

# Lesson 14: Fraction Comparison Problems

## Standards Alignments

Addressing 4.NF.A.1, 4.NF.A.2

Building Towards 4.NBT.B.4

## Teacher-facing Learning Goals

- Solve fraction comparison problems in and out of context.

## Student-facing Learning Goals

- Let's solve different kinds of fraction comparison problems.

## Lesson Purpose

The purpose of this lesson is for students to compare fractions to solve problems in and out of context.

In the previous lesson, students wrote equivalent fractions to help them compare pairs of fractions with different denominators. Here, they include this newly developed strategy in their toolkit for comparing fractions.

In the first activity, students compare sets of fractions with like and unlike denominators. They do so by using benchmarks, writing equivalent fractions, or reasoning about the numerators and denominators. In the second activity, students interpret and solve problems involving fractional measurements in context. Both activities present a new setup, structure, or context, requiring students to make sense of the given information and the problems, and to persevere in solving them (MP1).

## Access for:

### Students with Disabilities

- Engagement (Activity 2)

### English Learners

- MLR8 (Activity 2)

## Instructional Routines

Number Talk (Warm-up)

## Required Preparation

- Each group of 3–4 needs tools for creating a visual display during the lesson synthesis.

## Lesson Timeline

|                  |        |
|------------------|--------|
| Warm-up          | 10 min |
| Activity 1       | 20 min |
| Activity 2       | 10 min |
| Lesson Synthesis | 10 min |
| Cool-down        | 5 min  |

## Teacher Reflection Question

Were there students with unique approaches who didn't get air time? If so, what might be some possible reasons? How can their thinking be made visible in upcoming lessons?

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

 5 min

Who Ran the Farthest?

### Standards Alignments

Addressing 4.NF.A.2

### Student-facing Task Statement

Jada, Kiran, and Lin tried to run as far as possible before they had to stop and rest.

- Jada ran  $\frac{3}{4}$  mile.
- Kiran ran  $\frac{7}{12}$  mile.
- Lin ran  $\frac{4}{6}$  mile.

Who ran the farthest before stopping? Explain or show your reasoning.

### Student Responses

Jada ran the farthest. Sample reasoning:

- Comparing  $\frac{7}{12}$  and  $\frac{4}{6}$ :  $\frac{4}{6}$  is equivalent to  $\frac{8}{12}$  and greater than  $\frac{7}{12}$ , so Lin ran farther than Kiran.
- Comparing  $\frac{8}{12}$  and  $\frac{3}{4}$ :  $\frac{3}{4} \cdot \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$ , so  $\frac{3}{4}$  is greater than  $\frac{8}{12}$ .