

G3 Playlist: Finding area with the distributive property

Aligns with *CCSS.MATH.CONTENT.3.MD.C.7c*: Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

Related Standards

- *CCSS.MATH.CONTENT.3.MD.C.7* Relate area to the operations of multiplication and addition. (This is the main standard under which this lesson falls).

PREVIEW



Objectives

In this module, you will learn and practice the following skills:

- Apply the distributive property
- Solve for area
- Create an area model

Let's get started!

Key Terms

- **Area** is the space within a closed shape
- An **area model** uses a rectangle divided into rows and columns to demonstrate multiplication
- The **distributive property** tells us that a multiplication fact can be broken into the sum of two other multiplication facts
- **Tiling** a rectangle means covering the shape with smaller pieces so that there are no gaps or overlaps



Finding Area Using the Distributive Property

(3.MD.C.7.C)

Area is the space within a closed shape. An **area model** uses a rectangle divided into rows and columns to demonstrate multiplication. The **distributive property** tells us that a multiplication fact can be broken into the sum of two other multiplication facts. **Tiling** a rectangle means covering the shape with smaller pieces so that there are no gaps or overlaps.

If your students...

Misconception #1: Think that creating an area model is the same as tiling, or tiles incorrectly.

WATCH: Tiling a shape

<https://www.youtube.com/watch?v=mMT8LM9B4Mw>

Misconception #2: Add the number outside the parenthesis to the numbers inside the parenthesis instead of multiplying when practicing the distributive property.

WATCH: The distributive property

<https://www.opened.com/video/distributive-property/337834>

For extra practice with area and the distributive property:

ACTIVITY: Finding area of squares and rectangles

<https://www.ixl.com/math/grade-3/area-of-squares-and-rectangles-word-problems>

ACTIVITY: Multiply using the distributive property

<https://www.ixl.com/math/grade-3/multiply-using-the-distributive-property>

ACTIVITY: Create figures with a given area

<https://www.ixl.com/math/grade-3/create-figures-with-a-given-area>

