# Lesson 11: Different Ways to Add and Subtract

#### **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 may involve composing or decomposing a ten.

### **Student-facing Learning Goals**

• Let's add and subtract by using a ten.

#### **Lesson Purpose**

The purpose of this lesson is for students to represent sums and differences on the number line with an emphasis on the strategy of using a ten to count up or count back.

In previous lessons, students learned to look for ways to decompose a number in an expression to get to a ten when adding or subtracting numbers mentally in Number Talks. They have learned to use this method when adding or subtracting larger numbers which require composing or decomposing a ten.

In this lesson, students use the number line to represent these methods. These methods do not require students to explicitly compose or decompose a ten. The number line helps students see how others use what they know about the structure of whole numbers, properties of operations, and place value (MP7) to add and subtract within 100. The number choices in the expressions used in this lesson are designed to elicit methods based on looking for ways to make a ten or get to a ten. However, many students may prefer to use other strategies or representations, such as base-ten blocks or diagrams, to find the values. Look for ways to connect these students with peers who use different methods and can explain why they chose their method based on what they noticed about the numbers in the expressions.

### Access for:

### Students with Disabilities

• Action and Expression (Activity 1)

#### **Instructional Routines**

MLR7 Compare and Connect (Activity 2), Number Talk (Warm-up)

## **Materials to Gather**

- Base-ten blocks: Activity 2
- Tools for creating a visual display: Activity 2

### Lesson Timeline

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

# Materials to Copy

- Number Line to 100 (groups of 1): Activity 1
- Number Line to 100 (groups of 1): Activity 2

### **Teacher Reflection Question**

What evidence are you seeing that students are looking at the relationship between the numbers in an expression to select their method? What progress have you seen students make toward using methods based on the properties of operations and place value?

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

### Sums and Differences

### **Standards Alignments**

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

### Student-facing Task Statement

Find the value of 38 + 28.
Represent your thinking on the number line.

-++-		+ + + + +	+++++	+++++	+++++	+++++	++++	+++++	++++	++++	+++++	+++++	+++++	+++
0	5	10	15	20	25	30	35	40	45	50	55	60	65	70

Find the value of 57 - 19.
Represent your thinking on the number line.



### **Student Responses**

1. 66. Sample response:



