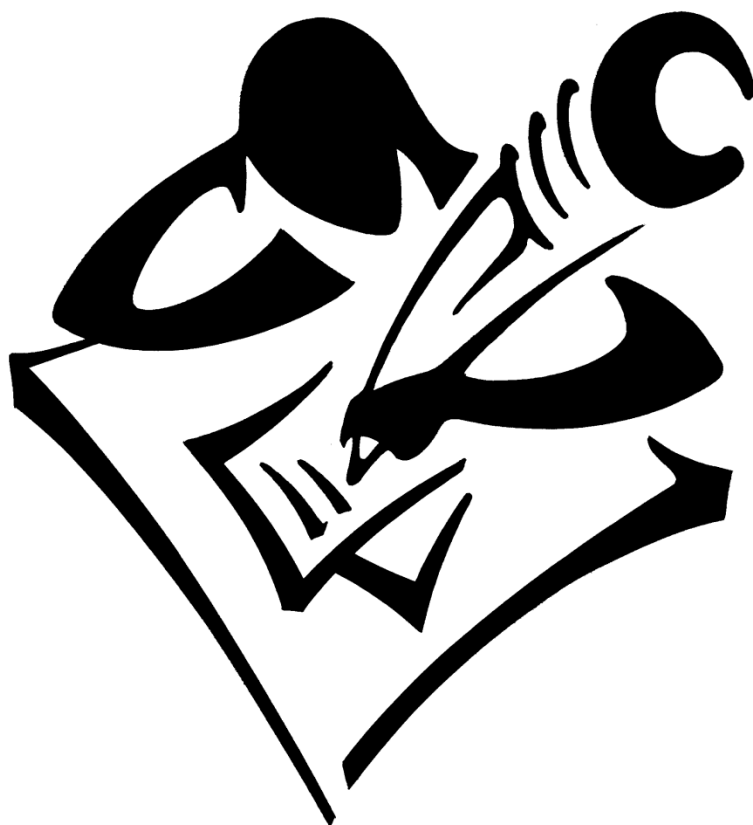


Tennessee Comprehensive Assessment Program

TCAP/CRA 2013



1

Anchor Set

Grade 1 - Does Order Matter Task

SECURE MATERIAL - Reader Name: _____

Tennessee Comprehensive Assessment Program

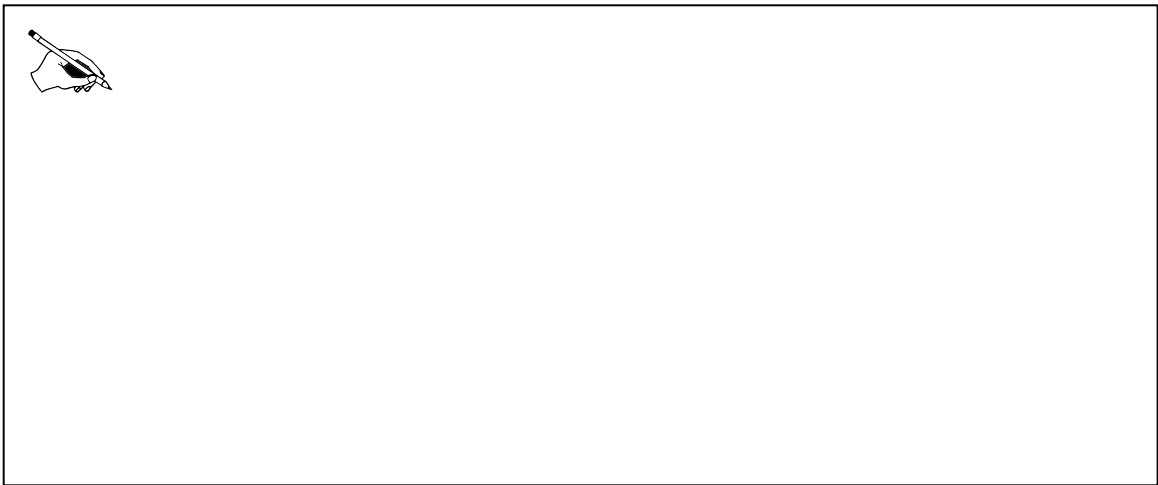
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Grade 1 — 2013–14, Phase 1
 Part 2: Constructed Response Task Section

Does Order Matter? Task

- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.



- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.



Scoring Guide

The CCSS for Mathematical Content (1 point)

- 1.OA.3 Indicates an understanding of the commutative property of addition as evidenced by at least one response in part A or part B. The student may do this by: _____
- Stating that the parts remain the same in both equations.
 - Creating diagrams that show parts in each equation represented in a different order.

(1 Point)

The CCSS for Mathematical Practice (4 points)

- MP1 Makes decisions and choices on how to approach the problem. Attempts to figure out and make sense of Ramon’s claim and all parts of the task are answered as evidenced by words, drawings, diagrams, or equations. **(1 Point)** _____
 (MP1: Make sense of problems and persevere in solving them.)

- MP4 Constructs diagrams or equations. **(1 Point)** _____
 (MP4: Model with mathematics.)

- MP6 Indicates precise diagrams or explanations for part A, and precise calculations and diagrams or equations in part B. **(1 Point)** _____
 (MP6: Attend to precision.)

- MP7 Makes use of the structure of the task by applying the commutative property consistently to both parts. **(1 Point)** _____
 (MP7: Look for and make use of structure.)

TOTAL POINTS: 5

The CCSS for Mathematical Content Addressed In This Task

Understand and apply properties of operations and the relationship between addition and subtraction.

1.OA.3 Apply properties of operations as strategies to add and subtract. *Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)*

The CCSS for Mathematical Practice*

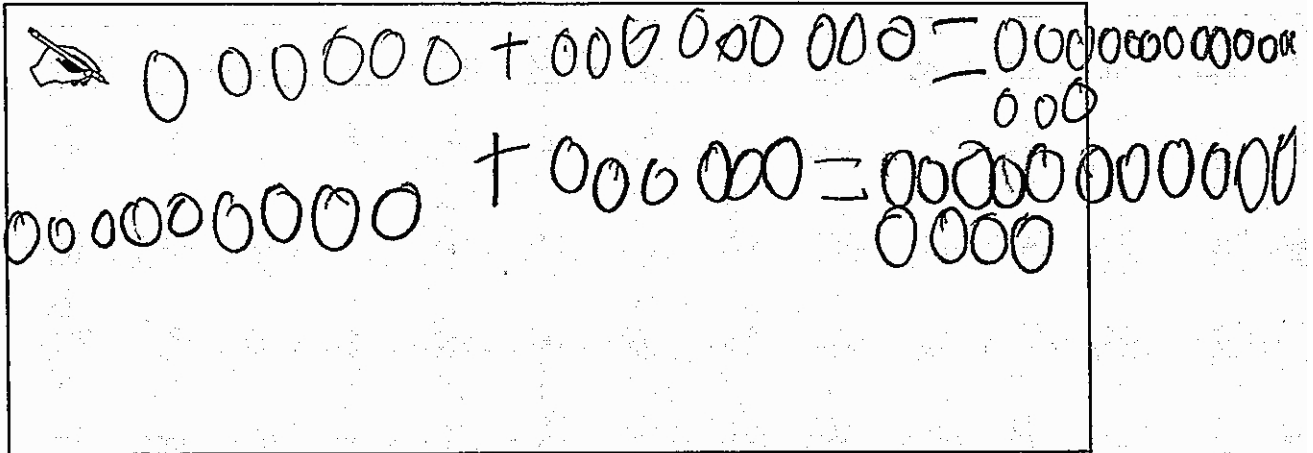
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

* Gray type indicates Mathematical Practices not addressed in this assessment.

4. Does Order Matter? Task

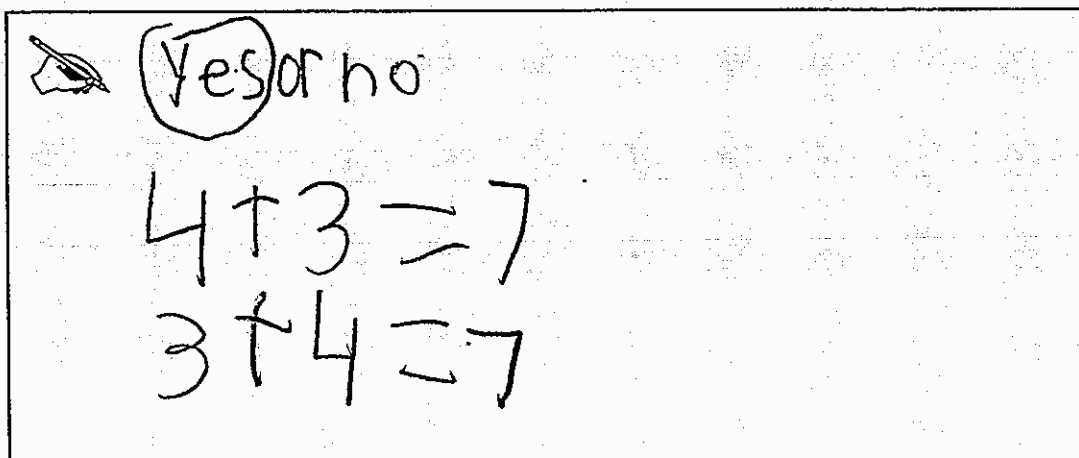
- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.



- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.



Anchor 1 Litho 0010

Total Content Points: 1 (1.OA.A.3)

Total Practice Points: 4 (MP1, MP4, MP6, MP7)

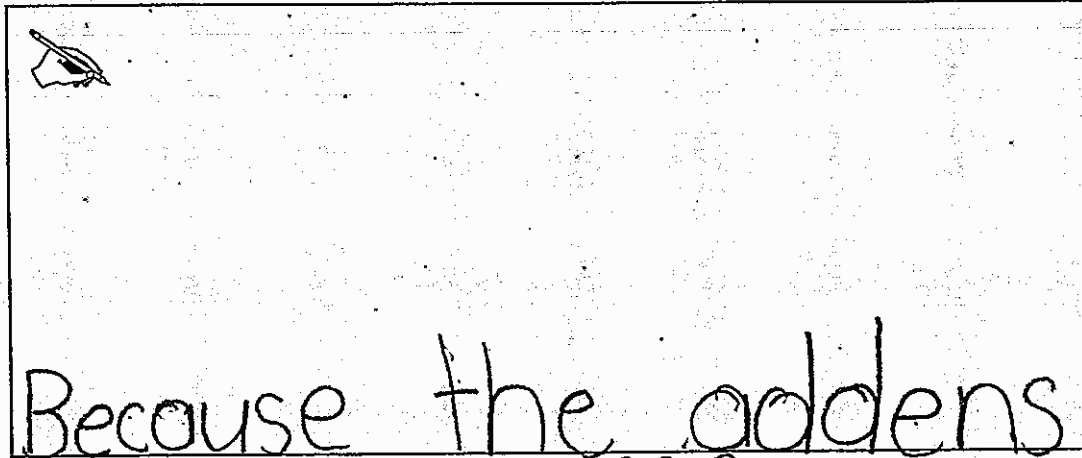
The student demonstrates an understanding of the commutative property of addition in Part A by drawing a picture showing 6 circles added to 9 circles with a sum of 15 circles and then changing the order of the addends to show the sum remains the same, and in Part B by writing equations ($4 + 3 = 7$ and $3 + 4 = 7$) (1.OA.A.3). The use of diagrams and equations also demonstrates modeling commutativity (MP4). The student makes sense of Ramon’s claims and uses drawings and equations in all parts of the task (MP1). The student’s drawing in Part A is precise and the equations in Part B are accurate (MP6). The student makes use of the structure of the task by applying the commutative property consistently to both parts (MP7).

Total Awarded Points: 5 out of 5

4. Does Order Matter? Task

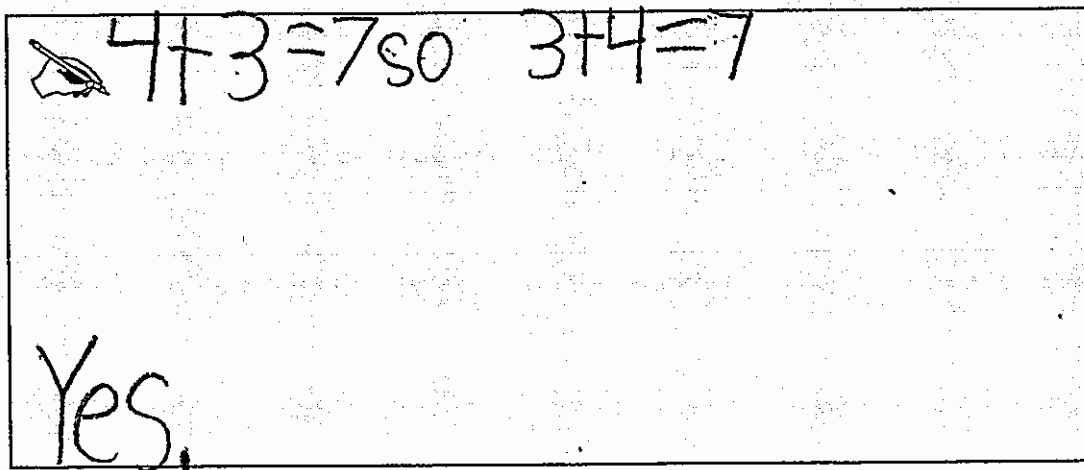
- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.



- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.



Anchor 2

Litho 0005

Total Content Points: 1 (1.OA.A.3)

Total Practice Points: 4 (MP1, MP4, MP6, MP7)


The student demonstrates an understanding of the commutative property of addition by providing a correct explanation in Part A and by writing equations ($4 + 3 = 7$ and $3 + 4 = 7$) in Part B (1.OA.A.3). The use of equations also demonstrates modeling commutativity (MP4). The student makes sense of Ramon's claims and uses explanations and equations in all parts of the task (MP1). The student provides an explanation using correct mathematical terminology in Part A and accurate equations in Part B (MP6). The student makes use of the structure of the task by applying the commutative property consistently to both parts (MP7).

Total Awarded Points: 5 out of 5

4. Does Order Matter? Task


- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.

 $6 + 9$ is the same as $9 + 6$, because if you're adding them as $6 + 9$, you can decompose the 9 into $5 + 4$, then add the 4 to the 6 to make ten, then add 10 to 5 to get 15. And if you're adding them as $9 + 6$, then you can add the 9 to 6 to get 15.

- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.

 The sum will be the same because if you add 4 to 3 you will get seven, and if you add 3 to 4 you will get seven.

Anchor 3 Litho 0100

Total Content Points: 1 (1.OA.A.3)

Total Practice Points: 3 (MP1, MP6, MP7)


The student demonstrates an understanding of the commutative property of addition by providing a correct explanation in both Part A and Part B (1.OA.A.3). The student makes sense of Ramon's claims and provides detailed explanations in all parts of the task (MP1). Despite providing a correct explanation in Part B, the student does not construct any diagrams or equations to model commutativity (no credit for MP4). In Part A, the student provides an explanation using correct mathematical terminology. The student also provides accurate calculations in both parts, describing how the sum of 15 was computed in Part A and the sum of 7 was computed in Part B (MP6). The student makes use of the structure of the task by applying the commutative property consistently to both parts (MP7).

Total Awarded Points: 4 out of 5

4. Does Order Matter? Task


- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

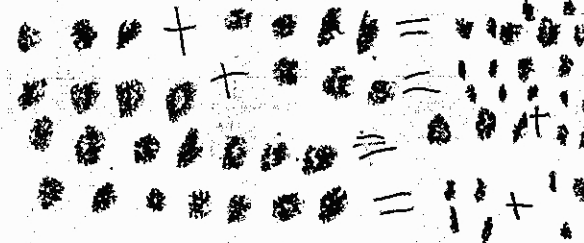
Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.

 Because it dose not mater what order the nybers are in.

- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.

 $4 + 3 = 7$ the sam will
 $3 + 4 = 7$ be the same.
 $7 = 3 + 4$
 $7 = 4 + 3$



Anchor 4

Litho 0101

Total Content Points: 1 (1.OA.A.3)

Total Practice Points: 3 (MP1, MP4, MP7)

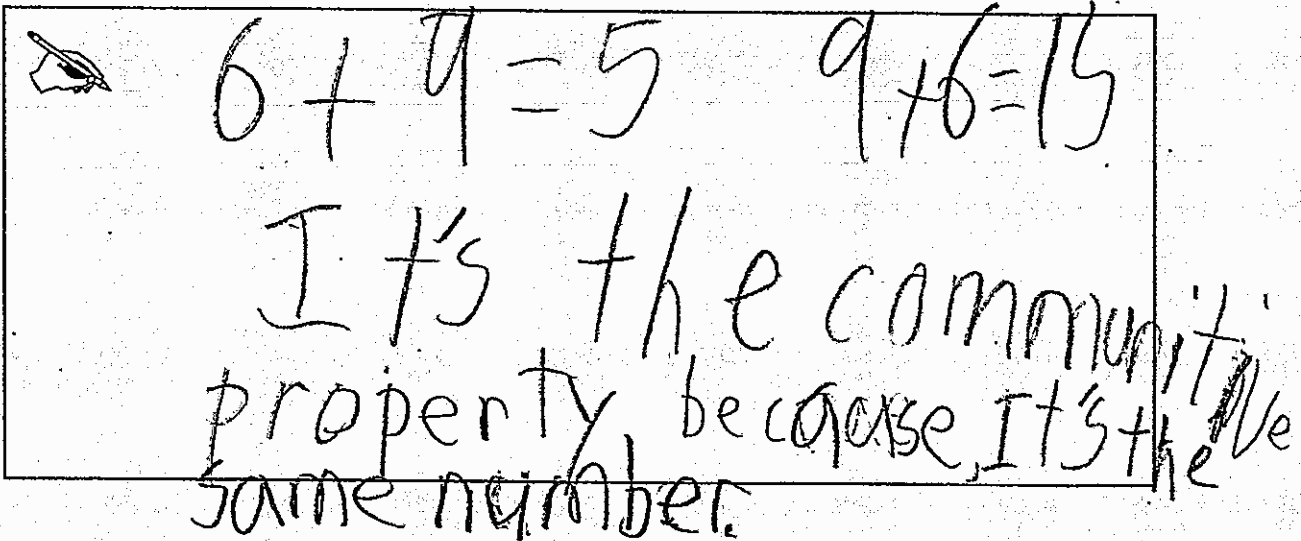
In Part B, the student demonstrates an understanding of the commutative property of addition by writing equations ($4 + 3 = 7$ and $3 + 4 = 7$), and by drawing pictures showing 3 dots added to 4 dots with a sum of 7 and then changing the order of the addends to show the sum remains the same (1.OA.A.3). The use of diagrams and equations also demonstrates modeling commutativity (MP4). The student makes sense of Ramon’s claims and uses explanations, equations, and drawings in all parts of the task (MP1). The student provides precise calculations and pictures in Part B, but the student’s explanation in Part A is imprecise because it is unclear if “nubers” refers to addends only or also includes the sum (no credit for MP6). Although the explanation in Part A does not demonstrate precision, it is evidence of the student’s attempt to make use of the structure of the task by applying the commutative property consistently to both parts (MP7).

Total Awarded Points: 4 out of 5

4. Does Order Matter? Task

- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.

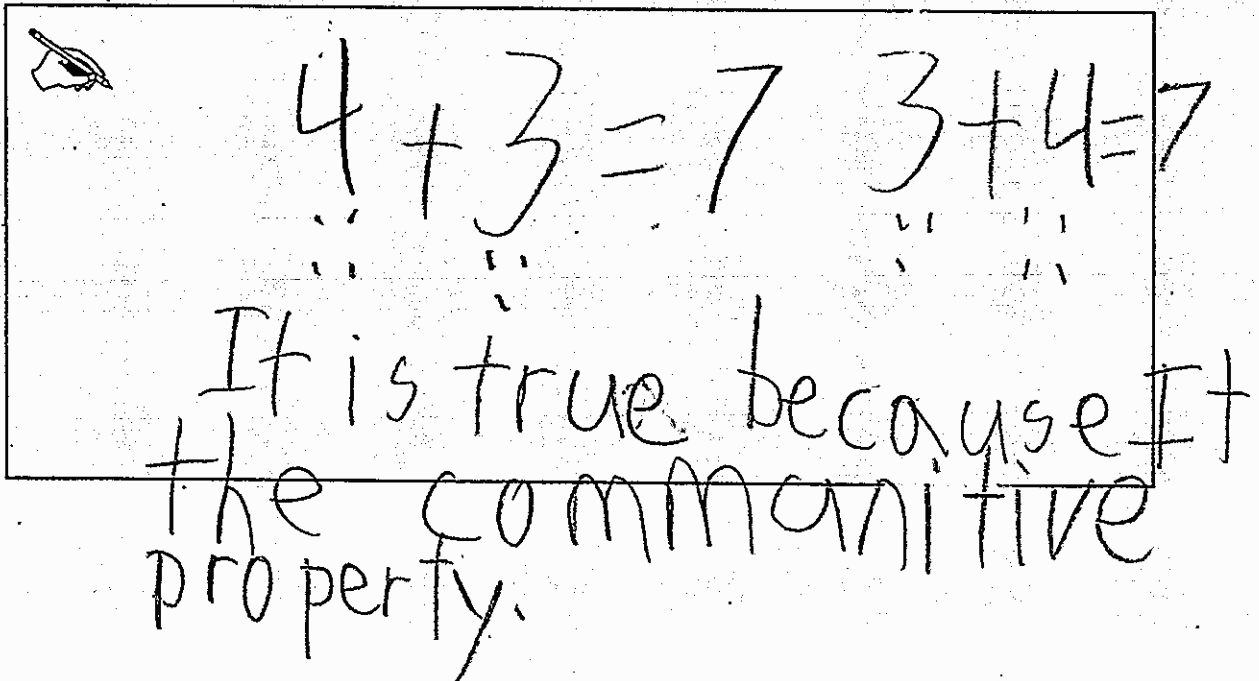


$6 + 9 = 15$ $9 + 6 = 15$

It's the commutative property, because it's the same number.

- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.



$4 + 3 = 7$ $3 + 4 = 7$

It is true because it's the commutative property.

Anchor 5 Litho 0124

Total Content Points: 1 (1.OA.A.3)

Total Practice Points: 3 (MP1, MP4, MP7)

The student demonstrates an understanding of the commutative property of addition by providing a correct explanation in Part A and by writing equations ($4 + 3 = 7$ and $3 + 4 = 7$) in Part B (1.OA.A.3). The use of equations also demonstrates modeling commutativity (MP4). The student makes sense of Ramon's claims and uses explanations and equations in all parts of the task (MP1). The student's equations in Part B are accurate, but one of the equations in Part A ($6 + 9 = 5$) is incorrect (no credit for MP6). The student makes use of the structure of the task by applying the commutative property consistently to both parts (MP7).

Total Awarded Points: 4 out of 5

4. Does Order Matter? Task

- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.

because if $6+9=15$
 if someone to have
 same sum you can
 put them on your feet.

- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.

$4+3=7$
 $3+4=7$

Anchor 6 Litho 0014

Total Content Points: 1 (1.OA.A.3)

Total Practice Points: 2 (MP1, MP4)


The student demonstrates an understanding of the commutative property of addition in Part B by writing correct equations ($4 + 3 = 7$ and $3 + 4 = 7$) (1.OA.A.3). The use of equations also demonstrates modeling commutativity (MP4). The student makes sense of Ramon's claims and uses explanations and equations in all parts of the task (MP1). The student's equations in Part B are accurate, but the explanation in Part A ("it sopoe to have the same sum") is not precise because it is unclear what "it" refers to (no credit for MP6). Without a clear explanation for Part A, the student does not provide sufficient evidence of applying the commutative property consistently to both parts (no credit for MP7).

Total Awarded Points: 3 out of 5

4. Does Order Matter? Task

- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.


 $6 + 9 = 15$


 $6 + 9 = 15$ is the same because

 $9 + 6 = 15$ is the commutative

 property.

- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.


 $9 + 6 = 15$

 $6 + 9 = 15$

 $9 + 6 = 15$ is the same because

 $6 + 9 = 15$ is the commutative

 property.

Anchor 7

Litho 0126

Total Content Points: 1 (1.OA.A.3)

Total Practice Points: 0

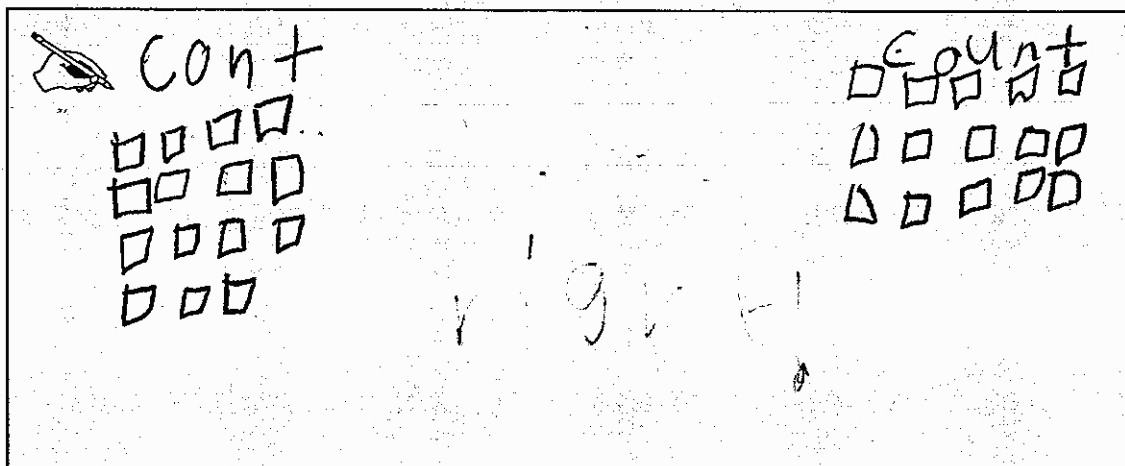
The student demonstrates an understanding of the commutative property of addition in Part A by providing a correct explanation (1.OA.A.3). The student does not make sense of Ramon's claim in Part B and does not address the required task (no credit for MP1). Other than copying the given equations, the student does not construct any diagrams or equations that model the commutative property (no credit for MP4). The student's explanation in Part A is precise, but the equations in Part B are copies of the given equations and provide no evidence of precise calculations (no credit for MP6). Although the student's explanations in both Parts A and B mention the commutative property, in Part B the student does not address the question but instead copies the work from Part A, therefore not providing sufficient evidence of applying the commutative property consistently to both parts (no credit for MP7).

Total Awarded Points: 1 out of 5

4. Does Order Matter? Task

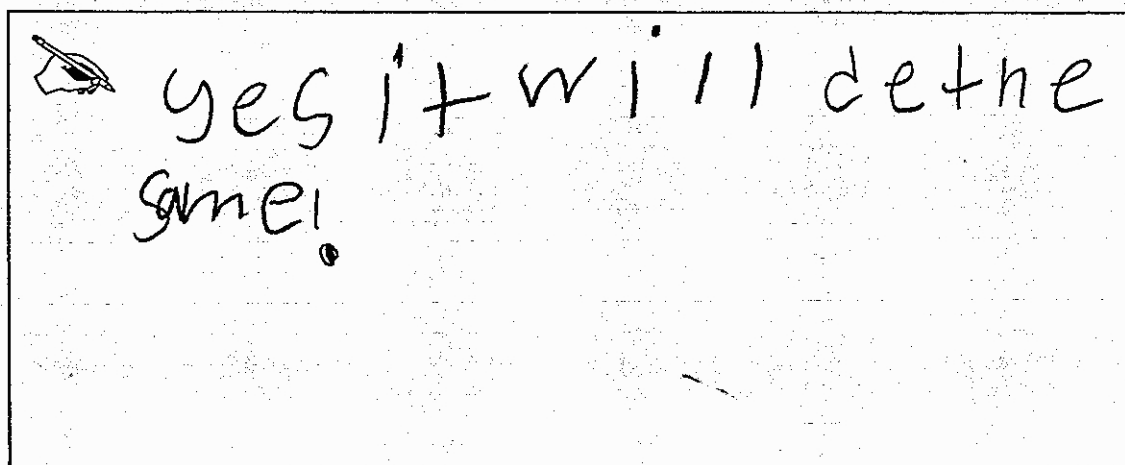
- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.



- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.



Anchor 8

Litho 0081

Total Content Points: 0

Total Practice Points: 0

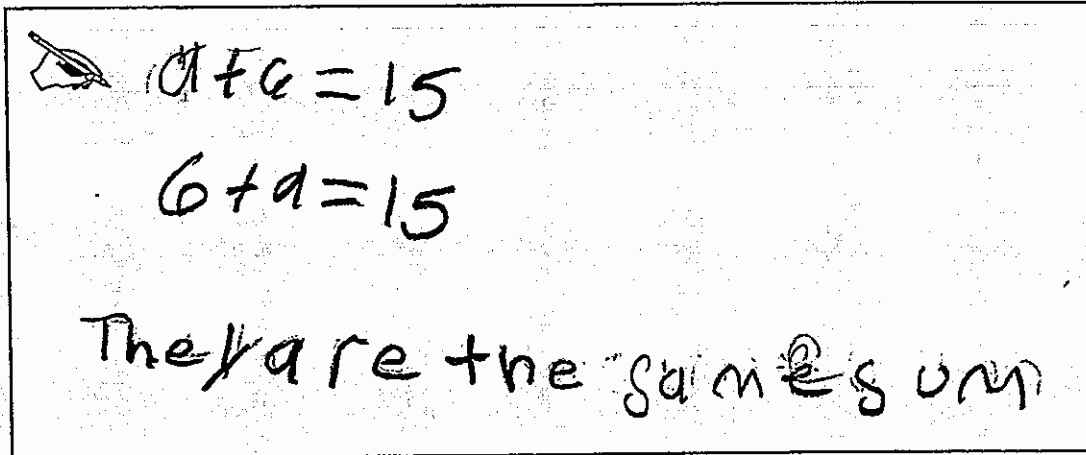
The student does not demonstrate an understanding of the commutative property of addition in either response. In Part A, the student creates diagrams representing the sum of 15 but does not show the addends (no credit for 1.OA.A.3). The student does not make sense of Ramon's claims and does not attempt any diagrams or equations in Part B (no credit for MP1). The student does not construct any equations or diagrams that model the commutative property (no credit for MP4). Not enough task-related work is provided to show evidence of precision (no credit for MP6). The student does not apply the commutative property to either part (no credit for MP7).

Total Awarded Points: 0 out of 5

4. Does Order Matter? Task

- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

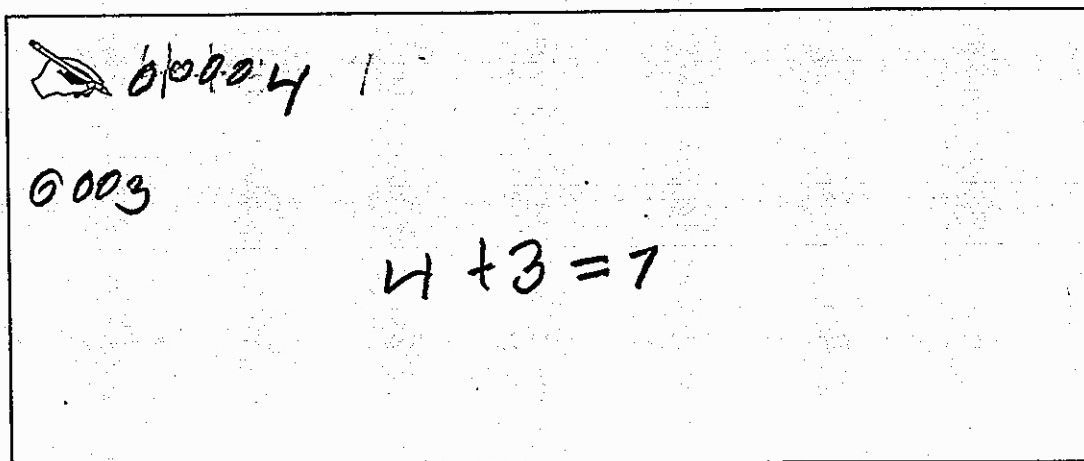
Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.



~~9~~ $9 + 6 = 15$
 $6 + 9 = 15$
 They are the same sum

- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.



~~4~~ $4 + 3 = 7$
 $3 + 4 = 7$

Anchor 9

Litho 0054

Total Content Points: 0

Total Practice Points: 0

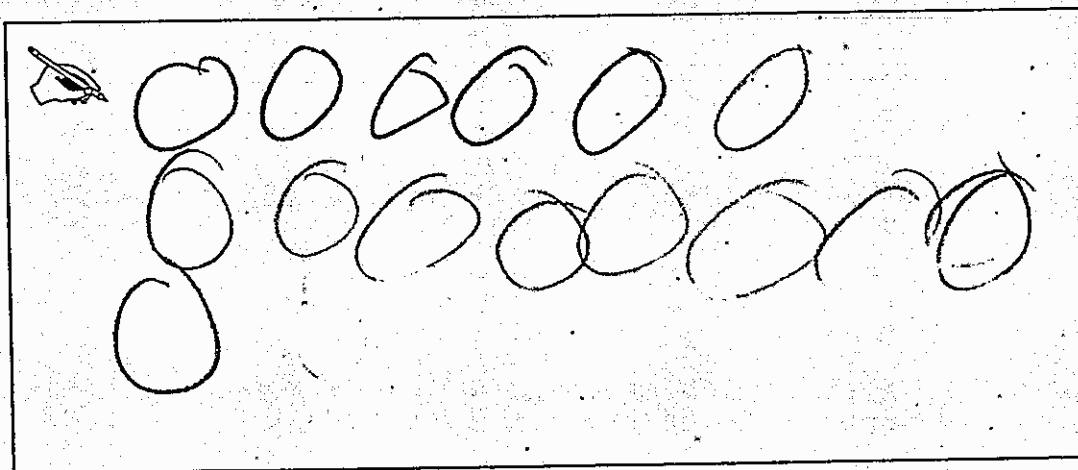
The student does not demonstrate an understanding of the commutative property of addition in either Part A or Part B (no credit for 1.OA.A.3). The student makes choices for how to solve the problem with an explanation in Part A and an equation in Part B, but does not make sense of Ramon's claims (no credit for MP1). The use of only one equation in Part B does not demonstrate modeling of the commutative property (no credit for MP4). The explanation in Part A is not precise since it is not clear what "they" refers to (no credit for MP6). The student does not provide evidence of applying the commutative property to either part (no credit for MP7).

Total Awarded Points: 0 out of 5

4. Does Order Matter? Task

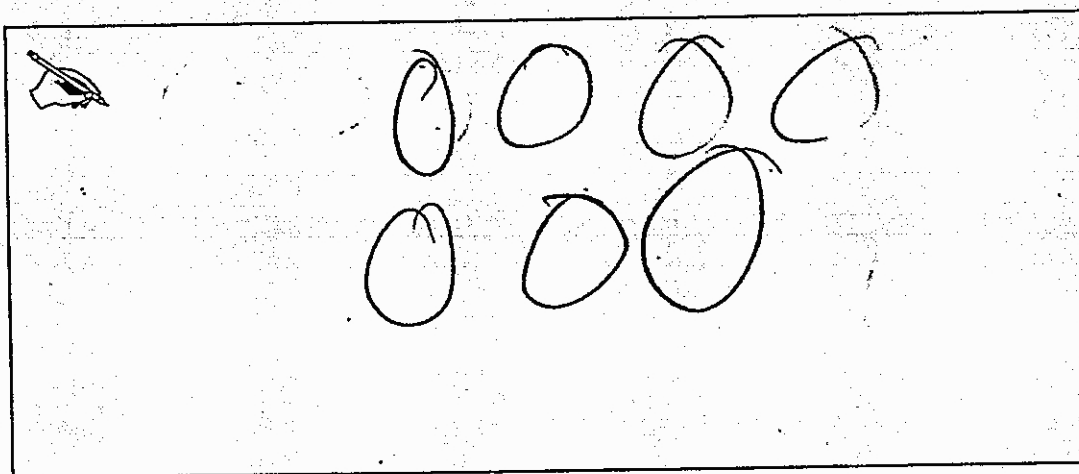
- a. Ramon is adding $6 + 9$. He claims that $6 + 9 = 15$ and $9 + 6 = 15$.

Use diagrams or words to explain why $6 + 9$ and $9 + 6$ both have a sum of 15.



- b. Ramon claims that two numbers can be added together in any order and the sum will be the same.

When 4 and 3 are added together in any order, will the sum be the same? Use diagrams or equations to explain your answer.



Anchor 10

Litho 0032

Total Content Points: 0

Total Practice Points: 0

The student does not demonstrate an understanding of the commutative property in either Part A or Part B. In both parts the student draws circles to represent the sums but does not show any representation of the addends (no credit for 1.OA.A.3). The student makes choices for how to solve the problem, but does not make sense of Ramon's claims, thus not fully solving the problem. (no credit for MP1). The student's drawings accurately represent the sums in Part A and Part B, but do not model the commutative property (no credit for MP4). The student has only drawn groups of circles that represent sums and do not address the task, providing little evidence of precision (no credit for MP6). The student does not apply the commutative property to either part of the task (no credit for MP7).

Total Awarded Points: 0 out of 5