

# Lesson 11: Multiplication Strategies on Ungridded Rectangles

## Standards Alignments

Addressing 3.MD.C.7.c, 3.OA.C.7

### Teacher-facing Learning Goals

- Apply associative and distributive properties of multiplication to find products within 100.
- Recognize that multiplication is associative and can be distributed over addition.

### Student-facing Learning Goals

- Let's use different strategies to find the area of ungridded rectangles.

## Lesson Purpose

The purpose of this lesson is for students to represent multiplication strategies on an ungridded rectangle.

Previously, students used gridded rectangles to represent strategies based on the distributive and associative properties. Here, they use the same strategies, but represent them on an area diagram without a grid. Then, students match expressions that could represent the area of the same rectangle, without using diagrams. The reasoning helps students work toward fluent multiplication within 100.

This lesson has a Student Section Summary.

### Access for:

#### Students with Disabilities

- Engagement (Activity 2)

#### English Learners

- MLR2 (Activity 1)

## Instructional Routines

Card Sort (Activity 2), Which One Doesn't Belong? (Warm-up)

### Materials to Copy

- Card Sort: Different Expressions, Same Rectangle (groups of 2): Activity 2

- Centimeter Grid Paper - Standard (groups of 2): 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 students came up with an unexpected strategy in today's lesson? What are some ways you can be more open to the ideas of each and every student?

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

🕒 5 min

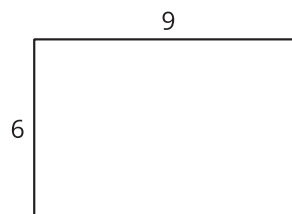
### Expressions for a Rectangle

#### Standards Alignments

Addressing 3.OA.C.7

#### Student-facing Task Statement

1. Mark or shade this rectangle to show a strategy for finding its area.
2. Write one or more expressions that represent how you find the area.



#### Student Responses

1. Sample response:
2.  $(6 \times 5) + (6 \times 4)$

