

Grade 4 · Area and Perimeter of Rectangles · Worksheet

Common Core 4.MD.A.3 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

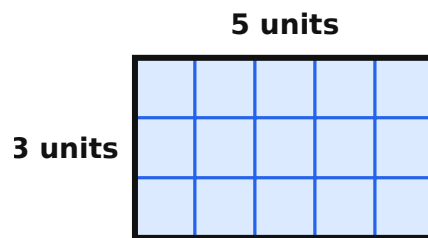
These 22 problems practice standard 4.MD.A.3. Students count unit squares, use the area and perimeter formulas for rectangles and squares, and find missing sides.

The last problems are real-world stories about gardens, fences, rugs, tiles, and walls. A full worked solution for each one is in the answer key.

Grade 4 Common Core: 4.MD.A.3

Problem 1: Count unit squares

Find the area of the rectangle. Each square is 1 square unit.



Rectangle 5 units by 3 units.

Problem 2: Area of rectangles

Find the area of each rectangle.

- a. $l = 4$ ft, $w = 6$ ft
- b. $l = 7$ in, $w = 3$ in
- c. $l = 9$ m, $w = 5$ m
- d. $l = 12$ yd, $w = 8$ yd

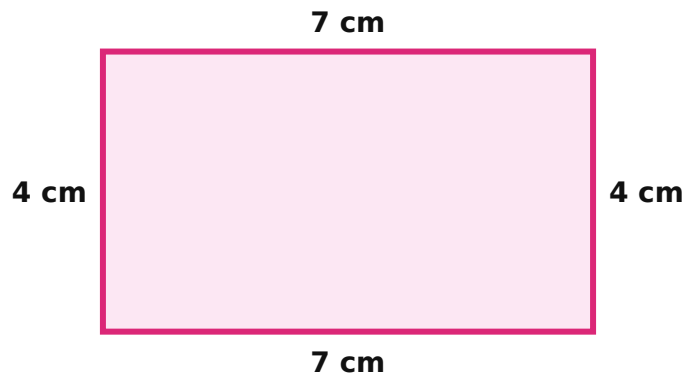
Problem 3: Perimeter of rectangles

Find the perimeter of each rectangle. All lengths are in centimeters.

- a. $l=5$, $w=3$
- b. $l=8$, $w=2$
- c. $l=10$, $w=6$
- d. $l=15$, $w=9$

Problem 4: Add the four sides

Find the perimeter of the rectangle by adding all four sides.



Rectangle 7 cm by 4 cm.

Problem 5: Squares

Find the area and the perimeter of each square.

- a. $s=6$ in
- b. $s=9$ ft
- c. $s=12$ m

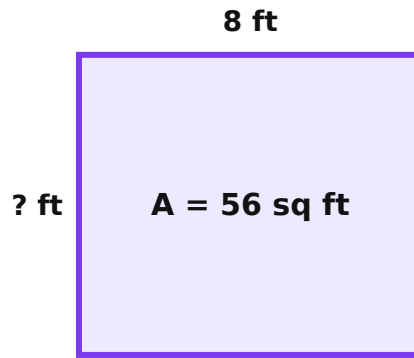
Problem 6: Area and perimeter together

Find the area and the perimeter of each rectangle. All lengths are in feet.

- a. $l=10$, $w=4$
- b. $l=11$, $w=5$
- c. $l=14$, $w=6$
- d. $l=20$, $w=8$

Problem 7: Missing side from area

Each rectangle has the area and one side shown. Find the missing side.



Part (a).

- a. $A = 56$ sq units, side = 8
- b. $A = 63$ sq units, side = 9
- c. $A = 120$ sq units, side = 12
- d. $A = 144$ sq units, side = 16

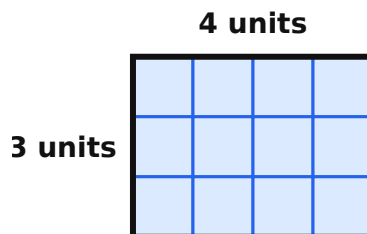
Problem 8: Missing side from perimeter

Find the missing side of each rectangle.

- a. $P = 30$ in, $l = 9$ in
- b. $P = 44$ in, $l = 14$ in
- c. $P = 52$ in, $w = 10$ in
- d. $P = 60$ in, $l = 20$ in

Problem 9: Rectangles with area 12

One rectangle with an area of 12 square units is shown. List all rectangles with whole-number sides and an area of 12 square units. Which one has the smallest perimeter?



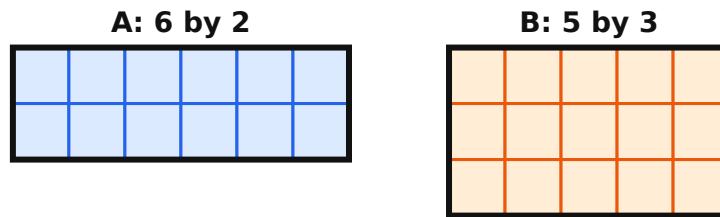
A 4 by 3 rectangle.

Problem 10: Compare two rectangles

Rectangle A is 9 feet by 4 feet. Rectangle B is 7 feet by 6 feet. Which rectangle has the greater area, and do they have the same perimeter?

Problem 11: Same perimeter

Both rectangles have a perimeter of 16 units. Which has the greater area, and by how many square units?



Rectangles A and B on a grid.

Problem 12: Garden plan

Jamal's rectangular garden is 12 feet long and 7 feet wide. Find its area and the length of fence needed to go all the way around it.

Problem 13: Poster border

A poster is 18 inches wide and 24 inches tall. Maya covers the front with colored paper. She also glues ribbon along all four edges. Find the area of the paper and the length of the ribbon.

Problem 14: Buying a rug

A rug is 9 feet long and 6 feet wide. It costs \$4 for each square foot. How much does the rug cost?

Problem 15: Laps around the field

A soccer field is 100 yards long and 60 yards wide. Liam jogs around the edge of the field 2 times. How many yards does he jog?

Problem 16: Bedroom floor

The floor of a rectangular bedroom has an area of 108 square feet. The room is 9 feet wide. How long is the room, and what is the perimeter of the floor?

Problem 17: Dog pen fence

Sofia builds a rectangular dog pen that is 15 feet long and 10 feet wide. Fence costs \$3 per foot. How much does the fence for the whole pen cost?

Problem 18: Floor tiles

Diego tiles a rectangular floor that is 14 feet long and 9 feet wide with square tiles that are 1 foot on each side. Tiles come in boxes of 10. How many boxes must he buy?

Problem 19: Bulletin board trim

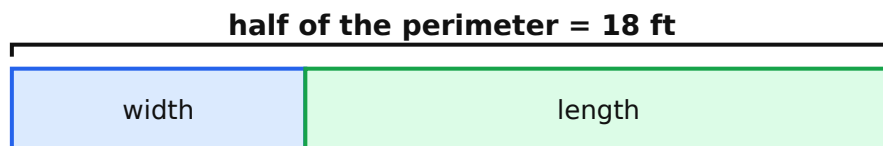
A bulletin board is 9 feet long and has an area of 54 square feet. Trim comes in strips that are 5 feet long. How many strips are needed to go around the board?

Problem 20: Doubling the length

Mei's garden is 8 feet long and 5 feet wide. She doubles the length and keeps the width the same. Find the old and new area. Then find the old and new perimeter. Does the perimeter double too?

Problem 21: Length is twice the width

The perimeter of a rectangle is 36 feet. Its length is twice its width. The tape diagram shows half of the perimeter. Find the length, the width, and the area.



Width is 1 part and length is 2 parts.

Problem 22: Painting a wall

Noah paints a wall that is 12 feet wide and 8 feet tall. A door that is 3 feet wide and 7 feet tall is on the wall, and he will not paint the door. How many square feet will he paint?