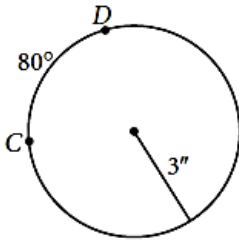
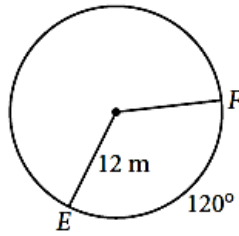


9.REV.3 – Arc Length, Radians & Area...Oh my!

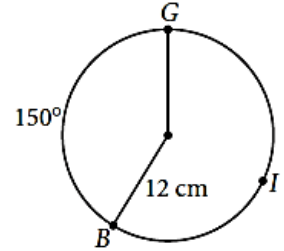
1. Find the measure (in radians) and the length of \widehat{CD} .



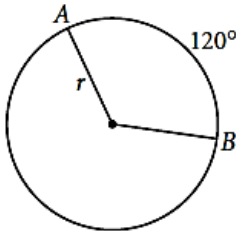
2. Find the measure (in radians) and the length of \widehat{EF} .



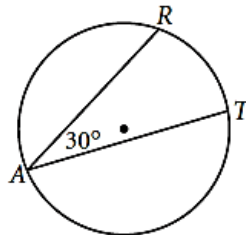
3. Find the measure (in radians) and the length of \widehat{BG} .



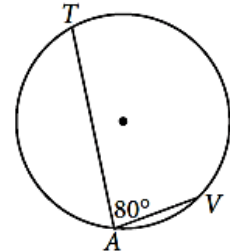
4. The length of $\widehat{AB} = 6\pi$ meters. Find the radius.



5. The radius is 18 feet. Find the length of \widehat{RT} .



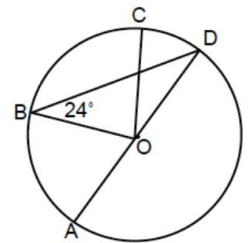
6. The length of $\widehat{TV} = 12\pi$ inches. Find the diameter.



Given: $\odot O$, \overline{AD} is a diameter, $CO = 18$ millimeters

7. Find $m\angle AOB$ in degrees & radians.

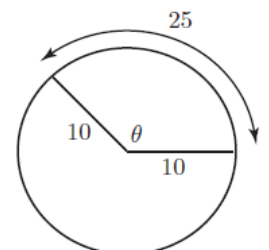
8. Find the length of \widehat{AB} .



9. If $m\angle AOB : m\angle COD$ is 3:4, find $m\angle BOC$ (in degrees).

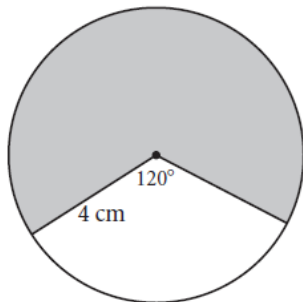
10. Find the area of the sector formed by BOC .

11. Consider the circle shown. Find the measure of θ in radians and in degrees; round to the nearest tenth.

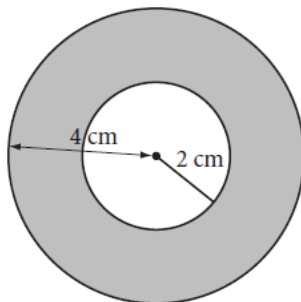


Find the area of the shaded region. Write your answers in terms of π .

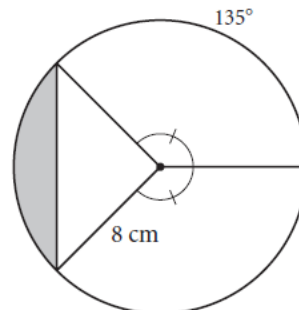
12.



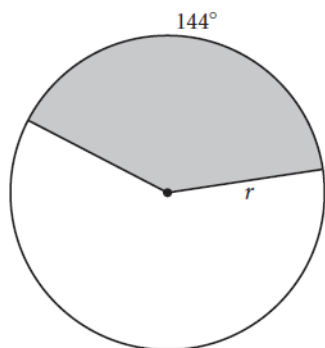
13.



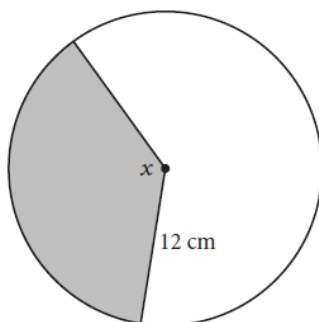
14.



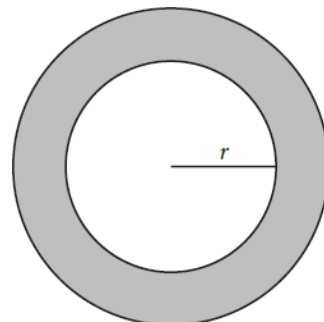
15. The shaded area is $40\pi \text{ cm}^2$. Find r .



16. The shaded area is $54\pi \text{ cm}^2$. Find x .



17. The shaded area is $51\pi \text{ cm}^2$. The diameter of the larger circle is 20 cm. Find r .



18. A sprinkler rotates 300° while watering grass and shoots out water a distance of 20 feet. What area of grass is watered?

19. A 12-inch pizza is cut into 8 slices. You eat one slice of pizza. How many square inches of pizza did you eat?

20. The diagram shows a rectangular lawn and the circular regions watered by two sprinklers. Each circular region is 3 meters in radius. Find to the nearest square meter...

- The total area that is watered.
- The area of the whole lawn.
- The area of the lawn not watered (shaded).

