Lesson Maker Pro

Cover and Count Area

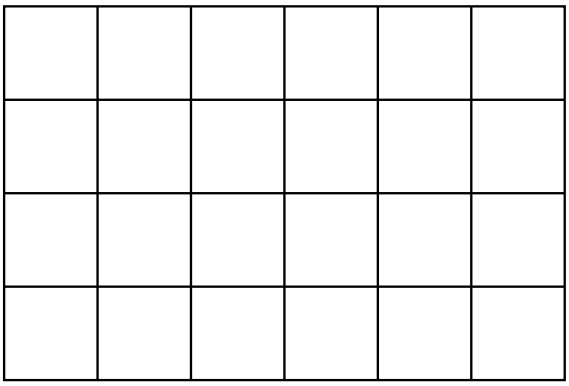
Use unit squares without gaps or overlaps.

MA.3.GR.2.1 Explore area as an attribute of a two-dimensional figure by covering the figure with unit squares without gaps or overlaps. Find areas of rectangles by counting unit squares.

NAME _____ **DATE** _____

Build complete coverings

1. Count the unit squares in this rectangle. Explain how rows help you count every square exactly once.



Each small square is1square unit.

2. On squared paper, draw a rectangle 3 squares long and 5 squares wide. Shade or tile it without gaps or overlaps. Label its area.

3. A student uses 12 tiles, but two overlap and one part of the rectangle is uncovered. Why is counting the tiles alone not enough to establish the area?

Use and test area

4. A rectangular art mat is 7 unit squares long and 4 unit squares wide. Draw its rows on squared paper and find its area.

5. A 6-by 4 rectangle is outlined with 20 unit-length edges. Sam says its area is 20 square units. Identify what Sam counted and correct the claim using the grid on page 1.

6. Draw a different rectangle with area 12 square units. Explain how complete coverage verifies the area.

Teacher Key

1:4 rows of 6=24 square units.2:3×5=15 square units, with full nonoverlapping coverage.3:overlaps count some space twice while gaps omit space;12 loose tiles do not establish the covered region's area.4:7×4=28 square units.5:20 is perimeter in linear units; area is 24 square units.6:examples include 3×4,2×6,1×12; require complete equal-unit-square coverage and area 12.

For the introductory area standard, allow physical square tiles and counting all squares. Multiplication is a counting strategy, not a substitute for demonstrating coverage.