Lesson 22: Divide Whole Numbers by 0.1 and 0.01

Standards Alignments

Addressing   5.NBT.B.7
Building Towards   5.NBT.A.1

Teacher-facing Learning Goals

- Divide whole numbers by one tenth and one hundredth.

Student-facing Learning Goals

- Let's divide whole numbers by one tenth and one hundredth.

Lesson Purpose

The purpose of this lesson is for students to notice and explain patterns when dividing a whole number by one tenth and one hundredth.

In prior lessons, students represented decimals to the thousandths with diagrams, words, numbers, and expressions. They also added, subtracted and multiplied decimals using place value understanding, properties of operations, and relationships between operations. In this lesson, students begin to work with decimals and division. They divide whole numbers by one tenth and one hundredth and notice and explain patterns they observe. Students apply their understanding of division as "how many groups" to hundredths grids where the entire grid represents one whole. This allows them to visualize how many tenths or hundredths are in one or several wholes while also preparing students to find quotients of more complex decimals in future lessons.

Access for:

ⓘ Students with Disabilities

- Representation (Activity 1)

Instructional Routines

MLR1 Stronger and Clearer Each Time (Activity 2), Number Talk (Warm-up)

Materials to Copy

- Small Grids (groups of 1): Activity 1
- Small Grids (groups of 1): 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

Reflect on how comfortable your students are asking questions of you and of each other. What can you do to encourage students to ask more questions?

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

Many Tenths and Hundredths

Standards Alignments

Addressing   5.NBT.B.7

Student-facing Task Statement

Find the value of each expression. Explain or show your reasoning.

1. $7 \div 0.1$
2. $7 \div 0.01$

Student Responses

1. 70. Sample response: $1 \div 0.1 = 10$ and $7 \times 10 = 70$
2. 700. Sample response: There are 100 hundredths in 1, so there are 700 hundredths in 7.