

# Lesson 9: Perimeter Problems

## Standards Alignments

Addressing 3.MD.D.8

### Teacher-facing Learning Goals

- Find unknown side lengths given the perimeter of a shape.
- Solve problems that involve perimeters of shapes.

### Student-facing Learning Goals

- Let's solve problems about perimeter.

## Lesson Purpose

The purpose of this lesson is for students to find unknown side lengths given the perimeter of a shape and solve problems involving perimeter.

In previous lessons, students learned how to find the perimeter of shapes given all sides lengths or some side lengths. In this lesson, students use their understanding of perimeter to find missing side lengths when given the perimeter. Then, students solve problems in situations that involve perimeter. This lesson prepares students to think carefully about the difference between perimeter and area, which will be addressed in subsequent lessons.

This lesson has a Student Section Summary.

### Access for:

#### Students with Disabilities

- Engagement (Activity 2)

#### English Learners

- MLR8 (Activity 2)

## Instructional Routines

Estimation Exploration (Warm-up)

### Lesson Timeline

Warm-up	10 min
Activity 1	15 min

### Teacher Reflection Question

How are students working toward multiplication and division fluency while solving perimeter problems?

Activity 2	20 min
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Lesson Synthesis	10 min
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Cool-down	5 min
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## Cool-down (to be completed at the end of the lesson)

 5 min

### Sides of a Pool

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#### Student-facing Task Statement

A rectangular swimming pool has a perimeter of 94 feet. If it is 32 feet on one side, what are the lengths of the other three sides? Explain or show your reasoning.

#### Student Responses

15 feet, 32 feet, and 15 feet. Sample response: I know that one of the other sides is the same length as 32 feet, so that's  $32 + 32 = 64$  for two sides.  $94 - 64 = 30$ , so the other two sides are 30 feet together. I can divide 30 by 2 to get 15.