North Carolina Department of Public Instruction
INSTRUCTIONAL SUPPORT TOOLS
FOR ACHIEVING NEW STANDARDS

1st Grade Mathematics ● Unpacked Contents
For the new Standard Course of Study that will be effective in all North Carolina schools in the 2018-19 School Year.

This document is designed to help North Carolina educators teach the 1st Grade Mathematics Standard Course of Study. NCDPI staff are continually updating and improving these tools to better serve teachers and districts.

What is the purpose of this document?
The purpose of this document is to increase student achievement by ensuring educators understand the expectations of the new standards. This document may also be used to facilitate discussion among teachers and curriculum staff and to encourage coherence in the sequence, pacing, and units of study for grade-level curricula. This document, along with on-going professional development, is one of many resources used to understand and teach the NC SCOS.

What is in the document?
This document includes a detailed clarification of each standard in the grade level along with a *sample* of questions or directions that may be used during the instructional sequence to determine whether students are meeting the learning objective outlined by the standard. These items are included to support classroom instruction and are not intended to reflect summative assessment items. The examples included may not fully address the scope of the standard. The document also includes a table of contents of the standards organized by domain with hyperlinks to assist in navigating the electronic version of this instructional support tool.

How do I send Feedback?
Please send feedback to us at feedback@dpi.state.nc.us and we will use your input to refine our unpacking of the standards. Thank You!

Just want the standards alone?
You can find the standards alone at http://www.ncpublicschools.org/curriculum/mathematics/scos/.

Standards for Mathematical Practice

Practice	Explanation and Example
1. Make sense of problems and persevere in solving them.	Mathematically proficient students in First Grade continue to develop the ability to focus attention, test hypotheses, take reasonable risks, remain flexible, try alternatives, exhibit self-regulation, and persevere (Copley, 2010). As the teacher uses thoughtful questioning and provides opportunities for students to share thinking, First Grade students become conscious of what they know and how they solve problems. They make sense of task-type problems, find an entry point or a way to begin the task, and are willing to try other approaches when solving the task. They ask themselves, "Does this make sense?" First Grade students' conceptual understanding builds from their experiences in Kindergarten as they continue to rely on concrete manipulatives and pictorial representations to solve a problem, eventually becoming fluent and flexible with mental math as a result of these experiences.
2. Reason abstractly and quantitatively.	Mathematically proficient students in First Grade recognize that a number represents a specific quantity. They use numbers and symbols to represent a problem, explain thinking, and justify a response. For example, when solving the problem: "*There are 60 children on the playground. Some children line up. There are 20 children still on the playground. How many children lined up?"* first grade students may write 20 + 40 = 60 to indicate a Think-Addition strategy. Other students may illustrate a counting-on by tens strategy by writing 20 + 10 + 10 + 10 + 10 = 60. The numbers and equations written illustrate the students' thinking and the strategies used, rather than how to simply compute, and how the story is decontextualized as it is represented abstractly with symbols.
3. Construct viable arguments and critique the reasoning of others.	Mathematically proficient students in First Grade continue to develop their ability to clearly express, explain, organize and consolidate their math thinking using both verbal and written representations. Their understanding of grade appropriate vocabulary helps them to construct viable arguments about mathematics. For example, when justifying why a particular shape isn't a square, a first grade student may hold up a picture of a rectangle, pointing to the various parts, and reason, "It can't be a square because, even though it has 4 sides and 4 angles, the sides aren't all the same size." In a classroom where risk-taking and varying perspectives are encouraged, mathematically proficient students are willing and eager to share their ideas with others, consider other ideas proposed by classmates, and question ideas that don't seem to make sense.
4. Model with mathematics.	Mathematically proficient students in First Grade model real-life mathematical situations with a number sentence or an equation, and check to make sure that their equation accurately matches the problem context. They also use tools, such as tables, to help collect information, analyze results, make conclusions, and review their conclusions to see if the results make sense and revising as needed.
5. Use appropriate tools strategically.	Mathematically proficient students in First Grade have access to a variety of concrete (e.g. 3-dimensional solids, ten frames, number balances, number lines) and technological tools (e.g., virtual manipulatives, calculators, interactive websites) and use them to investigate mathematical concepts. They select tools that help them solve and/or illustrate solutions to a problem. They recognize that multiple tools can be used for the same problem- depending on the strategy used. For example, a child who is in the counting stage may choose connecting cubes to solve a problem. While, a student who understands parts of number, may solve the same problem using ten-frames to decompose numbers rather than using individual connecting cubes. As the teacher provides numerous opportunities for students to use educational materials, first grade students' conceptual understanding and higher-order thinking skills are developed.
6. Attend to precision.	Mathematically proficient students in First Grade attend to precision in their communication, calculations, and measurements. They are able to describe their actions and strategies clearly, using grade-level appropriate vocabulary accurately. Their explanations and reasoning regarding their process of finding a solution becomes more precise. In varying types of mathematical tasks, first grade students pay attention to details as they work. For example, as students' ability to attend to position and direction develops, they begin to notice reversals of numerals and self-correct when appropriate. When measuring an object, students check to make sure that there are not any gaps or overlaps as they carefully place each unit end to end to measure the object (iterating length units). Mathematically proficient first grade students understand the symbols they use (=, >,<) and use clear explanations in discussions with others. For example, for the sentence 4 > 3, a proficient student who is able to attend to precision states, "Four is more than 3" rather than "The alligator eats the four. It's bigger."

7. Look for and make use of structure.	Mathematically proficient students in First Grade carefully look for patterns and structures in the number system and other areas of mathematics. For example, while solving addition problems using a number balance, students recognize that regardless whether you put the 7 on a peg first and then the 4, or the 4 on first and then the 7, they both equal 11 (commutative property). When decomposing two-digit numbers, students realize that the number of tens they have constructed ‘happens’ to coincide with the digit in the tens place. When exploring geometric properties, first graders recognize that certain attributes are critical (number of sides, angles), while other properties are not (size, color, orientation).
8. Look for and express regularity in repeated reasoning.	Mathematically proficient students in First Grade begin to look for regularity in problem structures when solving mathematical tasks. For example, when adding three one-digit numbers and by making tens or using doubles, students engage in future tasks looking for opportunities to employ those same strategies. Thus, when solving 8+7+2, a student may say, “I know that 8 and 2 equal 10 and then I add 7 more. That makes 17. It helps to see if I can make a 10 out of 2 numbers when I start.” Further, students use repeated reasoning while solving a task with multiple correct answers. For example, in the task “There are 12 crayons in the box. Some are red and some are blue. How many of each could there be?” First Grade students realize that the 12 crayons could include 6 of each color (6+6 = 12), 7 of one color and 5 of another (7+5 = 12), etc. In essence, students repeatedly find numbers that add up to 12.

Return to Standards

***Represent and solve problems*.**

NC.1.OA.1 Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving:

- Add to/Take from-Change Unknown
- Put together/Take Apart-Addend Unknown
- Compare-Difference Unknown

Clarification

In this standard, students extend their work from NC.K.OA.1 to solve addition and subtraction problems within 20. In addition to continuing work with the problem types introduced in Kindergarten, standard NC.1.OA.1 calls for first graders to work additional problem types, including:

- add to/take from – change unknown
- put together/take apart – addend unknown
- compare – difference unknown

	Result Unknown	Change Unknown
Add To	Two birds sat in a tree. Three more birds fly to the tree. How many birds are in the tree now? 2 + 3 = ? K	Two birds sat in a tree. Some more birds flew there. Then there were five birds in the tree. How many birds flew over to the first two? 2 + ? = 5 1
Take From	Five birds were in a tree. Two birds flew away. How many birds are in the tree now? 5 – 2 = ? K	Five birds were in a tree. Some flew away. Then there were three birds in the tree. How many birds flew away? 5 - ? = 3 1

	Total Unknown	Addend Unknown	Both Addends Unknown
Put Together/ Take Apart	Three red birds and two blue birds are in a tree. How many birds are in the tree? 3 + 2 = ? K	Five birds are in a tree. Three are red and the rest are blue. How many birds are blue? 3 + ? 5 5 – 3 = ? 1	Five birds are in a tree. They could either be blue birds or red birds. How many birds could be red and how many could be blue? 5 = 0 + 5 5 = 5 + 0 5 = 1 + 4 5 = 4 + 1 5 = 2 + 3 5 = 3 + 2 K

Checking for Understanding

Nine bunnies were sitting on the grass. Some more bunnies hopped there. Now, there are 13 bunnies on the grass. How many bunnies hopped over there?

Possible response:

Counting On: *Niiinnneee…. holding a finger for each next number counted 10, 11, 12, 13. Holding up her four fingers, 4! 4 bunnies hopped over there."*

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13 apples are on the table. 6 of them are red and the rest are green. How many apples are green?

Possible response:

Doubles +/- 1 or 2: *I know that 6 and 6 is 12. So, 6 and 7 is 13. There are 7 green apples.*

Represent and solve problems.

NC.1.OA.1 Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving:

- Add to/Take from-Change Unknown
- Put together/Take Apart-Addend Unknown
- Compare-Difference Unknown

Clarification	Checking for Understanding

Clarification

As students develop strategies for solving a variety of problem situations, they build meaning for the operations of addition and subtraction.

Change unknown and addend unknown problems allow students to begin to see subtraction as the opposite of addition. Developing the understanding of subtraction as an unknown addend addition problem is an essential goal for later mathematics. As students work with change unknown and addend unknown problems, they will record situation equations (equations in which the operation and order of numbers matches the situation of the problem). Eventually, students notice that a problem may be solved with other solution equations (equations that lead to the answer, but do not match the situation of the story).

In a Compare situation, two amounts are compared to find "How many more" or "How many less/fewer". Students build on their understanding of equal to, more than, and less than for two groups of objects or two numbers. Strategies for determining which the difference in quantities include matching and counting.

	Difference Unknown
Compare	***"How many more?" version:*** Lara has two stickers. Jade has five stickers. How many more stickers does Jade have than Lara? ***"How many less?" version:*** Lara has two stickers. Jade has five stickers. How many fewer stickers does Lara have than Jade? 2 + ? = 5 5 - 2 = ? 1

As First Graders work with a variety of problem types, they extend the sophistication of addition and subtraction methods used in Kindergarten (counting). Now, students use methods of counting on, making ten, and doubles +/- 1 or +/- 2 to solve problems. Students also use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths).

In order for students to read and use equations to represent their thinking, they need extensive experiences with addition and subtraction situations in order to connect the experiences with symbols (+, -, =) and equations (5=3+2). In Kindergarten, students demonstrated the understanding of how objects can be joined (addition) and separated

Checking for Understanding

Represent and solve problems.

NC.1.OA.1 Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving:

- Add to/Take from-Change Unknown
- Put together/Take Apart-Addend Unknown
- Compare-Difference Unknown

Clarification	Checking for Understanding
(subtraction) by representing addition and subtraction situations using objects, pictures and words. In First Grade, students extend this understanding of addition and subtraction situations to use the addition symbol (+) to represent joining situations, the subtraction symbol (-) to represent separating situations, and the equal sign (=) to represent a relationship regarding quantity between one side of the equation and the other. When solving comparison problems, students may write various equations to represent comparisons.	

Return to [Standards]

Return to [Standards]

Understand and apply the properties of operations.

NC.1.OA.3 Apply the commutative and associative properties as strategies for solving addition problems.

Clarification

This standard calls for students to notice properties of operations as they work with numbers, and apply their understandings of the commutative and associative property to solve addition problems. Students use mathematical tools and representations (e.g., cubes, counters, number balance, number line, 100 chart) to model these ideas.

Students in first grade do not use the formal terms "commutative" and "associative".

Commutative Property of Addition	**Associative Property of Addition**
The order of the addends does not change the sum. For example, if 8 + 2 = 10 is known, then 2 + 8 = 10 is also known.	The grouping of the 3 or more addends does not affect the sum. For example, when adding 2 + 6 + 4, the sum from adding the first two numbers first (2 + 6) and then the third number (4) is the same as if the second and third numbers are added first (6 + 4) and then the first number (2). The student may note that 6+4 equals 10 and add those two numbers first before adding 2.

Checking for Understanding

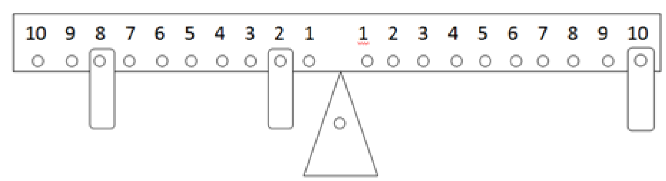
<u>Commutative Property Examples</u>**:**

Cubes:

A student uses 2 colors of cubes to make as many different combinations of 8 as possible. When recording the combinations, the student records that 3 green cubes and 5 blue cubes equals 8 cubes in all. In addition, the student notices that 5 green cubes and 3 blue cubes also equals 8 cubes.

Number Balance:

A student uses a number balance to investigate the commutative property. "If 8 and 2 equals 10, then I think that if I put a weight on 2 first this time and then on 8, it'll also be 10."

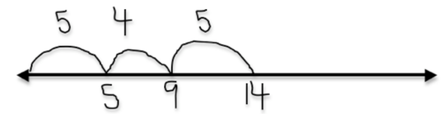


Understand and apply the properties of operations.
NC.1.OA.3 Apply the commutative and associative properties as strategies for solving addition problems.

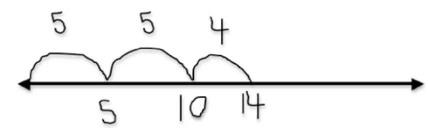
Clarification	**Checking for Understanding**
(continued) Regardless of the order, the sum remains 12.	Associative Property Examples: There are 5 red jelly beans, 4 green jelly beans, and 5 black jelly beans. How many jelly beans are there in all?

Number Line:

Student A: *First I jumped to 5. Then, I jumped 4 more, so I landed on 9. Then, I jumped 5 more and landed on 14.*



Student B: *I got 14, too, but I did it a different way. First, I jumped to 5. Then, I jumped 5 again. That's 10. Then, I jumped 4 more. See, 14!*



Mental Math:

Student: *I started by adding 5 and 5 because I know that makes 10. Then, I added 49. That's 14.*

Analyze addition and subtraction equations within 20.
NC.1.OA.7 Apply understanding of the equal sign to determine if equations involving addition and subtraction are true.

Clarification

In this standard, students develop an understanding of the meaning of the equal sign and apply their understanding in order to determine whether an equation is true. This is developed as students in Kindergarten and First Grade solve numerous joining and separating situations with mathematical tools, rather than symbols. Once the concepts of joining, separating, and "the same amount/quantity as" are developed concretely, First Graders are ready to connect these experiences to the corresponding symbols (+, -, =). Students learn that the equal sign does not mean "the answer comes next", but that the symbol signifies an equivalent relationship that the left side 'has the same value as' the right side of the equation.

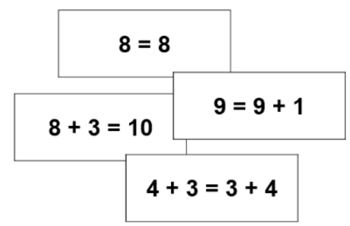
When students understand that an equation needs to "balance", with equal quantities on both sides of the equal sign, they understand various representations of equations, such as:

- operation on left side of the equal sign, and answer on right side (5+8=13)
- operation on right side of the equal sign and answer on left side (13=5+8)
- numbers on both sides of the equal sign (6=6)
- operations on both sides of the equal sign (5+2 = 4+3).

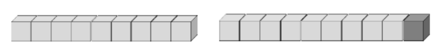
Once students understand the meaning of the equal sign, they are able to determine if an equation is true (9 = 9) or not true (9 = 8).

Checking for Understanding

Put these cards into two piles: True and Not True. Use objects, drawings, or words to explain your thinking.



Possible responses:

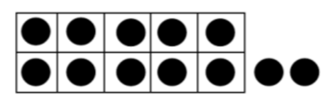
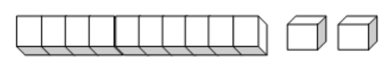
9 = 9 + 1	4 + 3 = 3 + 4
 *The equal sign means both sides have the same amount. The one side has nine, and the other side has ten. Nine and ten aren't equal.*	*It's like a balance. Both sides are balanced because they have the same amount. The numbers are flipped around, but both sides have seven.*

Return to Standards

Number and Operations in Base Ten

Extend and recognize patterns in the counting sequence **NC.1.NBT.1** Count to 150, starting at any number less than 150.	
Clarification	**Checking for Understanding**
This standard calls for students to rote count from a given number without having to go back and start at one. Students should develop accurate counting strategies that build on the understanding of how the numbers in the counting sequence are related—each number is one more (or one less) than the number before (or after). This skill builds from counting work in Kindergarten, and serves as a prerequisite skill for counting on to add. The focus of this standard is rote counting only, and does not require recognition of numerals or writing numerals.	Sample Student Interview: Teacher: Begin at 88 and count up to 102 Student: *88, 89…umm…90, 91, 92, 93, 94, 95, 96, 97, 98, 99…umm…100, 101* Teacher: I noticed you paused to think at 89. How did you figure out the next number? Student: *After each number that ends in 9, comes a number that ends in 0. So, I remembered the next number is 90.*

Return to Standards

Understand place value. **NC.1.NBT.2** Understand that the two digits of a two-digit number represent amounts of tens and ones. • Unitize by making a ten from a collection of ten ones. • Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. • Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.	
Clarification	**Checking for Understanding**
The focus of this standard is to build place value understanding through tens. First Grade students extend their work from Kindergarten when they composed and decomposed numbers from 11 to 19 into ten ones and some further ones. In Kindergarten, everything was thought of as individual units, “ones”. In First Grade, students are asked to unitize those ten individual ones as a whole unit: “*one* ten”. Students are introduced to the idea that a bundle of ten ones is called “a ten”. This is known as unitizing. Students in first grade explore the idea that the teen numbers (11 to 19) can be expressed as *one* ten and some leftover ones. When students unitize a group of ten ones as a whole unit (“a ten”), they are able to count groups as though they were individual objects. For example, 4 trains of ten cubes each have a value of 10 and would be counted as 40 ones or as 4 tens. This can often be challenging for young children to consider a group of something as “one” when all previous experiences have been counting single objects. This is the foundation of the place value system and requires time and rich experiences with concrete manipulatives to develop.	Here is a pile of 12 cubes. Do you have enough to make a ten? Would you have any leftover? If so, how many leftovers would you have? Student A: *I filled a ten frame to make a ten and had two counters left over. The number 12 has 1 ten and 2 ones.*  Student B: *I counted out 12 cubes. I had enough to make 10. I now have 1 ten and 2 cubes left over. The number 12 has 1 ten and 2 ones.*  Are the number 19 and 91 the same or different? **(19 91)** Teacher: Are these numbers the same or different? Students: *Different!*

Understand place value.

NC.1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones.

- Unitize by making a ten from a collection of ten ones.
- Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.

Clarification

In addition, when learning about forming groups of 10, students learn that a numeral can stand for many different amounts, depending on its position or place in a number. This is an important realization as young children begin to work through reversals of digits, particularly in the teen numbers.

Students apply their understanding of groups of ten to decade numbers (e.g. 10, 20, 30, 40). As they work with groupable objects, students understand that 10, 20, 30…80, 90 are comprised of a certain amount of groups of tens with none left-over.

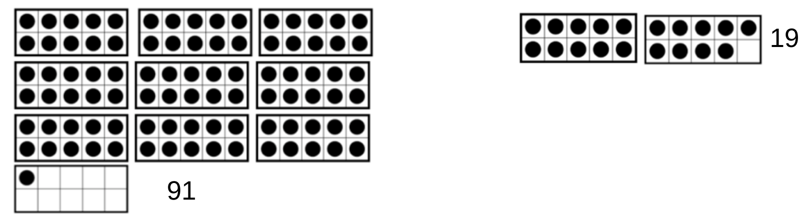
A deep understanding of place value is developed over time as students have ample experiences with a variety of groupable materials (i.e., materials that can be grouped, snapped, or connected to make a ten). Pre-grouped materials (i.e., materials like base ten blocks and bean sticks, which must be traded to make a ten) are not introduced until a student has a firm understanding of composing and decomposing ten. Additionally, students should have access to proportional manipulatives, meaning the size of "ten" is ten times bigger than one single manipulative. Coins could cause a misconception with regards to developing an understanding of place value.

Checking for Understanding

Teacher: Why do you think so?

Student A: *Even though they both have a one and a nine, I know the 1 in 19 represents one group of ten. The 1 in 91 represents 1 one.*

Student B: *I know the 9 in 91 represents nine groups of tens. The 9 in 19 represents 9 ones.*



Return to Standards

Use place value understanding and properties of operations.

NC.1.NBT.4 Using concrete models or drawings, strategies based on place value, properties of operations, and explaining the reasoning used, add, within 100, in the following situations:

- A two-digit number and a one-digit number
- A two-digit number and a multiple of 10

Clarification

In this standard, students use concrete materials, models, drawings and place value strategies to add within 100. Students move beyond basic facts and draw on their understanding of the base-ten system (i.e., composing groups of ten from ten ones, and recognizing that a digit's value is determine by its place) to begin developing strategies for adding one and two digit numbers.

The focus of this standard is to develop an understanding of multi-digit addition. The standard algorithm of carrying or borrowing is neither an expectation nor a focus in First Grade. Students develop strategies for addition and subtraction in Grades K-3.

Checking for Understanding

24 red apples and 8 green apples are on the table. How many apples are on the table?

Possible responses:

Student A:

I used ten frames. I put 24 chips on 3 ten frames. Then, I counted out 8 more chips. 6 of them filled up the third ten frame. That meant I had 2 left over. 3 tens and 2 left over. That's 32. So, there are 32 apples on the table.

Use place value understanding and properties of operations.

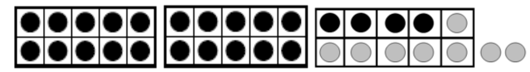
NC.1.NBT.4 Using concrete models or drawings, strategies based on place value, properties of operations, and explaining the reasoning used, add, within 100, in the following situations:

- A two-digit number and a one-digit number
- A two-digit number and a multiple of 10

Clarification	**Checking for Understanding**
	(see below)

Checking for Understanding

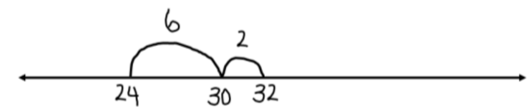
24 + 6 = 30
30 + 2 = 32



Student B:

I used an open number line. I started at 24. I knew that I needed 6 more jumps to get to 30. So, I broke apart 8 into 6 and 2. I took 6 jumps to land on 30 and then 2 more. I landed on 32. So, there are 32 apples on the table.

24 + 6 = 30
30 + 2 = 32



Student C:

I turned 8 into 10 by adding 2 because it's easier to add.
So, 24 and ten more is 34.
But, since I added 2 extra, I had to take them off again.
34 minus 2 is 32. There are 32 apples on the table.

8 + 2 = 10
24 + 10 = 34
34 – 2 = 32

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63 apples are in the basket. Mary put 20 more apples in the basket. How many apples are in the basket?

Possible responses:

Student A:

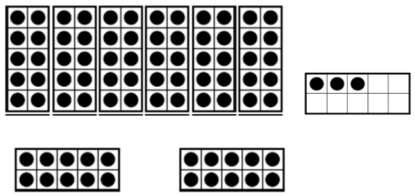
Use place value understanding and properties of operations.

NC.1.NBT.4 Using concrete models or drawings, strategies based on place value, properties of operations, and explaining the reasoning used, add, within 100, in the following situations:

- A two-digit number and a one-digit number
- A two-digit number and a multiple of 10

Clarification	**Checking for Understanding**

I *used ten frames. I picked out 6 filled ten frames. That's 60. I got the ten frame with 3 on it. That's 63. Then, I picked one more filled ten frame for part of the 20 that Mary put in. That made 73. Then, I got one more filled ten frame to make the rest of the 20 apples from Mary. That's 83. So, there are 83 apples in the basket.*



63 + 10 = 73
73 + 10 = 83

Student B:
I used a hundreds chart. I started at 63 and jumped down one row to 73. That means I moved 10 spaces. Then, I jumped down one more row (that's another 10 spaces) and landed on 83. So, there are 83 apples in the basket.

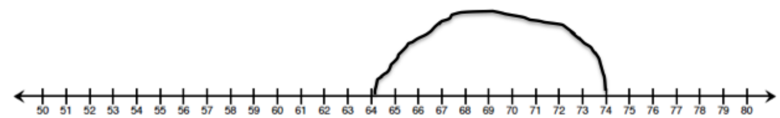
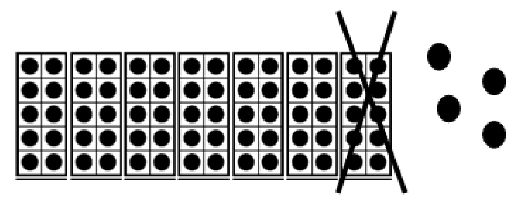
63 + 10 = 73
73 + 10 = 83

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Student C:
I knew that 10 more than 63 is 73. And 10 more than 73 is 83. So, there are 83 apples in the basket.

Return to Standards

Use place value understanding and properties of operations.
NC.1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

Clarification	Checking for Understanding
In this standard, students build on their counting by tens work in Kindergarten by mentally adding ten more and ten less than any number less than 100. First graders are not expected to compute differences of two-digit numbers other than multiples of ten. Using representations that allow students to think about groups of ten leads them to moving beyond rote counting and into being able to solve these problems mentally. Students should be able to explain their reasoning using manipulatives, pictures, numbers, or words.	There are 74 birds in the park. 10 birds fly away. How many birds are in the park now? *Possible responses:* Student A *I thought about a number line. I started at 74. Then, because 10 birds flew away, I took a leap of 10. I landed on 64. So, there are 64 birds left in the park.*  Student B *I pictured 7 ten frames and 4 left over in my head. Since 10 birds flew away, I took one of the ten frames away. That left 6 ten frames and 4 left over. So, there are 64 birds left in the park.*  Student C *I know that 10 less than 74 is 64. So, there are 64 birds in the park.*

Return to Standards

Use place value understanding and properties of operations.
NC.1.NBT.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90, explaining the reasoning, using:
- Concrete models and drawings
- Number lines
- Strategies based on place value
- Properties of operations
- The relationship between addition and subtraction

Clarification	Checking for Understanding
This standard calls for students to move beyond determining “10 less” to work with multiples of 10. Students use concrete models, drawings, place value	There are 60 students in the gym. 30 students leave. How many students are still in the gym?

Use place value understanding and properties of operations.

NC.1.NBT.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90, explaining the reasoning, using:

- Concrete models and drawings
- Number lines
- Strategies based on place value
- Properties of operations
- The relationship between addition and subtraction

Clarification

strategies, and the relationship between addition and subtraction to subtract multiples of 10 from decade numbers (e.g., 30, 40, 50).

First graders are not expected to compute differences of two-digit numbers other than multiples of ten. Students are expected to explain their reasoning using pictures, numbers, or words.

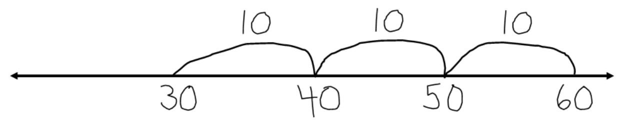
Checking for Understanding

Possible responses:

Student A

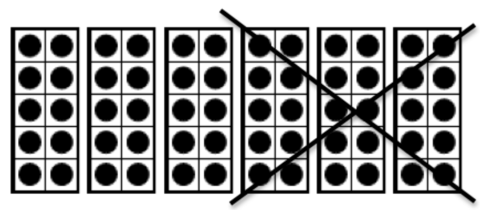
I used a number line. I started at 60 and moved back 3 jumps of 10 and landed on 30. There are 30 students left.

60 – 10 = 50
50 – 10 = 40
40 – 10 = 30



Student B

I used ten frames. I had 6 ten frames- that's 60. I removed three ten frames because 30 students left the gym. There are 30 students left in the gym.



60 – 30 = 30

Student C

I thought, "30 and what makes 60?". I know 3 and 3 is 6. So, I thought that 30 and 30 makes 60. There are 30 students still in the gym.

30 + 30 = 60

Return to Standards