Practice

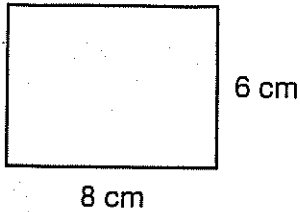## Complete the steps to find the area.

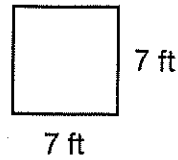**1.**

6 cm

8 cm

$A = l \times w$

$A = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

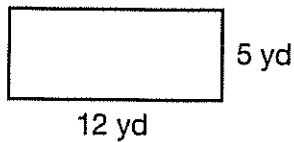$A = \underline{\hspace{2cm}}$ square centimeters

2.

7 ft

7 ft

$A = l \times w$

$A = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$

$A = \underline{\hspace{2cm}}$ square feet
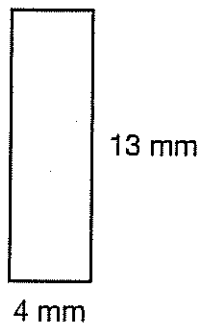
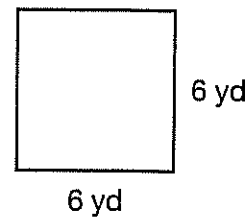> **HINT** In a square, length = width.

Find the area.

3.

5 yd

12 yd

_____

> **REMEMBER** Area is expressed in square units.

4.

13 mm

4 mm

_____

5.

6 yd

6 yd

_____

Complete.

6. If the length of a rectangle is 11 centimeters and its width is 4 centimeters, its area is

_____.

7. If the length of a rectangle is 9 feet and its width is 8 feet, its area is

_____.

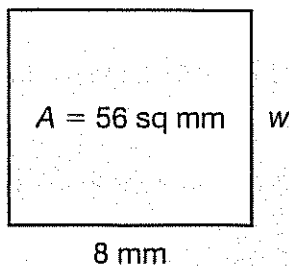**8.** If the side of a square is 15 inches, its area is

_____.

A =
$56 = ? \times w$ Use fact families to rewrite equation.
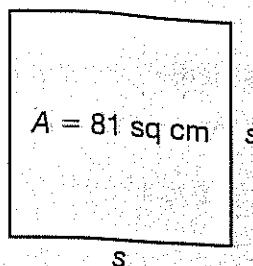dis · $56 ! 8 = \underline{\quad}$

Find the missing measure.
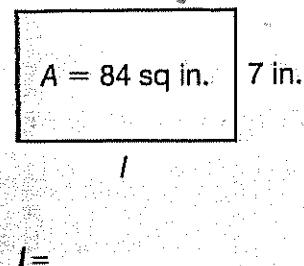
9.

$A = 56$ sq mm w

8 mm

$w = \underline{\qquad}$

10.

$A = 81$ sq cm s

s

$s = \underline{\qquad}$

11.

$A = 84$ sq in.   7 in.

l

$l = \underline{\qquad}$

Choose the best answer.

12. A rectangular tablecloth measures 5 feet by 7 feet. What is the area of the tablecloth in square inches?

A. 5,040 square inches

B. 144 square inches

C. 35 square inches

D. 24 square inches

13. A rectangle has an area of 80 square inches. Which of the following could **not** be the dimensions of the rectangle?

A. 4 inches by 20 inches

B. 5 inches by 16 inches

C. 6 inches by 15 inches

D. 8 inches by 10 inches

Solve.

14. Fabio is putting carpet in his bedroom which measures 12 feet by 13 feet. How many square feet of carpeting does he need?

15. The area of a square quilt is 49 square feet. What is the length of a side of the quilt in inches?

16. **PREDICT** What will happen to the area of a rectangle if the length of the rectangle is doubled? Justify your answer.

17. **WRITE** Tara is arranging 16 squares of felt into rectangles. In how many different ways can she arrange the pieces of felt? Explain how you found your answer.

The **area (A)** of a plane figure is the number of squares having a side length of 1 unit that can completely cover the inside of the figure with no gaps or overlaps. Area is measured in **square units**. You can use a formula to find the area of a rectangle.

EXAMPLE Find the area of the rectangle shown below.

5 in.

6 in.
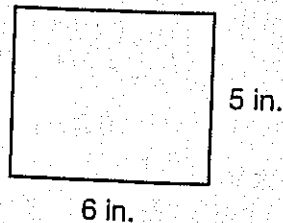
1 Use the formula for the area of a rectangle.

Area = length × width

$A = l \times w$

2 Multiply the length times the width.

l = 6 inches and w = 5 inches

$A = 6 \times 5$

6 inches × 5 inches = 30 square inches

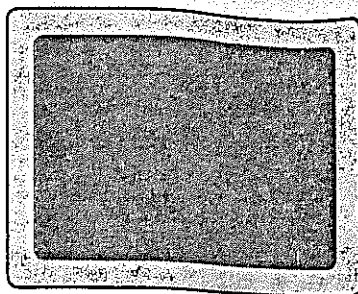▶ The area of the rectangle is 30 square inches.

MODEL

Model 30 square units on the rectangle below.

5 in.

6 in.
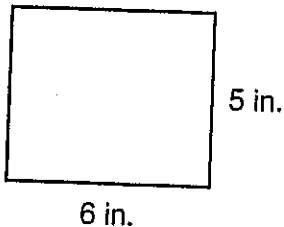
🎲 Problem Solving

READ

The area of a PC tablet is 70 square inches. The length of the tablet is 10 inches. What is the width of the tablet?

10 in.

PLAN

Use the formula for the area of a rectangle.

$A = l \times w$

SOLVE

$A = l \times w$

$70 = 10 \times w$

$w = \underline{\hspace{2cm}}$

CHECK

Check by multiplying.

$10 \times 7 = \underline{\hspace{2cm}}$

➤ The width of the tablet is \underline{\hspace{2cm}} inches.