$\qquad$ Period $\qquad$

## Find the area of each. SHOW YOUR WORK!

1) 


2)

3)

4)

5)

6)

7)

8)

9)

10) Find the area of a trapezoid with a midsegment length of 10 inches and a height of 8 inches.

## Find the area of each.

11) 


12) Find the area of kite $A B C D$ with vertex $\angle A$ and $\angle C$ and diagonals intersecting at point T . If $\mathrm{AD}=15$ inches, $\mathrm{DT}=9$ inches, $C D=41$ inches, find the area.

Find the area of each regular polygon. Round your answer to the nearest tenth if necessary.
13)

14)

15)

16)


Find the missing measurement. Round your answer to the nearest tenth.
17)


Area $=40.7 \mathrm{~cm}^{2}$
18)


Area $=30.4 \mathrm{~cm}^{2}$
19)


Area $=88.2 \mathrm{mi}^{2}$
21) A rectangular room has an area of 45 square yards. What is the area of the room in square feet?
23) A rectangular room measures 15 feet by 20 feet. You wish to install square-shaped tiles on the floor each measuring 20 inches on one side. How many tiles will you need to cover the floor of the room?
25) You wish you cover the four walls of your room with wallpaper. The dimensions of your room are $12^{\prime}$ long x 10 ' wide x $9^{\prime}$ tall. Each roll measures 21 inches wide x 16.5 feet long. How many rolls will you need to purchase for the job? If the roll of wallpaper you chose costs $\$ 35$ each, how much will you spend on wallpaper?
27) In the same room as in the previous question (\#26), you wish to install vinyl wood-look flooring. Each plank measures 8 " x 48". How many planks will you need to cover the floor?
20)


$$
\text { Area }=30.6 \mathrm{yd}^{2}
$$

22) You have 40 feet of fencing and you'd like to make a rectangular enclosure for your dog Geo. You wish to maximize the amount of space Geo has. What should the dimensions of your enclosure be?
23) Your new kitchen project uses subway tile on your backsplash. The backsplash measures 20 feet long and is 18 inches high. Each rectangular tile measures $3^{\prime \prime} \mathrm{x}$ 12 ". How many tiles will you need to complete the job?
If each box of subway tile contains 12 square feet of tile, how many boxes will you need to buy?
24) Using the same room as in question $\# 25$, you decided wallpaper was too expensive so you decided to paint the 4 walls of your room instead. Each gallon of paint covers 400 square feet and costs $\$ 45$. How many gallons of paint do you need? How much money will you spend in paint?
25) On graph paper, graph the following rhombuses and find the perimeter AND the area of each:
a) $\mathrm{A}(1,1), \mathrm{B}(6,1), \mathrm{C}(9,5), \mathrm{D}(4,5)$
b) $\mathrm{A}(1,1), \mathrm{B}(5,4), \mathrm{C}(1,7), \mathrm{D}(-3,4)$
