SECURE MATERIAL - Reader Name: _____
Tennessee Comprehensive Assessment Program

TCAP/CRA

2014

2

Phase II

Rainbow Yarn Task

Anchor Set

Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.

Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

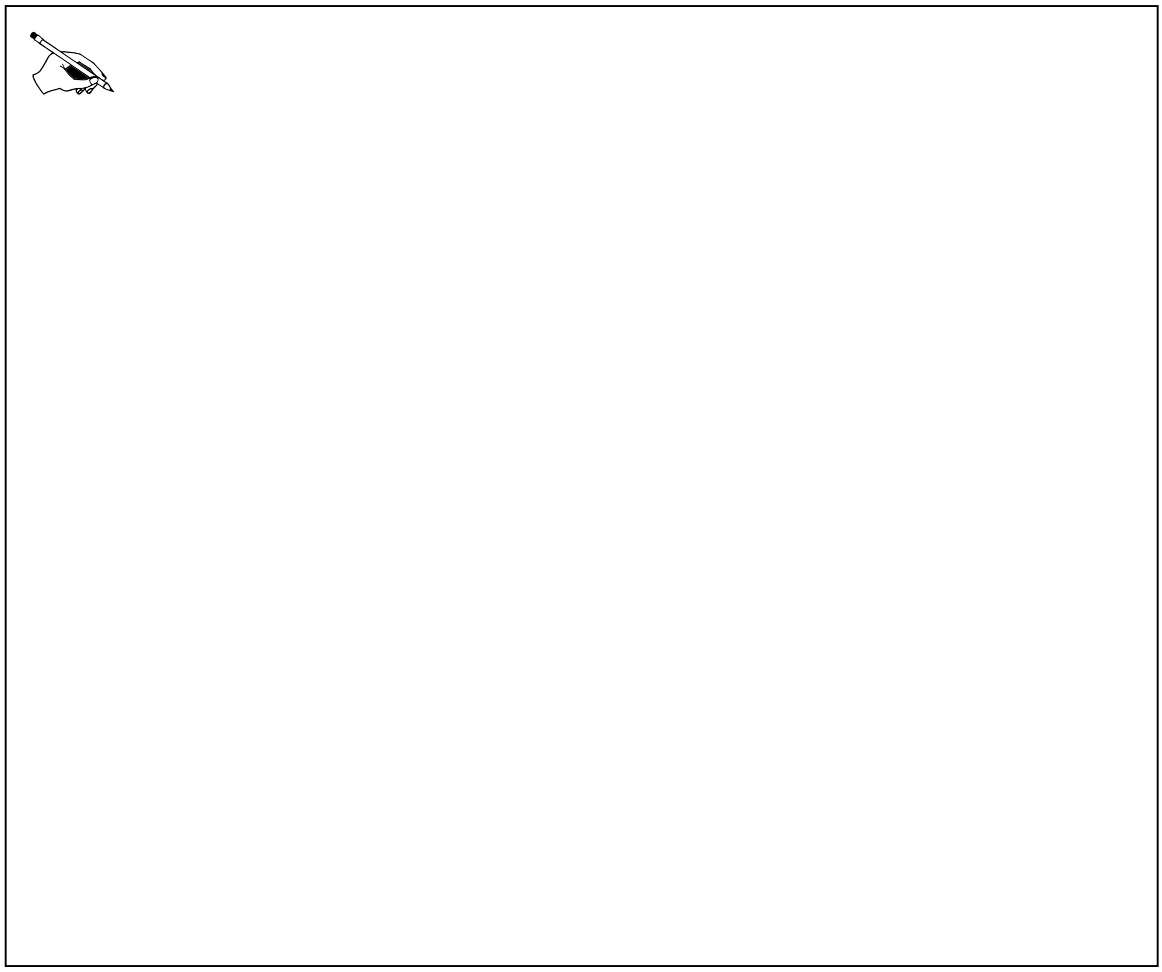
Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.



Scoring Guide

The CCSS for Mathematical Content (2 points)

2.OA.A.1 Solves a "putting together" situational problem using addition in part a. _____
(1 Point)

2.NBT.B.7 Identifies the total number of inches of yarn in part b. _____
(1 Point)

The CCSS for Mathematical Practice (2 points)

MP3 Constructs an explanation indicating an understanding that the total of the digits in the hundreds places is representative of the total number of hundreds of inches. _____
(1 Point)
(MP3: Construct viable arguments and critique the reasoning of others.)

MP6 Provides precise work, diagram, or explanation for part a. _____
(1 Point)
(MP6: Attend to precision)

TOTAL POINTS: 4

The CCSS for Mathematical Content Addressed In This Task

Represent and solve problems involving addition and subtraction.	
2.OA.A.1	Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
Use place value understanding and properties of operations to add and subtract.	
2.NBT.B.7	Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

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.

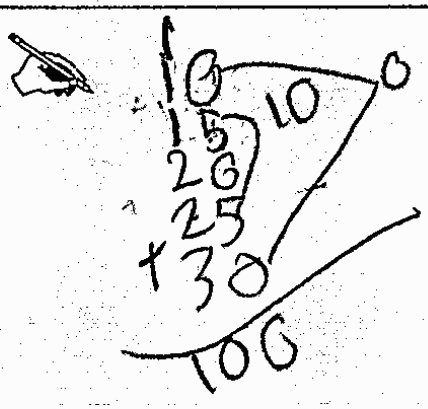
Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.



A-1b

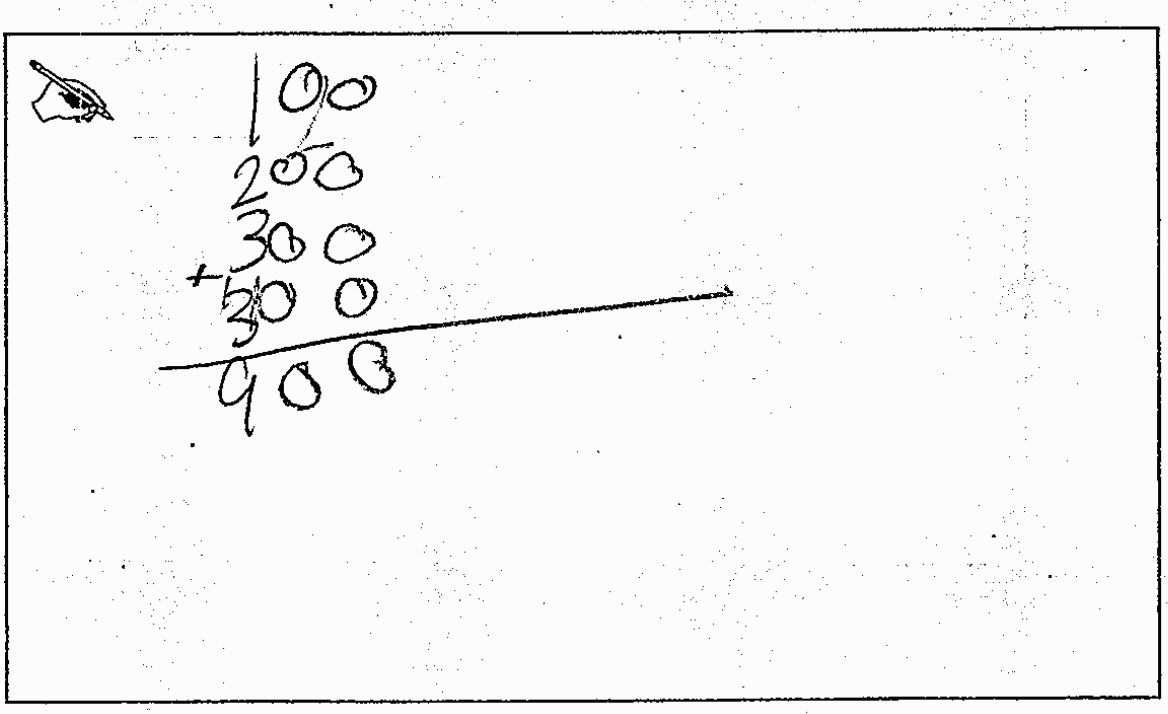
Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?



A-1c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

In the tens and ones place the numer is zero, and in the hundreds place is 1, 2, 3, and 3, so he can add 1, 2, 3, and 3 because, tens and ones place the are zero

Anchor 1 Litho 00122200129

Total Content Points: 2 (2.OA.A.1, 2.NBT.B.7)

Total Practice Points: 2 (MP3, MP6)

In Part A, the student correctly solves the “putting together” problem by providing the correct sum (100) (2.OA.A.1). The addition problem constructed by the student in Part A is a precise and accurate representation of the data from the table provided (MP6). In Part B, the student identifies the total inches of yarn (900) (2.NBT.B.7). In Part C, by noting that those are the digits “in the hundred’s place” and that the digits in the “ten’s and one’s place are zero,” the student constructs a viable argument for using the addition problem 1 + 2 + 3 + 3 to calculate the total inches of string, and so demonstrates an understanding of place value (MP3).

Total Awarded Points: 4 out of 4

Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

1
10
+15
20
25
30
100

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.

I added 10, 15, 20, 25, 30 and got 100 that's the total.

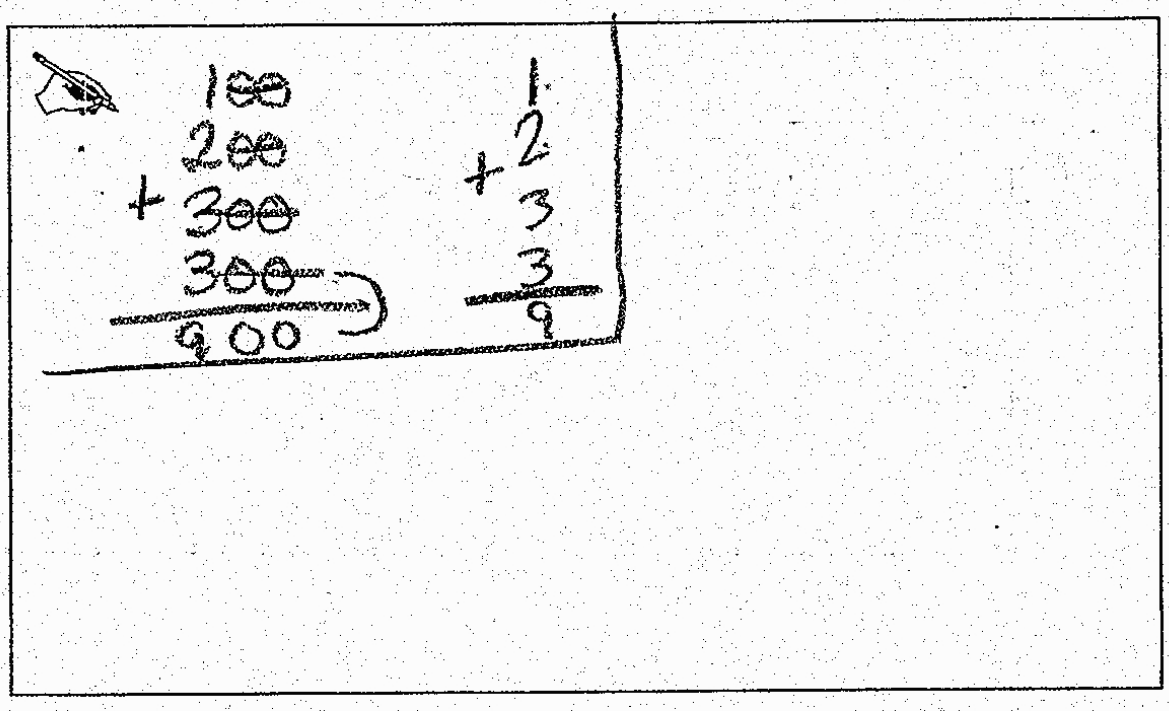
Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?



A-2c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

Warren can find the total Because If you add 100 + 200 + 300 + 300 and you just take the 2 zero's away you get 1+2+3+3=9 then just add them back to your total and you get 900.

Anchor 2 Litho 00292200129

Total Content Points: 2 (2.OA.A.1, 2.NBT.B.7)

Total Practice Points: 2 (MP3, MP6)

In Part A, the student correctly solves the "putting together" problem by providing the correct sum (100) (2.OA.A.1). The addition problem constructed by the student and shown to the left of the table in Part A is a precise and accurate representation of the data provided (MP6). In Part B, the student identifies the total number of inches of yarn (900) (2.NBT.B.7). In Part C, the student constructs a viable argument to justify the use of 1 + 2 + 3 + 3 to find the total inches of string, and so shows some understanding of place value ("Just take the 2 zero's away you get 1 + 2 + 3 + 3 = 9 then Just add them back to your total and you get 900") (MP3).

Total Awarded Points: 4 out of 4

A-3a

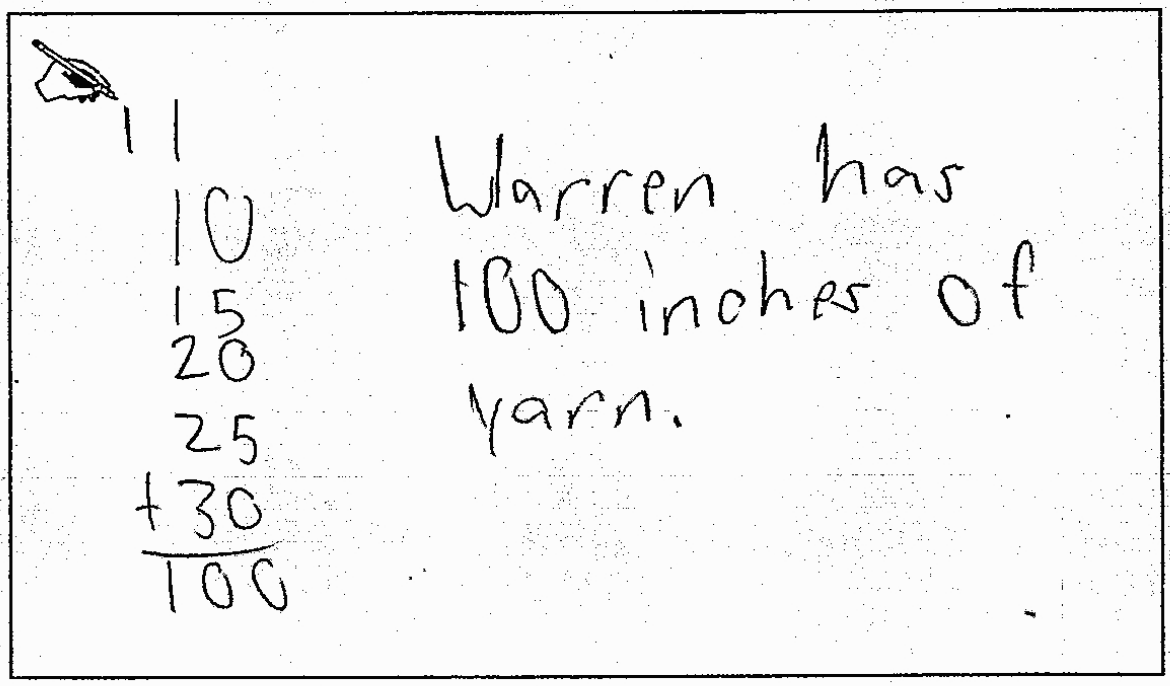
Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.



A-3b

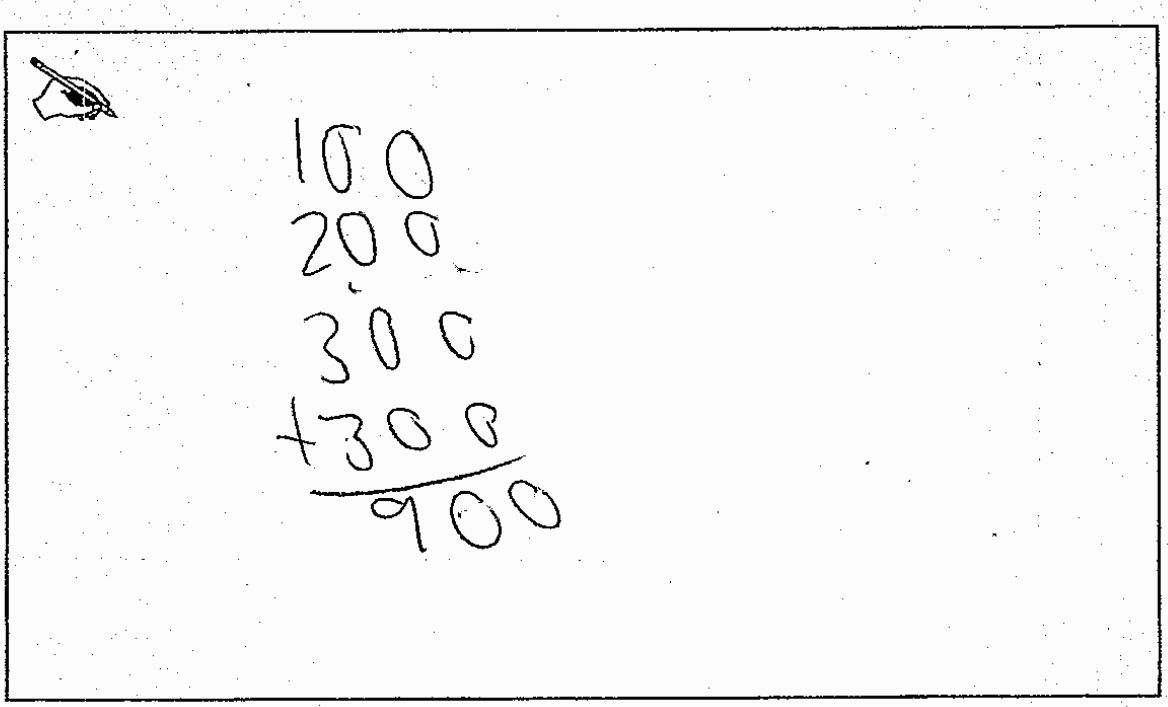
Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?



A-3c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

He can because 1, 2, 3, and 3 are the first numbers out of the numbers. When he adds them it becomes 9 all he has to do is add two 0's.

Anchor 3 Litho 00342200129

Total Content Points: 2 (2.OA.A.1, 2.NBT.B.7)

Total Practice Points: 2 (MP3, MP6)

In Part A, the student correctly solves the “putting together” problem by providing the correct sum (100) (2.OA.A.1). The addition problem constructed by the student in Part A is a precise and accurate representation of the data from the table provided (MP6). In Part B, the student constructs an addition expression identifying the total inches of yarn (900) (2.NBT.B.7). In Part C, by finding the sum (9) of the digits in the hundreds place (“first numbers”) and stating that “all he has to do is add two 0’s” to the total, the student constructs an acceptable argument to justify the use of 1 + 2 + 3 + 3 to find the total inches of string (MP3).

Total Awarded Points: 4 out of 4

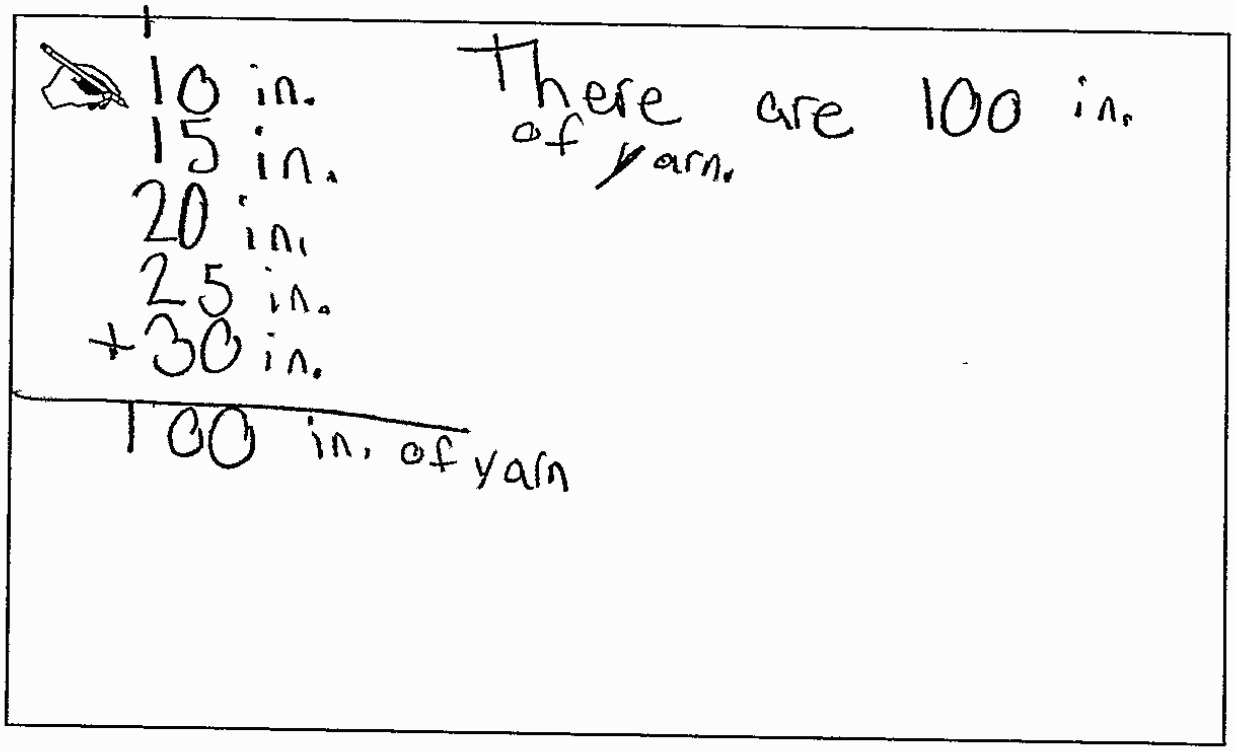
Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.



Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?

100 in.
200 in.
300 in.
+300 in.
900 in. of yarn.

There are 900 in. of yarn.

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

He can, because the rest of the digits are zeros. 1, 2, 3, and 3 are the only ones that mean anything, because you just have to drop the zeros.

Anchor 4 Litho 00592200101

Total Content Points: 2 (2.OA.A.1, 2.NBT.B.7)

Total Practice Points: 1 (MP6)

In Part A, the student correctly solves the “putting together” problem by providing the correct sum (100) (2.OA.A.1). The addition problem constructed by the student in Part A is a precise and accurate representation of the data from the table provided (MP6). In Part B, the student identifies the total of the four lengths added together (900) (2.NBT.B.7). In Part C, by stating “you just have to drop the zeros” without indicating that the zeros in the tens and ones places need to be represented in the final sum of the three-digit numbers, the student’s justification for the use of 1 + 2 + 3 + 3 to find the total inches of string does not sufficiently demonstrate an understanding of place value (no credit for MP3).

Total Awarded Points: 3 out of 4

A-5a

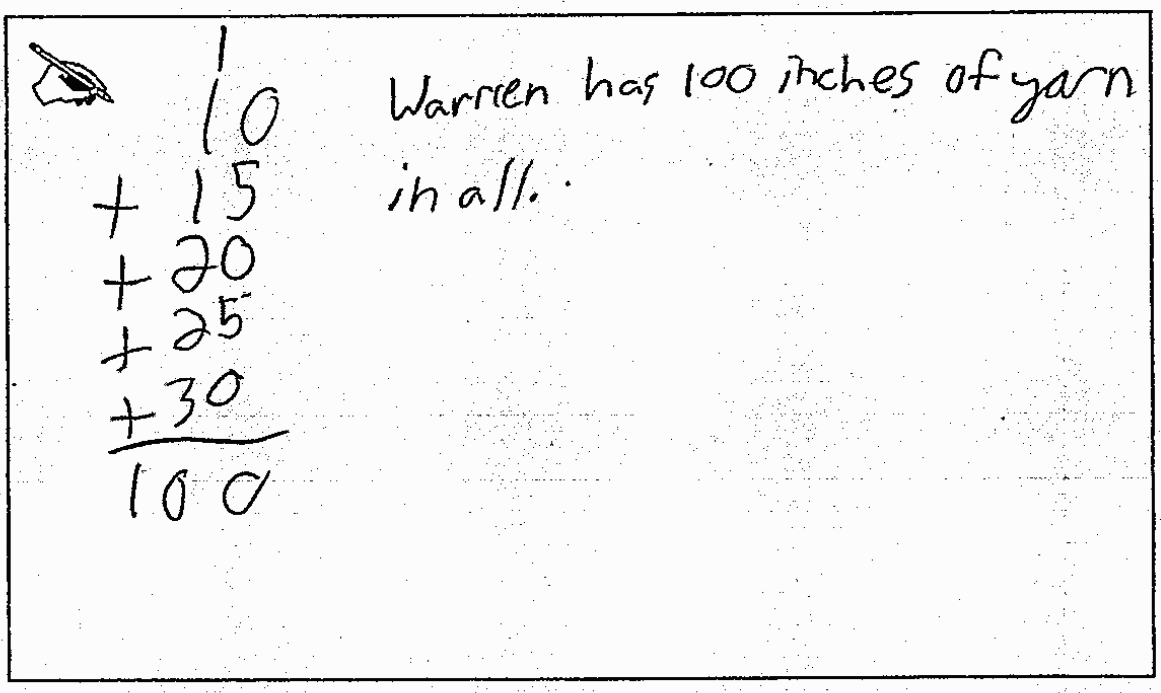
Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.



A-5b

Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?

Warran's total length of string is 600 inches.

A-5c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

Warren can do that because his numbers are 100, 200, 300, 300. so you can add 1+2+3+3, and after you add that up all you have to do is put your two zeros.

Anchor 5 Litho 00332200129

Total Content Points: 1 (2.OA.A.1)

Total Practice Points: 2 (MP3, MP6)

In Part A, the student correctly solves the “putting together” problem by providing the correct sum (100) (2.OA.A.1). The addition problem constructed by the student in Part A is an accurate representation of the data from the table provided, and the repeated use of the addition symbol is not considered to be a demonstration of a lack of precision (MP6). In Part B, the student does not correctly identify the total inches of string, instead stating that the “total length of string is 600 inches” (no credit for 2.NBT.B.7). In Part C, the student demonstrates an understanding that the total of the addends represents the digit in the hundreds place and “after you add that up all you have to do is put your two zeros” (MP3).

Total Awarded Points: 3 out of 4

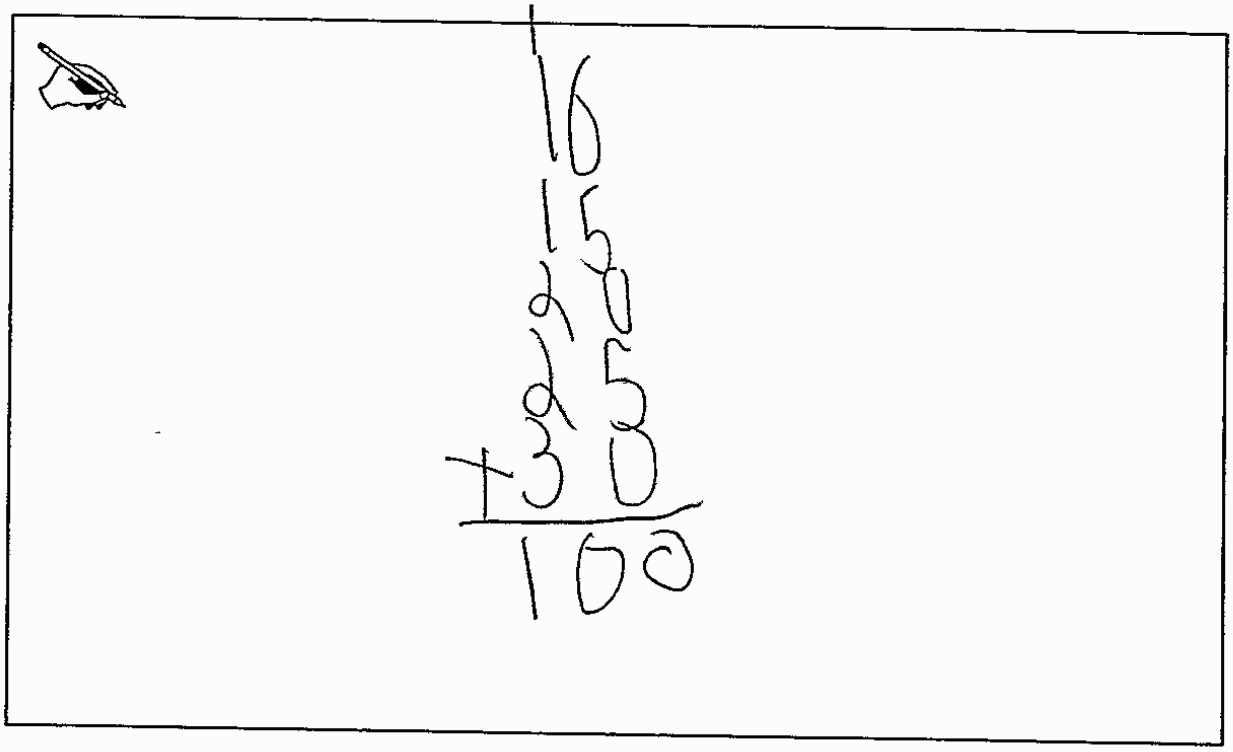
Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.



A-6b

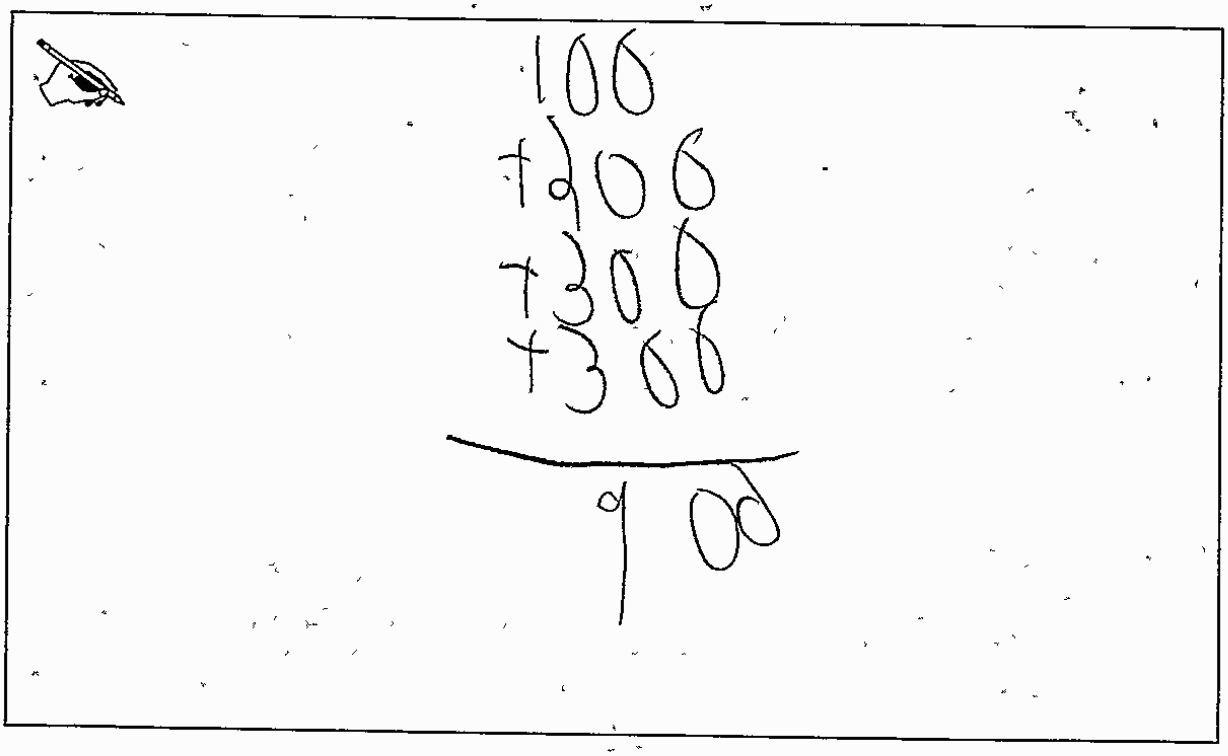
Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?



A-6c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

because when you get the number you just put two zeros at the end.

Anchor 6 Litho 00242200101

Total Content Points: 2 (2.OA.A.1, 2.NBT.B.7)

Total Practice Points: 1 (MP6)

In Part A, the student correctly solves the “putting together” problem by providing the correct sum (100) (2.OA.A.1). The addition problem constructed by the student in Part A is a precise and accurate representation of the data from the table provided (MP6). In Part B, the student identifies the total number of inches of yarn (900) (2.NBT.B.7). In Part C, the student’s reasoning is ambiguous, stating “when you get the number” without clearly indicating that “the number” represents the sum of the addends (no credit for MP3).

Total Awarded Points: 3 out of 4

A-7a

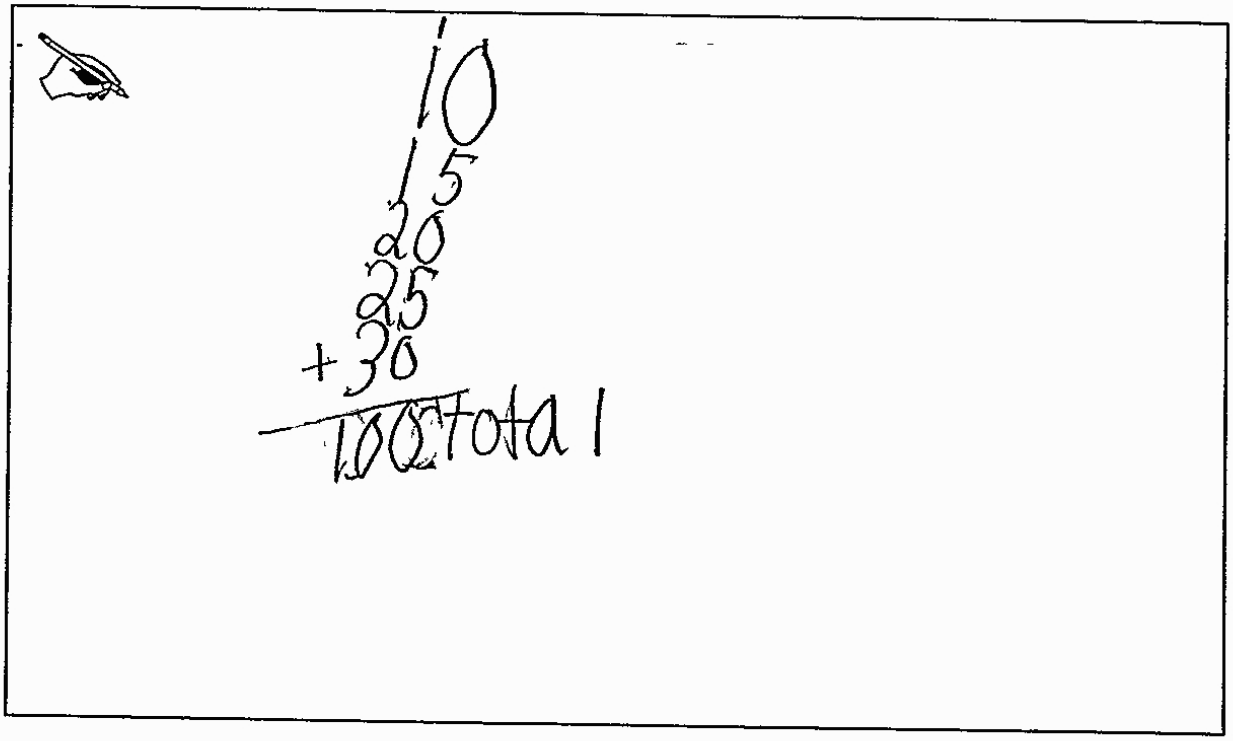
Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.



A-7b

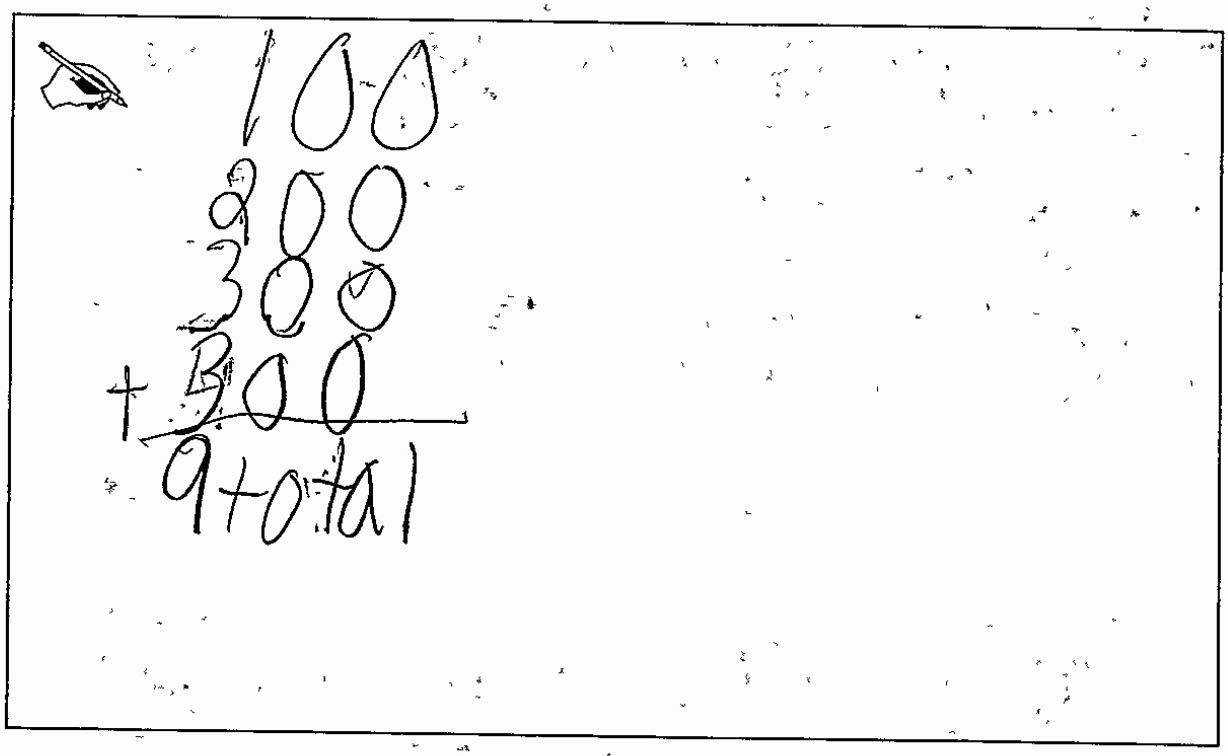
Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?

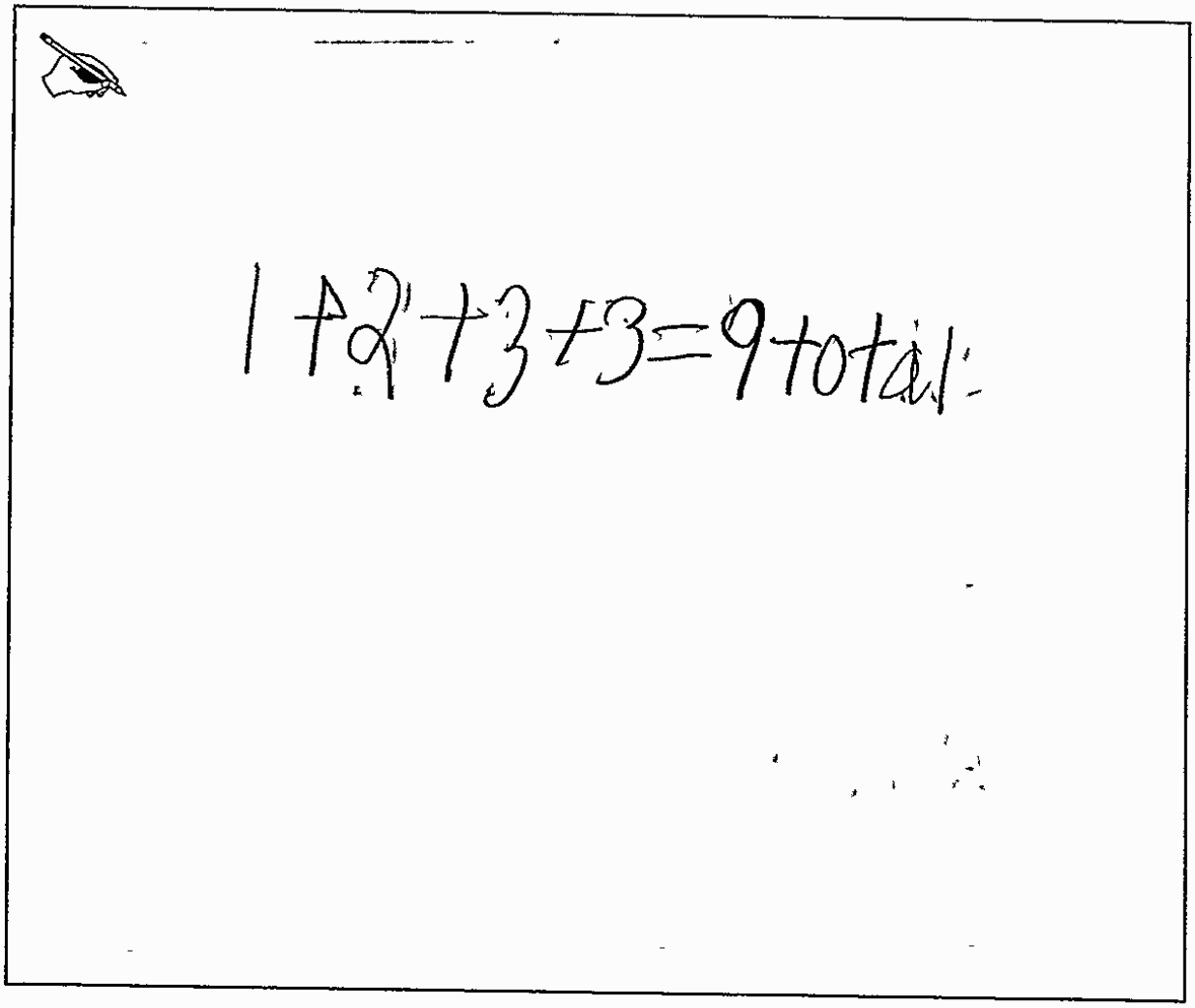


A-7c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.



Anchor 7 Litho 00442200101

Total Content Points: 1 (2.OA.A.1)

Total Practice Points: 1 (MP6)

In Part A, the student correctly solves the “putting together” problem by providing the correct sum (“100 total”) (2.OA.A.1). The addition problem constructed by the student in Part A is a precise and accurate representation of the data from the table provided (MP6). Although the student properly constructs the addition problem in Part B, the total arrived at (9) does not reflect an adequate understanding of addition within 1000 (no credit for 2.NBT.B.7). In Part C, the student’s explanation indicates an insufficient understanding that the given addends represent digits in the hundreds place, instead finding the sum of the addends as if they represented digits in the ones place (“1 + 2 + 3 + 3 = 9 total”) (no credit for MP3).

Total Awarded Points: 2 out of 4

A-8a

Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.

There are 100 inches in all.

10
15
20
25
30

100

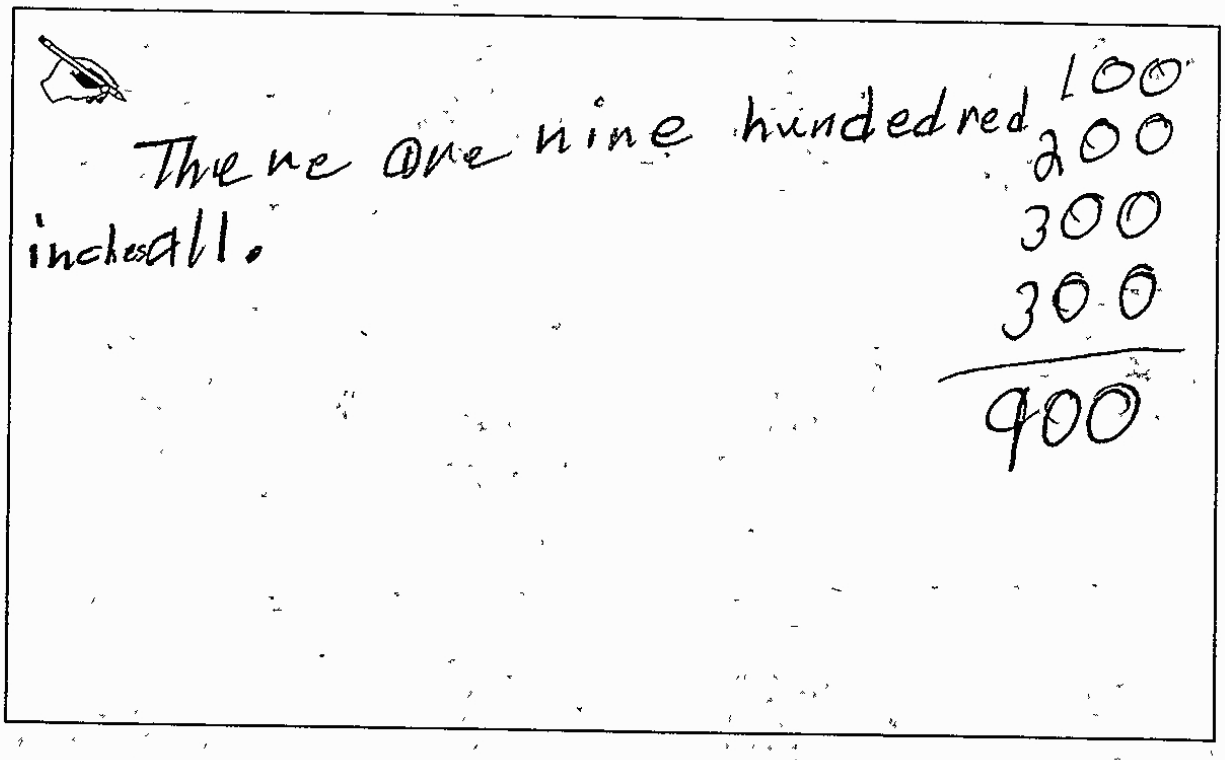
Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?



A-8c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

he can becouse the rest is zeios.

Anchor 8 Litho 00172200101

Total Content Points: 2 (2.OA.A.1, 2.NBT.B.7)

Total Practice Points: 0

In Part A, the student correctly solves the “putting together” problem by providing a correct sum (100) (2.OA.A.1). Although the student constructs the addition using the correct data from the given table, the omission of the addition sign indicates imprecision in the student’s work (no credit for MP6). In Part B, the student identifies the total number of inches of yarn (900) (2.NBT.B.7). In Part C, the student’s reasoning is ambiguous, giving no clear indication that the zeros in the tens place and the ones place must be represented in the three-digit sum (“he can because the rest is zeios”) (no credit for MP3).

Total Awarded Points: 2 out of 4

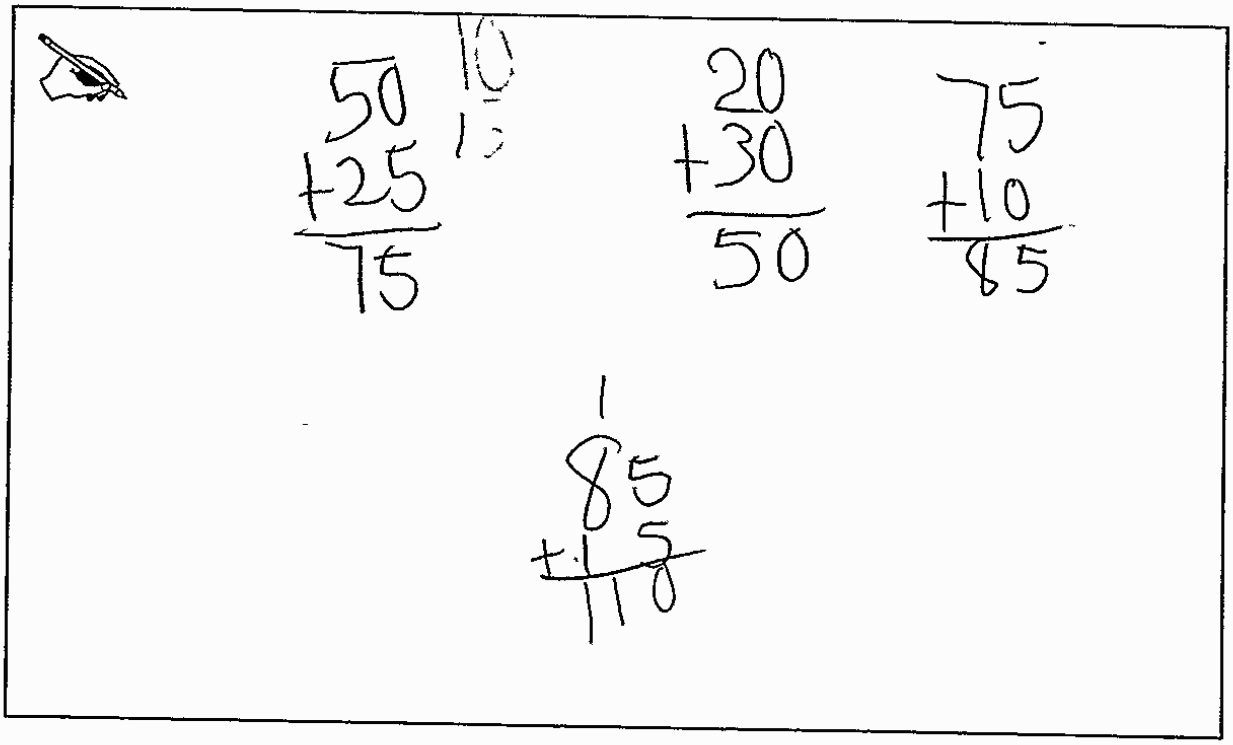
Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has Show how you arrived at the total number of inches of yarn.



A-9b

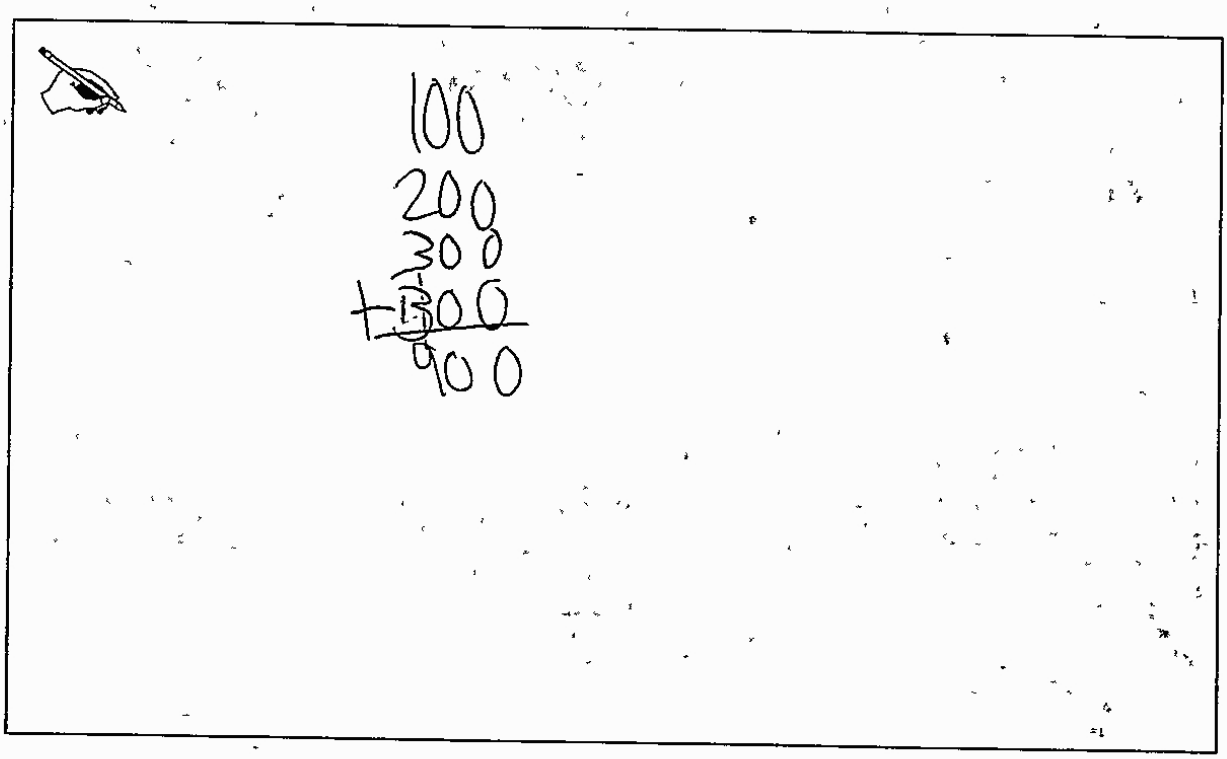
Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?



A-9c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

Because
1+2+3+3 is the Something as
100+200+300+300 your just adding
2 0's.

Anchor 9 Litho 00182200101

Total Content Points: 1 (2.NBT.B.7)

Total Practice Points: 0

In Part A, the student does not correctly solve the "putting together" problem, instead arriving at a sum of 110 (no credit for 2.OA.A.1). Although the student properly constructs the addition problem using the correct data from the given table, the incorrect sum indicates imprecision in the student's work (no credit for MP6). In Part B, the student correctly identifies the total inches of yarn (900) (2.NBT.B.7). In Part C, the student's explanation does not indicate an understanding that the total of the given addends represents the sum of the digits in the hundreds place, and that the zeros in the tens place and the ones place must be represented in the three-digit sum, as the student does not clearly specify to what "your just adding 2 0's" refers (no credit for MP3).

Total Awarded Points: 1 out of 4

A-10a

Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.

Thairare boo inches if tola
Just switch or 1 boo

100
10
+ 15
20
25
30
7,100

10
+ 15
20
25
30
100 inches

A-10b

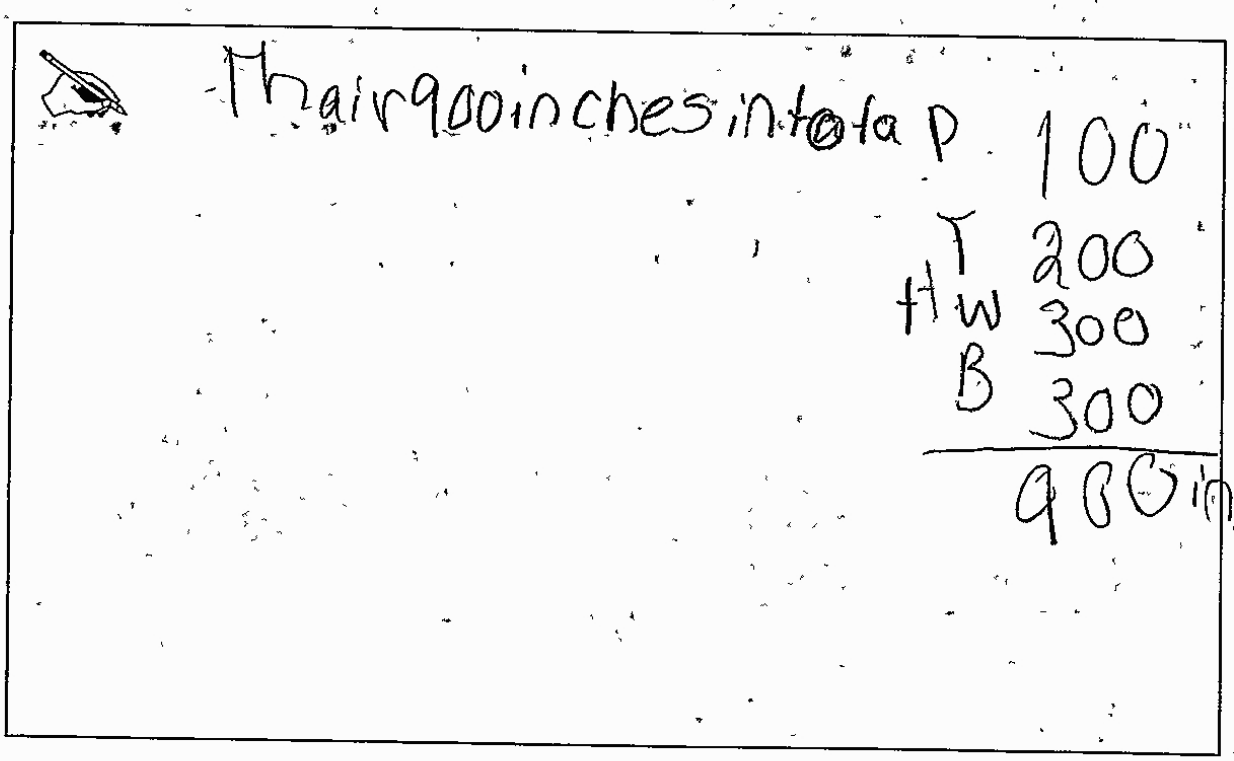
Rainbow Yarn Task

Warren also has his different lengths and colors of string listed in a table.

Warren's String

Color of String	Length of String
Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?



A-10c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

all you got to do is add or multiplication

1
+2 3
-3
it=9 or you can do it this way 2 3 3 = 9

Anchor 10 Litho 00272200101

Total Content Points: 1 (2.NBT.B.7)

Total Practice Points: 0

In Part A, the student gives two answers, one correct (100) and one incorrect (1,100), for the total inches of yarn, indicating an insufficient understanding of the use of addition within 1000 (no credit for 2.OA.A.1). Although the student correctly constructs the problem, the inclusion of an incorrect solution to an identical problem indicates imprecision in the student's work (no credit for MP6). In Part B, the student identifies the total inches of yarn (900) (2.NBT.B.7). In Part C, the student's explanation does not indicate an understanding that the total of the digits in the hundreds place is representative of the total number of inches in hundreds ("all you got to do is add or multiplication") (no credit for MP3).

Total Awarded Points: 1 out of 4

A-11a

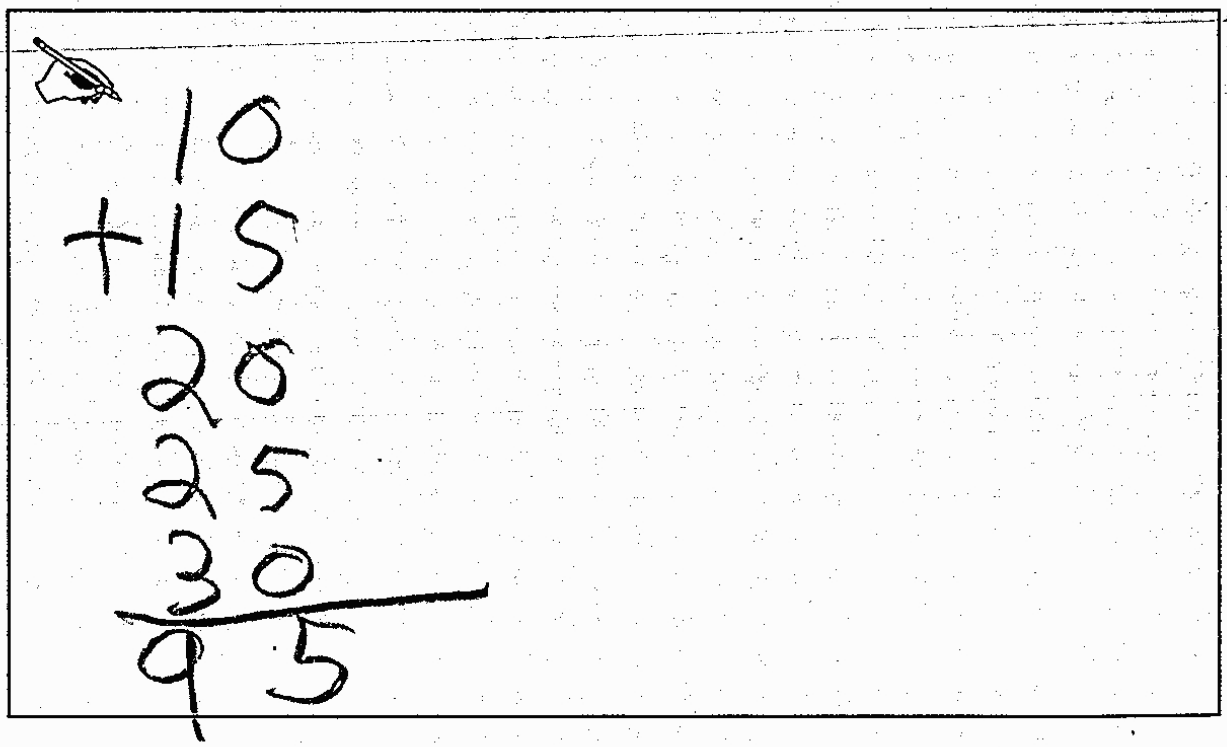
Rainbow Yarn Task

Warren has his different lengths and colors of yarn listed in the table.

Warren's Yarn

Color of Yarn	Length of Yarn
Yellow	10 inches
Orange	15 inches
Green	20 inches
Blue	25 inches
Purple	30 inches

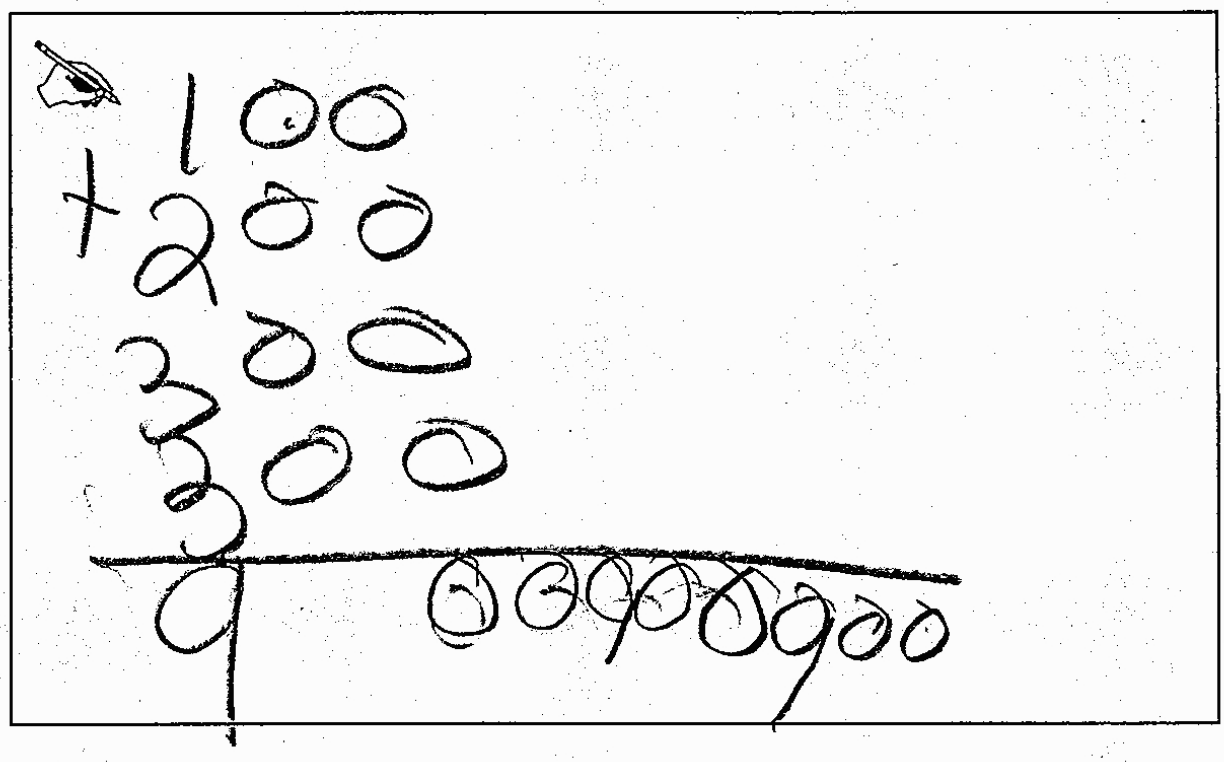
a. Find the total number of inches of yarn that Warren has. Show how you arrived at the total number of inches of yarn.



A-11b

Pink	100 inches
Tan	200 inches
White	300 inches
Black	300 inches

b. What is the total number of inches of string he has?

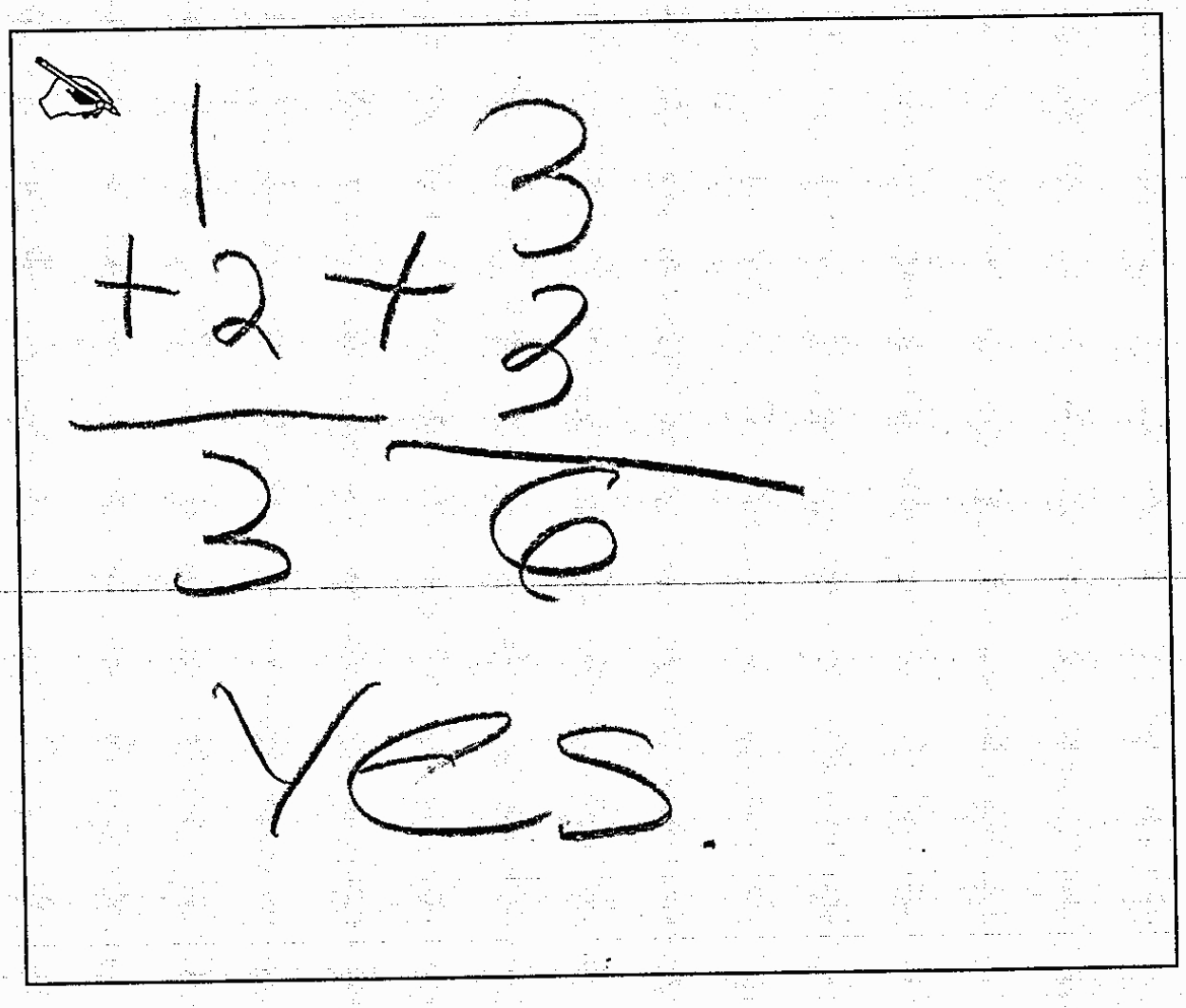


A-11c

Rainbow Yarn Task

Warren claims that he can find the total number of inches of string by first adding 1 + 2 + 3 + 3.

c. Explain why Warren can find the total number of inches of string by first adding 1 + 2 + 3 + 3.



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Total Content Points: 0

Total Practice Points: 0

In Part A, the student does not correctly solve the “putting together” problem, instead arriving at a sum of 95 (no credit for 2.OA.A.1). Although the student properly constructs the addition problem using the correct data from the given table, the incorrect sum indicates incorrect work (no credit for MP6). In Part B, the student arrives at an incorrect sum (9000,000,00) (no credit for 2.NBT.B.7). In Part C, the student’s incomplete sum of the given addends indicates an insufficient understanding that the total of the digits in the hundreds place is representative of the total inches in hundreds (no credit for MP3).

Total Awarded Points: 0 out of 4