Lesson 6: Locate Unit Fractions on the Number Line

Standards Alignments

Addressing   3.NF.A.2, 3.NF.A.2.a

Teacher-facing Learning Goals

- Partition the interval from 0 to 1 and locate unit fractions within that interval.

Student-facing Learning Goals

- Let's partition the number line to locate unit fractions.

Lesson Purpose

The purpose of this lesson is for students to partition the interval from 0 to 1and locate unit fractions within that interval.

In previous lessons, students made sense of number lines that were partitioned into fractions. While this lesson focuses on partitioning and locating unit fractions within the interval from 0 to 1, the number lines in this lesson vary in length. This allows students to consider common misconceptions about partitioning the number line into fractional parts, such as partitioning the whole number line rather than each unit interval, such as from 0 to 1, 1 to 2, and so on, and counting tick marks rather than parts of the interval.

As students partition number lines in the rest of this unit, the most important thing is that they are accurate in relatively locating fractions on the number line and they understand the partitions should be equally spaced (MP6). It is not necessary that they locate fractions exactly or be overly concerned with making sure partitions are exactly the same size.

Access for:

♿ Students with Disabilities

- Engagement (Activity 2)

🌐 English Learners

- MLR8 (Activity 2)

Instructional Routines

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

Lesson Timeline

Warm-up	10 min

Teacher Reflection Question

How did you see or hear students leverage their prior experiences with fractions to place fractions on the number line?

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

Cool-down (to be completed at the end of the lesson)   🕐 5 min
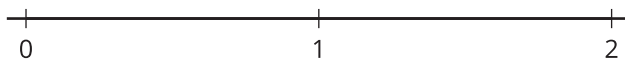
Locate and Label

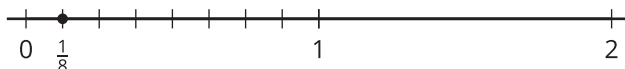### Standards Alignments

Addressing   3.NF.A.2.a

Student-facing Task Statement

Locate and label $\frac{1}{8}$ on the number line. Explain your reasoning.

Student Responses

I know that 8 one-eighths are in 1, so I partitioned the number line from 0 to 1 into 8 equal parts and labeled the end of the first eighth.