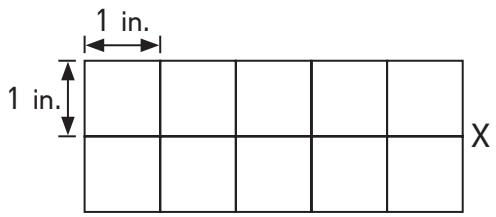
Name: _____ Date: _____

CHAPTER 13 Area and Perimeter

Lesson 13.1 Area of a Rectangle

Find the area of each figure.

1.



There are _____ rows of one-inch squares.

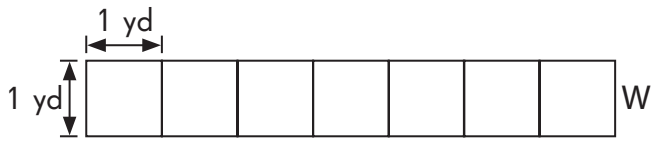
Each row has _____ one-inch squares.

_____ × _____ = _____

There are _____ one-inch squares covering Rectangle X.

Area of Rectangle X = _____ $in.^2$

2.



There is/are _____ row(s) of one-yard squares.

Each row has _____ one-yard squares.

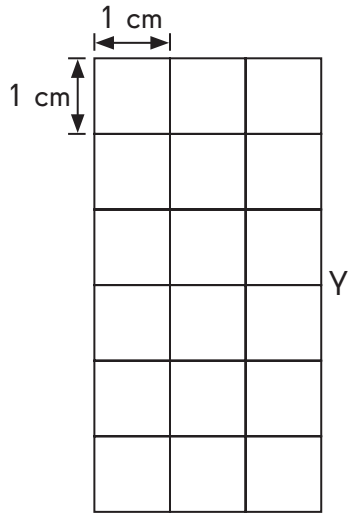
_____ × _____ = _____

There are _____ one-yard squares covering Rectangle W.

Area of Rectangle W = _____ yd^2

Name: _____ **Date:** _____

3.



There are _____ rows of one-centimeter squares.

Each row has _____ one-centimeter squares.

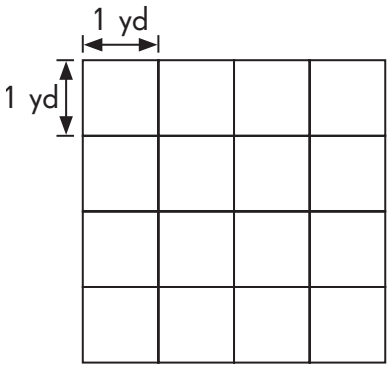
_____ × _____ = _____

There are _____ one-centimeter squares covering Rectangle Y.

Area of Rectangle Y = _____ cm^2

Complete to find the area of each figure.

4.



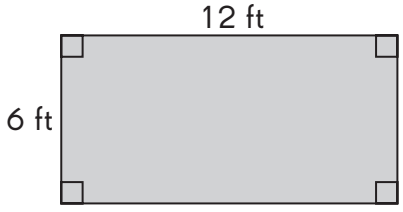
Area = length × width

= _____ × _____

= _____

The area is _____ square yards.

5.



Area = _____ × _____

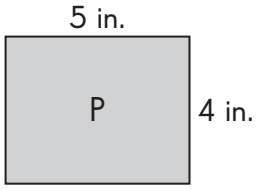
= _____

The area is _____ square feet.

Name: _____ **Date:** _____

Find the perimeter and area of each rectangle or square.

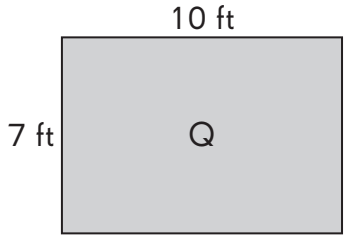
6.



Perimeter = _____ in.

Area = _____ $in.^2$

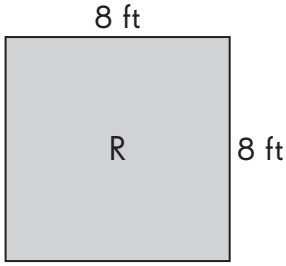
7.



Perimeter = _____ ft

Area = _____ ft^2

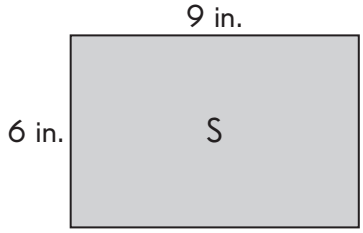
8.



Perimeter = _____ ft

Area = _____ ft^2

9.

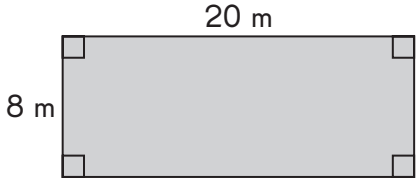


Perimeter = _____ in.

Area = _____ $in.^2$

Solve.

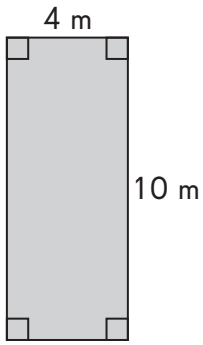
10. A rectangular field measures 20 meters by 8 meters. What is the area of the rectangular field?



Name: _____ **Date:** _____

Solve.

11. James wants to put carpet in his living room.
The living room measures 10 meters by 4 meters.
What is the area of his living room?

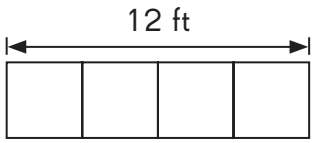


12. Helen has a piece of wrapping paper that measures 60 centimeters by 9 centimeters. She uses half of it to wrap a birthday gift. What is the area of the piece of wrapping paper Helen has left?

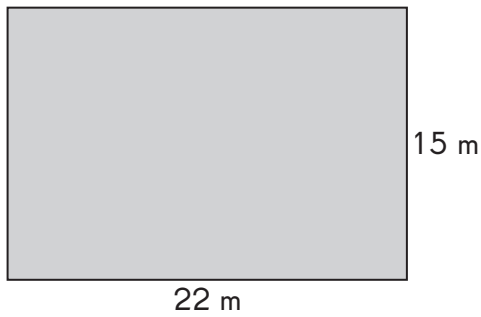
Name: _____ **Date:** _____

Solve.

13. Four identical square tables are arranged next to each other to form one large rectangular table. The length of the large rectangular table is 12 feet. What is the area of each square table?



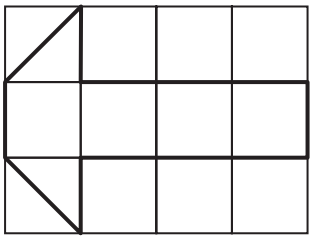
14. A rectangular garden measures 15 meters by 22 meters. What is the cost of putting a fence around the garden if 1 meter of fencing costs $10?



Name: _____ **Date:** _____

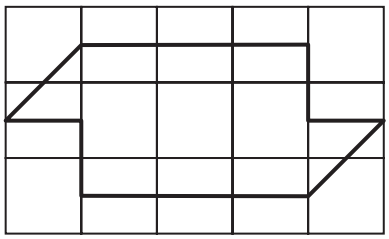
Estimate the area of each figure in square units.

15.



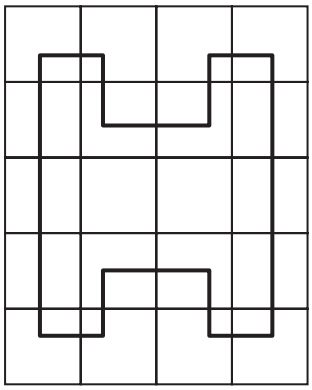
_____ unit^2

16.



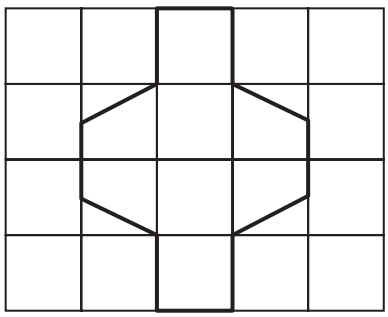
_____ unit^2

17.



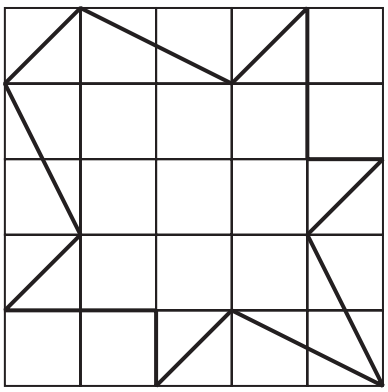
_____ unit^2

18.



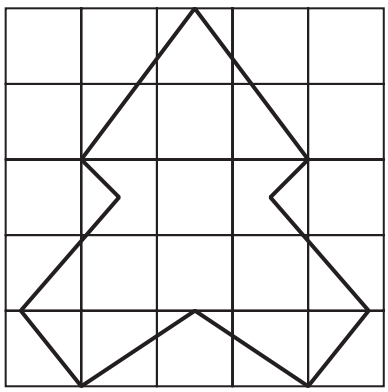
_____ unit^2

19.



_____ unit^2

20.



_____ unit^2

Name: _____ Date: _____

Lesson 13.2 Rectangles and Squares (Part 1)

Find the perimeter of each figure.

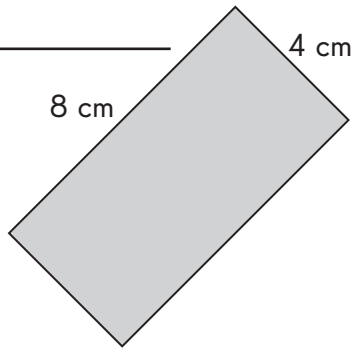
1. Perimeter of the rectangle

= _____ + _____ + _____ + _____

= _____

The perimeter of the rectangle is

_____ centimeters.



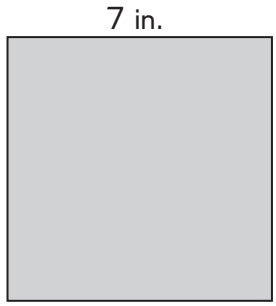
2. Perimeter of the square

= 4 × _____

= _____

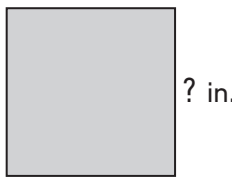
The perimeter of the square is

_____ inches.



Solve.

3. A square piece of cardboard has a perimeter of 64 inches. Find the length of one side of the cardboard.

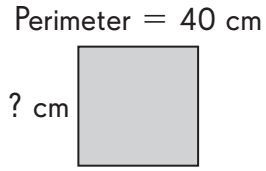


Perimeter = 64 in.

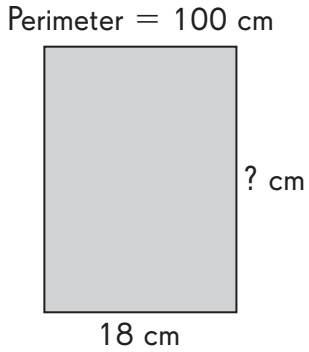
Name: _____ **Date:** _____

Solve.

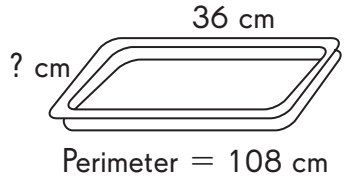
4. The perimeter of a square coaster is 40 centimeters. Find the length of one side of the coaster.



5. A rectangular shoe box has a width of 18 centimeters. Its perimeter is 100 centimeters. Find the length of the box.



6. A rectangular tray has a perimeter of 108 centimeters. Its length is 36 centimeters. Find the width of the tray.

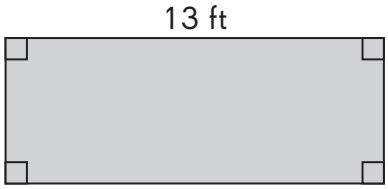


Name: _____ Date: _____

Lesson 13.2 Rectangles and Squares (Part 2)

Find the area of each figure.

1.



Area of the rectangle

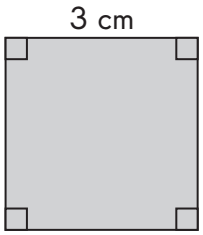
= _____ × _____

= _____

The area of the rectangle is

_____ square feet.

2.



Area of the square

= _____ × _____

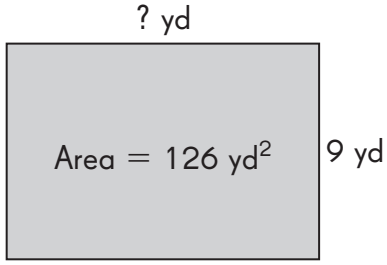
= _____

The area of the square is

_____ square centimeters.

Solve.

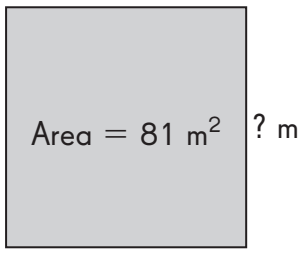
3. The area of a rectangular field is 126 square yards. The width of the field is 9 yards. Find the length of the field.



Name: _____ **Date:** _____

Solve.

4. The area of a square is 81 square meters. Find the length of one side of the square.
Hint: What number multiplied by itself is equal to 81?



5. The area of a square poster is 144 square centimeters.

a. Find the length of each side of the poster.

b. Find the perimeter of the poster.

6. A rectangular photo frame has an area of 200 square centimeters. Its length is 20 centimeters.

a. Find the width of the photo frame.

b. Find the perimeter of the photo frame.

Name: _____ Date: _____

Solve.

7. The area of a rectangular piece of land is 240 square yards. Its width is 15 yards.

a. Find the length of the land.

b. Find the perimeter of the land.

8. The area of a square pond is 121 square meters.

a. Find the length of one side of the pond.

b. Find the perimeter of the pond.

Name: _____ **Date:** _____

Solve.

9. The perimeter of a rectangle is 52 centimeters. Its width is 10 centimeters.

a. Find the length of the rectangle.

b. Find the area of the rectangle.

10. The perimeter of a rectangle is 54 inches. Its length is two times its width.

a. Find the length and width of the rectangle.

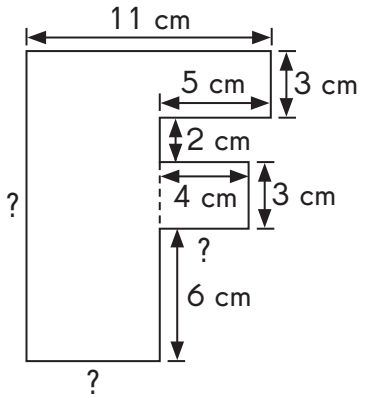
b. Find the area of the rectangle.

Name: _____ Date: _____

Lesson 13.3 Composite Figures

Find the lengths of the unknown sides of each figure. Then find the perimeter of each figure.

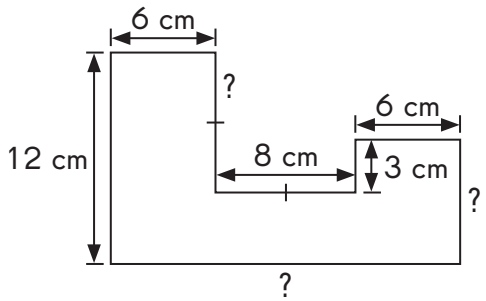
1.



Length of first unknown side = _____ cm
Length of second unknown side = _____ cm
Length of third unknown side = _____ cm

Perimeter = _____ cm

2.



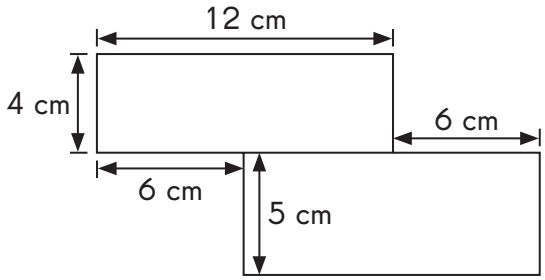
Length of first unknown side = _____ cm
Length of second unknown side = _____ cm
Length of third unknown side = _____ cm

Perimeter = _____ cm

Name: _____ **Date:** _____

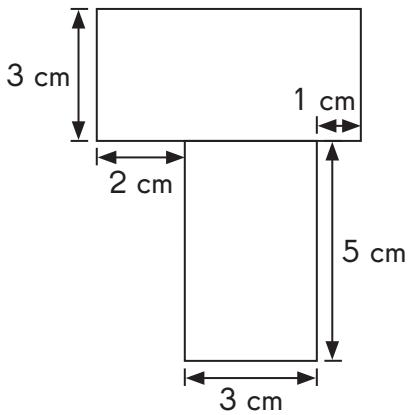
Solve. Show your work.

3.



Perimeter = _____ cm

4.

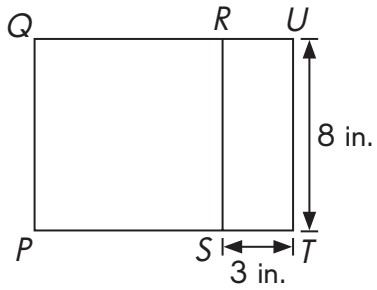


Perimeter = _____ cm

Name: _____ **Date:** _____

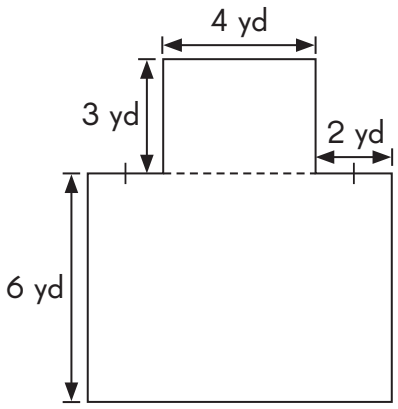
Find the area of each composite figure. Show your work.

5. The figure is made up of a square *PQRS* and a rectangle *RSTU*.



Area = _____ in.^{2}

6.

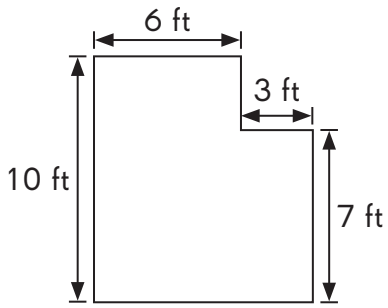


Area = _____ yd^2

Name: _____ **Date:** _____

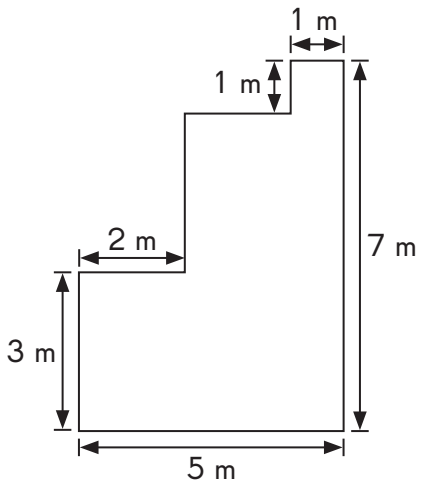
Find the area of each composite figure. Show your work.

7.



Area = _____ ft^2

8.



Area = _____ m^2

Name: _____ Date: _____

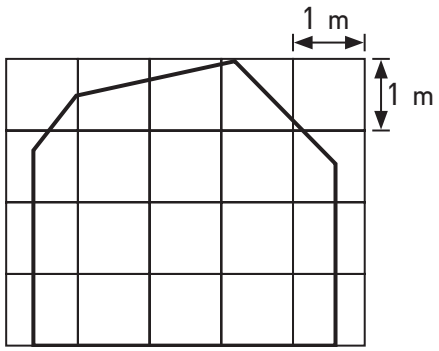
Lesson 13.4 Using Formulas for Area and Perimeter

Solve. Show your work.

1. A wall in Jason's room is in the shape shown below.

a. Estimate, in square meters, the area of the wall.

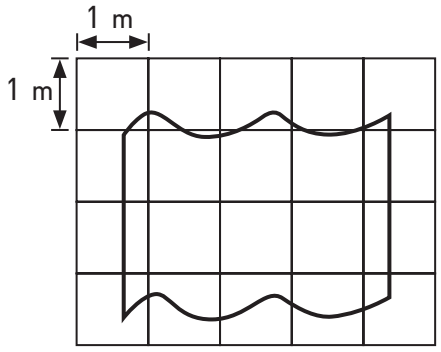
b. Jason wants to wallpaper his wall. A roll of wallpaper is 3 meters wide. What is the length of wallpaper Jason should buy?



2. A banner is in the shape shown below.

a. Estimate the banner's area.

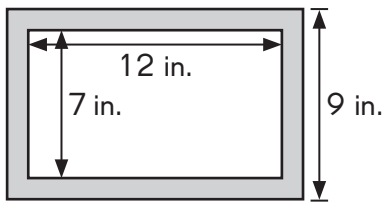
b. Jamie wants to buy cloth to make the banner. One square meter of cloth costs $10. How much will Jamie have to spend?



Name: _____ **Date:** _____

Solve. Show your work.

3. In the figure, the area of the shaded border is 87 square inches. Find the area of the large rectangle.



Area of the small rectangle

= _____ × _____

= _____

Area of the large rectangle

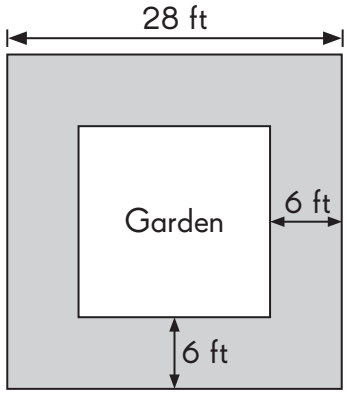
= Area of the small rectangle + area of the shaded border

= _____ + _____

= _____

The area of the large rectangle is _____ square inches.

4. The border of a square garden has a width of 6 feet. What is the area of the shaded border?



Area of the large square

= _____ × _____

= _____

Area of the small square

= _____ × _____

= _____

Area of the shaded border

= _____ − _____

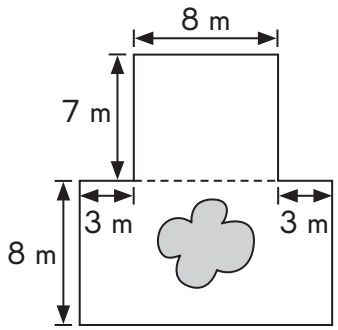
= _____

The area of the shaded border is _____ square feet.

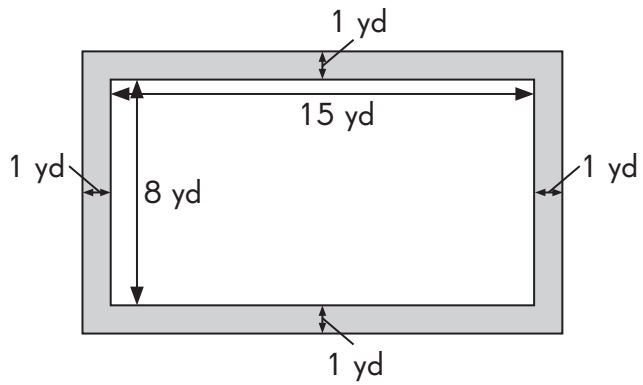
Name: _____ **Date:** _____

Solve. Show your work.

5. The area of the shaded part in the figure is 39 square meters. Find the area of the unshaded part of the figure.



6. A rectangular field measuring 15 yards by 8 yards has a path 1 yard wide around it. Find the area of the path.



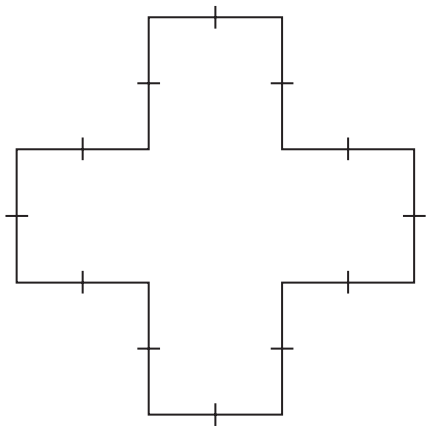
Name: _____ **Date:** _____

Solve. Show your work.

7. The figure is made up of five identical squares. The area of the figure is 405 square inches.

a. Find the area of each square.

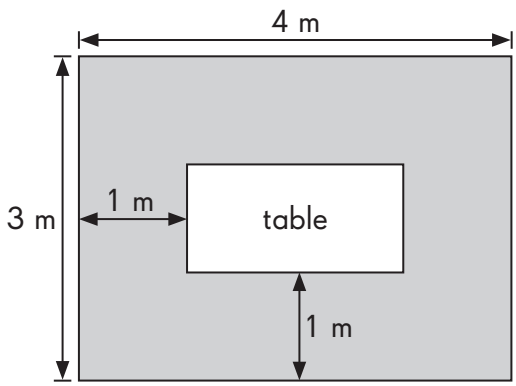
b. Find the perimeter of the figure.



8. A coffee table is centered in a rectangular room as shown in the diagram.

a. Find the area of the table.

b. Find the perimeter of the room.



Name: _____ Date: _____

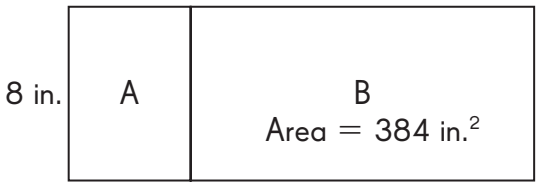
Put On Your Thinking Cap!

Solve. Show your work.

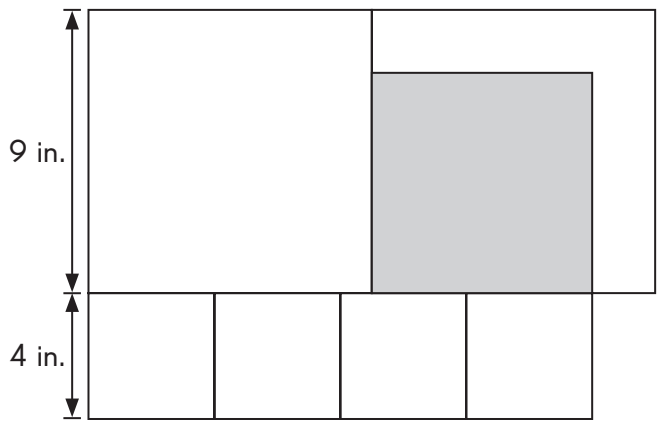
1. The figure is made up of two rectangles, A and B. The length of Rectangle A is $\frac{1}{4}$ the length of Rectangle B. The area of Rectangle B is 384 square inches.

a. Find the area of Rectangle A.

b. What is the perimeter of the figure?



2. The figure is made up of two identical large squares and four identical small squares. Each side of a large square is 9 inches long, while each side of a small square is 4 inches long. The shaded part is also a square. What is the area of the shaded square?



Name: _____ **Date:** _____

3. The figure is made up of 9 identical rectangles. The total area of the figure is 288 square centimeters. Find the perimeter of the figure.