TEAM
Student Growth Portfolio Rubric
First Grade
Mathematics

Blank

First Grade Mathematics		
OPERATIONS AND ALGEBRAIC THINKING (OA)		
Cluster: A. Represent and solve problems involving addition and subtraction.		
Standard: 1.OA.A.1 Add and subtract within 20 to solve contextual problems, with unknowns in all positions, involving situations of add to, take from, put together/take apart, and compare. Use objects, drawings, and equations with a symbol for the unknown number to represent the problem.		
0	Teacher presents student with 4 addition and subtraction contextual problems within 20, one of each type below: 1) add to-change unknown, 2) take from-change unknown, 3) put together/take apart-both addends unknown, and 4) compare-difference unknown.	• Student completes **none** of the problems accurately. • Student represents these problems with a mathematical drawing, diagram, or equation.
1	Teacher presents student with 4 addition and subtraction contextual problems within 20, one of each type below: 1) add to-change unknown, 2) take from-change unknown, 3) put together/take apart-both addends unknown, and 4) compare-difference unknown.	• Student completes **only 1** accurately. • Student represents these problems with a mathematical drawing, diagram, or equation.
2	Teacher presents student with 4 addition and subtraction contextual problems within 20, one of each type below: 1) add to-change unknown, 2) take from-change unknown, 3) put together/take apart-both addends unknown, and 4) compare-difference unknown.	• Student completes **2 or 3** accurately. • Student represents these problems with a mathematical drawing, diagram, or equation.
3	Teacher presents student with 4 addition and subtraction contextual problems within 20, one of each type below: 1) add to-change unknown, 2) take from-change unknown, 3) put together/take apart-both addends unknown, and 4) compare-difference unknown.	• Student completes **all 4** accurately. • Student represents these problems with a mathematical drawing, diagram, or equation.
4	Teacher presents student with **6** addition and subtraction contextual problems within 20, one of each type below: 1) add to-change unknown, 2) take from-change unknown, 3) put together/take apart-both addends unknown, and 4) compare-difference unknown. 5) **compare-bigger unknown (version with more), and** 6) **compare-smaller unknown (version with fewer).**	• Student completes **all 6** accurately. • Student represents these problems with a mathematical drawing, diagram, or equation. • Students should only be presented with situations 5 and 6 if the student correctly completes the first 4.

<table>
<tr><td>5</td><td>Teacher presents student with 7 addition and subtraction contextual problems within 20, one of each type below:
1) add to-change unknown,
2) take from-change unknown,
3) put together/take apart-both addends unknown,
4) compare-difference unknown,
5) compare-bigger unknown (version with more),
6) compare-smaller unknown (version with fewer), and
7) add to-start unknown/take from-start unknown.</td><td>• Student completes all 7 accurately.
• Student represents these problems with a mathematical drawing, diagram, or equation.
• Students should only be presented with situation 7 if they correctly complete the first 6.</td></tr>
<tr><td>6*</td><td colspan="2">In addition to providing evidence that the student met the expectations of level 5:
• Teacher presents student with two, two-step contextual problems within 20, one addition and one subtraction.
o Student accurately represents these problems with two equations that encompass both steps needed to solve the problem.
AND
• Teacher presents student with two, one-step equations arising from any two of the following different types of situations:
1) add to-change unknown,
2) take-from-change unknown,
3) put together/take apart-both addends unknown,
4) compare-difference unknown,
5) compare-bigger unknown (version with more), or
6) compare-smaller unknown (version with fewer).
o Student accurately creates two unique contextual problems that could be solved using the provided equations.</td></tr>
<tr><td>7*</td><td colspan="2">In addition to providing evidence that the student met the expectations of levels 5 and 6:
• Teacher provides student with a two-step equation involving both addition and subtraction,
o Student accurately creates a contextual problem that could be solved using the provided equation.</td></tr>
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First Grade Mathematics

OPERATIONS AND ALGEBRAIC THINKING (OA)

Cluster: A. Represent and solve problems involving addition and subtraction.

Standard: 1.OA.A.2 Add three whole numbers whose sum is within 20 to solve contextual problems using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

0	Teacher presents student with **two contextual problems of each type** below with three whole numbers whose sum is within 20: 1) add to-result unknown, and 2) put together/take apart-total unknown.	• Student accurately completes **none** of the problems for either type of situation (0 total correct). • Student must represent these problems with a mathematical drawing or objects, and an equation.
1	Teacher presents student with **two contextual problems of each type** below with three whole numbers whose sum is within 20: 1) add to-result unknown, and 2) put together/take apart-total unknown.	• Student accurately completes **one problem for either type** of situation (1 total correct). • Student must represent these problems with a mathematical drawing or objects, and an equation.
2	Teacher presents student with **two contextual problems of each type** below with three whole numbers whose sum is within 20: 1) add to-result unknown, and 2) put together/take apart-total unknown.	• Student accurately completes **one problems for each type** of situation (2 total correct). • Student must represent these problems with a mathematical drawing or objects, and an equation.
3	Teacher presents student with **two contextual problems of each type** below with three whole numbers whose sum is within 20: 1) add to-result unknown, and 2) put together/take apart-total unknown.	• Student accurately completes **two problems for each type** of situation (4 total correct). • Student must represent these problems with a mathematical drawing or objects, and an equation.
4	Teacher presents student with **two contextual problems of each type** below with three whole numbers whose sum is within 20: 1) add to-result unknown, and 2) put together/take apart-total unknown 3) **add to-change unknown**, and 4) **put together/take apart-addend unknown**.	• Student accurately completes **two problems for each type** of situation (8 total correct). • Student must represent these problems with a mathematical drawing or objects, and an equation.
5	Teacher presents student with **two contextual problems of each type** below with three whole numbers whose sum is within 20: 1) add to-result unknown, 2) put together/take apart-total unknown, 3) add to-change unknown, 4) put together/take apart-addend unknown, and 5) **add to-start unknown**.	• Student accurately completes **two problems for each type** of situation (10 total correct). • Student must represent these problems with a mathematical drawing or objects and an equation.
6*	**In addition to providing evidence that the student met the expectations of level 5:** • Teacher presents student with two, two-step contextual problems with three whole numbers whose sum is within 20. o Student accurately completes **both** two-step contextual problems. **AND** • Teacher presents student with an equation involving addition of three whole numbers whose sum is within 20. o Student accurately creates an add to-start unknown contextual problem that can be solved using the provided equation. o Student must represent these problems with a mathematical drawing or diagram, and equations with a symbol for the unknown number.	
7*	**In addition to providing evidence that the student met the expectations of levels 5 and 6:** • Teacher presents student with an all addends unknown contextual problem with three whole numbers whose sum is within 20. o Student accurately completes the contextual problem and represents this problem with a mathematical drawing or diagram and an equation. **AND** • Teacher presents student with an equation involving addition of three whole numbers whose sum is within 20. o Student accurately creates **two** different contextual problems that can be solved using the provided equation. Student must represent these problems with a mathematical drawing or diagram and an equation with a symbol for the unknown number.	

First Grade Mathematics		
OPERATIONS AND ALGEBRAIC THINKING (OA)		
Cluster: B. Understand and apply properties of operations and the relationship between addition and subtraction.		
Standard: 1.OA.B.3 Apply properties of operations (additive identity, commutative, and associative) as strategies to add and subtract. (Students need not use formal terms for these properties.)		
0	Teacher presents student with **two examples for each** property of operations (additive identity, commutative, and associative) as strategies to add within 20.	Student accurately completes **no** examples for any property of operation (0 total correct).
1	Teacher presents student with **two examples for each** property of operations (additive identity, commutative, and associative) as strategies to add within 20.	Student accurately completes **two examples for one property** of operation (2 total correct).
2	Teacher presents student with **two examples for each** property of operations (additive identity, commutative, and associative) as strategies to add within 20.	Student accurately completes **two examples for two properties** of operation (4 total correct).
3	Teacher presents student with **two examples for each** property of operations (additive identity, commutative, and associative) as strategies to add within 20.	Student accurately completes **two examples for all three properties** of operation (6 total correct).
4	**In addition to providing evidence that the student met expectations of level 3:** • Student must also explain or defend the accuracy of each of their answers. **AND** • Verbally or through writing, the student demonstrates an understanding that these properties do not apply to the operation of subtraction and provides examples and an explanation as to why.	
5	**In addition to providing evidence that the student met expectations of level 3 and 4**Student explains in either verbal or written form (without using the formal terms for the properties) when **one** property (additive identity, commutative, **or** associative) is useful as a strategy for addition and provide an example to justify their thinking.	
6*	**In addition to providing evidence that the student meets expectations of levels 3, 4, and 5:** Student explains in either verbal or written form (without using the formal terms for the properties) when **two** properties (additive identity, commutative, **or** associative) is useful as a strategy for addition and provide an example to justify their thinking.	
7*	**In addition to providing evidence that the student meets expectations of levels 3, 4, 5, and 6:** Student explains in either verbal or written form (without using the formal terms for the property) when **all three** properties (additive identity, commutative, **and** associative) is useful as a strategy for addition and provide an example to justify their thinking.	
Note: Mathematical tools and/or representations may be used.		

First Grade Mathematics	
OPERATIONS AND ALGEBRAIC THINKING (OA)	**Cluster: C.** Add and subtract within 20.

Standard: 1.OA.C.5 Add and subtract within 20 using strategies such as counting on, counting back, making 10, using fact families and related known facts, and composing/ decomposing numbers with an emphasis on making ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9 or adding 6 + 7 by creating the known equivalent 6 + 4 + 3 = 10 + 3 = 13).

0

- Teacher presents student with **two** addition problems each (within 20) for <u>three of the four</u> strategies below (6 total problems):
  1) counting on,
  2) making 10,
  3) using fact families (related known facts), or
  4) composing/decomposing numbers with an emphasis on making 10.
     - o **<u>Student does not accurately complete any problems (0 total correct).</u>**
     - o Students may use concrete objects or drawings.

  AND
- Teacher presents student with **two** subtraction problems each (within 20) for <u>two of the three</u> following strategies (4 total problems):
  1) counting back,
  2) using fact families (related known facts), and
  3) composing/decomposing numbers with an emphasis on making ten.
     - o **<u>Student does not accurately complete any problems (0 total correct).</u>**
     - o Students may use concrete objects or drawings.

1

- Teacher presents student with **two** addition problems each (within 20) for <u>three of the four</u> strategies below (6 total problems):
  1) counting on,
  2) making 10,
  3) using fact families (related known facts), or
  4) composing/decomposing numbers with an emphasis on making 10.
     - o **<u>Student accurately completes 2 problems for one of the strategies (2 total correct).</u>**
     - o Students may use concrete objects or drawings.

  AND
- Teacher presents student with **two** subtraction problems each (within 20) for <u>two of the three</u> following strategies (4 total problems):
  1) counting back,
  2) using fact families (related known facts), and
  3) composing/decomposing numbers with an emphasis on making ten.
     - o **<u>Student accurately completes 0-1 problems (0-1 total correct).</u>**
     - o Students may use concrete objects or drawings.

2

- Teacher presents student with **two** addition problems each (within 20) for <u>three of the four</u> strategies below (6 total problems):
  1) counting on,
  2) making 10,
  3) using fact families (related known facts), or
  4) composing/decomposing numbers with an emphasis on making 10.
     - o **<u>Student accurately completes 2 problems for two of the strategies (4 total correct).</u>**
     - o Students may use concrete objects or drawings.

  AND
- Teacher presents student with **two** subtraction problems each (within 20) for <u>two of the three</u> following strategies (4 total problems):
  1) counting back,
  2) using fact families (related known facts), and
  3) composing/decomposing numbers with an emphasis on making ten.
     - o **<u>Student accurately completes 2 problems for one of the strategies (2 total correct).</u>**
     - o Students may use concrete objects or drawings.

3

- Teacher presents student with **two** addition problems each (within 20) for <u>three of the four</u> strategies below (6 total problems):
  1) counting on,
  2) making 10,
  3) using fact families (related known facts), or
  4) composing/decomposing numbers with an emphasis on making 10.
     - o **<u>Student accurately completes all 6 problems.</u>**
     - o Students may use concrete objects or drawings.

  AND
- Teacher presents student with **two** subtraction problems each (within 20) for <u>two of the three</u> following strategies (4 total problems):
  1) counting back,
  2) using fact families (related known facts), and
  3) composing/decomposing numbers with an emphasis on making ten.
     - o **<u>Student accurately completes all 4 problems.</u>**
     - o Students may use concrete objects or drawings.

4	• Teacher presents student with **two** addition problems each (within 20) for **all four** of the strategies below (8 total problems): 1) counting on, 2) making 10, 3) using fact families (related known facts), or 4) composing/decomposing numbers with an emphasis on making 10. o **Student accurately completes all 8 problems.** o Students may use concrete objects or drawings. **AND** • Teacher presents student with **two** subtraction problems each (within 20) for **all three** of the following strategies (6 total problems): 1) counting back, 2) using fact families (related known facts), and 3) composing/decomposing numbers with an emphasis on making ten. o **Student accurately completes all 6 problems.** o Students may use concrete objects or drawings.
5	• Teacher presents student with two addition problems each (within 20) for all four of the strategies below (8 total problems): 1) counting on, 2) making 10, 3) using fact families (related known facts), or 4) composing/decomposing numbers with an emphasis on making 10. o **Student accurately completes all 8 problems.** o Students may use concrete objects or drawings. o **Student also defends the solution and explains the strategies with words and/or drawings.** **AND** • Teacher presents student with two subtraction problems each (within 20) for **all three** of the following strategies (6 total problems): 1) counting back, 2) using fact families (related known facts), and 3) composing/decomposing numbers with an emphasis on making ten. o **Student accurately completes all 6 problems.** o Students may use concrete objects or drawings. o **Student also defends the solution and explains the strategies with words and/or drawings.**
6*	**In addition to providing evidence the student met the expectations of level 5:** • Teacher asks the student to **create** an expression or equation (within 20) for two of the four strategies below (2 total problems): 1) counting on, 2) making 10, 3) using fact families (related known facts), or 4) composing/decomposing numbers with an emphasis on making 10. o **Student accurately creates an expression or equation** demonstrating when a strategy could be used **and explains** their thinking in either verbal or written for each strategy they use. **AND** • Teacher asks student to **create** an expression or equation (within 20) for one of the three following strategies (1 total problems): 1) counting back, 2) using fact families (related known facts), and 3) composing/decomposing numbers with an emphasis on making 10. o **Student accurately creates an expression or equation** demonstrating when the strategy could be used **and explains** their thinking in either verbal or written for each strategy they use.
7*	**In addition to providing evidence the student met the expectations of level 5:** • Teacher asks the student to create an expression or equation (within 20) for **all four** of the four strategies below (4 total problems): 1) counting on, 2) making 10, 3) using fact families (related known facts), or 4) composing/decomposing numbers with an emphasis on making 10. o Student **accurately creates an expression or equation** demonstrating when a strategy could be used **and explains** in either verbal or written form the mathematical benefits gained from using each strategy. **AND** • Teacher presents student with one subtraction problem (within 20) for **all three** of the following strategies (3 total problems): 1) counting back, 2) using fact families (related known facts), and 3) composing/decomposing numbers with an emphasis on making ten. o Student **accurately creates an expression or equation** demonstrating when a strategy could be used **and explains** their thinking in either verbal or written form for each strategy they use.

First Grade Mathematics		
OPERATIONS AND ALGEBRAIC THINKING (OA)		
Cluster: D. Work with addition and subtraction equations.		
Standard: 1.OA.D.8 Determine the unknown whole number in an addition or subtraction equation, with the unknown in any position (e.g., 8 +? = 11, 5 =? - 3, 6 + 6 =?).		
0	Teacher presents student with the following three tasks. 1) When presented with two addition and two subtraction "total unknown" equations within 20, student determines the whole number answer for all four equations. 2) When presented with two addition and two subtraction "change unknown" equations within 20, student determines the whole number answer for all four equations. 3) When presented with two addition OR two subtraction "start unknown" equations within 10, student determines the whole number answer for both equations.	Student **does not** correctly complete any of the tasks.
1	Teacher presents student with the following three tasks. 1) When presented with two addition and two subtraction "total unknown" equations within 20, student determines the whole number answer for all four equations. 2) When presented with two addition and two subtraction "change unknown" equations within 20, student determines the whole number answer for all four equations. 3) When presented with two addition OR two subtraction "start unknown" equations within 10, student determines the whole number answer for both equations.	Student correctly completes task 1 **or** 2.
2	Teacher presents student with the following three tasks. 1) When presented with two addition and two subtraction "total unknown" equations within 20, student determines the whole number answer for all four equations. 2) When presented with two addition and two subtraction "change unknown" equations within 20, student determines the whole number answer for all four equations. 3) When presented with two addition OR two subtraction "start unknown" equations within 10, student determines the whole number answer for both equations.	Student correctly completes tasks 1 **and** 2.
3	Teacher presents student with the following three tasks. 1) When presented with two addition and two subtraction "total unknown"" equations within 20, student determines the whole number answer for all four equations. 2) When presented with two addition and two subtraction "change unknown" equations within 20, student determines the whole number answer for all four equations. 3) When presented with two addition **OR** two subtraction "start unknown" equations within 10, student determines the whole number answer for both equations.	Student correctly completes **all three** tasks.

4	Teacher presents student with the following three tasks. 1) When presented with two addition and two subtraction "total unknown" equations within 20, student correctly determines the whole number answer for all four equations. 2) When presented with two addition and two subtraction "change unknown" equations within 20, student correctly determines the whole number answer for all four equations. 3) When presented with two addition **AND** two subtraction "start unknown" equations within 10, student determines the whole number answer for all four equations.	Student correctly completes **all three** tasks.
5	Teacher presents student with the following four tasks. 1) When presented with two addition and two subtraction "total unknown" equations within 20, student determines the whole number answer for all four equations. 2) When presented with two addition and two subtraction "change unknown" equations within 20, student determines the whole number answer for all four equations. 3) When presented with two addition **AND** two subtraction "start unknown" equations within 10, student determines the whole number answer for all four equations. 4) **When presented with two addition and two subtraction equations containing equivalent expressions within 20 (e.g., 7 + 4 =? + 8 or 10 - 6 = 9 - ?), student identifies the unknown whole number in all four equations.**	Student correctly completes **all four** tasks.
6*	**In addition to providing evidence the student met the expectations of level 5:** Student is presented with two equations each with one unknown value, an addition expression within 20 on one side of the equal sign, and a subtraction expression within 20 on the other side of the equal sign (e.g., 7 + 4 = 15 - ?). The unknown value should be within the addition expression for one equation and within the subtraction expression for the other equation.	Student correctly identifies the unknown number in **both** equations.
7*	**In addition to providing evidence the student met the expectations of level 5 and 6:** Student is presented with an equation with two unknown values, an addition expression on one side of the equal sign, and a subtraction expression on the other side of the equal sign. Both expressions should contain an unknown value (e.g. + 3 =? - 5).	Student generates a list of **5 possible** values for the unknowns that would keep the value of both expressions within 20.

First Grade Mathematics		
NUMBERS AND OPERATIONS IN BASE TEN (NBT)		
Cluster: A. Extend the counting sequence.		
Standard: 1.NBT.A.1 Count to 120, starting at any number. Read and write numerals to 120 and represent a number of objects with a written numeral. Count backward from 20.		
0	Teacher presents student with the following four tasks. 1) Count to 120, starting at any number, by ones. 2) Read and write numerals to 120. 3) Represent a number of objects (within 120) with a written numeral. 4) Count backward from 20 by ones.	Student **does not** accurately complete any of the tasks.
1	Teacher presents student with the following four tasks. 1) Counts to 120, starting at any number, by ones. 2) Reads and writes numerals to 120. 3) Represents a number of objects (within 120) with a written numeral. 4) Counts backward from 20 by ones.	Student accurately completes **one** task.
2	Teacher presents student with the following four tasks. 1) Counts to 120, starting at any number, by ones. 2) Reads and writes numerals to 120. 3) Represents a number of objects (within 120) with a written numeral. 4) Counts backward from 20 by ones.	Student accurately completes **2-3** tasks.
3	Teacher presents student with the following four tasks. 1) Counts to 120, starting at any number, by ones. 2) Reads and writes numerals to 120. 3) Represents a number of objects (within 120) with a written numeral. 4) Counts backward from 20 by ones.	Student accurately completes **all 4** tasks.
4	Teacher presents student with the following five tasks. 1) Counts to 120 by **ones, twos, and tens**, starting at any number. 2) **Identifies a missing number in a given counting sequence when counting by ones**. 3) Reads and writes numerals to 120. 4) Represents a number of objects (within 120) with a written numeral. 5) Counts backward from 20 by ones and **fives**.	Student accurately completes **all 5** tasks.
5	Teacher presents student with the following five tasks. 1) Counts to 120 by ones, twos, **fives**, tens, and **twenties** starting at any number. 2) Identifies a missing number in a given counting sequence when counting by ones, **twos, fives, and tens.** 3) Reads and writes numerals to 120. 4) Represents a number of objects (within 120) with a written numeral. 5) Counts backward from 20 by ones, **twos,** and fives.	Student accurately completes **all 5** tasks.
6*	Teacher presents student with the following six tasks. 1) Counts to 120 by ones, twos, threes, fours, fives starting at any number. 2) Counts to 120 by both tens and twenties starting at any number and **mathematically explain the relationship between the two patterns.** 3) Identifies a missing number in a given counting sequence when counting by ones, twos, **threes**, **fours**, fives, **sixes**, and tens, and **provides the rule for the pattern**. 4) Reads and writes numerals to 120. 5) Represents a number of objects (within 120) with a written numeral. 6) Counts backward from 20 by ones, twos, and fives.	Student accurately completes **all 6** tasks.
7*	Teacher presents student with the following six tasks. 1) Counts to 120 by any **number increment** between 1 and 10 starting with any number. 2) Counts to 120 by both tens and twenties, **threes and sixes**, and **fours and eights** starting at zero. **Mathematically explains and generalizes the relationship that exists between all 3 pairs.** 3) Identifies a missing number in a given counting sequence when counting by any increment between 2 and 10 and provides the rule for the pattern. 4) Reads and writes numerals to 120. 5) Represents a number of objects (within 120) with a written numeral. 6) Counts backward from any number between 10 and 20 by ones, twos, and fives.	Student accurately completes **all 6** tasks.

First Grade Mathematics	
NUMBERS AND OPERATIONS IN BASE TEN (NBT)	
Cluster: B. Understand place value.	
Standard: 1.NBT.B.2 Know that the digits of a two-digit number represent groups of tens and ones (e.g., 39 can be represented as 39 ones, 2 tens and 19 ones, or 3 tens and 9).	
0	• Teacher presents student with a 2-digit number and prompts the student to represent the number as groups of tens and ones in as many ways as they can. o Student does not accurately represents the number as groups of tens and ones. **AND** • Teacher presents student with a different 2-digit number and the same prompt. o Student does not accurately represent the new number as groups of tens and ones. *Cubes or base ten blocks may be used.
1	• Teacher presents student with a 2-digit number and prompts the student to represent the number as groups of tens and ones in as many ways as they can. o Student accurately represents the number as groups of tens and ones in **<u>one way</u>**. **AND** • Teacher presents student with a different 2-digit number and the same prompt. o Student accurately represents the new number as groups of tens and ones in **<u>one way.</u>** *Cubes or base ten blocks may be used.
2	• Teacher presents student with a 2-digit number and prompts the student to represent the number as groups of tens and ones in as many ways as they can. o Student accurately represents the number as groups of tens and ones in **<u>two different ways</u>**. **AND** • Teacher presents student with a different 2-digit number and the same prompt. o Student accurately represents the new number as groups of tens and ones in **<u>two different ways.</u>** *Cubes or base ten blocks may be used.
3	• Teacher presents student with a 2-digit number and prompts the student to represent the number as groups of tens and ones in as many ways as they can. o Student accurately represents the number as groups of tens and ones in **<u>three different ways</u>** (e.g., 39 can be represented as 39 ones, 1 ten and 29 ones, 2 tens and 19 ones, or 3 tens and 9 ones). **AND** • Teacher presents student with a different 2-digit number and the same prompt. o Student accurately represents the new number as groups of tens and ones in **<u>three different ways.</u>** *Cubes or base ten blocks may be used.
4	• Teacher presents student with a 2-digit number larger than 50 and prompts the student to represent the number as groups of tens and ones in as many ways as they can. o Student accurately represents the number as groups of tens and ones in **<u>all possible</u>** ways. *Cubes or base ten blocks may be used.
5	• Teacher presents student with a 2-digit number larger than 50 and prompts the student to represent the number as groups of tens and ones in as many ways as they can. o Student accurately represents the number as groups of tens and ones in **<u>all possible</u>** ways. o Student also **<u>justifies</u>** that all representations have been used. *Cubes or base ten blocks may be used.
6*	• Teacher presents student with a 2-digit number larger than 50 and prompts the student to represent the number as groups of tens and ones in as many ways as they can. o Student accurately represents the number as groups of tens and ones in **<u>all possible</u>** ways. o Student also **<u>justifies</u>** that all representations have been used. *Student does **not** use manipulatives.
7*	**In addition to providing evidence that the student met the expectations of level 6:** Student explains how to systematically list all of the different ways to break down a two-digit number into groups of tens and ones to guarantee that all possible ways have been generated and provides an explanation as to why the system works.

First Grade Mathematics		
NUMBERS AND OPERATIONS IN BASE TEN (NBT)		
Cluster: B. Understand place value.		
Standard: 1.NBT.B.3 Compare two two-digit numbers based on the meanings of the digits in each place and use the symbols >, =, and < to show the relationship.		
0	Teacher presents student with **6** examples of comparison problems using two two-digit numbers, two examples where the first number is larger, two examples where the first number is smaller, and two examples where both numbers are equal.	Student **does not** accurately compare **any** examples based on the meanings of the digits in each place using the symbols greater than, less than, and equal to represent the relationship between the numbers.
1	Teacher presents student with **6** examples of comparison problems using two two-digit numbers, two where the first number is larger, two where the first number is smaller, and two where both numbers are equal.	Student accurately compares **1-3 examples** based on the meanings of the digits in each place using the symbols greater than, less than, and equal to represent the relationship between the numbers.
2	Teacher presents student with **6** examples of comparison problems using two two-digit numbers, two where the first number is larger, two where the first number is smaller, and two where both numbers are equal.	Student accurately compares **at 4-5 examples** based on the meanings of the digits in each place using the symbols greater than, less than, and equal to represent the relationship between the numbers.
3	Teacher presents student with **6** examples of comparison problems using two two-digit numbers, two where the first number is larger, two where the first number is smaller, and two where both numbers are equal.	Student accurately compares **all 6 examples** based on the meanings of the digits in each place using the symbols greater than, less than, and equal to represent the relationship between the numbers.
4	**In addition to providing evidence the student met the expectations for level 3:** Student **justifies** each comparison (oral or written) by reasoning about meaning of the digits (e.g., 58 is more than 48 because 58 has 5 tens and 8 ones while 48 has 4 tens and 8 ones; or, 56 is less than 59 because they both have 5 tens but 6 ones in 56 is less than 9 ones in 59).	
5	**In addition to providing evidence the student met the expectations of level 3 and 4:** • Teacher presents student with five two-digit numbers and prompts the student to place them in order from least to greatest or greatest to least. o Student **accurately orders the numbers** based on the meanings of the digits in each place and uses the symbols > or < to show the relationships. Student provides **justification** for the comparison (oral or written) by explaining the reasoning used. • Teacher presents student with a different set of five two-digit numbers and uses the same prompt. o Student **accurately orders the second group of numbers** based on the meanings of the digits in each place and uses the symbols > or < to show the relationships. Student provides **justification** for the comparison (oral or written) by explaining the reasoning used.	
6*	**In addition to providing evidence the student met the expectations of level 3, 4, and 5:** • Teacher presents student with two addition **and/or** subtraction expressions (values are less than 100). o Student **accurately compares the two expressions** based on the meanings of the digits from the resulting sum or difference or the relationship that exists between the magnitude of the numbers and the operation. The student **correctly uses the symbols** >, =, and < to show the relationship; and provides **justification** for the comparison (oral or written) by explaining the reasoning used (e.g., 37 + 12 > 37 + 10 because 49 > 47 or 37 + 12 is greater because 12 is a greater number than 10 and both are being added to the same quantity. 33 + 24 < 45 + 39 because 57 < 84 or 33 is less than 45 and 24 is less than 39 so the sum of 33 + 24 will be less than the sum of 45 + 39).	
7*	**In addition to providing evidence that the student met the expectations of level 3, 4, 5, and 6:** • Teacher presents student with five addition and subtraction expressions (values are less than 100) and prompts the student to order them from either least to greatest or greatest to least. o Student **accurately orders all expressions** based on their value, **correctly uses the symbols** > and < to show the relationship, and provides **justification** for the comparisons (oral or written) by explaining the reasoning used.	

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First Grade Mathematics	
NUMBERS AND OPERATIONS IN BASE TEN (NBT)	
Cluster: C. Use place value understanding and properties of operations to add and subtract.	
Standard: 1.NBT.C.4 Add a two-digit number to a one-digit number and a two-digit number to a multiple of ten (within 100). Use concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to explain the reasoning used.	
0	When presented with the 2 tasks below, student **<u>does not</u> accurately complete either** task: • Teacher presents student with two problems that require adding a two-digit number to a one-digit number (within100) where **<u>composing a ten is not required</u>** (e.g., 12+4). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. • Teacher presents student with two problems that require adding a two-digit number to a multiple of ten (within 100). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *No context is provided. Equations may be in vertical or horizontal formats.
1	When presented with the 2 tasks below, student **accurately completes <u>one</u>** task: • Teacher presents student with two problems that require adding a two-digit number to a one-digit number (within100) where **<u>composing a ten is not required</u>** (e.g., 12+4). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. • Teacher presents student with two problems that require adding a two-digit number to a multiple of ten (within 100). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *No context is provided. Equations may be in vertical or horizontal formats.
2	When presented with the 2 tasks below, student **accurately completes <u>both</u>** tasks: • Teacher presents student with two problems that require adding a two-digit number to a one-digit number (within100) where **<u>composing a ten is not required</u>** (e.g., 12+4), o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. • Teacher presents student with two problems that require adding a two-digit number to a multiple of ten (within 100). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *No context is provided. Equations may be in vertical or horizontal formats.
3	When presented with the 2 tasks below, student **accurately completes <u>both</u>** tasks: • Teacher presents student with two problems that require adding a two-digit number to a one-digit number (within 100) where **<u>composing a ten is required</u>** (e.g., 39+4). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. • Teacher presents student with two problems that require adding a two-digit number to a multiple of ten (within 100). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. *No context is provided. Equations may be in vertical or horizontal formats.

4	When presented with the 2 tasks below, student **accurately completes <u>both</u>** tasks: • Teacher presents student with two problems that require adding a two-digit number to a one-digit number (within100) where **<u>composing a ten is required</u>** (e.g., 39+4). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Student **<u>explains</u>** how the strategy was used and beneficial in solving the problem. • Teacher presents student with two problems that require adding a two-digit number to a multiple of ten (within 100). o Student **<u>accurately represents both answers</u>** using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Student **<u>explains</u>** how the strategy was used and beneficial in solving the problem. *No context is provided. Equations may be in vertical or horizontal formats.
5	When presented with the 2 tasks below, student **accurately completes <u>both</u>** tasks: • Teacher presents student with two problems that require adding a two-digit number to a one-digit number (within100) where **<u>composing a ten is required</u>** (e.g., 39+4). o Student **<u>accurately represents both answers</u>** using **<u>two different strategies</u>** and **<u>explains</u>** the similarities and differences between the two strategies. • Teacher presents student with two problems that require adding a two-digit number to a multiple of ten (within 100). o Student **<u>accurately represents both answers</u>** using **<u>two different strategies</u>** and **<u>explains</u>** the similarities and differences between the two strategies. *No context is provided. Equations may be in vertical or horizontal formats.
6*	When presented with the 2 tasks below, student **accurately completes <u>both</u>** tasks: • Teacher presents student with two problems that require adding a two-digit number to a one-digit number (within100) where **<u>composing a ten is required</u>** (e.g., 39+4). o Student **<u>accurately represents both answers</u>** using **<u>two different strategies</u>**, **<u>explains</u>** the similarities and differences between the two strategies, and provides **<u>mathematical justification</u>** on how both strategies are correct as well as a **<u>description or example</u>** showing when each strategy is the most useful. • Teacher presents student with two problems that require adding a two-digit number to a multiple of ten (within 100). o Student **<u>accurately represents both answers</u>** using **<u>two different strategies</u>**, **<u>explains</u>** the similarities and differences between the two strategies, and provides **<u>mathematical justification</u>** on how both strategies are correct as well as a **<u>description or example</u>** showing when each strategy is the most useful. *No context is provided. Equations may be in vertical or horizontal formats.
7*	**In addition to providing evidence that a student has met the expectations of level 6:** • Teacher provides student with a problem containing the sum of a two-digit number and a one-digit number (within 100) where composing a ten is required (i.e. 39 + 4) that has been worked out with all work shown and contains an error that is the result of a common misunderstanding. o Student **<u>accurately finds the mistake, corrects the mistake, and explains the mathematical misunderstanding</u>** that would have caused the mistake to occur. **AND** • Teacher provides student with a problem containing the sum of a two-digit number and a multiple of ten (within 100) that has been worked out with all work shown and contains an error that is the result of a common misunderstanding. o Student **<u>accurately finds the mistake, corrects the mistake, and explains the mathematical misunderstanding</u>** that would have caused the mistake to occur.