1. Vocabulary In a circle, the region bounded by a chord and an arc is called a
$\qquad$
? . (sector or segment)

Find the area of each sector. Give your answer in terms of $\pi$ and rounded to the nearest hundredth.
2. sector $P Q R$

3. sector $J K L$


Multi-Step Find the area of each segment to the nearest hundredth.
7.

8.


Find each arc length. Give your answer in terms of $\pi$ and rounded to the nearest hundredth.
9. $\overparen{E F}$

10. $\overparen{P Q}$

11. an arc with measure $20^{\circ}$ in a circle with radius 6 in .
15. Architecture A lunette is a semicircular window that is sometimes placed above a doorway or above a rectangular window. To the nearest square inch, what is the area of the lunette?


Find the radius of each circle.

## 26. area of sector $A B C=9 \pi$


32. What is the area of sector $A O B$ ?
(A) $4 \pi$
(B) $16 \pi$
(C) $32 \pi$
(D) $64 \pi$
33. What is the length of $\overparen{A B}$ ?
(F) $2 \pi$
(G) $4 \pi$
(H) $8 \pi$
(J) $16 \pi$

