# Lesson 8: Multiply 2 Two-digit Numbers

### Standards Alignments

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| --- | --- |
| 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

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

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

What’s the Product?

### Standards Alignments

|  |  |
| --- | --- |
| Addressing | 4.NBT.B.5 |

### Student-facing Task Statement

Find the value of $24×17$. Explain or show your reasoning. Use a diagram if it helpful.

### Student Responses

408. Sample reasoning:

$200+140+40+28=408$

