Name: _____

9.REV.4 – The Last Circles Review

Past due on: _____ Period: _____

1. Find $m\widehat{RS}$ in degrees and radians.   2. Find the length of $\widehat{TS}$.
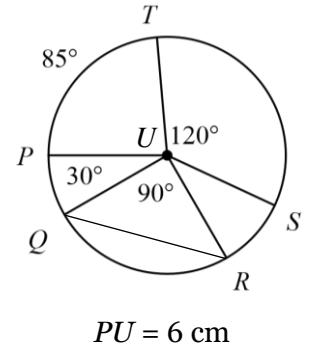
3. Find the approximate area of sector PUT. *Approximate to 2 decimal places.*

4. Determine the area of the segment formed by $\overline{QR}$ & $\widehat{QR}$. *Approximate to 2 decimal places.*

$PU = 6$ cm

5. Find the combined area of the two segments formed by $\overline{AC}$ & $\widehat{BC}$. *Approximate to 2 decimal places.*
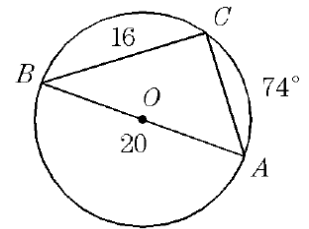
6. A circle with a 300° central angle creates an arc with a length of 78.5 inches. What is the area of the entire circle? Use $\pi = 3.14$.

7. In a circle with a diameter of 32, the area of the sector is $\dfrac{512\pi}{3}$. What is the measure of the angle of the sector in radians?

8. A sector of a circle is shown below. What is the area of the sector? *Round to one decimal place.*

5 cm

6.28 cm
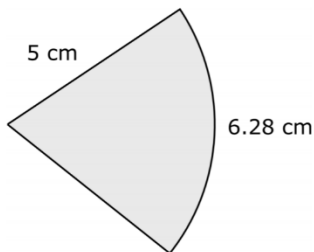
9. A circular pool with a diameter of 32 feet is surrounded by a wood deck of uniform width. If the area of the deck is 68π square feet, what is x, the width of the deck? *Round to one decimal place.*

32 ft.

x ft.
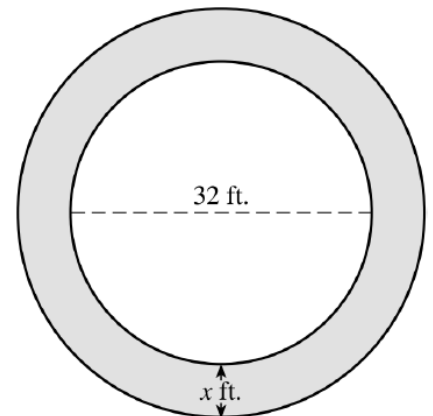
10. In the coordinate plane shown, points B, E, G, and I are on the circle with center H.

   a. What is the standard form equation of the circle with center H?

   b. Identify the center of the circle (by letter) that can be represented by the equation $x^2 + y^2 - 6x + 2y + 5 = 0$.
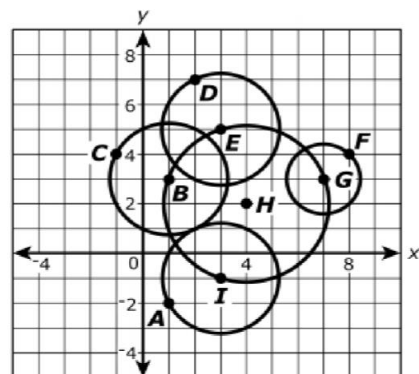
Write the standard form equation of the circle described.

10. A circle whose diameter has the endpoints $(4, -10)$ and $(-14, -2)$.

11. A circle whose center lies in the 2nd quadrant and that is tangent to $y = 7$, $y = 17$, & $x = -4$.

12. A center with a circumference of 8π and center $(-11, 8)$.

13. Complete the square to find the center and the radius of the circle $x^2 + y^2 + 24x + 10y + 160 = 0$.

14. Complete the square to find the center and the radius of the circle $x^2 + y^2 - 8x + 6y + 21 = 0$.

15. Complete the square to find the center and the radius of the circle $2x^2 + 2y^2 + 12x + 20y + 36 = 0$.

Chapter 9: Circles