

# Lesson 10: Place Value and the Number Line

## Standards Alignments

Addressing 2.MD.B.6, 2.NBT.B.5

### Teacher-facing Learning Goals

- On a number line, represent place value methods for solving addition and subtraction equations that do not require decomposing a ten.

### Student-facing Learning Goals

- Let's compare methods using the number line.

## Lesson Purpose

The purpose of this lesson is for students to compare representations of addition and subtraction methods represented on the number line.

In previous lessons, students matched addition and subtraction equations and their representations on a number line. They found the value of differences within 100 and represented their thinking on a number line.

In this lesson, students add and subtract within 100 and represent computation methods on a number line. They compare representations of methods based on place value and make connections across representations (MP2). The expressions in each activity include numbers that elicit methods based on counting on or counting back by place.

### Access for:

#### Students with Disabilities

- Representation (Activity 1)

#### English Learners

- MLR8 (Activity 2)

## Instructional Routines

Notice and Wonder (Warm-up)

### Materials to Gather

- Base-ten blocks: Activity 1, Activity 2

## Lesson Timeline

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

## Teacher Reflection Question

Why is it important for students to be able to represent their thinking and strategies using varied representations? How can you support students to feel comfortable using other representations?

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

🕒 5 min

Subtract on the Number Line

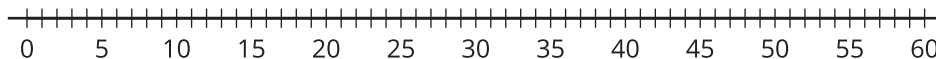
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### Student-facing Task Statement

$$48 - 22 = ?$$

Find the number that makes the equation true. Represent your thinking on the number line.



### Student Responses

Sample responses:

- Students show a point on 48 with 2 jumps of 10 and a jump of 2 or one jump of 20 and a jump of 2 to reach 26.
- Students show a point on 22 and 2 jumps of 20 and a jump of 6 to reach 48.