

Just In Time Quick Check
Standard of Learning (SOL) 4.1a

Strand: Number and Number Sense

Standard of Learning (SOL) 4.1a

The student will read, write, and identify the place and value of each digit in a nine-digit whole number.

Grade Level Skills:

- Read nine-digit whole numbers, presented in standard form and represent the same number in written form.
- Write nine-digit whole numbers in standard form when the numbers are presented orally or in written form.
- Identify and communicate, orally and in written form, the place and value for each digit in a nine-digit whole number.

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [4.1ab - Mystery Numbers: Number Sense](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Grade 4 [\(Word\)](#) | [\(PDF\)](#)
 - Place Value Position
- Desmos Activity: [Place Value Polygraph](#)

Supporting and Prerequisite SOL: [3.1a](#), [2.1a](#), [2.1b](#)

SOL 4.1a - Just in Time Quick Check

1. Create the number shown below. Choose and write the digits from the box in the correct position in the place value chart. You may use digits more than once.

Three hundred two million, ninety-eight thousand, fifteen

0	1	2	3	4	5	6	7	8	9
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Hundred million	Ten million	Million	,	Hundred thousand	Ten thousand	Thousand	,	Hundred	Ten	One

2. What is the standard form for this number?

Twenty-one million, six hundred forty-two thousand, seven

3. What is the written form of this number?

4,509,302

4. What is the value of the digit in the ten thousands place?

16,184,725

SOL 4.1a - Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

1. Create the number shown below. Choose and write the digits from the box in the correct position in the place value chart. You may use digits more than once.

Three hundred two million, ninety-eight thousand, fifteen

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

Hundred million	Ten million	Million	,	Hundred thousand	Ten thousand	Thousand	,	Hundred	Ten	One

Some students may list the digits in the same order that is shown in the digit box above the chart. This would indicate the student did not read or comprehend the directions given to create the number shown in written form.

Some students may also place more than one digit in a place value slot. Example: a student writes 302 in the slot below "Million," 98 in the slot below "Thousand," and 15 in the slot below "Ten" or "One"

In addition, some students may correctly place some digits, incorrectly place others, and not place zeros correctly, or at all. Example:

Hundred million	Ten million	Million	,	Hundred thousand	Ten thousand	Thousand	,	Hundred	Ten	One
3	0	2		9	8			1	5	

Provide students displaying these or similar errors with a place value chart up to the hundred millions place. Give students practice opportunities to use the chart as they read numbers in written form aloud to themselves and then build the number in standard form.

Teachers may also wish to include using Base 10 Blocks to help students with the misconception of how to represent the zero in numbers. When students build the number, they "see" there is no number to represent the

hundred thousand and hundred places in the number included in this problem. Use additional numbers having nine digits or less with zeros between place values to provide concrete practice as needed.

2. What is the standard form for this number?

Twenty-one million, six hundred forty-two thousand, seven

Some students may omit the zeros in the tens and hundreds places when writing this number, using only six digits instead of eight. Teachers may wish to provide students with a place value chart to use as they read the number aloud to themselves. One strategy is to tell students to place the digits where they hear them and to place a zero where they do not hear a value. Teachers may engage students in guided practice using similar problems with a place value chart.

3. What is the written form of this number shown in standard form?

4,509,302

Some students may omit the word million or thousand when writing the written form of this number and only use the commas. Example: four, five hundred nine, three hundred two

*Some students may also omit the commas after the words million and thousand.
Example: four million five hundred nine thousand three hundred two*

*Zeros in numbers that occur between other digits may reveal a place value misconception for some students.
Example: four million, fifty-nine, thirty-two.*

*Teachers may also see students who insert the word “zero” when they are unsure of how to describe zero’s place value when it occurs between other digits.
Example: Four milion five hundred zero nine three hunded zero two.*

To address these misconceptions, teachers may wish to provide students with a place value chart to place the digits in before reading them. Remind students to read the digits before each comma as an up- to three-digit number, substituting the word “million” for the first comma when there are two commas and the word “thousand” for the second comma. Engage students in guided practice by using questions similar to this with a place value chart.

Again, teachers may also wish to include using Base 10 Blocks to help students with the misconception of how to represent the zero in numbers. When students build the number, they “see” there is no number to represent ten thousands and tens in the number included in this problem. Teachers may use additional numbers with nine digits, or fewer than nine digits, with zeros between place values to provide concrete practice as needed.

4. What is the value of the digit in ten thousands place?

16,184,725

Responses to this question will reveal students’ foundational place value understanding or misconceptions. Some students may mistakenly focus on the 1 in the ten millions place, with 10,000,000 as the response; the 2 in the tens place, with 20 as the response; or may include the digit 4 in the thousands place and the digit 8 in the ten thousands place, with 84,000 as the response.

Provide students displaying these or similar errors with a place value chart up to the hundred millions place, and provide them practice opportunities writing numbers in the chart and identifying the values of the digits in the numbers.