LESSON MAKER PRO

Square by Square

Find area by counting tiles

GRADE 3 · 3.M.B.20

3.M.B.20 "Find the area of a rectangle with whole number side lengths by tiling without gaps or overlays and counting unit squares."

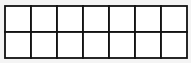
NAME _____ DATE _____

COUNT THE TILES

Each unit square covers 1 square unit. Tiles must cover the rectangle without gaps or overlaps. Count the squares in each row, then add the rows to find the area.

WORKED EXAMPLE

What is the area of the tiled rectangle?

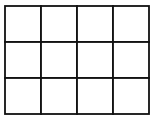


1. Count 2 rows.
2. Count 7 squares in each row.
3. Add the rows: 7 + 7 = 14.

Answer: 14 square units

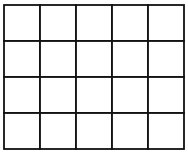
PRACTICE 6 problems

1 What is the area of this tiled rectangle?



ANSWER _____

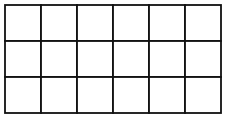
2 How many squares are in one row? What is the area?



ANSWER _____

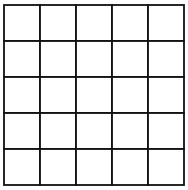
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3 What is the area of this tiled rectangle?



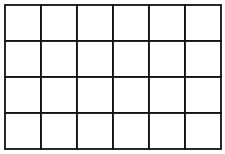
ANSWER _____

4 What is the area of this tiled rectangle?



ANSWER _____

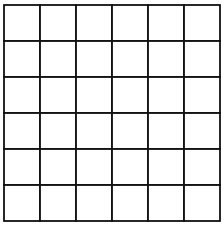
5 How many rows are there? What is the area?



ANSWER _____

_____

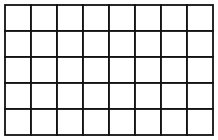
6 What is the area of this tiled rectangle?



ANSWER _____

APPLY IT Show your work

1 A class makes the game board shown. Each square holds one sticker. How many stickers fill the board?



ANSWER _____

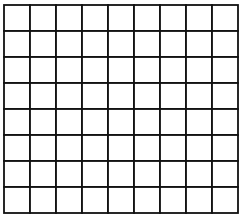
2 Nia makes pixel art with 9 rows of 3 square stickers. The stickers cover her picture without gaps or overlaps. How many stickers does she use?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Jo counts the squares in this rectangle by rows. Sam counts them by columns. Will they get the same area? Explain how each person could count the squares.



WORK SPACE AND ANSWER

ANSWER KEY

Square by Square

GRADE 3 · 3.M.B.20

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What is the area of this tiled rectangle?	**12 square units**
2	How many squares are in one row? What is the area?	**5 squares in one row; 20 square units**
3	What is the area of this tiled rectangle?	**18 square units**
4	What is the area of this tiled rectangle?	**25 square units**
5	How many rows are there? What is the area?	**4 rows; 24 square units**
6	What is the area of this tiled rectangle?	**36 square units**

PART 2 · APPLY IT

1. **40 stickers** The board has 5 rows of 8 squares. Count 8 + 8 + 8 + 8 + 8 = 40 stickers.
2. **27 stickers** Count 9 rows of 3 stickers: 9 × 3 = 27.

CHALLENGE

Yes. Jo can count 8 rows of 9 squares, and Sam can count 9 columns of 8 squares. Both count 72 square units.

Accept repeated addition or multiplication as a counting method. Area answers should use square units; the word problems ask for a number of stickers.