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## **Focused Mathematics Intervention— Nivel 3 (Level 3)**

**This sample includes the following:**

**Teacher's Guide Cover** (1 page)

**Teacher's Guide Table of Contents** (1 page)


**How to Use This Product** (4 pages)

**Lesson Plan** (17 pages)

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Level 3

A graphic of a target with concentric circles in red, yellow, and blue, centered behind the letter 'o' in the word 'Focused'.

# Focused Mathematics Intervention

**Teacher's Guide**

Teacher Created Materials  
PUBLISHING

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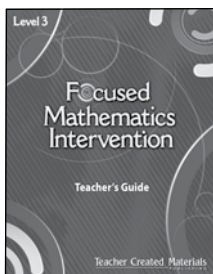
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# Kit Components

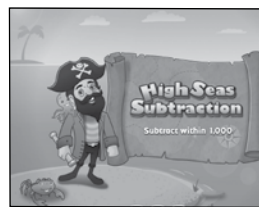
## Teacher's Guide

30 easy-to-use, standards-based lesson plans



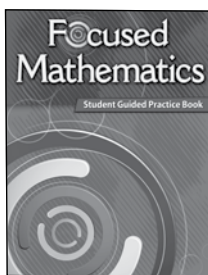
## 3 Digital Math Fluency Games

Focus on mathematical skills and strategies, and are on the Digital Resources USB Device



## Student Guided Practice Book

Full-color student activities

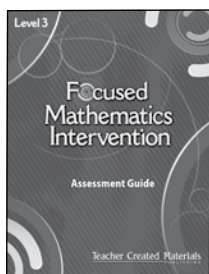


## Digital Resources

- PDFs of all student materials, game sets, activity sheets, assessments, etc.
- PDFs of teacher resources
- Digital Math Fluency Games
- Electronic versions of the Pretest, Posttest, Performance Tasks, and reporting tools

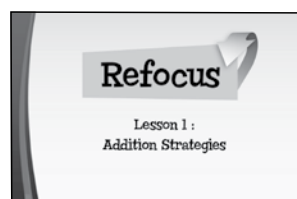
## Assessment Guide

Includes a pretest, posttest, performance tasks with assessments, and the answer key for the *Student Guided Practice Book*



## Refocus Mini Lesson

Provide as PowerPoint® and PDF files



## 3 Math Fluency Game Sets

Include a game board, directions, an answer key, and game pieces



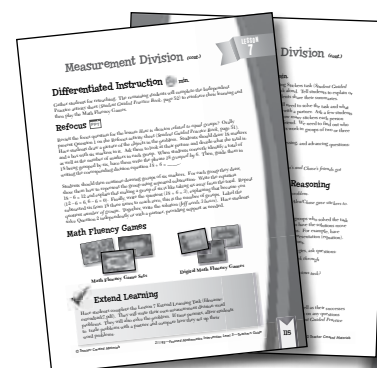
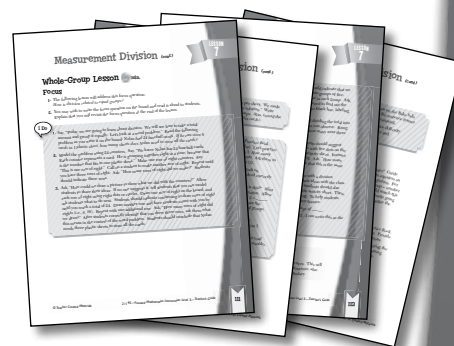
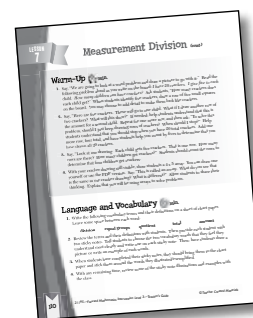
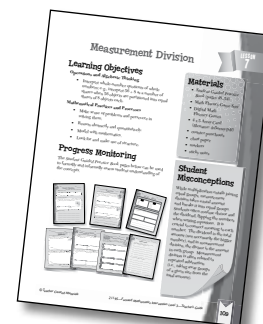


# Teaching a Lesson

## Teacher's Guide

Each 8-page lesson is organized in a consistent format for ease of use. Teachers may choose to complete some or all of the lesson activities to best meet the needs of their students. Lesson materials can be utilized flexibly in a variety of settings. For example, modeling with a small group, using printed materials with a document camera, or using PDF materials on a digital platform, such as an interactive whiteboard. Each lesson includes:

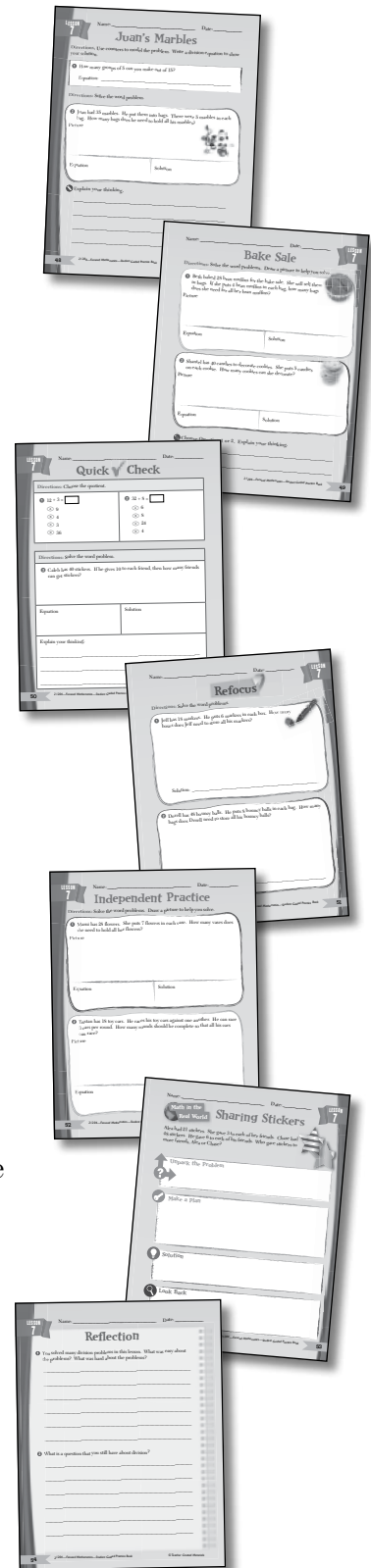
- an overview page with key information for planning
  - key mathematics content standards covered
  - key mathematical practices and processes addressed
  - an overview providing teacher background or student misconceptions
- 
- a Warm-Up activity to build students' recall of important mathematical concepts
  - a whole-class Language and Vocabulary activity
  - time markers to indicate the approximate time for instruction
- 
- a whole-class section focusing on the key concept/skill being taught
  - use of the gradual release of responsibility model in the Whole-Group lesson section
- 
- differentiation strategies to support and extend learning with the Refocus lesson and Extend Learning activity
  - math fluency games that motivate students to develop and reinforce mastery of basic skills
  - a Math in the Real World concept task activity



## Student Guided Practice Book

Each lesson in the *Teacher's Guide* has seven corresponding student pages in the *Student Guided Practice Book*:

- a We Do activity to support the gradual release of responsibility model
- a You Do activity to facilitate independent practice
- a Quick Check to easily monitor students' progress
- a Refocus activity for students who need more instruction
- an Independent Practice page to reinforce mathematical content taught in the lesson
- a Math in the Real World concept task for students to apply the math concept in a real-life scenario
- a Reflection page for students to share their mathematical understanding



# Square Units

## Learning Objectives

### Measurement and Data

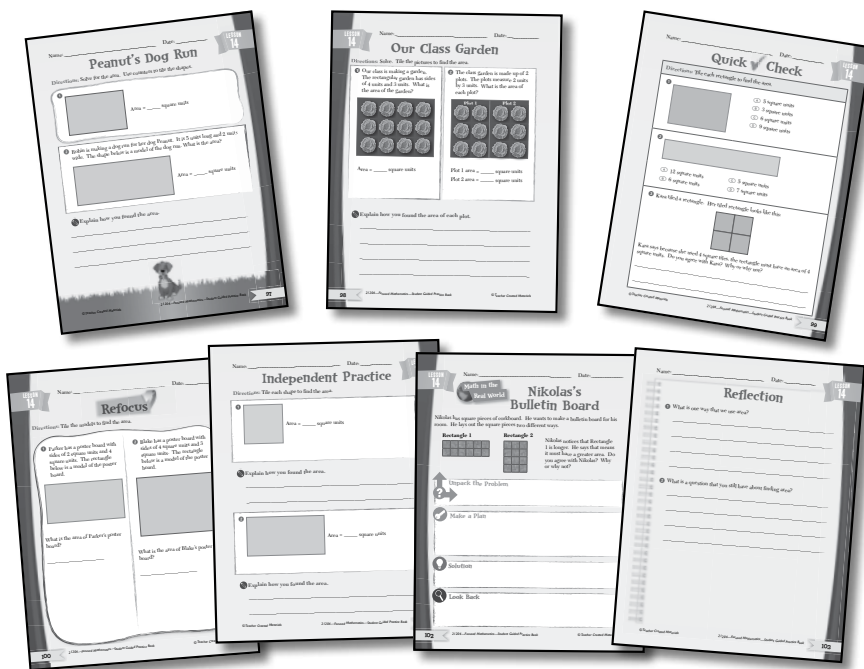
- Understand that a square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
- Understand that a plane figure which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units.

### Mathematical Practices and Processes

- Reason abstractly and quantitatively.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.

## Progress Monitoring

The *Student Guided Practice Book* pages below can be used to formally and informally assess student understanding of the concepts.



## Materials

- *Student Guided Practice Book* (pages 97–103)
- Math Fluency Game Sets
- Digital Math Fluency Games
- counter punchouts (referred to as *square tiles*)
- 3" × 3" squares cut from cardstock (one per student)
- copies of rectangle drawings

## Student Misconceptions

Tiling with square units will likely be a new concept to students. Students may need assistance in transferring skills related to measurement to the task of tiling to determine square units. For example, students may know that when measuring length, it is important to line up the edge of the object and the edge of the measuring instrument. In the same way, students must attend to precision in tiling regions, ensuring the entire area is covered with no overlaps or gaps.



# Square Units *(cont.)*

## Warm-Up (10) min.

1. Give each student a  $3" \times 3"$  square cut from cardstock and 16 square tiles. Say, “Today, we will learn about area. Area is the space a figure takes up. One way we can measure the area of a shape or object is to cover it with square tiles.”
2. Have students cover their cards with square tiles. Model correct tiling procedures, lining up each counter with the edges of the paper squares and ensuring that there are no overlaps or gaps.
3. Say, “What you just did is called *tiling*. You tiled your paper square. As we move on with our lesson, we will talk about how tiling measures area.”

## Language and Vocabulary (10) min.

1. Prior to the lesson, write the following vocabulary terms on the board.

**area            square unit**

2. Ask students to look at their tiled cards from the Warm-Up. Say, “We can use the square tiles to measure the area of our paper square.” Hold up one square tile. Say, “When we measure area, we use a term called a *square unit*. Think of this square tile as one square unit.” Draw an image of the square tile on the board and write  $\blacksquare = 1 \text{ square unit}$ .
3. Ask students to count the square tiles on their cards and then share their answers aloud. Students should indicate that they used 16 square tiles. Ask, “If one square tile represents one square unit, how many square units is the paper?” If needed, help students identify that the paper square measures 16 square units. Write this sentence on the board: *The area of the paper is 16 square units* and read it aloud for students. Encourage them to read the sentence aloud with you.

# Square Units *(cont.)*

## Whole-Group Lesson (40) min.

### Focus

1. The following lesson will address this focus question:  
*How are square units used to measure area?*
2. You may wish to write the focus question on the board and read it aloud to students. Explain that you will revisit the focus question at the end of the lesson.

### I Do

1. Prior to the lesson, draw a rectangle on unlined paper that measures  $3" \times 2\frac{1}{4}"$ . Say, "Let's continue learning about square units and area." Display the paper with your hand-drawn rectangle and gather some square tiles.
2. Say, "We talked about how area means the amount of space that a shape or object takes up." Hold up a square tile. Say, "We also talked about this square tile. What did we say that the square tile represents?" If needed, help students to recall that the square tile represents one square unit.
3. Say, "If I wanted to use these square tiles to cover this rectangle, what should I do?" Allow students to share what they recall about correct tiling procedures. Reinforce correct responses by narrating as you tile the rectangle on your paper. Say, "I'm going to start tiling from the top left corner. First, I will make a straight row with the square tiles. I want to make sure the tiles are not overlapping and that there is no space between the squares. Then, I can tile another row below the first row. I'm going to continue until the entire area of the rectangle is covered." Tile the entire figure. You should end up tiling three rows, with four tiles in each row.

### Language Support

Be sure that students understand the difference between *tile* as a noun (a piece of floor covering) and *tile* as a verb (to cover a figure or area with square units).

## Whole-Group Lesson (cont.)

I Do  
(cont.)

4. Say, “How can we find the area of the shape using our square tiles?” Students should suggest counting the tiles. Point to each tile as you count, and have students count aloud with you. Ask, “How many square tiles did we count?” When students correctly identify that we counted 12 square tiles, say, “Because we used 12 square tiles, and each square tile is one square unit, what is the area of the rectangle?” When students correctly identify that the area is 12 square units, write *area = 12 square units* beside the rectangle.

We Do

1. Refer students to the Peanut’s Dog Run activity sheet (*Student Guided Practice Book*, page 97). Say, “Let’s tile more shapes together.” Display a copy of the activity sheet so you can model with square tiles. Distribute square tiles to each student (approximately 20). Have them work in pairs to tile the rectangle in Question 1, and write the number of square tiles beside the rectangle. Circulate as students work, and correct any students who are not tiling the rectangles properly. Ask students to share their answers with the class, being sure to read the area with the correct label, (i.e., *6 square units*).
2. Say, “Not only can we measure the area of shapes or cards, we can also measure the area of real-life space, like a yard or a room.” Direct students to Question 2 and have a student read the problem aloud: *Robin is making a dog run for her dog Peanut. It is 5 units long and 2 units wide. The shape below is a model of the dog run. What is the area?*
3. Say, “The rectangle on the activity sheet represents the dog run. Let’s start by tiling the shape with square tiles, or square units.” Ask, “Where should I begin placing the square units?” Have students turn and tell a partner. Invite student volunteers to share their thinking. Students should indicate that you begin at the top left corner and tile a complete row, moving from left to right.

## Whole-Group Lesson *(cont.)*

**We Do**  
*(cont.)*

4. Allow students to tile the rectangle with their square tiles. As students work, ask, “What do we need to think about as we are tiling?” Students should indicate that squares cannot overlap and they should also not have any gaps between them.
5. Invite a student volunteer to demonstrate tiling the rectangle on the display copy of the activity sheet. The complete tiled area should look like the following:



6. Once the entire area is tiled, ask the whole group, “How can we find the area of the rectangle?” Call on students to share responses. Students should indicate that to find the area, we must count the square tiles. Count the squares together as a group, concluding that there are 10 square tiles.
7. Refer students back to the problem. Say, “If 10 square tiles cover the area of the rectangle, what is the area of the dog run?” Allow students to share their thinking, and if needed, guide them to conclude that the area is 10 square units. Have students record this on the activity sheet. Then, have students explain how you solved. To help students explain their reasoning, provide them with the following sentence frames:
  - *I covered the model with \_\_\_\_\_ square tiles.*
  - *The area of Peanut’s dog run is \_\_\_\_\_.*

# Square Units *(cont.)*

## Whole-Group Lesson *(cont.)*

**You Do**

1. Tell students they will now work on tiling regions to find area on the Our Class Garden activity sheet (*Student Guided Practice Book*, page 98). Provide the sentence frames from Step 7 of the We Do section to help students explain their reasoning.
2. Have students share their models and reasoning. If students have difficulty explaining their reasoning, remind them to use the sentence frames and vocabulary terms.

## Closing the Whole-Group Lesson

Revisit the focus question for the lesson: *How are square units used to measure area?* Ask students to identify what a square unit is. Students should refer to the square tiles from the lesson. Remind them that these are square units because each side is one unit long. Then, ask students how they used square units to measure area, guiding them to describe the process of tiling figures and counting square units to determine area.

## Progress Monitoring **5** min.

1. Have students complete the Quick Check activity sheet (*Student Guided Practice Book*, page 99) to gauge student progress toward mastery of the Learning Objectives. Provide students with unlined paper to show their work on the selected response questions.
2. Based on the results of the Quick Check activity sheet and your observations during the lesson, identify students who may benefit from additional instruction in the Learning Objectives. These students will be placed into a small group for reteaching. See instructions on the following page.

# Square Units (cont.)

## Differentiated Instruction (20) min.

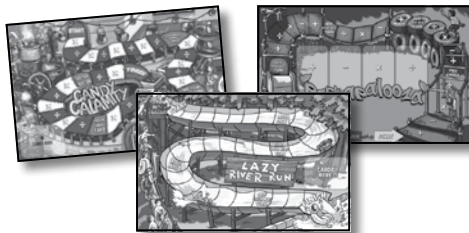
Gather students for reteaching. The remaining students will complete the Independent Practice activity sheet (*Student Guided Practice Book*, page 101) to reinforce their learning and then play the Math Fluency Games.

## Refocus

Revisit the focus question for the lesson: *How are square units used to measure area?* Practice tiling rectangles with students, reinforcing correct procedures that yield accurate results. Draw a variety of rectangles on a sheet of paper and make copies. Be sure that the dimensions can be tiled with  $\frac{3}{4}$ " square tiles. Provide students with square tiles, and ask them to tile each shape. Identify any incorrect procedures and model how to adjust for accuracy. Students may not be lining up the tiles with the edges of the shape, or they may be allowing for gaps or overlapping tiles. After students have tiled each shape, ask them to count the tiles one by one and write the number beside the shape. Reinforce that this number is equal to the area, and have them add the label *square units*.

Finally, support students as they complete Question 1 on the Refocus activity sheet (*Student Guided Practice Book*, page 100), and then have them solve Question 2 independently.

## Math Fluency Games



Math Fluency Game Sets



Digital Math Fluency Games



## Extend Learning

Investigate the relationship between side length and area. Use small numbers. For example, draw a  $1\frac{1}{2} \times 2\frac{1}{4}$  rectangle and tile it. Say, “This rectangle is two square units by three square units. The area is six square units. Can you think of an operation that we could use with two and three that gives us a solution of 6?” Students should identify multiplication. Have students complete the Lesson 14 Extend Learning Task (filename: extendtask14.pdf).

# Square Units *(cont.)*

## Math in the Real World 30 min.

1. Refer students to the Math in the Real World: Nikolas's Bulletin Board task (*Student Guided Practice Book*, page 102). Have a student read the task aloud. Tell students to explain or summarize the task to their partner. Have a few students share their summaries.
2. Ask students to think about what information they will need to solve the task and what the task is asking them to do. Then, have them share with a partner. Ask a few students to share out. Students should identify that we know the two different ways that Nikolas has laid out his bulletin board. We need to find out if he is correct in saying that because the first arrangement (Rectangle 1) is longer, that means it has a greater area. To do so, we must find the area of each rectangle and compare them. Have students work in groups of two or three to complete the task.
3. As students are working, circulate and ask focusing, assessing, and advancing questions:
  - *How can you find the area of each rectangle?*
  - *Are the areas of the two rectangles the same or different? Does that mean that Nikolas is correct or incorrect?*

## Sentence Frames for Explaining Reasoning

- *I agree/disagree with Nikolas because \_\_\_\_\_.*
  - *Both rectangles use \_\_\_\_\_ square units. So, I can reason that the area of the rectangles is \_\_\_\_\_.*
4. Observe how students are solving the task, and choose a few groups who solved the task in different ways to share their solutions and reasoning. Students may begin by attempting to tile the pictures. Explain that these pictures are only to help you visualize the arrangement of the corkboard. They are not models of the board.
  5. As groups are sharing their solution paths, reasoning, and strategies, ask questions:
    - *How is this solution similar to the solution previously presented?*
    - *Do you agree or disagree with the solution path and reasoning? Why?*
    - *Which solution path makes the most sense to you? Why?*

## Lesson Reflection 5 min.

Have students summarize their learning about the connections between area and the real world, and provide feedback on any questions they still have about the content on the Reflection activity sheet (*Student Guided Practice Book*, page 103).

# La pista de carreras de Peanut

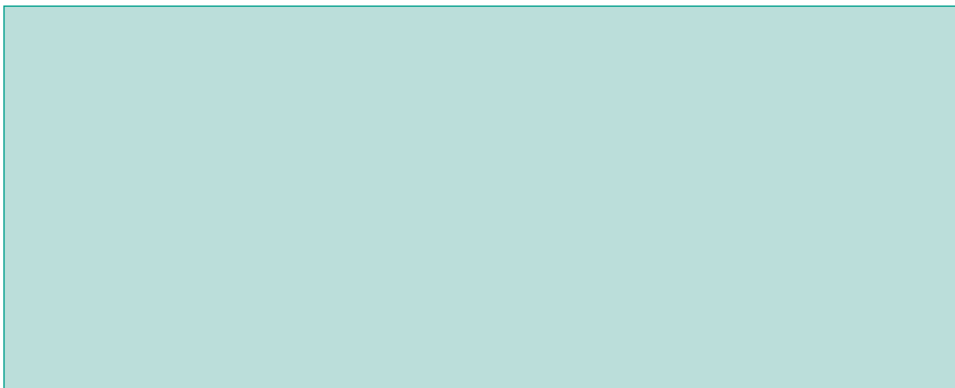
**Instrucciones:** Resuelve el área. Usa las fichas para cubrir las figuras.

1



Área = \_\_\_\_\_ unidades cuadradas

- 2 Robin está preparando una pista de carreras para su perro, Peanut. Tiene 5 unidades de largo y 2 unidades de ancho. La figura siguiente es un modelo de la pista de carreras. ¿Cuál es el área?



Área = \_\_\_\_\_ unidades cuadradas

 Explica cómo encontraste el área.

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# El jardín de nuestra clase

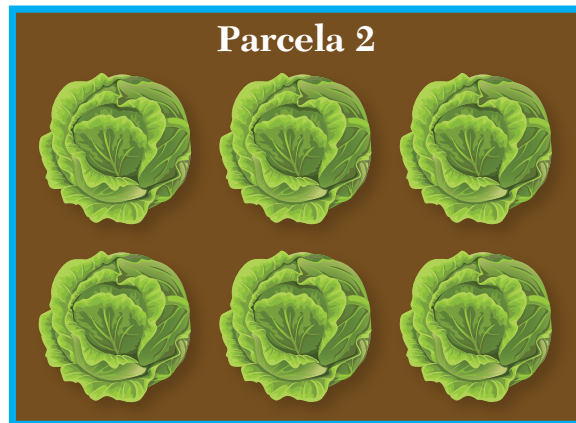
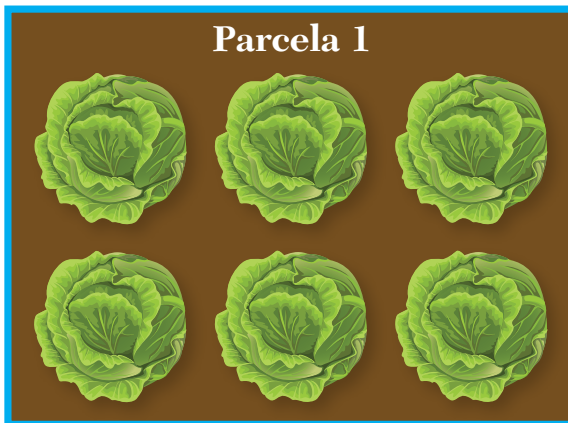
**Instrucciones:** Resuelve. Cubre las figuras con fichas para encontrar el área.

- 1 Nuestra clase está armando un jardín. El jardín rectangular tiene lados de 4 unidades y 3 unidades. ¿Cuál es el área del jardín?



Área = \_\_\_\_\_ unidades cuadradas

- 2 El jardín de la clase tiene 2 parcelas. Las parcelas miden 2 unidades por 3 unidades. ¿Cuál es el área de cada parcela?



Área de la parcela 1 = \_\_\_\_\_ unidades cuadradas

Área de la parcela 2 = \_\_\_\_\_ unidades cuadradas

- Explica cómo encontraste el área de cada parcela.

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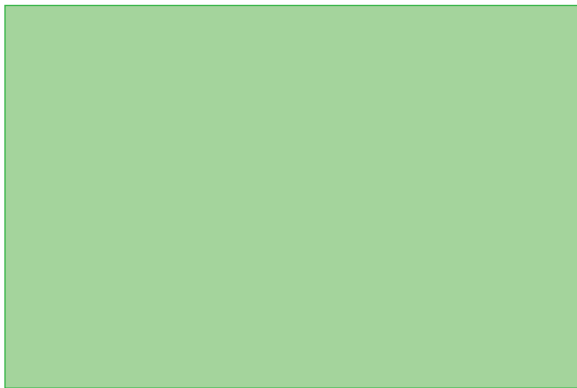


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# Repaso rápido

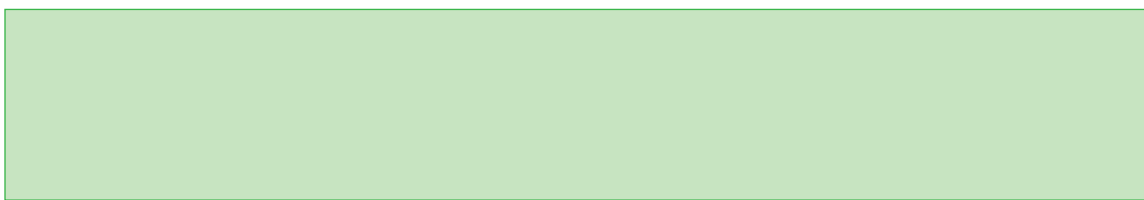
**Instrucciones:** Cubre con fichas cada rectángulo para encontrar el área.

1



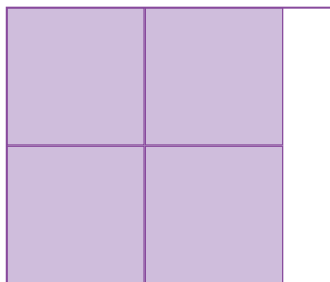
- A 5 unidades cuadradas
- B 3 unidades cuadradas
- C 6 unidades cuadradas
- D 9 unidades cuadradas

2



- A 12 unidades cuadradas
- B 6 unidades cuadradas
- C 5 unidades cuadradas
- D 7 unidades cuadradas

3 Kara cubrió con fichas un rectángulo. Así se ve el rectángulo que cubrió con fichas:



Kara dice que, debido a que usó 4 fichas, el rectángulo debe tener un área de 4 unidades cuadradas. ¿Estás de acuerdo con Kara? ¿Por qué sí o por qué no?

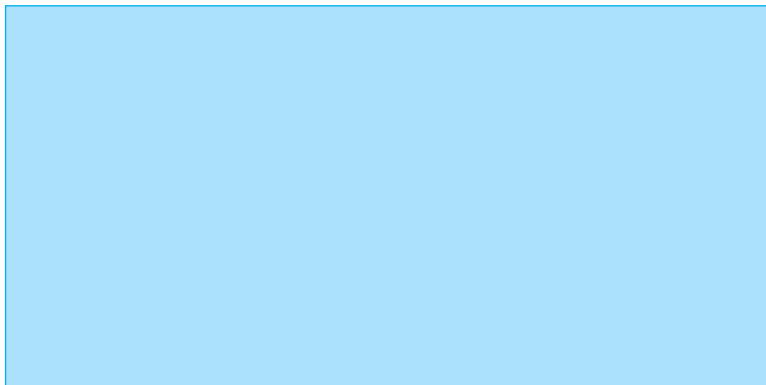
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# Concéntrate

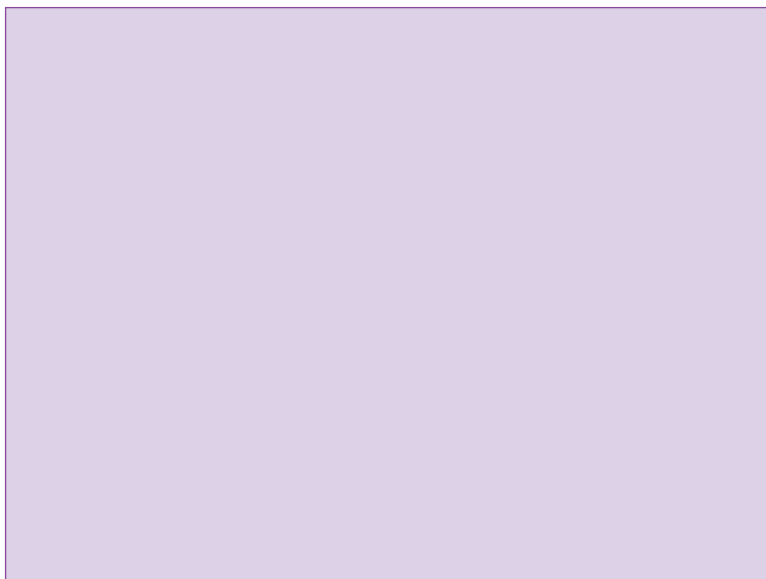
**Instrucciones:** Cubre los modelos con fichas para encontrar el área.

- 1 Parker tiene un afiche con lados de 2 unidades cuadradas y 4 unidades cuadradas. El rectángulo que está debajo es un modelo del afiche.



¿Cuál es el área del afiche de Parker? \_\_\_\_\_

- 2 Blake tiene un afiche con lados de 4 unidades cuadradas y 3 unidades cuadradas. El rectángulo que está debajo es un modelo del afiche.

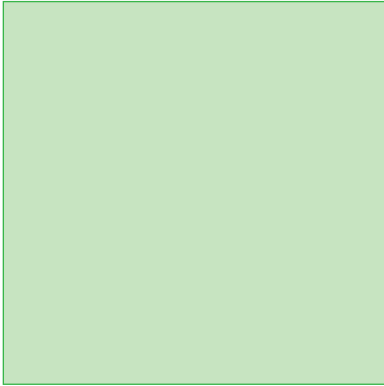


¿Cuál es el área del afiche de Blake? \_\_\_\_\_

# Práctica independiente

**Instrucciones:** Cubre con fichas cada figura para encontrar el área.

1



Área = \_\_\_\_\_ unidades cuadradas

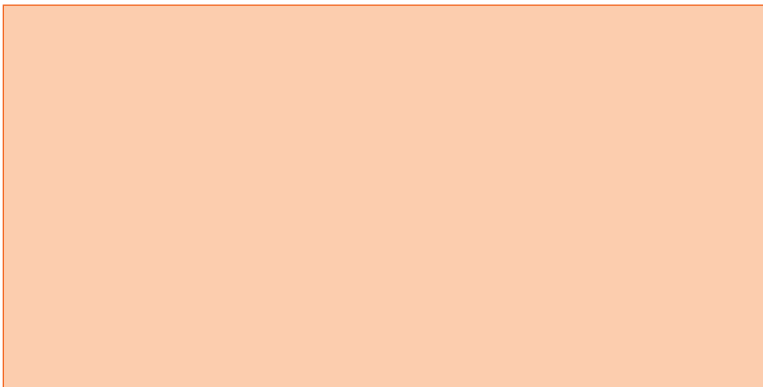


Explica cómo encontraste el área.

---

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2



Área = \_\_\_\_\_ unidades cuadradas



Explica cómo encontraste el área.

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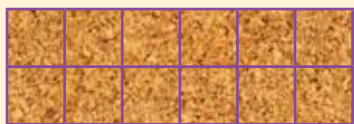
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# El tablón de anuncios de Nikolas

Nikolas tiene piezas cuadradas de láminas de corcho. Quiere hacer un tablón de anuncios para su cuarto. Distribuyó las piezas cuadradas de dos maneras diferentes.

**Rectángulo 1**



**Rectángulo 2**



Nikolas notó que el Rectángulo 1 es más largo. Dice que quiere decir que debe tener un área más grande. ¿Estás de acuerdo con Nikolas? ¿Por qué sí o por qué no?



**Desarma el problema**



**Prepara un plan**



**Solución**



**Repasa y explica**

# Observaciones

1 ¿Cuál es una manera en la que usamos el área?

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2 ¿Qué es una pregunta que todavía tienes sobre cómo calcular el área?

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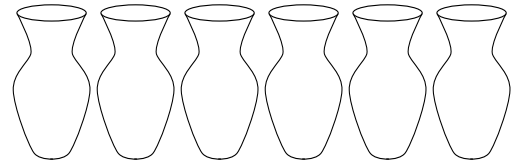
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## Evaluación diagnóstica

1. Marco tiene 3 frascos. Colocó 8 canicas en cada frasco. ¿Qué ecuación muestra la cantidad total de canicas que Marco colocó en los frascos?

- (A)  $8 \div 8 = 1$   
1 canica
- (B)  $3 \times 2 = 6$   
6 canicas
- (C)  $3 + 8 = 11$   
11 canicas
- (D)  $3 \times 8 = 24$   
24 canicas

3. Terry tiene 48 flores. Quiere colocarlas todas equitativamente en 6 floreros. ¿Cuántas flores habrá en cada florero?



- (A) 42 flores
- (B) 6 flores
- (C) 54 flores
- (D) 8 flores

2. ¿Qué imagen corresponde con este problema de multiplicación?

$$2 \times 4 = 8$$

- (A)
- (B)
- (C)
- (D)

4. La Sra. Ross tiene unos tazones que quiere llenar con naranjas. Tiene 40 naranjas. Coloca 5 naranjas en cada tazón. ¿Cuántos tazones llenó?

- (A) 8 tazones
- (B) 25 tazones
- (C) 9 tazones
- (D) 45 tazones

## Tarea de desempeño 1: Desayuno con panqueques

### Parte A

En la Escuela Park View habrá un desayuno con panqueques. Habrá ocho mesas disponibles. En cada mesa, se pueden sentar 6 personas. ¿Cuántas personas podrán sentarse en el desayuno? ¿Cómo lo sabes?

Solución: \_\_\_\_\_

Explica tu solución.

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