Counting Unit Squares for Area

Spot mistakes, reason, and work backward

Name _____ **Date** _____ **Score** _____ / 6

QUICK REVIEW

Count each covered unit square exactly once. Add the number of squares in each row or in each column; either method gives the same total. Each square counts as 1 square unit. Do not count empty spaces in a surrounding rectangle.

Worked example

Find the area. Show a row-by-row count of the unit squares.

1. The row counts from bottom to top are $3, 3, 2$.
2. Add them: $3 + 3 + 2 = 8$ square units.
Answer: 8 square units.

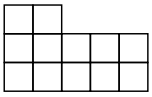


Each square: 1 sq unit

Practice Problems

Show your thinking.

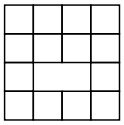
1. A student multiplies $5 \times 3 = 15$ and calls it this figure's area. Correct the count.



Each square: 1 sq unit

2. A shape has area 9 square units. Its lower rows contain $4 + 3$ squares. How many squares are in the last row?

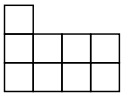
3. Count the unit squares in this frame. Two middle cells are holes. Show two counting methods.



Each square: 1 sq unit

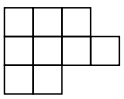
4. A shape has area 12 square units. Its lower rows contain $3 + 4$ squares. How many squares are in the last row?

5. A student multiplies $4 \times 3 = 12$ and calls it this figure's area. Correct the count.

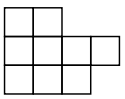


Each square: 1 sq unit

6. These two shapes use unit squares. Which has greater area, or are their areas equal?



Each square: 1 sq unit



Each square: 1 sq unit

Answer Key

1. 12 square units.
2. 2 squares.
3. 14 square units.
4. 5 squares.
5. 9 square units.
6. Equal; each has area 9 square units.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. That product counts a full rectangle with 15 cells, including 3 cells missing from this shape.

2. Count only existing squares: $5 + 5 + 2 = 12$, or $15 - 3 = 12$.

Problem 2

1. The known rows contain $4 + 3 = 7$ squares.

2. The last row contains $9 - 7 = 2$ unit squares.

Problem 3

1. By rows, count $4 + 2 + 4 + 4 = 14$ unit squares.

2. Or count the full $4 \times 4 = 16$ spaces and remove the two holes: $16 - 2 = 14$. Both methods exclude empty cells.

Problem 4

1. The known rows contain $3 + 4 = 7$ squares.

2. The last row contains $12 - 7 = 5$ unit squares.

Problem 5

1. That product counts a full rectangle with 12 cells, including 3 cells missing from this shape.

2. Count only existing squares: $4 + 4 + 1 = 9$, or $12 - 3 = 9$.

Problem 6

1. First shape: $2 + 4 + 3 = 9$ squares.

2. Second shape: $3 + 4 + 2 = 9$ squares. Reordering rows did not change the number of squares.

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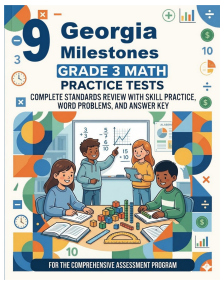

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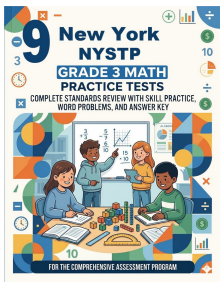

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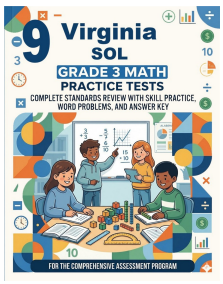

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