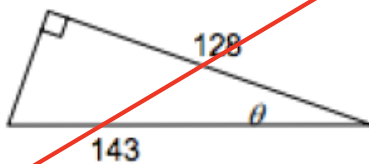
$\overline{AD} =$ _____

$\overline{BC} =$ _____

$\overline{CD} =$ _____

$\overline{AB} =$ _____

4. $\theta =$ _____



5. $x =$ _____

