

Just In Time Quick Check
Standard of Learning (SOL) 3.1a

Strand: Number and Number Sense

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The student will create read, write, and identify the place and value of each digit in a six-digit whole number, with and without models.

Grade Level Skills:

- Read six-digit numerals orally.
- Write six-digit numerals in standard form that are stated verbally or written in words.
- Represent numbers up to 9,999 in multiple ways, according to place value (e.g., 256 can be 1 hundred, 14 tens, and 16 ones, but also 25 tens and 6 ones), with and without models.
- Determine the value of each digit in a six-digit whole number (e.g., in 165,724, the 7 represents 7 hundreds and its value is 700).

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Just in Time Quick Check Teacher Notes

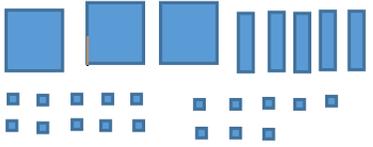
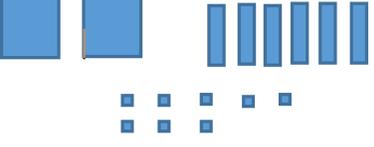
Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [3.1a Place Value](#) (Word) / [\(PDF\)](#)
 - [3.1a Place Value Games](#) (Word) / [\(PDF\)](#)
 - [3.1 abc Place Value Mat Activities](#) (Word) / [\(PDF\)](#)
- VDOE Co-Teaching Mathematics Instruction Plans (MIPS)
 - [3.1a Place Value A Co-Teaching Lesson Plan](#) (Word) / [\(PDF\)](#)
- VDOE Word Wall Cards: Grade 3 [\(Word\)](#) / [\(PDF\)](#)
 - Place Value Position
- VDOE Rich Mathematical Tasks: Packing Pencils
 - [3.1a Packing Pencils Task Template](#) (Word) / [\(PDF\)](#)
 - [3.1a Packing Pencils Student Version of Task](#) (Word) / [\(PDF\)](#)
 - [3.1a Packing Pencils Anchor Papers](#) (Word) / [\(PDF\)](#)
 - [3.1a Packing Pencils Anchor Papers and Scoring Rationale](#) (Word) / [\(PDF\)](#)

Supporting and Prerequisite SOL: [2.1ab](#), [1.2a](#), [1.5ab](#)

SOL 3.1a - Just in Time Quick Check

1. Select all the correct ways to represent 358.

<p>Three hundred fifty-eight</p>	<p>3 hundreds 5 tens 8 ones</p>	
	<p>$300 + 50 + 8$</p>	<p>2 hundreds 15 tens 8 ones</p>

2. Guess My Number

I am thinking of a number with 5 digits.

The tens place has a value of 70.

There are 9 ten thousands in this number.

The ones place has 3 ones.

It would take 80 tens to model the value in the hundreds place.

The value of the digit in the thousands place is four thousand.

What is my number?

3. My city has a population of two hundred seven thousand, four hundred thirty-five.
Write this number in standard form.

4. Look at this number: 1,028

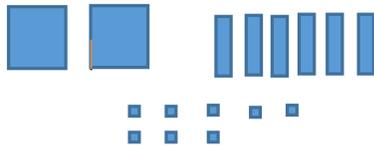
a. What is the value of the digit in the hundreds place?

b. Use base-10 blocks to make two different models for 1,028. Draw both of your models in the workspace below.

SOL 3.1a - Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

1. Select all the correct ways to represent 358.

Three hundred fifty-eight	3 hundreds 5 tens 8 ones	
	$300 + 50 + 8$	2 hundreds 15 tens 8 ones

Students who select the pictorial representation of 2 hundreds, 6 tens, and 8 ones may think that taking a hundred away and moving it to the tens is all that is needed to represent 358 in a different way. This may indicate a lack of understanding that the hundred flat has the same value as 10 tens and that this picture would require 15 ten rods (instead of the 6 shown) to be correct. In other words, while a total of eight base-10 pieces are used in this picture to represent the 3 hundreds and 5 tens, those eight base-10 pieces cannot be used to represent the tens and hundreds in the number given.

Students who do not select “2 hundreds 15 tens 8 ones” may believe this is incorrect because more than 9 tens are used in the representation. These students would benefit from additional experiences with trading activities using base-10 blocks or other manipulatives (e.g., linking cubes) that provide opportunities to represent the same number in more than one way, beginning with 2-digit numbers and then extending to 3-digit and 4-digit numbers. These activities help students develop flexibility in representing numbers as they develop the concept that ten ones is the same as one ten (unitizing) and that 10 tens is one hundred. These activities also help students generalize an understanding of the ten-to-one relationship between adjacent place value positions that is the foundation of our base-10 number system.

2. Guess My Number

I am thinking of a number with 5 digits.

The tens place has a value of 70.

There are 9 ten thousands in this number.

The ones place has 3 ones.

It would take 80 tens to model the value in the hundreds place.

The value of the digit in the thousands place is four thousand.

What is my number?

Students may have difficulty representing a number when given a verbal description for each digit. Students who have difficulty with 5-digit numbers would benefit from experience translating verbal descriptions of 2- or 3-digit

numbers into standard form. Anchor charts showing multiple representations for a number that include verbal descriptions are helpful models for using place value descriptions.

Students may be confused with 80 tens representing 800. These students would benefit from opportunities to construct multiple representations for 3-digit numbers using base-10 manipulatives.

3. My city has a population of two hundred seven thousand, four hundred thirty-five.

Write this number in standard form.

Students often have difficulty translating a number from word form to standard form when zero is in one or more place value positions in the number; this is even more difficult when numbers are presented orally without written/ visual support. Provide explicit instruction connecting the conventions used in word form (i.e., commas separating the periods) to the attributes of a number in standard form (e.g., three digits in each period, commas separating the periods, the ones-tens-hundreds pattern within each period). Students who understand these connections can use them to break the word form of a number into meaningful “chunks” when translating to standard form.

4. Look at this number: 1,028

- a. What is the value of the digit in the hundreds place?

Students may not consider the digit in the hundreds place as having a value of zero. Experiences describing the value of each digit in multi-digit numbers having a zero in one or more place value positions will help build this understanding. Teachers are encouraged to integrate verbal descriptions of numbers using place value vocabulary throughout the school year and not to limit place value discussions to an isolated unit of study.

- b. Use base-10 blocks to make two different models for 1,028. Draw both of your models in the workspace below.

Students who are unable to make more than one model to represent a number would benefit from additional opportunities to represent the same number in more than one way, beginning with 2-digit numbers and then extending to 3-digit and 4-digit numbers. Provide trading activities using base-10 blocks or other manipulatives (e.g., linking cubes) in which students “build” a model for a number and then reconstruct the model using different combinations. Students are likely to represent “28” from 1,028 as 2 tens and 8 ones and as 28 ones, but they may be less likely to represent 28 as 1 ten and 18 ones. Encourage students to consider a variety of representations and continue these conversations as students develop computation strategies for problem solving.