4th Grade Math

ELG 4.NBT.A Generalize place value understanding for multi-digit whole numbers

Vertical Progression:

2nd Grade	**2.NBT.A Understand place value.** ○ **2.NBT.A.1** Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones. ○ **2.NBT.A.3** Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. ○ **2.NBT.A.4** Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
3rd Grade	**3.NBT.A Use place value understanding and properties of operations to perform multi-digit arithmetic.** ○ **3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.
4th Grade	**4.NBT.A Generalize place value understanding for multi-digit whole numbers.** ○ **4.NBT.A.1** Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. ○ **4.NBT.A.2** Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. ○ **4.NBT.A.3** Use place value understanding to round multi-digit whole numbers to any place.
5th Grade	**5.NBT.A Understand the place value system.** ○ **5.NBT.A.1** Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. ○ **5.NBT.A.2** Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. ○ **5.NBT.A.3** Read, write, and compare decimals to thousandths. ○ **5.NBT.A.3a** Read and write decimals to thousandths using base-ten numerals, number names, and expanded form. ○ **5.NBT.A.3b** Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. ○ **5.NBT.A.4** Use place value understanding to round decimals to any place.

Students will demonstrate command of the ELG by:

- Recognizing that the value of each digit is multiplied by ten as you move to the left.
- Constructing multi-digit numbers using expanded form, base-ten, and word form up to 1,000,000.
- Reading and comparing numbers ≤ 1,000,000 using the >, =, < symbols.
- Using rounding strategies to re-write the number to the nearest place value.

Vocabulary:

- digit
- equal to
- expanded form
- greater than
- less than
- round(ing)

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Sample Instructional/Assessment Tasks:

1) **Standard: 5.NBT.A.1**

Source: https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.NBT.1

Item Prompt:

Tom wrote the number 45,378. Bill wrote the number 36,721
How many times greater is the 7 in Bill's number than the 7 in Tom's number?

Correct Answer:

The *7* is 10 times larger in Bill's number than in Tom's.

2) **Standard: 5.NBT.A.2**

Source: https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.NBT.2

Item Prompt:

Is this statement true or false? Explain why without adding the numbers together.
57 + 23 > 67 + 3

Correct Answer:

I know this statement is true because 57 is only 10 less than 67 and 23 is 20 more than 3. Therefore, the statement is true.

3) **Standard: 5.NBT.A.3**

Source: https://grade4commoncoremath.wikispaces.hcpss.org/Assessing+4.NBT.3

Item Prompt:

Student Enrollment

Montgomery County Schools	Baltimore County Schools	Prince Georges County Schools
148, 779	107, 033	123, 737

Meghan said, "When I round all of these numbers, I get the same answer." Heather said, "I disagree. I get all different numbers."

Can they both be correct? Explain your reasoning.

Correct Answer:

Meghan is correct because she will get 100,000 if she rounds to the hundred thousands place. Heather is correct because if you round to the nearest ten thousand or nearest thousand, they will all be different numbers. So both are correct.