FLAME Grade 1 Unit 2 Assessment
Teacher Answer Key

Item 1

Anna has 5 markers and buys 10 more. Estelle has 17 markers and loses 10 of them.

How many markers does Anna have? How many markers does Estelle have?

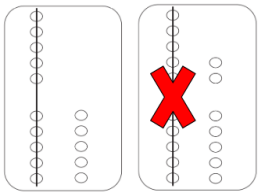
Use drawings, words, and number sentences to explain your thinking.

Extension: Who has more markers? Explain how you know. (1.NBT.B.3)

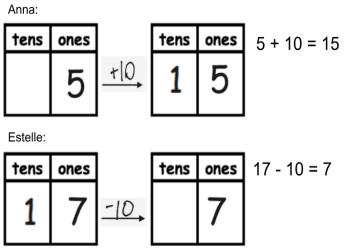
Standard: 1.NBT.C.5
Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

Sample Correct Drawings

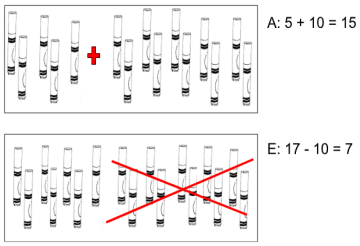
Sample 1



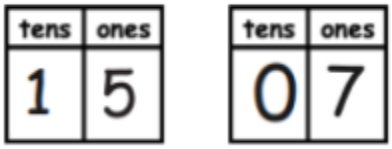
Sample 2



Sample 3 (Progressing)



Extension Example Responses:



15 is one ten and 5 ones. 7 is only 7 ones. There are no tens. I look at the tens place first to find the number that is greater. 1 ten is more than 0 tens. So 15 is greater than 7.

I can use cubes to shoe each girl's markers. Anna has 15. That is one ten and 5 ones. Estelle has 7 ones. 15 is more than 7. Anna has more markers than Estelle.

These <u>are not</u> the only acceptable drawings. Any drawing that shows pictorial representations or strategies to find the solution is acceptable.

Rubric

Consistent - Student's performance demonstrates they are showing **consistent** understanding of the standard.

- The student accurately:
  - Writes an equation that corresponds with their solution process (addition and subtraction)

    AND
  - demonstrates the ability to add or subtract 10, correctly identifying the solution to each equation

    AND
  - represents the process to accurately solve through drawings or the arrow way, demonstrating the use of a sound strategy for adding and subtracting 10

    AND
  - connects the model to a written explanation.

Progressing - Student's performance demonstrates they are **progressing** toward understanding the standard.

- The student accurately:
  - Writes an equation that corresponds with their solution process (addition and subtraction)

    AND
  - demonstrates the ability to add or subtract 10, correctly identifying the solution to each equation

    BUT
  - reasoning is unclear because the process to solve through drawings or the arrow way is inaccurate

    AND
  - is unable to connect the model to a written explanation.

Beginning - Student's performance demonstrates that they are **beginning** to understand the standard.

- The student:
  - Writes an equation that corresponds with their solution process (addition and subtraction)

    BUT
  - makes an error in mental calculation

    AND
  - reasoning is unclear because the process to solve through drawings or the arrow way is inaccurate

    AND
  - is unable to connect the model to a written explanation.

Item 2

Bailey has 8 pennies in her pocket and 7 in her wallet.

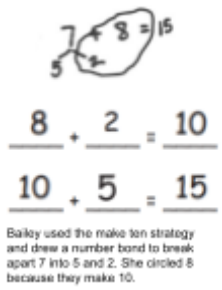
How many pennies does Bailey have in all? Show how you can solve by making ten.

Use words, math drawings, and numbers to explain your answer.

Standard: 1.OA.C.6
Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Sample Correct Drawings

Sample 1



Bailey used the make ten strategy and drew a number bond to break apart 7 into 5 and 2. She circled 8 because they make 10.

Sample 2

8 + 2 = 10
10 + 5 = 15

Bailey drew the pennies in 5-groups. She made 10 by breaking 7 into 5 and 2. She made a ten-frame to 10.

These <u>are not</u> the only acceptable drawings and explanations.*

Rubric
Consistent - Student's performance demonstrates they are showing **consistent** understanding of the standard.

- The student accurately:
  - calculates the correct answer

AND

  - writes corresponding number sentences that reflect make ten strategies

AND

  - explains thinking using a math drawing, numbers, and a complete statement.

Progressing - Student's performance demonstrates they are **progressing** toward understanding the standard.

- The student accurately:
  - calculates the correct answer

AND

  - writes corresponding number sentences that reflect the make ten strategies

BUT

  - is unable to explain using a math drawing, numbers, or complete statement

OR

  - attempts to explain their reasoning using a math drawing, numbers, and statement, but the response is incorrect or incomplete.

Beginning - Student's performance demonstrates that they are **beginning** to understand the standard.

- The student:
  - calculates the correct answer

BUT

  - is unable to write corresponding number sentences that relfect the make ten strategies

OR

  - drawing and explanation demonstrates limited understanding of the make ten strategies

OR

  - has the incorrect answer but shows some understanding through drawings or number sentences.

Item 3

Circle the true number sentence.

5 + 10 = 5 + 8	8 + 9 = 10 + 7

Explain why this number sentence is true.

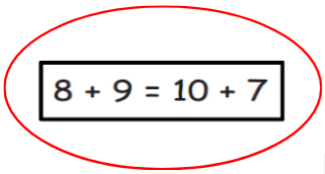
Fix the false number sentence by changing one number to make it a true number sentence. Rewrite your number sentence in the box.

Explain how you made the number sentence true.

Standard: 1.OA.D.7

Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.

Sample Correct Drawings



Sample 1

Sample 2

5 + 10 = 15. But 5 + 8 = 13. I can change the 5 to a seven since 7 + 8 is 15, just like 10 + 5.

5 + 10 = 15. But 5 + 8 = 13. I can change the 8 to a ten since 5 + 10 is 15.

5 + 8 = 13. But 5 + 10 = 15. I can change the 5 to a three since 3 + 10 = 13, just like 5 + 8.

5 + 8 = 13. But 5 + 10 = 15. I can change the 10 to an eight since 5 + 8 = 13.

Rubric

Consistent - Student's performance demonstrates they are showing **consistent** understanding of the standard.

- The student accurately:
  - finds the value of each expression

    AND
  - correctly identifies each number sentence as either true or false

    AND
  - accurately changes one number in the number sentence to make the number sentence true

    AND
  - student response demonstrates full understanding of the meaning of the equal sign.

Progressing - Student's performance demonstrates they are **progressing** toward understanding the standard.

- The student accurately:
  - finds the value of each expression

    AND
  - correctly identifies each number sentence as either true or false

    BUT
  - is unable to accurately change one number in the number sentence to make the number sentence true

    AND
  - student response demonstrates limited understanding of the meaning of the equal sign.

Beginning - Student's performance demonstrates that they are **beginning** to understand the standard.

- The student:
  - finds the value of each expression

BUT

  - is unable to identify each number sentence as either true or false

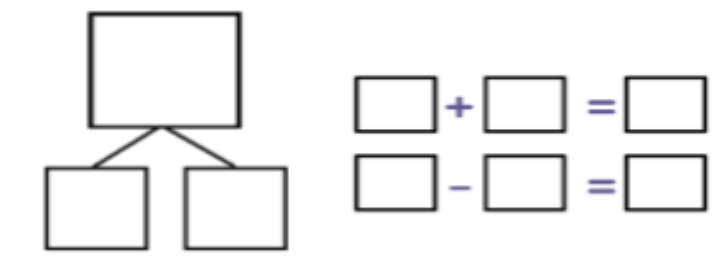
AND

  - demonstrates little to no understanding of the equal sign, and there is no evidence of reasoning.

Item 4

Ava has 16 erasers. Seven are blue, and the rest are purple.

How many of the erasers are purple? Complete the number sentences and number bond.



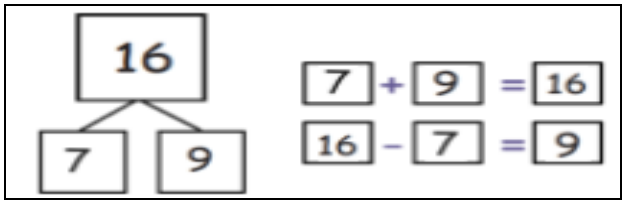
Explain your thinking using a math drawing and words.

Standard: 1.OA.D.8

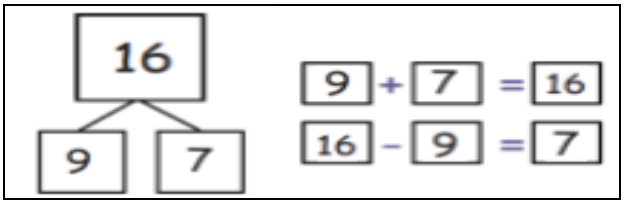
Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = __ – 3, 6 + 6 = __.

Sample Number Bond and Equations

Sample 1



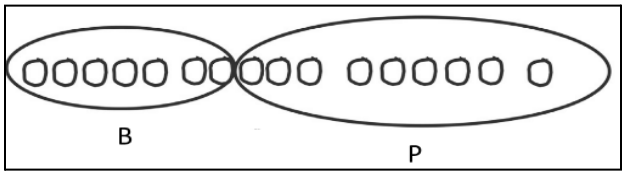
Sample 2



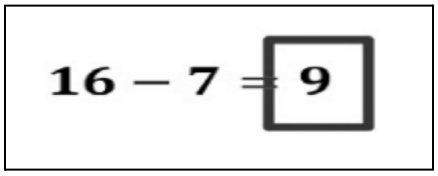
When I solve with subtraction, I can still use the number bond to think of addition. If 16 is the total and 7 is one part, the other part is 9.

Sample Math Drawings

Sample 1



Sample 2



I can draw to show 16 erasers. I will circle seven and label them blue. I will circle the rest of the erasers. These will represent the purple erasers. I see there are 9 purple erasers.

I can subtract seven from 16 to get the answer. 16 - 7 = 9. I also know that 7 + 9 = 16. I put the 9 in the box because it is my unknown number.

**These are not the only acceptable drawings and explanations.*

Rubric

Consistent - Student's performance demonstrates they are showing **consistent** understanding of the standard.

- The student accurately:
  - solves for the unknown

AND

  - represents the equation with a number bond and number sentences to match the problem

AND

  - explains their thinking using a math drawing and words.

Progressing - Student's performance demonstrates they are **progressing** toward understanding the standard.

- The student accurately:
  - solves for the unknown

BUT

  - is unable to represent the equation with a number bond and/or number sentence to match the problem

OR

  - is unable to explain their thinking using a math drawing and words accurately.

Beginning - Student's performance demonstrates that they are **beginning** to understand the standard.

- The student:
  - solves for the unknown

BUT

  - draws an incorrect picture with a number bond and equations that may or may not match the incorrect picture

OR

  - the student is unable to represent the problem with pictures

OR

  - writes an inaccurate number bond and number equations.

Name _____

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Extension: Who has more markers? Explain how you know.

Item 2

Bailey has 8 pennies in her pocket and 7 in her wallet.

Show one way to find the number of Bailey's pennies that shows how to make ten.

Use words, math drawings, and numbers to explain your answer.

Item 3

Circle the true number sentence.

$5 + 10 = 5 + 8$	$8 + 9 = 10 + 7$

Explain why this number sentence is true.

Fix the false number sentence by changing one number to make it a true number sentence. Rewrite your number sentence in the box.

Explain how you made the number sentence true.
Draw a picture and **write to explain your answer**.

Item 4

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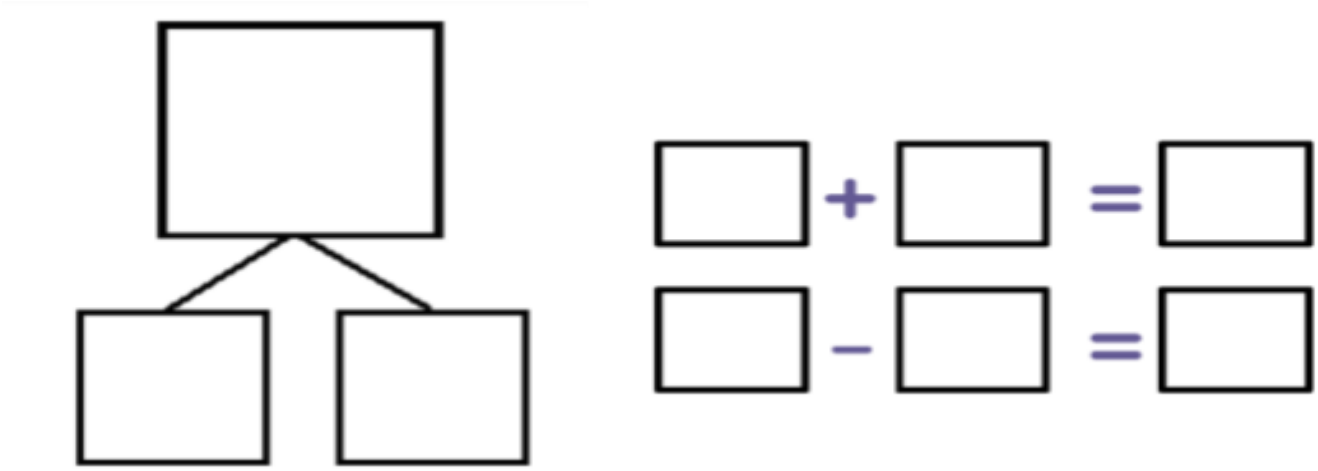
How many of the erasers are purple? Complete the number sentence and number bond.



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