## Lesson 5: Estimate on a Number Line

Standards Alignments

Addressing 2.MD.B. 6

## Teacher-facing Learning Goals

- Use estimation to reason about the location of whole numbers on a number line.


## Student-facing Learning Goals

- Let's estimate numbers on a number line.


## Lesson Purpose

The purpose of this lesson is for students to use their understanding of length and the structure of a number line to estimate the location of a number on a number line.

In previous lessons, students estimated the length of objects using what they know about the size of standard length units and the tools used to measure them. Students have located numbers on number lines using what they know about the structure of a number line and the labeled tick marks.

The purpose of this lesson is for students to extend this understanding by estimating numbers on number lines that do not have tick marks to represent each consecutive whole number. Students use their understanding of length and unit intervals on the number line to estimate. Students should be encouraged throughout the lesson to explain why their estimates are reasonable using what they know about number, length, and the structure of the number line.

This lesson has a Student Section Summary.

## Access for:

## (A) Students with Disabilities

- Action and Expression (Activity 2)
(3) English Learners
- MLR2 (Activity 1)


## Instructional Routines

Estimation Exploration (Warm-up), MLR7 Compare and Connect (Activity 2)

## Materials to Gather

- Chart paper: Activity 2
- Markers: Activity 2


## Materials to Copy

- Order Numbers on the Number Line Cards (groups of 12): Activity 2

| Lesson Timeline |  |
| :--- | ---: |
| Warm-up | 10 min |
| Activity 1 | 15 min |
| Activity 2 | 20 min |
| Lesson Synthesis | 10 min |
| Cool-down | 5 min |

## Teacher Reflection Question

What strategy did most students use when locating a number on a number line without the support of the tick marks? How can you support students to assess the reasonableness of their estimates in future lessons?

Cool-down (to be completed at the end of the lesson)
(1) 5 min

What Number Could This Be?

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## Student-facing Task Statement

1. a. What number could be represented by the point?

b. Explain why your estimate is reasonable.

## Student Responses

1. Sample response: 44-46
2. The number must be between 40 and 50 and it looks like it is right in the middle. I know 45 would be in the middle between 40 and 50 .
