

Measure It Twice

Find perimeter and area of rectangles and squares.

GRADE 4 • TEKS 4.5.C

4.5.C "use models to determine the formulas for the perimeter of a rectangle ($l + w + l + w$ or $2l + 2w$), including the special form for perimeter of a square ($4s$) and the area of a rectangle ($l \times w$); and"

NAME _____

DATE _____

THE BIG IDEA

A rectangle has two lengths and two widths. Find perimeter by adding all four sides, $l + w + l + w$, or by using $2l + 2w$. Find area by multiplying length $\times$ width. For a square, perimeter is $4s$.

WORKED EXAMPLE

A rectangle has a length of 13 units and a width of 4 units. Find its perimeter and area.

1. Perimeter = $13 + 4 + 13 + 4$.
2. Perimeter = 34 units.
3. Area = 13×4 .
4. Area = 52 square units.

Answer: Perimeter = 34 units; area = 52 square units.

PRACTICE 6 problems

- 1** A rectangle has a length of 8 cm and a width of 3 cm. What is its perimeter?

ANSWER _____

- 2** A rectangle has a length of 7 m and a width of 5 m. What is its area?

ANSWER _____

- 3** A square has a side length of 6 inches. What is its perimeter?

ANSWER _____

- 4** A rectangle has a length of 12 ft and a width of 2 ft. What is its perimeter?

ANSWER _____

- 5** A rectangle has a length of 9 yd and a width of 5 yd. What is its area?

ANSWER _____

- 6** A square has a side length of 10 cm. What is its perimeter?

ANSWER _____

APPLY IT Show your work

- 1** Maya is making a rectangular border for her school club poster. The poster is 15 inches long and 6 inches wide. How many inches of border does she need?

WORK SPACE

ANSWER _____

- 2** A community garden has a rectangular pumpkin patch that is 14 feet long and 8 feet wide. What is the area of the pumpkin patch?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A rectangle has a perimeter of 38 cm and a length of 11 cm. What is its width? Show how you know.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A rectangle has a length of 8 cm and a width of 3 cm. What is its perimeter?	22 cm
2	A rectangle has a length of 7 m and a width of 5 m. What is its area?	35 square m
3	A square has a side length of 6 inches. What is its perimeter?	24 inches
4	A rectangle has a length of 12 ft and a width of 2 ft. What is its perimeter?	28 ft
5	A rectangle has a length of 9 yd and a width of 5 yd. What is its area?	45 square yd
6	A square has a side length of 10 cm. What is its perimeter?	40 cm

PART 2 • APPLY IT

1. **42 inches of border** Find the perimeter: $15 + 6 + 15 + 6 = 42$. Maya needs 42 inches of border.
2. **112 square feet** Multiply length by width: $14 \times 8 = 112$. The pumpkin patch covers 112 square feet.

CHALLENGE

8 cm. The two length sides total 22 cm, so the two width sides total 16 cm. Each width is 8 cm.

Accept either $l + w + l + w$ or $2l + 2w$ for rectangle perimeter. Accept correct units, including square units for area.