

# Square Space Quest

Measure how much flat space a shape covers.

GRADE 3 • 3.MD.C.5

**CCSS.Math.Content.3.MD.C.5** "Recognize area as an attribute of plane figures and understand concepts of area measurement."

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## AREA COUNTS SPACE

Area tells how much flat space is inside a shape. Cover the shape with same-size unit squares with no gaps or overlaps. Count the unit squares to find the area.

## WORKED EXAMPLE

A rectangle has 4 rows of 6 unit squares. What is its area?

1. Count 4 rows.
2. Each row has 6 unit squares.
3. Multiply  $4 \times 6 = 24$ .

**Answer: 24 square units**

## PRACTICE 6 problems

- 1** A rectangle is covered by 2 rows of 5 unit squares. What is its area?

**ANSWER** \_\_\_\_\_

- 2** A rectangle has 3 rows of 7 unit squares. What is its area?

**ANSWER** \_\_\_\_\_

- 3** A rectangular paper has a length of 9 units and a width of 3 units. What is its area?

**ANSWER** \_\_\_\_\_

- 4** A shape is covered completely by 18 unit tiles with no gaps or overlaps. What is its area?

**ANSWER** \_\_\_\_\_

- 5** Rectangle A has 5 rows of 8 unit squares. Rectangle B has 7 rows of 5 unit squares. Which rectangle has the greater area?

**ANSWER** \_\_\_\_\_

- 6** A shape is covered completely by 25 unit squares. What is its area?

**ANSWER** \_\_\_\_\_

## APPLY IT Show your work

- 1** Kai is making a rectangular cover for a game board. The cover is 11 units long and 5 units wide. What is the area of the cover?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** A rectangular butterfly garden is 13 feet long and 7 feet wide. What is the area of the garden?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

### CHALLENGE

A shape is made from a 9-by-2 rectangle and a 3-by-5 rectangle. The rectangles touch along an edge but do not overlap. What is the total area? Explain why you can add the two areas.

---

---

## PART 1 • PRACTICE

| # | PROBLEM                                                                                                                   | ANSWER                                                                         |
|---|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 1 | A rectangle is covered by 2 rows of 5 unit squares. What is its area?                                                     | <b>10 square units</b>                                                         |
| 2 | A rectangle has 3 rows of 7 unit squares. What is its area?                                                               | <b>21 square units</b>                                                         |
| 3 | A rectangular paper has a length of 9 units and a width of 3 units. What is its area?                                     | <b>27 square units</b>                                                         |
| 4 | A shape is covered completely by 18 unit tiles with no gaps or overlaps. What is its area?                                | <b>18 square units</b>                                                         |
| 5 | Rectangle A has 5 rows of 8 unit squares. Rectangle B has 7 rows of 5 unit squares. Which rectangle has the greater area? | <b>Rectangle A, with 40 square units.<br/>Rectangle B has 35 square units.</b> |
| 6 | A shape is covered completely by 25 unit squares. What is its area?                                                       | <b>25 square units</b>                                                         |

## PART 2 • APPLY IT

- 55 square units** Multiply the length and width:  $11 \times 5 = 55$ . The cover has an area of 55 square units.
- 91 square feet** Multiply the length and width:  $13 \times 7 = 91$ . The garden has an area of 91 square feet.

## CHALLENGE

**33 square units. The rectangles do not overlap, so their areas can be added:  $9 \times 2 = 18$  and  $3 \times 5 = 15$ , then  $18 + 15 = 33$ .**

Accept "sq units" for square units and "sq ft" for square feet. For the challenge, accept any clear explanation that the two parts do not overlap, so adding their areas gives the total.