

Lesson 8: Multiply 2 Two-digit Numbers

Standards Alignments

Addressing 4.NBT.B.4, 4.NBT.B.5

Teacher-facing Learning Goals

- Multiply 2 two-digit numbers using place value understanding and properties of operations.

Student-facing Learning Goals

- Let's multiply 2 two-digit numbers.

Lesson Purpose

The purpose of this lesson is for students to multiply 2 two-digit numbers.

Previously, students used place-value reasoning to decompose a factor in a multiplication expression to multiply numbers up to four-digit by one-digit numbers. In this lesson, they apply these ideas to multiply 2 two-digit numbers. They reason about why it is helpful to decompose both two-digit numbers by place value. As students analyze the connections between expressions and diagrams, they recognize that partial products in which the factors are either single-digit numbers or multiples of 10 can be found mentally, making the rectangular diagram a useful tool for multiplying two-digit numbers.

Access for:

Students with Disabilities

- Action and Expression (Activity 1)

English Learners

- MLR8 (Activity 1)

Instructional Routines

MLR5 Co-craft Questions (Activity 2), Number Talk (Warm-up)

Lesson Timeline

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

Teacher Reflection Question

In a future lesson, students will be analyzing partial products from rectangular diagrams and making connections to the traditional algorithm notation. How do rectangular diagrams support this thinking?

Cool-down

5 min

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

What's the Product?

Standards Alignments

Addressing 4.NBT.B.5

Student-facing Task StatementFind the value of 24×17 . Explain or show your reasoning. Use a diagram if it helpful.**Student Responses**

408. Sample reasoning:

$$200 + 140 + 40 + 28 = 408$$