$\qquad$
$\qquad$ Period: $\qquad$
Directions: Show all work. Round answers to the nearest tenth when necessary. (\# 1-6) Find the area of each figure. Use calculator $\pi$ for circles.
1.

2.


4.

5.

6. Find the approximate area.

7. Graph the lines listed below on the grid; find the area of the enclosed figure.

$$
\begin{aligned}
& y=-3 \\
& y=2 x+3 \\
& y=-2 x+3
\end{aligned}
$$


8. Find the side of a square with an area of 121 square inches.
9. Find the diameter of a circle with a circumference of 400 feet.

Find the area of the shaded region.( Pictures are not drawn to scale.)
10.

11.

12. Find the area and perimeter of the rectangle in terms of $x$.

13. Find the height of a triangle with base of 15 cm and an area of 120 square centimeters.
14. Find the area of an equilateral triangle with sides of 40 inches.
15. A rectangular play yard is 24 feet by 20 feet. A fence is to be built around the entire yard. If fencing costs $\$ 9.95$ per foot, what will be the cost of the fence?
16. A rectangular garden has a 6 -ft walkway around it. How many more feet is the outer perimeter of the walkway than the perimeter of the garden?
17. If your teacher asked you to build a rectangular pen of the largest area out of 320 feet of fencing, what dimensions would you make the pen?
18. Find the coordinates of the midpoint of $\overline{Q R}$ with endpoints $Q(-9,14)$ and $R(5,-4)$.
19. If a segment has a midpoint of $(5,4)$ and one endpoint of $(2,-1)$, find the other endpoint.
20. $\angle 1$ and $\angle 2$ are a linear pair. $m \angle 1=67^{\circ}$. Find $m \angle 2$.

