# Lesson 9: Same Digit, Different Value

### Standards Alignments

|  |  |
| --- | --- |
| Addressing | 4.NBT.A.1, 4.NBT.A.2 |

### Teacher-facing Learning Goals

* Describe that the value of a digit in one place represents ten times what it represents in the place to its right.

### Student-facing Learning Goals

* Let’s describe the relationship between the digits in multi-digit numbers.

### Lesson Purpose

The purpose of this lesson is to describe the value of a digit in one place as having ten times the value of the same digit in a place to its right.

This lesson shifts the focus from reading and writing numbers to describing the multiplicative relationship between place values in a multi-digit number. In previous lessons, students used base-ten blocks to represent large numbers, and wrote numbers in expanded form. In this lesson, they use their developing understanding of the value of a digit to begin to articulate that a digit in one place is ten times the value as the same digit in a place to its right.

The syntheses in this lesson help students connect the language of “ten times the value” to equations to help them represent this concept.

### Access for:

###  Students with Disabilities

* Representation (Activity 1)

###  English Learners

* MLR2 (Activity 2)

### Instructional Routines

Card Sort (Activity 1), True or False (Warm-up)

### Materials to Copy

* Card Sort: Large Numbers (4 to 6 digits) (groups of 2): Activity 1

### Lesson Timeline

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

## Cool-down

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

The Value of Digits

### Standards Alignments

|  |  |
| --- | --- |
| Addressing | 4.NBT.A.1, 4.NBT.A.2 |

### Student-facing Task Statement

Here are two numbers: 531,690 and 58,487.

1. Write each number in expanded form.
2. Write a multiplication equation to represent the relationship between the digit 5 in both numbers.

### Student Responses

1. $500,​000+30,​000+1,​000+600+90$ , $50,​000+8,​000+400+80+7$
2. $50,​000×10=500,​000$