Lesson 12: Rectangles with the Same Area

Standards Alignments

Addressing 3.MD.D.8, 3.OA.C.7

Teacher-facing Learning Goals

- Draw rectangles with the same area and different perimeters.

Student-facing Learning Goals

- Let's explore rectangles with the same area.

Lesson Purpose

The purpose of this lesson is for students to understand that rectangles with the same area do not always have the same perimeter.

In previous lessons, students learned to find the area and perimeter of rectangles and saw that rectangles with the same perimeter do not always have the same area. In this lesson, students draw rectangles with a specified area, find their perimeters, and notice that rectangles with the same area do not always have the same perimeter. Students then draw rectangles with specific areas that have different perimeters.

This lesson has a Student Section Summary.

Access for:

Students with Disabilities

- Action and Expression (Activity 1)

English Learners

- MLR8 (Activity 1)

Instructional Routines

Number Talk (Warm-up)

Materials to Gather

- Scissors: Activity 2
- Tape: Activity 2

Materials to Copy

- Square Dot Paper Standard (groups of 1): Activity 2

Lesson Timeline

Warm-up	10 min

Teacher Reflection Question

How is students' prior understanding of area informing their understanding of perimeter and

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

area as separate measurements of shapes?

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

5 min

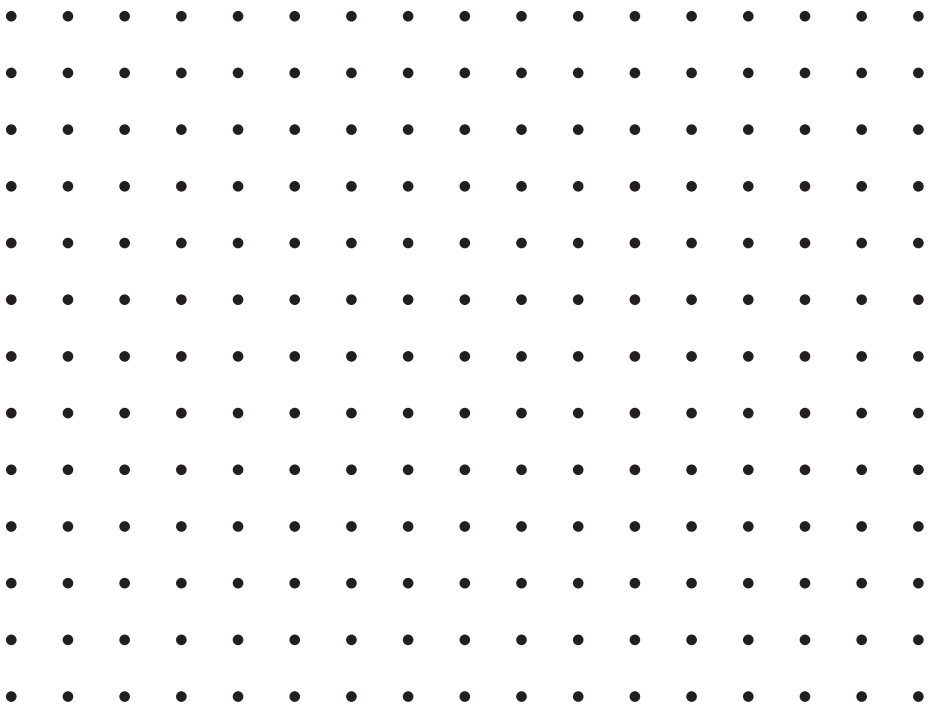
Area of 36

Standards Alignments

Addressing 3.MD.D.8

Student-facing Task Statement

Draw two rectangles that each have an area of 36 square units but different perimeters. Explain or show your reasoning.



Student Responses

Sample response: Students draw rectangles that are 6 by 6 (perimeter: 24 units), 9 by 4

(perimeter: 26 units), 12 by 3 (perimeter: 30 units), or 18 by 2 (perimeter: 40 units), and explain how the area is the same but the perimeter is different.