## Arc Length-Sector Area Name:

$\qquad$
8. Calculate the sector area:
a.

b.

c.

9. The area of a circle is $225 \pi$ square inches. Find the area of the sector whose central angle is $45^{\circ}$.
10. The central angle of a sector is $60^{\circ}$ and the area of the circle is $144 \pi$. What is the area of the sector?
11. A circle has a radius of 12 . Find the area of the sector whose central angle is $120^{\circ}$.
12. Find the radius of a circle which has a sector area of $9 \pi$ whose central angle is $90^{\circ}$.
13. The central angle of a sector is $72^{\circ}$ and the sector has an area of $5 \pi$. Find the radius.
14. Find the measure of the central angle of a sector if its area is $5 \pi$ and the radius is 6 .

