

# Guided Math: Unit 1, Lesson 1

## Essential Question

How can students understand the value of a number by using models and a place value chart to represent them?

## Lesson Objective

Students will represent the value of each digit in whole numbers from the ones to the one billions place.

## Whole-Group Lesson

Distribute the Pre-Assessment to students. After the Pre-Assessment, bring the class together to discuss place value. Write what students know about place value on the board. Hold up Base Ten Blocks and discuss the value of each block. Model how to create numbers using the Base Ten Blocks. Say numbers aloud and have students model with the blocks. Model for students how to draw a number using Base Ten Blocks on whiteboards. Work through one period at a time with students. Example: Create a model for the billions period, and then draw it. Repeat this in each period. This will require fewer Base Ten Blocks and reinforce drawing the model from one period to the next.



## Lesson Discussion Questions

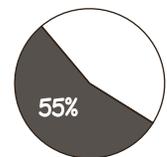
What is place value? How do you represent a number using Base Ten Blocks? How can you draw a number using Base Ten Blocks?

## Materials

- Pre-Assessment
- Base Ten Blocks
- Whiteboards
- Dry-erase markers

## Small-Group Lesson

Work with students to use Base Ten Blocks. Say numbers aloud and have students model the numbers with Base Ten Blocks, draw the model on their whiteboards, and then record the number in a place value chart.



## Remediate

Keep the numbers in a range that works for your students. Start with thousands and increase as students are ready.

## On Level

Model, monitor, and assist as needed.

## Enrich

Allow students to make a number with Base Ten Blocks and then write the number.

# Pre-Assessment

Solve each problem below.

$$\begin{array}{r} 1. \quad 4,398 \\ - 2,110 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 5,000 \\ - 3,459 \\ \hline \end{array}$$

Read each problem below and solve.

3. Jorge is thinking of a number that has a 7 in both the ten-millions place and the thousands place. Which of the following could be Jorge's number?
- A. 7,647,903,442
  - B. 5,678,973,442
  - C. 2,678,907,442
  - D. 1,647,907,442
4. Tracy is thinking of a number that rounds to 5,000. Which of the following could not be Tracy's number?
- A. 5,007
  - B. 5,110
  - C. 4,005
  - D. 4,950
5. What is the number below in standard form?
- $$(5 \times 1,000,000,000) + (7 \times 10,000,000) + (9 \times 1,000,000) + (6 \times 10,000) + (5 \times 1,000) + (4 \times 100) + (8 \times 10)$$
- A. 5,790,065,480
  - B. 579,065,480
  - C. 5,079,065,480
  - D. 5,790,065,480

Read each problem below and solve.

6. What is the estimated sum of the numbers below?

$$568 + 912 = ?$$

- A. 1,478
- B. 1,480
- C. 1,470
- D. 1,481

7. Compare the numbers below. Write  $<$ ,  $=$ , or  $>$ .

$$1,909,650,439 \text{ \_\_\_ } 1,990,650,493$$

8. In the number below, one digit is underlined, and one digit is circled.

67,82,019

Which statement is true?

- A. The value of the circled digit is 100 times the value of the underlined digit.
  - B. The value of the circled digit is 10 times the value of the underlined digit.
  - C. The value of the circled digit is one-tenth the value of the underlined digit.
  - D. The value of the circled digit is 1 times the value of the underlined digit.
9. What is 9,040,592,045 written in expanded form?
- A.  $9,000,000,000 + 4,000,000 + 50,000 + 9,000 + 200 + 40 + 5$
  - B.  $9,000,000,000 + 40,000,000 + 500,000 + 90,000 + 2,000 + 40 + 5$
  - C.  $9,000,000,000 + 4,000,000 + 50,000 + 90,000 + 200 + 40 + 5$
  - D.  $900,000,000 + 4,000,000 + 50,000 + 9,000 + 200 + 40 + 5$
10. Order the numbers from greatest to least.

105,141,234      105,312,639      105,243,987      105,613,456

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