

## Lesson 3: Decimals on Number Lines

### Standards Alignments

Addressing 4.NF.C, 4.NF.C.7

### Teacher-facing Learning Goals

- Reason about and compare the size of decimals to hundredths using a number line.

### Student-facing Learning Goals

- Let's compare some decimals.

### Lesson Purpose

The purpose of this lesson is for students to reason about and compare the size of decimals using a number line.

Prior to this lesson, students made sense of tenths and hundredths in decimal notation. They also analyzed and wrote equivalent decimals. In this lesson, they use number lines to reason about the relative size of two or more decimals. The reasoning here is similar to that in an earlier unit, when students used number lines to compare fractions. Students see that, just as before, they can learn about the relative size of decimals by considering their positions on a number line and their relationship to benchmarks such as 0, 0.5, and 1. They will use these insights to compare and order fractions in the next lesson.

Students attend to precision and use the structure of the number line (MP6, MP7) when they locate and label decimals between two tick marks representing tenths. For example, halfway between 0.4 and 0.5 will be the decimal 0.45 whereas 0.48 will be much closer to 0.5 than to 0.4.

### Access for:

#### Students with Disabilities

- Action and Expression (Activity 1)

#### English Learners

- MLR8 (Activity 2)

### Instructional Routines

Which One Doesn't Belong? (Warm-up)

### Lesson Timeline

Warm-up

10 min

### Teacher Reflection Question

In earlier units, students compared fractions using many different strategies, including

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

comparing fractions to benchmarks and creating equivalent fractions. Where did you see evidence of students making connections to those reasoning strategies in this lesson?

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

 5 min

### More to Compare

#### Standards Alignments

Addressing 4.NF.C.7

#### Student-facing Task Statement

1. Use  $<$ ,  $>$ , or  $=$  to make each comparison statement true. Use a number line if it is helpful.

- a.  $1.1$  \_\_\_\_\_  $1.10$
- b.  $0.9$  \_\_\_\_\_  $0.19$
- c.  $0.03$  \_\_\_\_\_  $0.32$
- d.  $5.91$  \_\_\_\_\_  $5.01$
- e.  $4.60$  \_\_\_\_\_  $4.6$
- f.  $3.73$  \_\_\_\_\_  $3.83$



#### Student Responses

- 1.
  - a. =
  - b. >
  - c. <
  - d. >
  - e. =
  - f. <