Lesson 1: Place Value Patterns

Standards Alignments

Addressing   5.NBT.A, 5.NBT.A.1

Teacher-facing Learning Goals

- Observe place value patterns when multiplying and dividing.

Student-facing Learning Goals

- Let's observe place value patterns.

Lesson Purpose

The purpose of this lesson is for students to observe place value patterns when multiplying and dividing.

In previous grades, students recognized that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. In the previous unit, students saw that this same pattern continues to the right of the decimal. In this lesson, students apply what they know about multiplication, division, and place value to express that each digit in a decimal represents ten times as much as it represents in the place to its right and one tenth as much as it represents in the place to its left (MP7).

Access for:

⊙ Students with Disabilities

- Representation (Activity 2)

Instructional Routines

MLR7 Compare and Connect (Activity 1), Notice and Wonder (Warm-up)

Materials to Gather

- Tools for creating a visual display: Activity 1

Lesson Timeline

Warm-up	10 min
Activity 1	20 min

Teacher Reflection Question

Describe the relationships between place value, multiplication, and division that your students made sense of today.

Activity 2	15 min
Lesson Synthesis	10 min
Cool-down	10 min

Cool-down (to be completed at the end of the lesson)   ⏲ 10 min

Multiplication and Division Equations

Standards Alignments

Addressing   5.NBT.A.1

Student-facing Task Statement

Fill in the blank to make each equation true.

1. $0.06 \times 10 =$ _____
2. $60 =$ _____ $\times 0.6$
3. _____ $= 6 \div 100$

Student Responses

1. 0.6
2. 100
3. 0.06