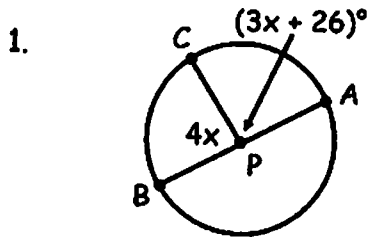


Name Key

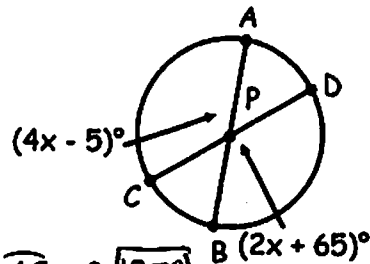
In 1-2, use  $\odot P$  to find the value of  $x$ . Then, find the arc measures.



$m\widehat{BC} = ?$   $88^\circ$

$m\widehat{AC} = ?$   $92^\circ$

2.

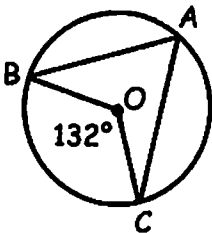


$m\widehat{AC} = ?$   $135^\circ$

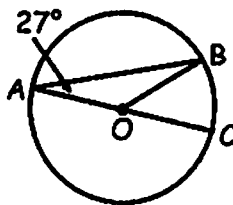
$m\widehat{BD} = ?$   $135^\circ$

Find the measure of the indicated arc or angle in  $\odot O$ .

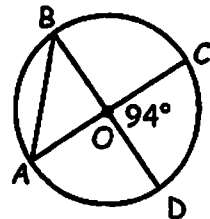
3.  $m\angle BAC = ?$   $66^\circ$



4.  $m\widehat{BC} = ?$   $54^\circ$

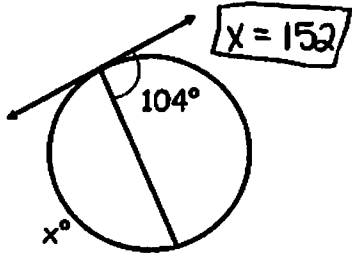


5.  $m\angle BAC = ?$   $43^\circ$



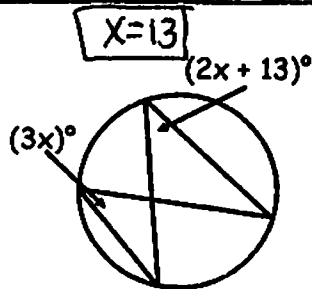
Find the value of each variable.

6.



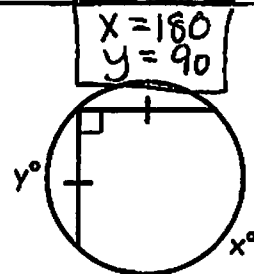
$x = 152$

7.



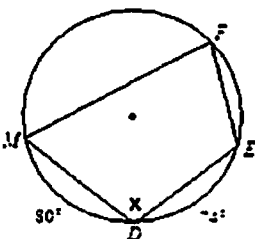
$x = 13$

8.



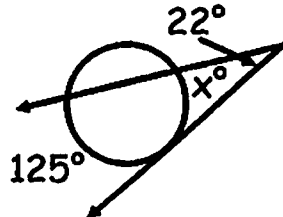
$x = 180$   
 $y = 90$

9.



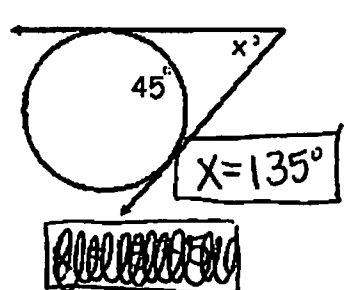
$x = 103$

10.



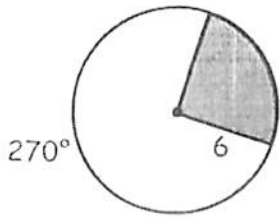
$x = 81$

11.



$x = 135^\circ$

- 
12. Find the area and arc length of the shaded region.



$$\begin{aligned} \text{Area} &\approx 28.27 \text{ units}^2 \\ \text{length} &\approx 9.4 \text{ units} \end{aligned}$$

- 
13. The area of one piece of pizza is  $9\pi \text{ in}^2$ . The pizza is cut into eighths. Find the radius of the pizza pie.

$$r \approx 8.5 \text{ in}$$

- 
14. Determine the radius of the circle with a circumference of  $26\pi \text{ cm}^2$ . Use the radius to then find the area.

$$r = 13 \text{ cm}$$

$$A \approx 530.9 \text{ cm}^2$$

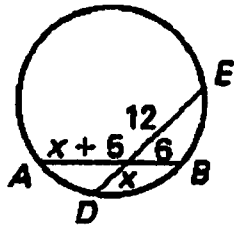
- 
15. A sprinkler system can shoot water at a distance of 15 yards. It is set up to rotate 240 degrees. How much area of the yard is covered by the sprinkler?

$$\approx 471.2 \text{ yd}^2$$

- 
16. The clock in our classroom has a radius of 9 inches. If it's 4:00, find the arc length and area of the sector for this time.

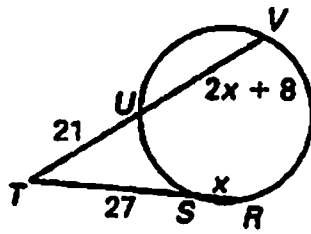
$$\begin{aligned} \text{length} &\approx 18.8 \text{ in} \\ \text{area} &\approx 84.8 \text{ in}^2 \end{aligned}$$

17. Find AB



$AB = 16$

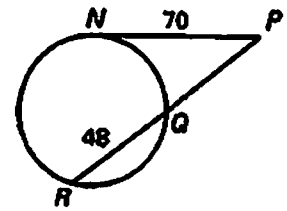
18. Find TV



~~$TV = 34.7$~~

$TV = 45$

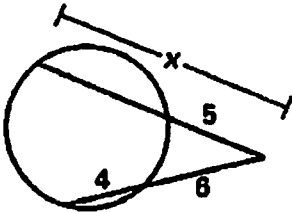
19. Find PQ



~~$PQ = 18$~~

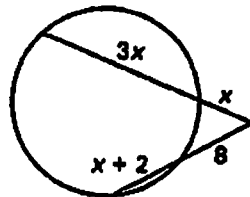
$PQ = 50$

20. Solve for x



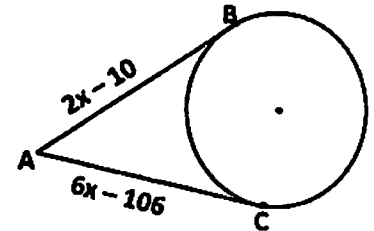
$x = 12$

21. Solve for x



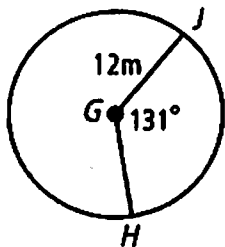
$x \approx 5.6$

22. Find AB



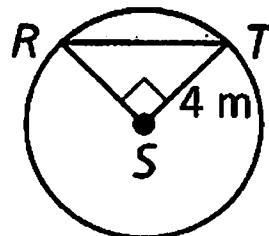
$AB = 38$

23. Find the area of the sector



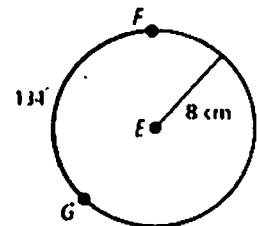
$164.6 \text{ m}^2$

24. Find the area of the shaded region



$4.5 \text{ m}^2$

25. Find ~~the~~ the length of  $\widehat{FG}$



$18.7 \text{ cm}$