

Lesson 15: Situaciones que involucran áreas

Standards Alignments

Building On	3.MD.C.7, 4.NBT.B.5
Addressing	4.MD.A.3, 4.NBT.B.6, 4.OA.A.3
Building Towards	4.MD.A.3, 4.NBT.B.6

Teacher-facing Learning Goals

- Reason about division of two- and three-digit numbers in situations involving area of rectangles.

Student-facing Learning Goals

- Dividamos para encontrar la longitud de un lado de un rectángulo.

Lesson Purpose

The purpose of this lesson is for students to use partial quotients to solve division problems that involve tiling squares and finding a side length of a rectangle with a known area.

In this lesson, students encounter division as they find a side length of a rectangle whose area is a three-digit number and one side is a one-digit number.

The context involves tiling rectangles with square tiles. This enables students to connect the dividend to the number of tiles in the rectangle and the divisor to the number of rectangles along one side. The grid provided in the first activity encourages students to partition the area (the dividend) into smaller parts, which in turn facilitates finding the unknown length (the quotient).

Access for:

Students with Disabilities

- Representation (Activity 1)

English Learners

- MLR7 (Activity 2)

Instructional Routines

Estimation Exploration (Warm-up)

Materials to Gather

- Grid paper: Activity 2
- Sticky notes: Activity 2

Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

Which questions that you asked today would you rephrase to improve students' ability to make connections or to help them better consolidate what they did? How would you rephrase them?

Cool-down (to be completed at the end of the lesson)

🕒 5 min

Notas adhesivas en la puerta

Standards Alignments

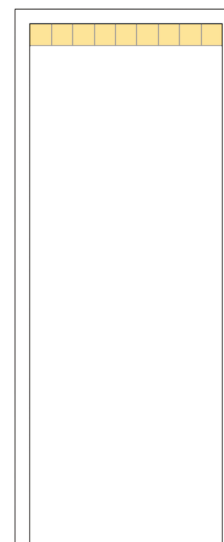
Addressing 4.MD.A.3, 4.NBT.B.6, 4.OA.A.3

Student-facing Task Statement

Los estudiantes de la clase de Jada están decorando la puerta con notas adhesivas cuadradas. Cada una tiene un dibujo o un mensaje de un estudiante para su profesor.

Usaron 234 notas adhesivas cuadradas para cubrir completamente la puerta de su salón, sin espacios entre ellas ni superposiciones. Se necesitaron 9 notas adhesivas cuadradas para cubrir el ancho de la puerta.

¿Cuántas notas cuadradas se necesitaron para cubrir la altura total de la puerta? Muestra cómo lo sabes.



Student Responses

26 square notes. Sample reasoning: I know that $9 \times 20 = 180$ and $9 \times 6 = 54$. $180 + 54 = 234$, so it takes $20 + 6$ or 26 notes to cover the height of the door.