# Lesson 7: Multiply Three- and Four-digit Numbers by One-digit Numbers

### Standards Alignments

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

### Teacher-facing Learning Goals

* Multiply three- and four-digit numbers using place value understanding and properties of operations.

### Student-facing Learning Goals

* Let’s multiply three- and four-digit numbers by one-digit numbers.

### Lesson Purpose

The purpose of this lesson is for students to multiply a whole number of up to four digits by a one-digit number by decomposing factors by place value, finding partial products, and using properties of operations.

In the previous lesson, students represented multiplication using base-ten diagrams and rectangular diagrams, and used place value reasoning to multiply two-digit numbers by one-digit numbers. In this lesson, they use rectangular diagrams and expressions to multiply up to four-digit numbers by one-digit numbers. They continue to use place value reasoning to decompose the multi-digit factor and to use partial products in their computation.

Students should have multiple opportunities to hear the term “partial products” as referring to the results of multiplying a part of one factor and the other factor (or a part of one factor and a part of the other factor).

### Access for:

###  Students with Disabilities

* Representation (Activity 2)

###  English Learners

* MLR2 (Activity 1)

### Instructional Routines

Estimation Exploration (Warm-up)

### Lesson Timeline

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

### Teacher Reflection Question

How can you leverage each of your student’s ideas to support them in being seen and heard in tomorrow’s math class?

## Cool-down

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

The Value of the Product

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### Student-facing Task Statement

Find the value of $6×218$. Show your reasoning.

### Student Responses

1,308. Sample response:

$\left(6×200\right)+\left(6×10\right)+\left(6×8\right)=1,​200+60+48=1,​308$

