

Tile It Up

Use square tiles and multiplication to find rectangle area.

GRADE 3 • 3.MD.C.7a

CCSS.Math.Content.3.MD.C.7a "Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths."

NAME _____

DATE _____

AREA WITH TILES

Area tells how many square units cover a flat shape with no gaps or overlaps. For a rectangle, count the tiles in one row and the number of rows. Then multiply the side lengths to find the same total.

WORKED EXAMPLE

A rectangle is 7 units long and 3 units wide. Find its area.

1. Make 3 rows with 7 square tiles in each row.
2. Count the tiles: $7 + 7 + 7 = 21$.
3. Multiply the side lengths: $7 \times 3 = 21$.

Answer: 21 square units

PRACTICE 6 problems

- 1** A rectangle is 4 units long and 6 units wide. How many square tiles cover it? Write a multiplication equation.

ANSWER _____

- 2** A tile rectangle has 5 rows with 8 tiles in each row. What is its area?

ANSWER _____

- 3** A rectangle is 2 units wide and 9 units long. Find its area.

ANSWER _____

- 4** A rectangle has 10 rows of 4 square tiles. What is its area?

ANSWER _____

- 5** A rectangle has 6 rows and 6 tiles in each row. Find the area.

ANSWER _____

- 6** A rectangle is 1 unit wide and 12 units long. How many square units are in its area?

ANSWER _____

APPLY IT Show your work

- 1** Mia makes a rectangular sticker sheet that is 8 units long and 5 units wide. How many square units of stickers can fit on the sheet?

WORK SPACE

ANSWER _____

- 2** A game board has a rectangular grass area that is 9 units long and 2 units wide. What is the area of the grass?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A rectangle is 11 units long and 4 units wide. Find its area. Then explain how counting tiles in rows gives the same answer as multiplication.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A rectangle is 4 units long and 6 units wide. How many square tiles cover it? Write a multiplication equation.	$4 \times 6 = 24$ square units
2	A tile rectangle has 5 rows with 8 tiles in each row. What is its area?	$5 \times 8 = 40$ square units
3	A rectangle is 2 units wide and 9 units long. Find its area.	$2 \times 9 = 18$ square units
4	A rectangle has 10 rows of 4 square tiles. What is its area?	$10 \times 4 = 40$ square units
5	A rectangle has 6 rows and 6 tiles in each row. Find the area.	$6 \times 6 = 36$ square units
6	A rectangle is 1 unit wide and 12 units long. How many square units are in its area?	$1 \times 12 = 12$ square units

PART 2 • APPLY IT

1. **40 square units** The sheet has 5 rows of 8 square units. Multiply 8×5 to get 40 square units.
2. **18 square units** The grass area has 2 rows of 9 square units. Multiply 9×2 to get 18 square units.

CHALLENGE

44 square units. There are 4 rows of 11 tiles, so $11 + 11 + 11 + 11 = 44$. Multiplying 11×4 also equals 44.

Accept multiplication equations with the factors in either order. For the challenge, accept a correct explanation using repeated addition, rows, columns, or equal groups.