Foundational Lessons for Accelerating Math Education (FLAME)
Unit Assessments

Purpose

Foundational Lessons for Accelerating Math Education (FLAME) provides teachers with tools to build, track, and support the development of grade-level math fluency for students in grades K-5. Materials are organized into three units per grade level. Each unit provides teachers with various activities designed to support the development of the expected fluency skills at each grade level. Units also include guidance to help teachers identify students whose skills are fluent, progressing, or emerging. Each unit provides parent reports explaining how families can support their child's learning.

FLAME unit assessments provide opportunities for students to apply skills and fluency built throughout the use of FLAME lessons. These assessments also provide opportunities for students to explain their thinking and processes to give teachers a deeper understanding of the student's knowledge and more information to make informed decisions about next steps for the student. FLAME unit assessment items along with the formative assessments included in each unit, can be used to track students' progress toward fluency.

Teachers should anticipate that some of their students will need additional practice with the skills beyond what is provided through the activities. By using the data collected through daily formative assessments and unit assessments and growing understanding of fluency development, teachers have the power to ensure that their students will build grade-appropriate fluency skills.

Manipulatives

All students in kindergarten through Grade 1 should be allowed to use manipulatives on all FLAME unit assessments. Additionally, any student at any grade who has documented accommodations to use manipulatives should be allowed to use them on FLAME unit assessments. Beyond Grade 1, please see the rubric for the assigned question for guidance on manipulatives.
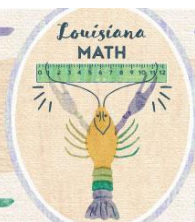
Scoring and Next Steps

If students score in the beginning range on any standard on the FLAME unit assessment please review FLAME activities for that standard with the students and readminister the FLAME unit assessment at the appropriate time for the student.

If you have additional questions or feedback on these assessments, please do not hesitate to contact the Louisiana Math team at STEM@la.gov.

Louisiana's Math Pillars

High-Quality, Grade-Level Math Instruction Timely, Proactive Interventions Ongoing Professional Learning Families

FLAME Grade 2 Unit 1 Assessment
Teacher Answer Key

Item 1

Anthony and Kate had some base-ten blocks.

Anthony said, "I can make 145 using 1 hundred, 4 tens, and 5 ones."

Kate said, "I can make 145 using 145 ones."

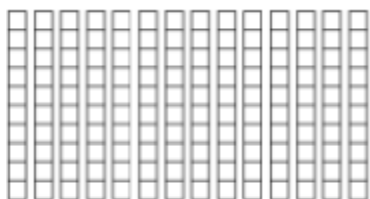Can you find a way to make 145 using only tens and ones?

Draw a picture and **write to explain your answer**.

Standard: 2.NBT.A.1
Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.

Sample Correct Drawings

Sample 1

1 ten equals 10, so 14 tens

equals 140. 5 ones is 5. So,

140 + 5 = 145.

14 tens, 5 ones

Sample 2

13 tens, 15 ones

These <u>are not</u> the only acceptable drawings. Any drawing showing 145 using only tens and ones is acceptable.

Rubric
Consistent - Student's performance demonstrates they are showing **consistent** understanding of the standard.
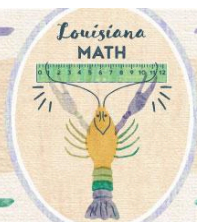- The student accurately:
  - Draws a model to show 145 using only tens and ones, representing the model in written form
                        AND
  - connects number words and numbers written in base-ten numerals with representations in the model.
                        OR
  - Demonstrates an understanding that the hundred may be exchanged for 10 tens **(student must explain that a bundle of 10 tens is a hundred)**

Students may use representations other than base-ten blocks including box, line, dot drawing of base-ten blocks, place value cards, and place value mats.

Progressing - Student's performance demonstrates they are **progressing** toward understanding the standard.
- The student accurately:
  - Draws a model to show 145 using only tens and ones

    BUT
  - is unable to accurately or clearly represent the model in written form *(there is evidence through the model that the student understands how to model numbers using visual representations, but they do not explain how the place name affects the value of the digit).*

Beginning - Student's performance demonstrates that they are **beginning** to understand the standard.
- The student:
  - **ONLY** draws a model representing 145 using hundreds, tens, and ones (*there is no written evidence*)

    OR
  - is unable to connect model to written form

    OR
  - is unable to represent 145 using a model.

Item 2

John skip counts by 10 from 760. He writes 760, 770, 780 on a number line.
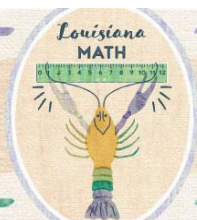

760   770   780

What are the next 5 numbers he should write on the number line?

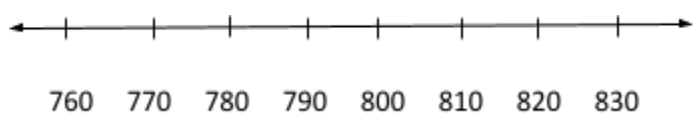**Draw a picture and write to explain your answer**.

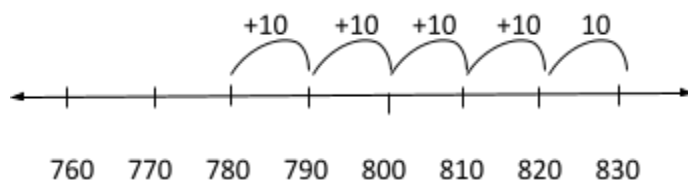**Standard: 2.NBT.A.2**
Count within 1000; skip-count by 5s, 10s, and 100s.

Sample Correct Drawings

Sample 1	Sample 2

760 770 780 790 800 810 820 830

+10 +10 +10 +10 10

760 770 780 790 800 810 820 830

I wrote 790, 800, 810, 820, and 830 because I add 10 each time.

*****These are not the only acceptable drawings. Any drawing showing accurate skip counting on a number line is acceptable.***

Rubric

Consistent - Student's performance demonstrates they are showing **consistent** understanding of the standard.
- The student accurately:
    - Labels 790, 800, 810, 820, 830 on the number line

        AND
    - uses words to explain what happens to the value of the numbers as you skip count by 10.

        OR
    - Labels 790, 800, 810, 820, 830 on the number line

        AND
    - explains how adding 1 ten to each successive number reinforces the concept that a digit's value is relative to its place-value positioning.

Progressing - Student's performance demonstrates they are **progressing** toward understanding the standard.
- The student accurately:
    - Labels 790, 800, 810, 820, 830 on the number line

        BUT
    - is unable to accurately or clearly explain place value patterns when skip counting *(the model provides evidence that the student understands how to skip count by 10; however, the student does not provide reasoning).*

Beginning - Student's performance demonstrates that they are **beginning** to understand the standard.
- The student:
    - Labels 790, 800, 810, 820, 830 on the number line but does not explain skip counting by 10.

        OR
    - is able to show that when skip counting by 10, the one's place value digit does not change.
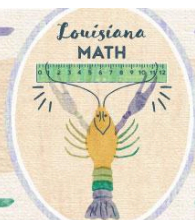
Item 3

The teacher wrote the following problem on the board.

$$9 = \boxed{} - 7$$

What number could you place in the box to make this equation true?

Explain your answer using models and words.

Standard: 2.OA.B.2
Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one-digit numbers.

Sample Correct Drawings

Sample 1	Sample 2	Sample 3	Sample 4
$9 = ? - 7$	$9 = ? - 7$	$9 = ? - 7$	
$9 + 7 = ?$	$7 + 9 = ?$	$9 + 7 = 10 + 6 = 16$	
$9 + 1 + 6$	$7 + 7 + 2$		
$10 + 6$	$14 + 2$	I took 1 from 7 and added it to 10 to make a it a friendly number.	
16	16	1 ten plus 6 ones is 16.	

$7 + 9 = 16$

These <u>are not</u> the only acceptable models. Any model that demonstrates the relationship between 9, 7, and 16 is acceptable.
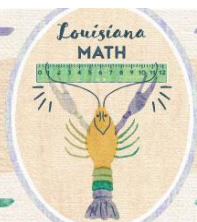
Rubric
Consistent - Student's performance demonstrates they are showing **consistent** understanding of the standard.
- The student accurately:
    - Draws a model to show how 16 is the unknown value
                                 AND
    - makes clear written connections between model and explanation of chosen strategy.
                                 OR
    - Demonstrates knowledge of procedures and strategies that demonstrate fluency
                                 AND
    - knowledge of when and how to use strategies appropriately, and skill in performing them flexibly, accurately, and efficiently.

Students may choose to use the relationship between addition and subtraction to solve this subtraction problem as a total unknown problem.

Progressing - Student's performance demonstrates they are **progressing** toward understanding the standard.
- The student accurately:
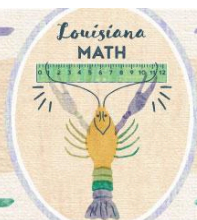   - Draws a model to show 16 is the unknown value

        BUT
    - does not connect the model to an explanation.

Beginning - Student's performance demonstrates that they are **beginning** to understand the standard.
- The student:
    - **ONLY** writes 16 as the unknown value without providing any evidence or explanation

        OR
    - Is unable to provide an appropriate strategy to support the solution.

Name _____

FLAME Grade 2 Unit 1 Assessment
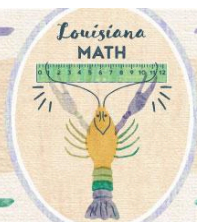
Item 1

Anthony and Kate had some base-ten blocks.

Anthony said, "I can make 145 using 1 hundred, 4 tens, and 5 ones."

Kate said, "I can make 145 using 145 ones."

Can you find a way to make 145 using only tens and ones?

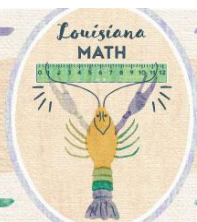**Draw a picture and write to explain your answer**.

_____

_____

_____

_____

_____

_____

Item 2

John skip counts by 10 from 760. He writes 760, 770, 780 on a number line.

760 770 780

What are the next 5 numbers he should write on the number line?

Draw a picture and write to explain your answer.

_____

_____

_____

_____

_____

_____

Item 3

The teacher wrote the following problem on the board.

$$9 = \boxed{} - 7$$

What number could you place in the box to make this equation true?

Explain your answer using models and words.

_____
_____
_____
_____
_____
_____