

Lesson 18: Use Whole Number Facts

Standards Alignments

Addressing 5.NBT.B.7, 5.OA.A.1

Teacher-facing Learning Goals

- Multiply a whole number and a decimal using properties of operations and place value understanding.

Student-facing Learning Goals

- Let's multiply whole numbers and decimals.

Lesson Purpose

The purpose of this lesson is for students to multiply a whole number and a decimal using their understanding of properties of operations and place value.

The purpose of this lesson is for students to use whole number products to find products of a whole number and some tenths or hundredths. This builds on work from the previous lesson where students analyzed this strategy but did not represent the reasoning using equations. In this lesson, they write expressions and use the associative property of multiplication to justify why the strategy works (MP2, MP3). Students are not expected to name the associative property of multiplication each time they use it. In the second activity, the number of hundredths exceeds 10 but the same reasoning with whole number products applies. Because this product involves a decimal with both tenths and hundredths, it also makes sense to use the distributive property and work with tenths and hundredths separately and students analyze this strategy. Using distributive property to find products with decimals will be a main focus of the next lesson.

Access for:

Students with Disabilities

- Action and Expression (Activity 1)

Instructional Routines

True or False (Warm-up)

Lesson Timeline

Warm-up

10 min

Teacher Reflection Question

What unfinished learning or misunderstandings do your students have about using the

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

associative property to multiply whole numbers? How did you leverage those misconceptions in a positive way to further the understanding of the class?

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

🕒 5 min

Fill in the Blank

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Student-facing Task Statement

Fill in the blank to make each equation true.

- $5 \times 0.3 = 5 \times 3 \times \underline{\hspace{1cm}}$
- $5 \times 0.03 = 5 \times \underline{\hspace{1cm}} \times 0.01$
- $5 \times 0.03 = \underline{\hspace{1cm}}$

Student Responses

- $5 \times 0.3 = 5 \times 3 \times 0.1$
 - $5 \times 0.03 = 5 \times 3 \times 0.01$
 - $5 \times 0.03 = 0.15$
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