SECURE MATERIAL – Reader Name: _____

Tennessee Comprehensive Assessment Program

TCAP/CRA

2014

7

Phase II

Holiday Party Task

Anchor Set

Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.

b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4.25 on each gift.

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work.

REVIEW YOUR WORK IF YOU HAVE TIME.

Scoring Guide

The CCSS for Mathematical Content (3 points)

7.EE.B.4bx Solves the inequality to determine the number of gifts Johanna can buy. _____
(1 Point)

7.EE.B.4bz Uses a number line in part b to graph the positive whole number values and 0, which are a subset of the solution set of the inequality solved in part a. _____
(1 Point)

7.NS.A.3 Determines whether or not Johanna has enough money to purchase 18 gifts in part c. Students may do this by: _____

- writing and solving an inequality of the form $15 + 4.25x \leq 25 + 75$ (or an equivalent inequality) and interpreting the results in the context of the problem;
- writing and solving an equation of the form $15 + 4.25x = 25 + 75$ (or an equivalent equation) and interpreting the results in the context of the problem;
- evaluating the expression $15 + 4.25(18)$ and comparing the value to the amount of money she has to spend, including the money her mother is contributing; or
- subtracting \$15 from Johanna's total amount of money, then dividing by \$4.25 and interpreting the quotient within the context of the problem.

(1 Point)

The CCSS for Mathematical Practice (2 points)

MP4 Writes an inequality in part a to correctly model the problem situation; includes an explanation that provides the meaning of the parts of the inequality. _____
(1 Point)
(MP4: Model with mathematics.)

MP6 Algebraic expressions and all calculations are correct; mathematical notation is precise. _____
(1 Point)
(MP6: Attend to precision.)

TOTAL POINTS: 5

The CCSS for Mathematical Content Addressed In This Task

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	
7.EE.B.4b	Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. *For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.*
Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	
7.NS.A.3	Solve real-world and mathematical problems involving the four operations with rational numbers.

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.

A-1a

Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.

12.50 = price of cake
3.95 = price for each present
x = number of presents
$\leq$ = the cost can't be more than 75 but can be equal to 75.
75.00 = maximum cost for party.
Inequality = $12.50 + 3.95x \leq 75.00$

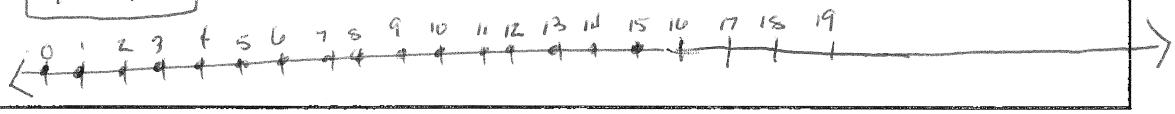
b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

$12.50 + 3.95x \leq 75$
$-12.50 \quad -12.50$

$$\frac{3.95x}{3.95} = \frac{62.5}{3.95}$$

15.822

$x = 15$



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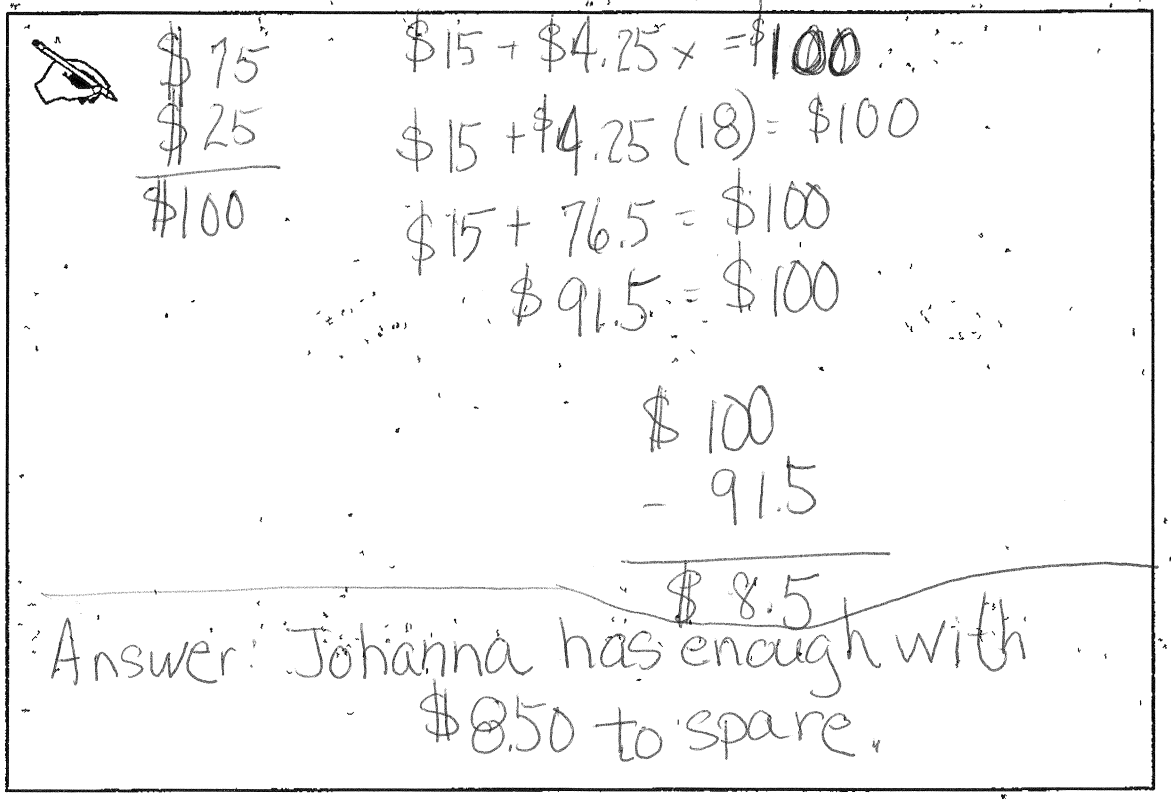
A-1b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75 00 of her own money. Since she has more money to spend, Johanna decides to spend $15 00 on the cake and $4.25 on each gift.

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work.



REVIEW YOUR WORK IF YOU HAVE TIME.

Litho#: 00017200112

Anchor 1 Litho 00017200112

Total Content Points: 3 (7.EE.B.4bx, 7.EE.B.4Bz, 7.NS.A.3)

Total Practice Points: 2 (MP4, MP6)

The student correctly solves the inequality, finding the answers $x \leq 15.822$ and $x = 15$ (7.EE.B.4bx). The student correctly uses a number line in Part B to graph the whole numbers from 0–15, inclusive, which are an appropriate subset of the solution set of the inequality in Part A (7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by writing the equation $\$15 + \$4.25x = \$100$, plugging 18 in for x, and interpreting the results ("Answer: Johanna has enough with $8.50 to spare") (7.NS.A.3). The student writes an inequality in Part A to correctly model the problem situation, $12.50 + 3.95x \leq 75.00$, and correctly explains all parts of the inequality (MP4). The student performs most algebraic expressions and all calculations correctly. In Part C, the student sets up an equation that should have been an inequality, culminating in the incorrect statement $\$91.5 = \$100$. However, the student places the statement in context, subtracting $91.5 from $100 and stating that "Johanna has enough with $8.50 to spare." Given that the student realizes that the two values are not equal, the error with the inequality sign is minor within the context of the many other precise features of this response (MP6).

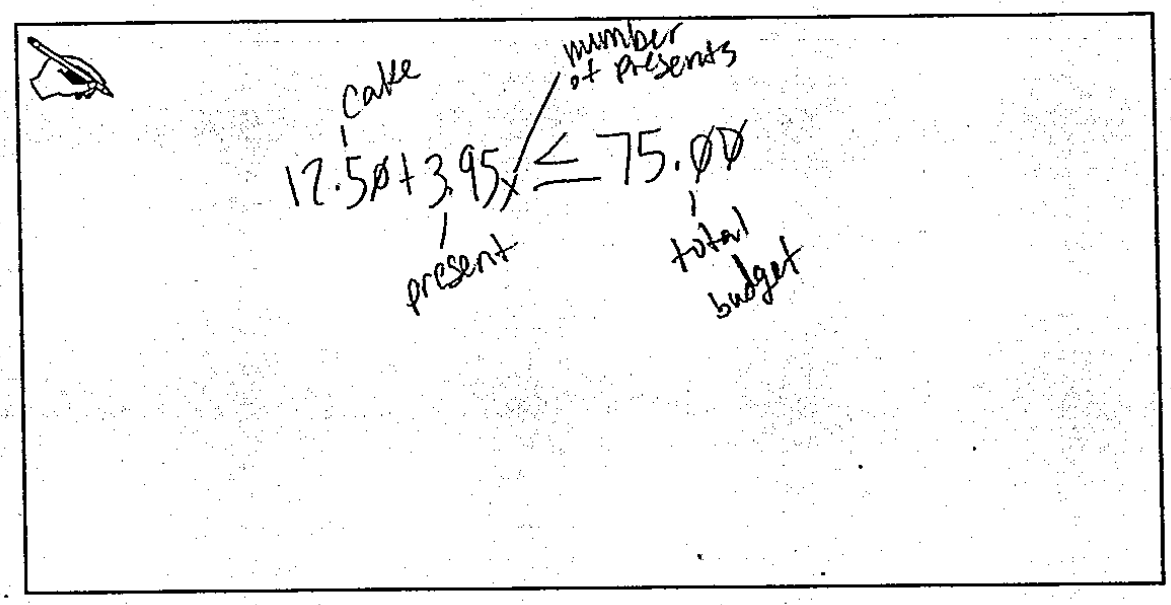
Total Awarded Points: 5 out of 5

A-2a

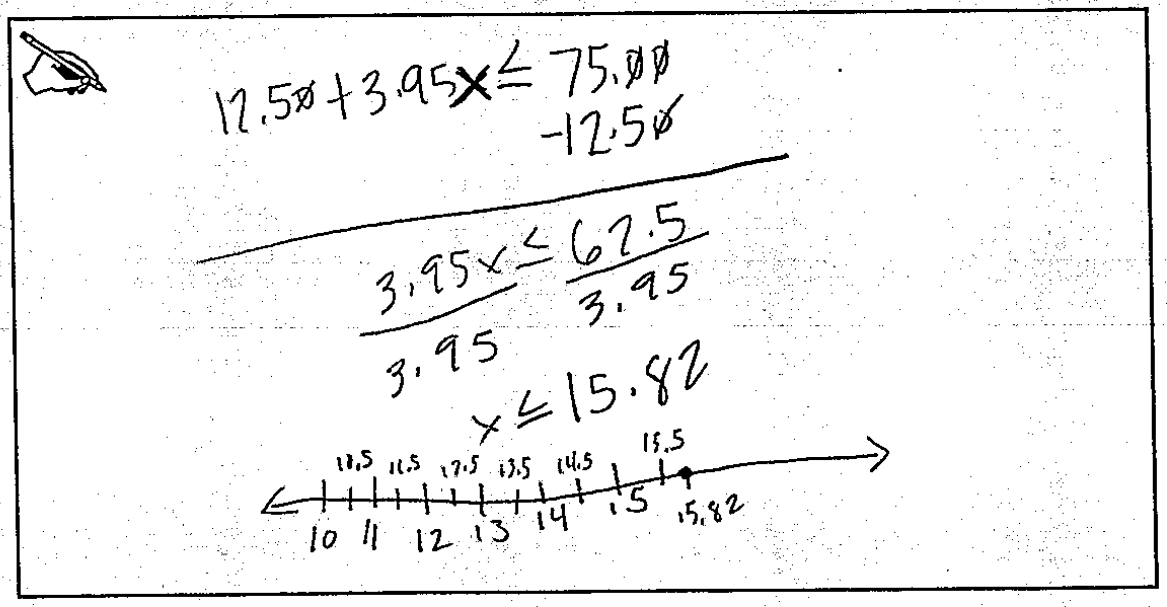
Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.



b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

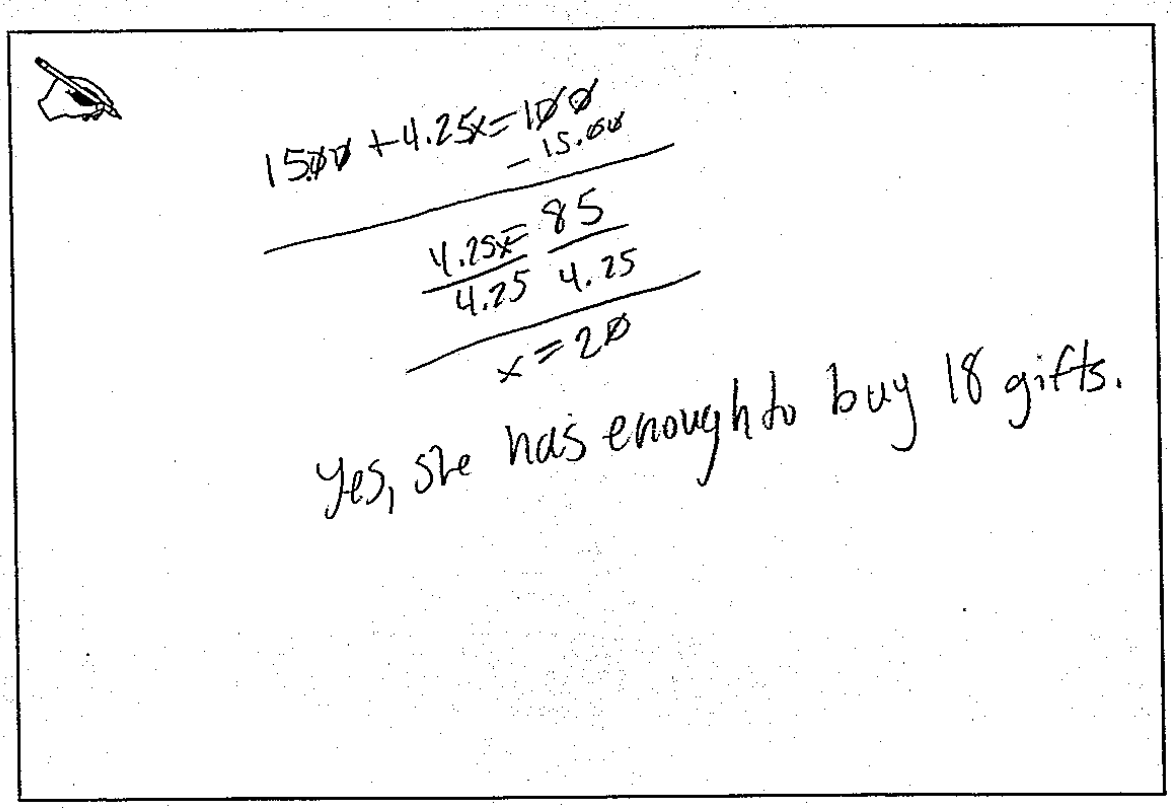


A-2b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4.25 on each gift.

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work.



STOP

REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 2 Litho 00217200151

Total Content Points: 2 (7.EE.B.4bx, 7.NS.A.3)

Total Practice Points: 2 (MP4, MP6)

The student solves the inequality to determine the number of gifts Johanna can buy —15.82. Although one cannot buy .82 of a gift, rounding down to 15 is not necessary for this point (7.EE.B.4bx). The student attempts in Part B to use a number line to graph the subset of the solution set of the inequality solved in Part A, but fails to graph all the way down to 0, and also provides some non-whole numbers, including 15.82 (no credit for 7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by writing and solving the equation $15.00 + 4.25x = 100$ and interpreting the results within the context of the problem (7.NS.A.3). The student correctly writes an inequality, $12.50 + 3.95x \leq 75.00$, in Part A and correctly explains all parts of the inequality (MP4). The student performs algebraic expressions and all calculations correctly, attending to precision (MP6).

Total Awarded Points: 4 out of 5

A-3a

Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3 95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.

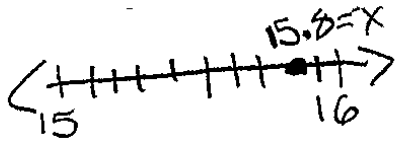
$75 > 12.50 + 3.95x$

The 75 means she can spend $75 dollars in total. The 12.50 is how much the cake will cost. The 3.95 is how much she is planning on spending on one gift. The x stands for how many people will recieve gifts.

b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

$75 > 12.50 + 3.95x$
$-12.5 \quad -12.5$
$\frac{62.5}{3.95} > \frac{3.95x}{3.95}$
$15.8 > x$

she can buy gifts for 15 people



A-3b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4.25 on each gift

c Does Johanna have enough money to buy 18 gifts? Show each step of your work.

$25+75 = 15+4.25x$

$100 = 15 + 4.25x$

$-15 \quad -15$

$\frac{85}{4.25} = \frac{4.25x}{4.25}$

$20 = x$

Yes, she does have enough money to buy 18 gifts. She actually has enough to buy 20.

REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 3 Litho 00057200109

Total Content Points: 2 (7.EE.B.4bx, 7.NS.A.3)

Total Practice Points: 2 (MP4, MP6)

The student correctly solves the inequality, finding the value 15.8 and stating that Johanna has enough money to buy 15 gifts (7.EE.B.4bx). The student attempts to construct a number line in Part B, but only plots one number, which is a non-whole number (no credit for 7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by writing and solving the equation $25 + 75 = 15 + 4.25x$ and interpreting the results within the context of the problem (7.NS.A.3). The student correctly writes an inequality, $75 > 12.50 + 3.95x$, in Part A and correctly explains all parts of the inequality. Although the inequality should have had a greater-than-or-equal-to sign instead of just greater-than, it is still acceptable as an inequality (MP4). The student performs algebraic expressions and all calculations correctly, attending to precision. "Or equal to" was omitted from the inequality, which is a weakness in precision, but within the context of all that the student has done correctly, it is not enough of a weakness to lower the student's score (MP6).

Total Awarded Points: 4 out of 5

A-4a

Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.

$75 \geq 12.50 + 3.95n$

$75 is greater than or equal to $12.50 (the cake) plus the number of gifts times $3.95

b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

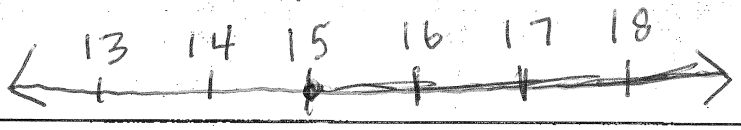
$75 \geq 12.50 + 3.95n$

$75 - 12.50 = 3.95n$

$62.5 \approx 3.95n$

$15.823 = n$

She can buy (15) gifts b/c she has to round down b/c of the inequality.



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A-4b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4.25 on each gift.

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work.

$100 - 15 = $85

4.25 × 18 = 76.5

85 vs 76.5

yes

REVIEW YOUR WORK IF YOU HAVE TIME.

Litho#: 00037200127

Anchor 4 Litho 00037200127

Total Content Points: 2 (7.EE.B.4bx, 7.NS.A.3)

Total Practice Points: 1 (MP6)

The student correctly solves the inequality, achieving a result of 15.823 = n and stating that Johanna has enough money to buy 15 gifts (7.EE.B.4bx). The student attempts a number line in Part B, and begins with 15, but graphs the numbers larger than 15 instead of the numbers smaller than 15, and also uses a continuous line instead of just representing the whole numbers (no credit for 7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by subtracting 15 from Johanna's total amount of money to get $85, then multiplying 4.25 by 18 and comparing the product to see which is greater (7.NS.A.3). The student correctly writes an inequality, $75 \geq 12.50 + 3.95n$, in Part A but does not explain all parts of the inequality. The definitions of 75 and 3.95 are omitted (no credit for MP4). The student changes from an inequality to an equation in Part B and omits a multiplication symbol in Part C, showing a lack of precision (MP6).

Total Awarded Points: 3 out of 5

A-5a

Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.

$75 = 3.95x + 12.50$

75 = budget

3.95 = cost of one gift

x = number of gifts

12.50 = cost of cake

b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

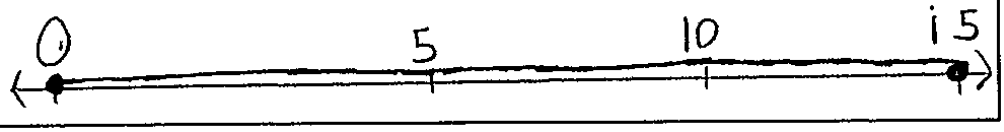
$75 = 3.95x + 12.50$

$-12.50 \quad -12.50$

$\frac{62.5}{3.95} = \frac{3.95x}{3.95}$

$15.823 = x$

she can't get more than 15



A-5b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4.25 on each gift

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work

Yes, she can get exactly 20 gifts

previous budget + mom's contribution = new budget

$75 + $25 = $100

cost of gifts × # of gifts + cost of cake = budget

$4.25x + 15 = 100

$-15 \quad -15$

$\frac{4.25x}{4.25} = \frac{85}{4.25}$

$x = 20$

maximum number of gifts she can purchase without going over the budget is 20.

STOP

REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 5 Litho 00247200109

Total Content Points: 2 (7.EE.B.4bx, 7.NS.A.3)

Total Practice Points: 1 (MP6)

The student correctly solves the equation, answering 15.823 and stating that Johanna can't get more than 15 gifts (7.EE.B.4bx). The student constructs a number line with numbers from 0 to 15 in Part B, but makes the line continuous rather than showing only whole numbers (no credit for 7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by writing and solving the equation $4.25x + 15 = 100$ and interpreting the result within the context of the problem (7.NS.A.3). The student writes an equation instead of an inequality, $75 = 3.95x + 12.50$, in Part A (no credit for MP4). The student performs algebraic expressions and all calculations correctly. Although the student writes an equation instead of an inequality in Parts A and B, the equations as written are solved correctly, so the student receives credit for attending to precision (MP6).

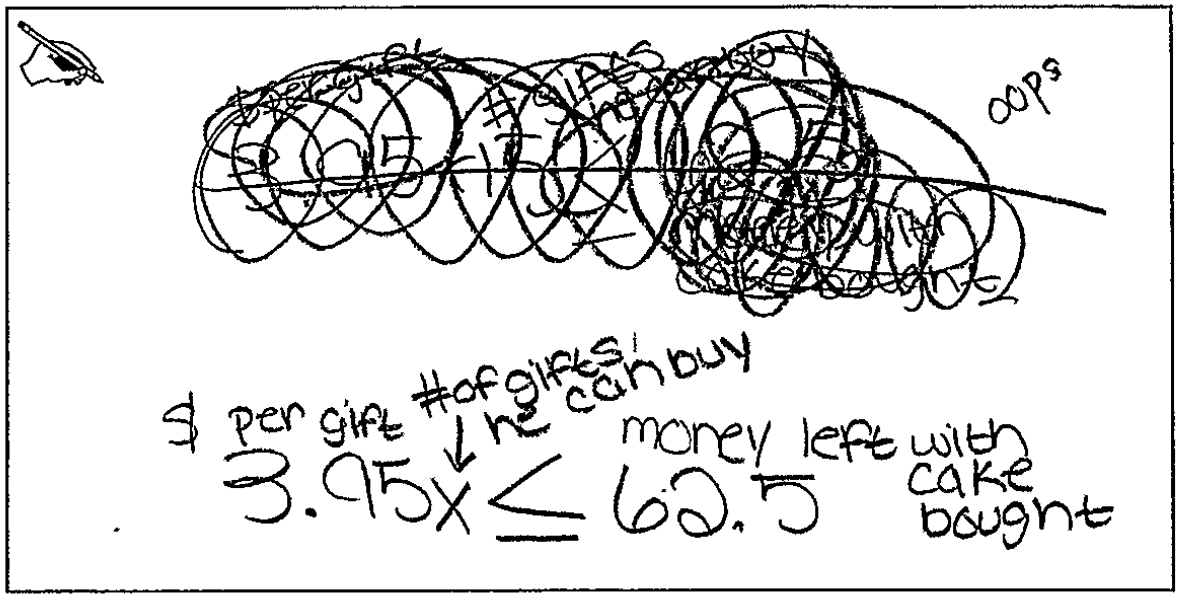
Total Awarded Points: 3 out of 5

A-6a

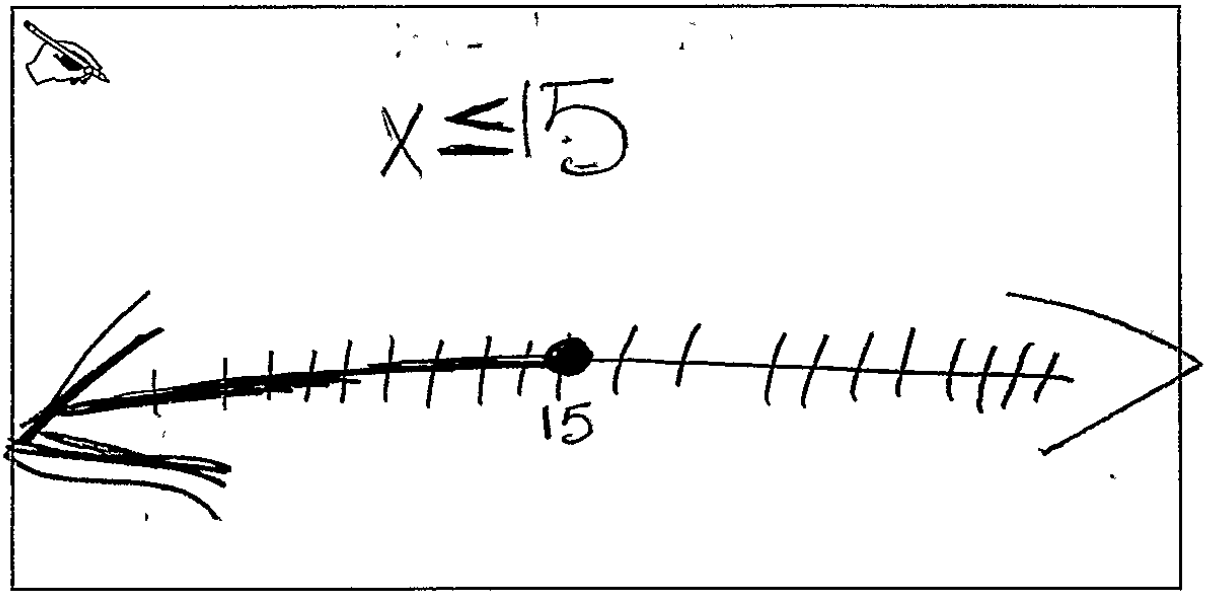
Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75 00 on the party Explain what each term in your inequality means in the context of the problem.



b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

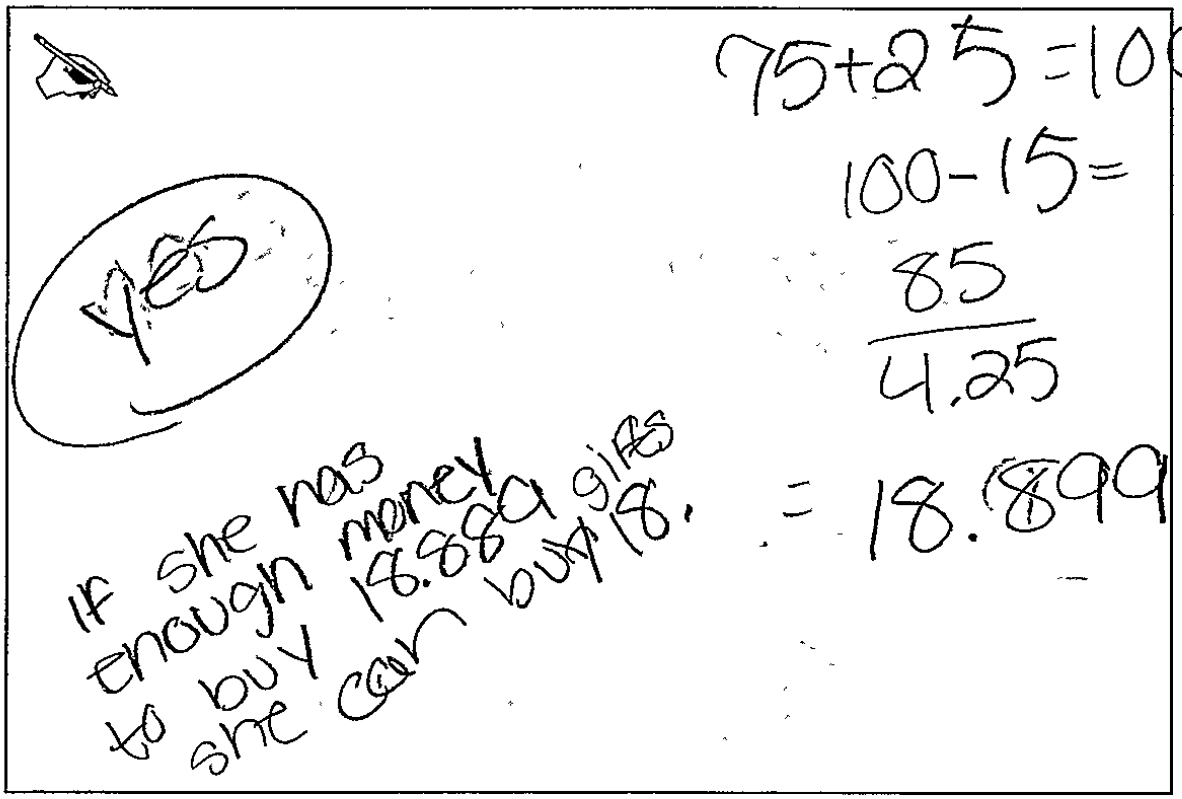


A-6b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15 00 on the cake and $4 25 on each gift

c Does Johanna have enough money to buy 18 gifts? Show each step of your work



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REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 6 Litho 00307200109

Total Content Points: 2 (7.EE.B.4bx, 7.NS.A.3)

Total Practice Points: 1 (MP4)

The student receives credit for correctly solving the inequality, stating that $x \leq 15$ (7.EE.B.4bx). The student constructs a number line in Part B with 15 as the highest value, but 0 is not shown, and the line is continuous instead of showing only whole numbers (no credit for 7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by subtracting \$15 from Johanna's total amount of money, then dividing by \$4.25 and interpreting the quotient within the context of the problem (7.NS.A.3). The student correctly writes an inequality in Part A in which the cost of the cake, \$12.50, has already been subtracted from both sides, $3.95x \leq 62.50$, and correctly explains all parts of the inequality (MP4). The student performs algebraic expressions and most calculations correctly. However, in Part C, the student calculates $\frac{85}{4.25}$ as 18.899, rather than 20, showing a lack of precision (no credit for MP6).

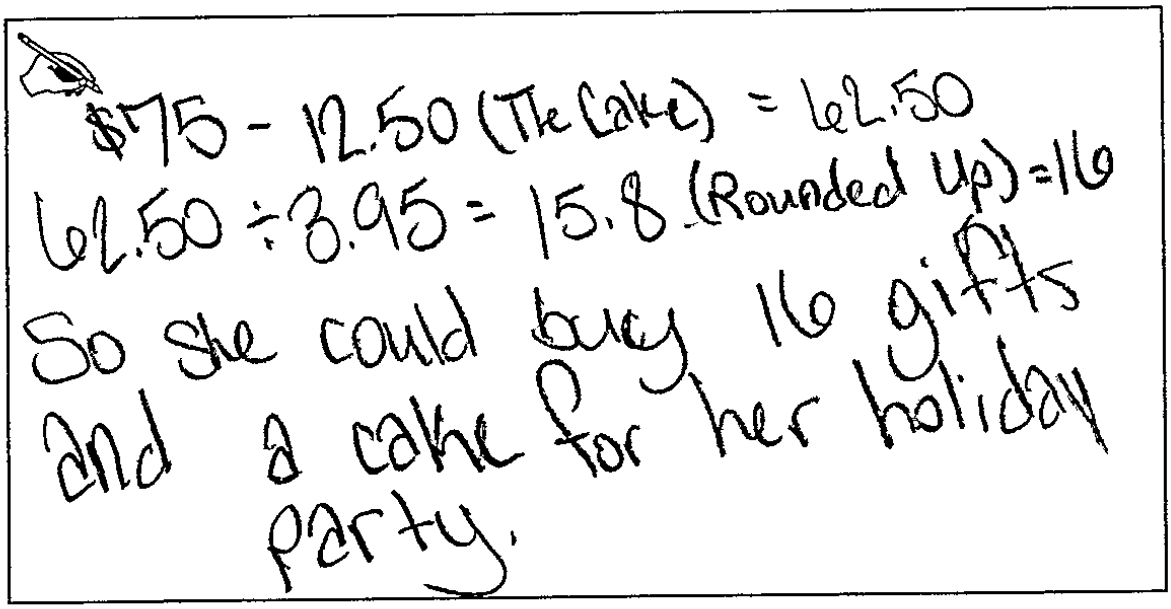
Total Awarded Points: 3 out of 5

A-7a

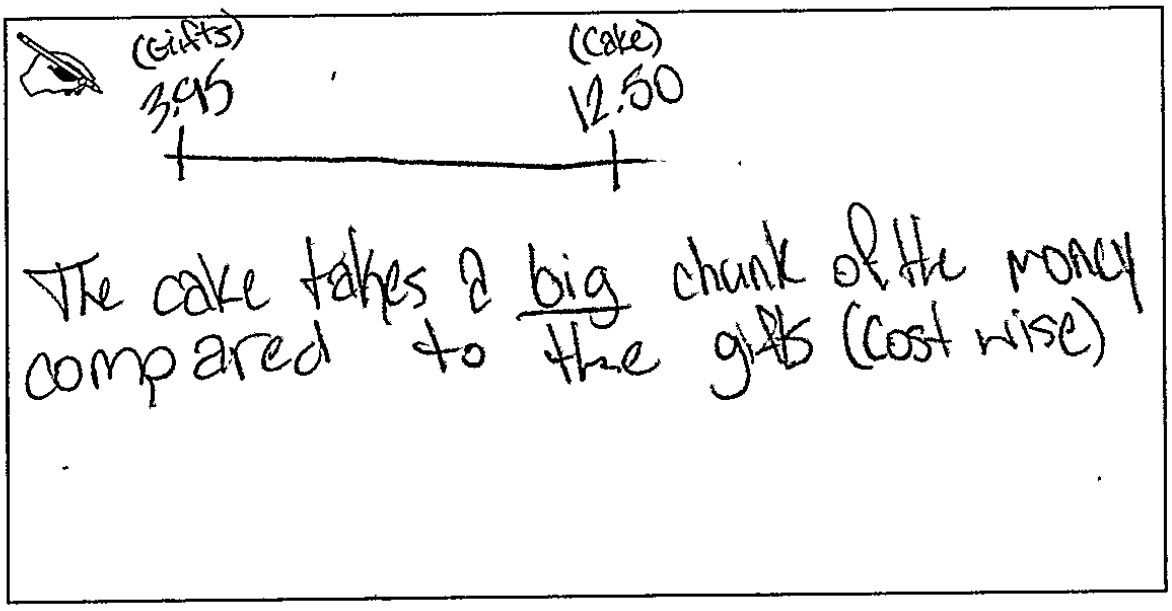
Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75 00 on the party. Explain what each term in your inequality means in the context of the problem.



b Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

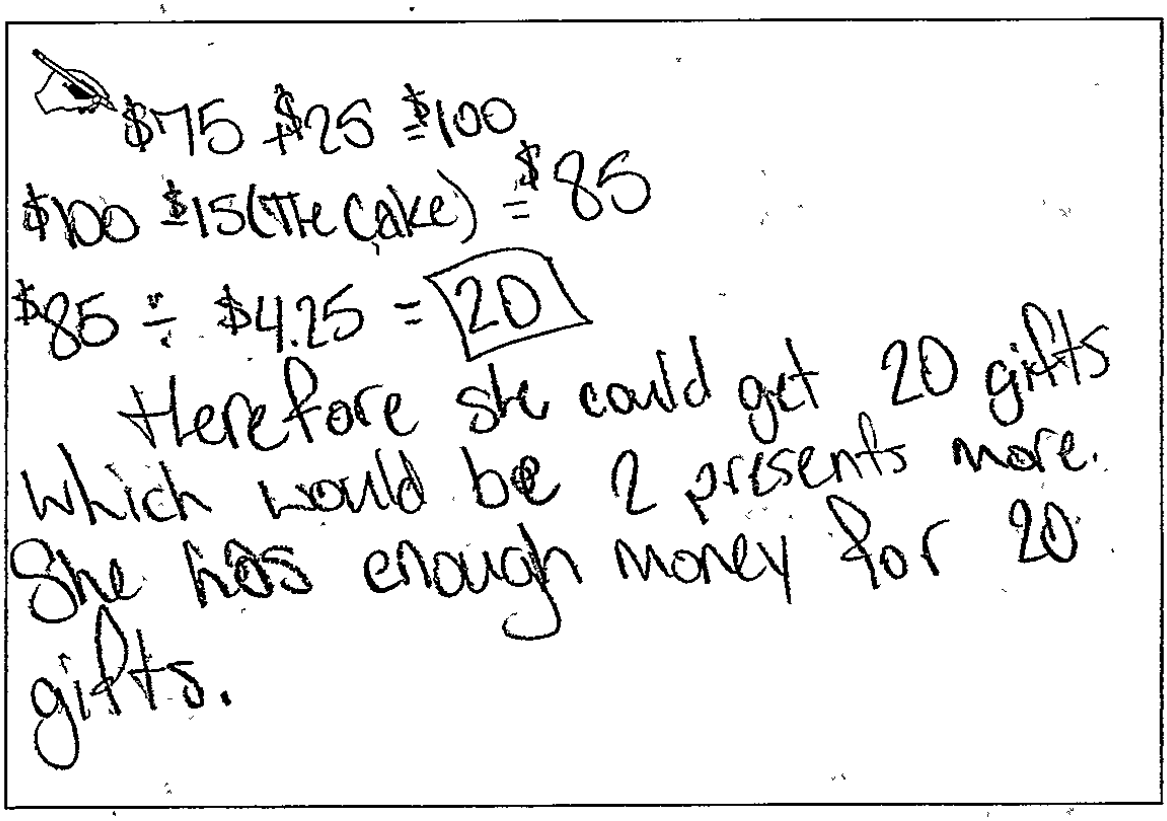


A-7b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4 25 on each gift.

c Does Johanna have enough money to buy 18 gifts? Show each step of your work



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REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 7 Litho 00757200109

Total Content Points: 2 (7.EE.B.4bx, 7.NS.A.3)

Total Practice Points: 1 (MP6)

The student solves the equations, answering 15.8. Because rounding is not necessary for this point, rounding up to 16 does not detract from the solution (7.EE.B.4bx). Instead of a number line in Part B, the student draws a line with 3.95 on one end, representing gifts, and 12.50 on the other, representing cake, which is not sensible within the problem context (no credit for 7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by subtracting $15 from Johanna's total amount of money, and then dividing by $4.25 and interpreting the quotient within the context of the problem (7.NS.A.3). Instead of an inequality in Part A, the student writes two equations without variables (no credit for MP4). The student performs algebraic expressions and all calculations correctly, attending to precision (MP6).

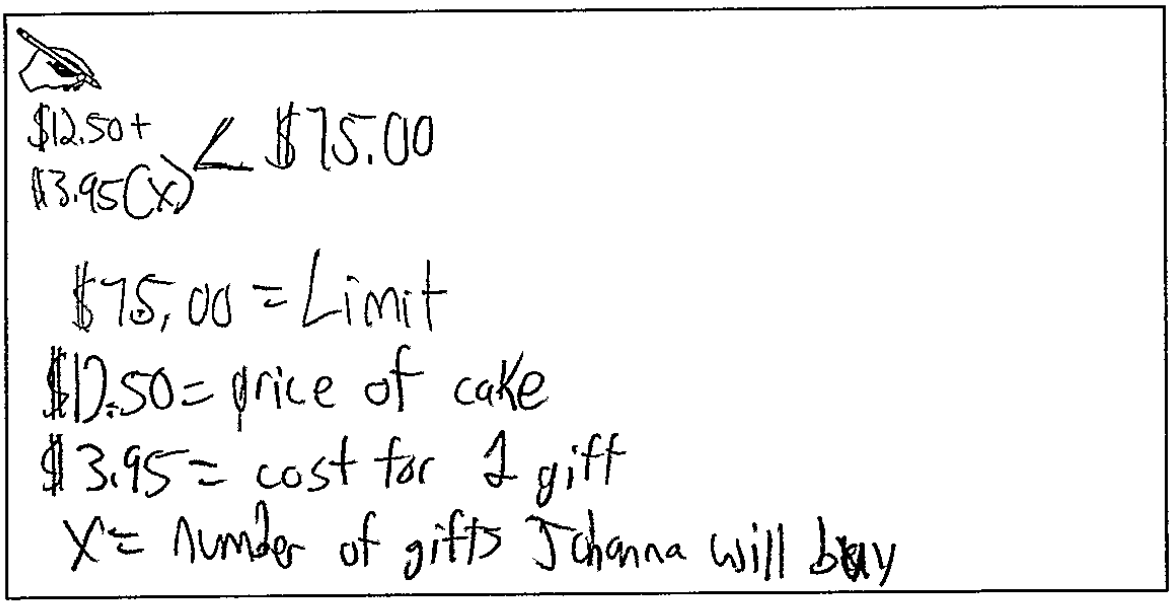
Total Awarded Points: 3 out of 5

A-8a

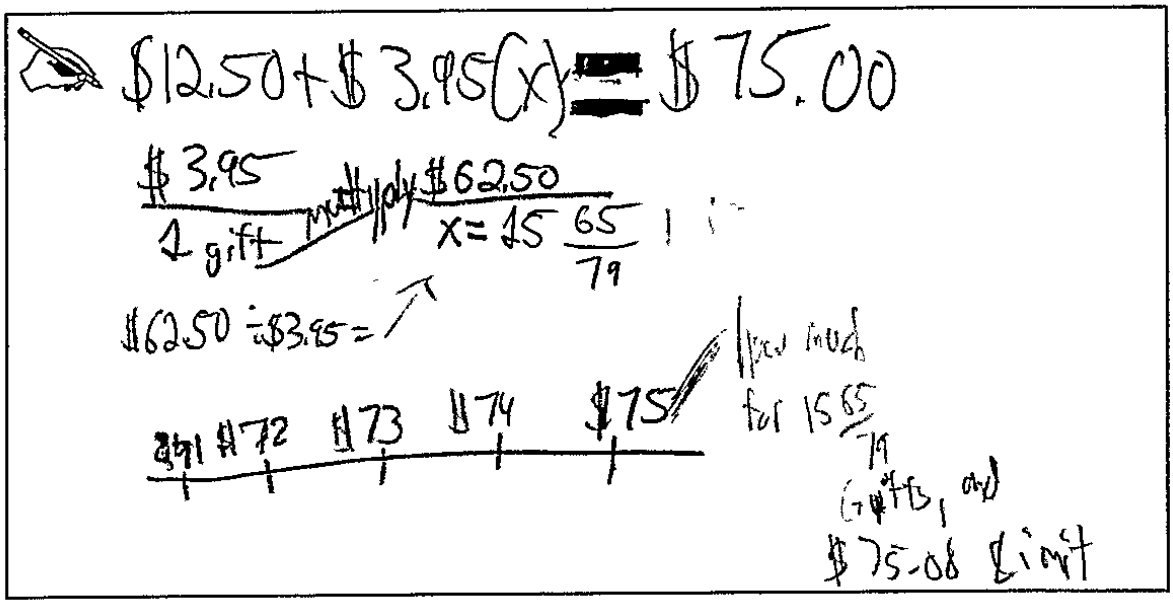
Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each. Unit Rate

a Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.



b Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

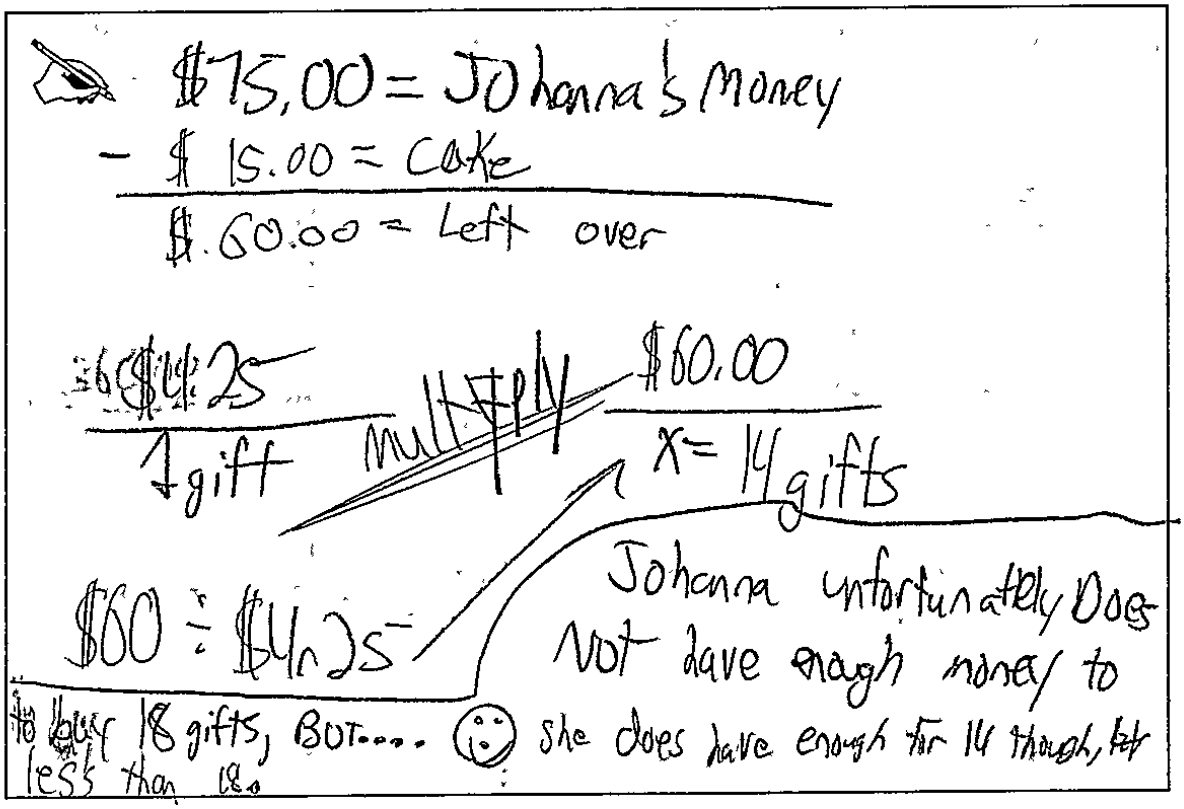


A-8b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4.25 on each gift

c Does Johanna have enough money to buy 18 gifts? Show each step of your work.



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REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 8 Litho 00667200109

Total Content Points: 1 (7.EE.B.4bx)

Total Practice Points: 1 (MP4)

The student correctly solves the inequality, answering $15\frac{65}{79}$, which is the fractional equivalent of 15.822 (7.EE.B.4bx). The student's attempt at a number line in Part B with graphed solutions that make sense within the context of the problem contains the dollar amounts 71 through 75 instead of the whole numbers from 0 to 15 (no credit for 7.EE.B.4bz). In Part C, the student does not add the extra $25 offered by Johanna's mom to the budget, resulting in an incorrect answer of 14 gifts (no credit for 7.NS.A.3). The student writes an inequality, $12.50 + 3.95x < 75.00$, in Part A and correctly explains all parts of the inequality. Although "or equal to" was omitted from the sign, this inequality is acceptable (MP4). The student performs most algebraic expressions and calculations correctly. However, in addition to the lack of "or equal to" in the inequality sign, the inequality changes to an equation in Part B; and two expressions in Parts B and C are formed in a non-standard way, using a diagonal line with "multiply" written above it, which shows a lack of precision (no credit for MP6).

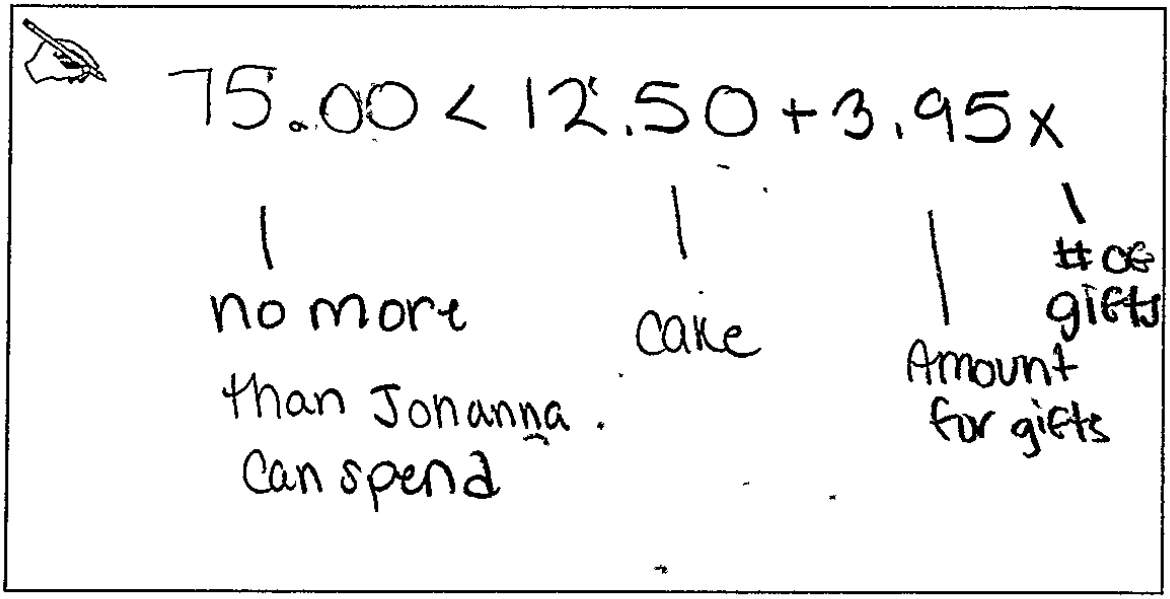
Total Awarded Points: 2 out of 5

A-9a

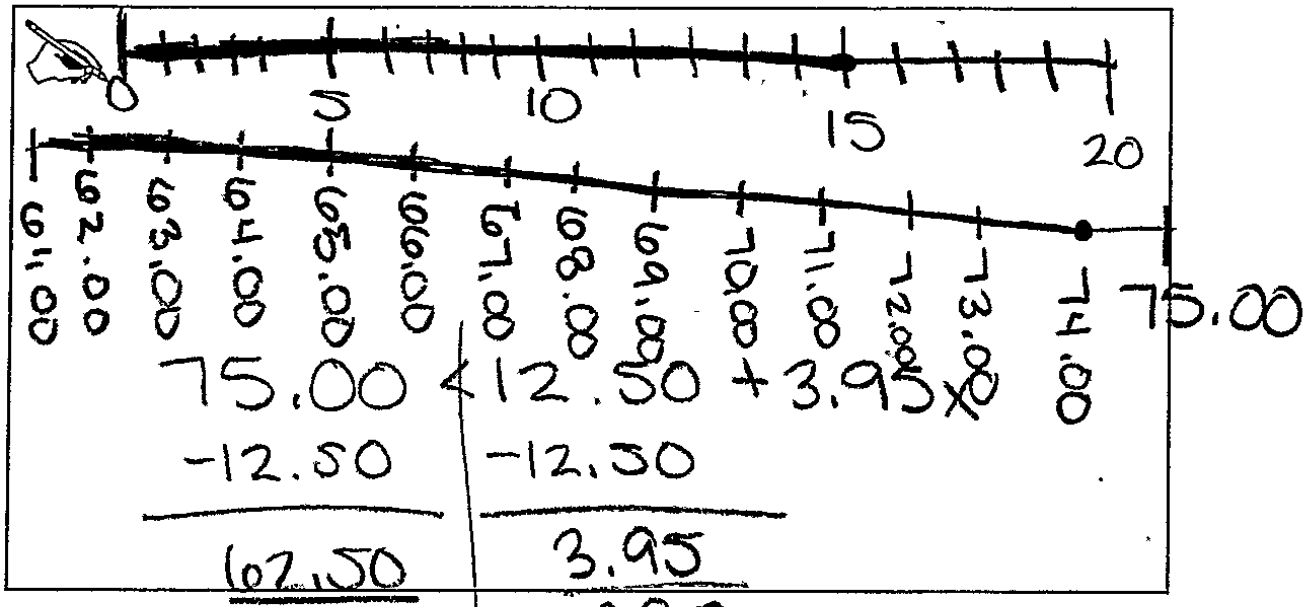
Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem



b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.



A-9b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4 25 on each gift

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work.

100.00 - 15.00 = 85.00

20
4.25) 85.00

Yes, she has enough money to buy 20 gifts, so she could get 18 also.

STOP

REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 9 Litho 00187200109

Total Content Points: 2 (7.EE.B.4bx, 7.NS.A.3)

Total Practice Points: 0

The student correctly solves the inequality, stating that $15 = x$, where x is the number of gifts (7.EE.B.4bx). The student attempts two number lines in Part B, one of which graphs the numbers from 0 to 15, but the line is continuous rather than showing the whole numbers only (no credit for 7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by subtracting 15 from Johanna's total amount of money, then dividing by $4.25 and interpreting the quotient within the context of the problem (7.NS.A.3). The student attempts to write an inequality, $75 < 12.50 + 3.95x$, in Part A but mistakenly uses the less-than sign, expressing that Johanna needs to spend more than $75 on the party (no credit for MP4). The student performs algebraic expressions and most calculations correctly, but in Part B, the student uses imprecise mathematical notation by using first using a less-than sign, then using no sign, then finishing with an equals sign when solving the inequality. Also, $\frac{62.50}{3.95}$ should have been 15.82, not 15, indicating a lack of precision (no credit for MP6).

Total Awarded Points: 2 out of 5

A-10a

Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12 50 and gifts for $3 95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75 00 on the party Explain what each term in your inequality means in the context of the problem.

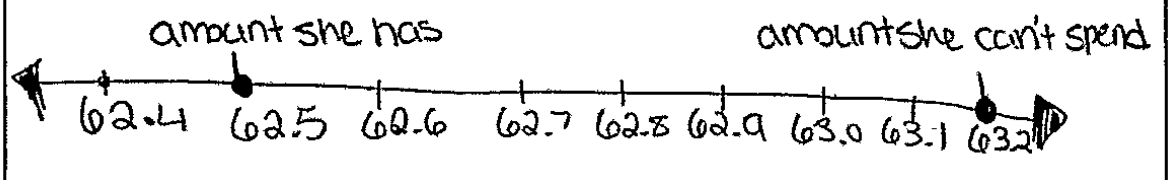
$75.00 $12.50 < $3.95 x16

The 75 in this inequality is the money she has in total. The -12.50 is the money that is taken away for the cake. The 3.95 is the amount of money each gift will cost and the 16 is the amount of gifts she can buy.

b. Solve the inequality you wrote in part a Use a number line to graph the solutions that make sense in the context of the problem

$75.00 $12.5 < $3.95 x16

$62.5 < $63.2



A-10b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund Johanna has $75 00 of her own money. Since she has more money to spend, Johanna decides to spend $15 00 on the cake and $4 25 on each gift

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work

Yes, Johanna does have enough money to buy 18 gifts. First, I added Johanna's and her mom's money together to get $100. Then I subtracted $15 to pay for the cake. I then had $85.00, which I divided by $4.25, to see how many gifts she could pay for, which was 20.

Work

$25 + $75 = $100 - $15 = $85 ÷ $4.25 = 20 gifts

20 > 18

STOP

REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 10 Litho 00127200109

Total Content Points: 1 (7.NS.A.3)

Total Practice Points: 0

The student provides an incorrect answer (16), which may or may not have been derived through solving the provided inequality and erroneously rounding up (no credit for 7.EE.B.4bx). The student uses the number line in Part B to graph the difference between the amount of money Johanna had to spend after purchasing the cake and the amount it cost to buy 16 gifts (no credit for 7.EE.B.4bz). In Part C, the student correctly calculates that Johanna has enough money to purchase 18 gifts by subtracting $15 from Johanna's total amount of money, then dividing by $4.25 and interpreting the quotient within the context of the problem (7.NS.A.3). The student attempts to write an inequality, $\$75 - \$12.50 < \$3.95 \times 16$, in Parts A and B, but omits the variable for the number of gifts Johanna can buy and incorrectly multiplies by 16. Because the variable is replaced by an incorrect answer, the inequality in Part A does not correctly model the problem situation (no credit for MP4). The student performs most algebraic expressions and calculations correctly, but uses a "running equation" to solve Part C instead of showing each calculation individually to its conclusion, showing a lack of precision (no credit for MP6).

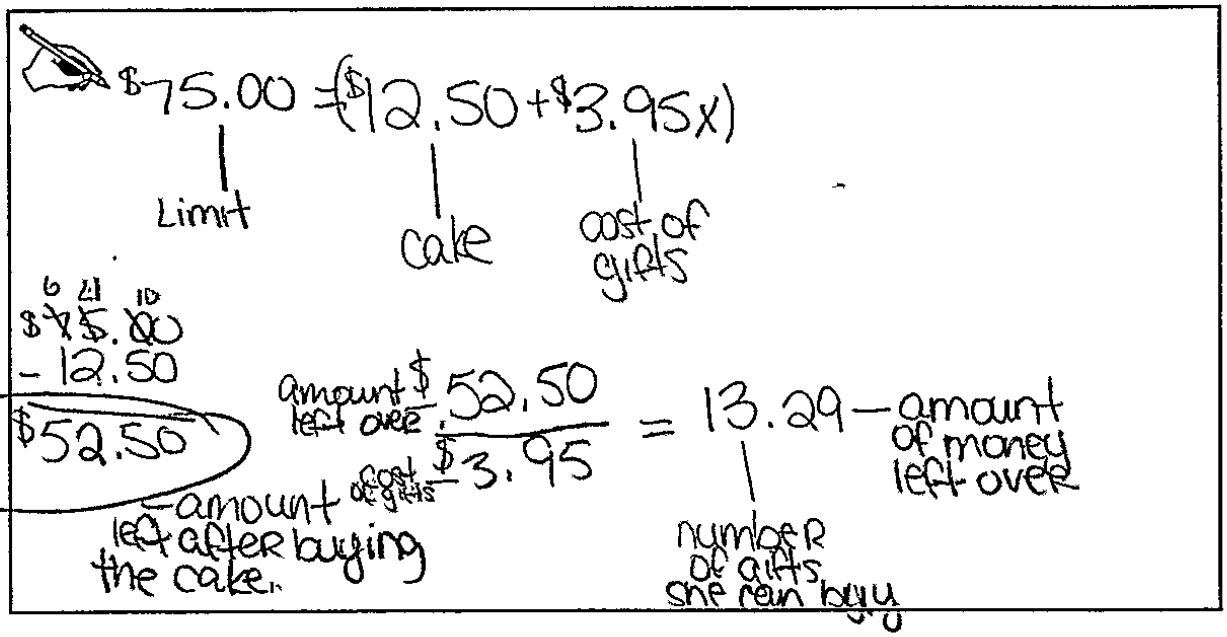
Total Awarded Points: 1 out of 5

A-11a

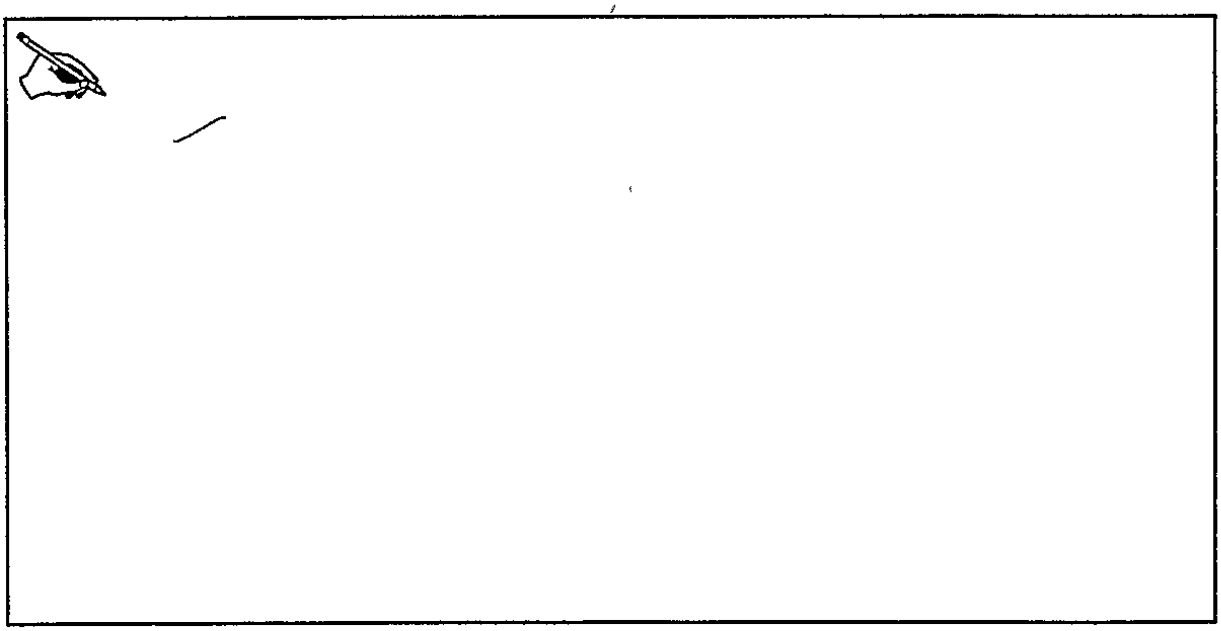
Holiday Party Task

Johanna is planning a holiday party. She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.



b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.



A-11b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4 25 on each gift.

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work.

REVIEW YOUR WORK IF YOU HAVE TIME.

Litho#: 00677200112

Anchor 11 Litho 00677200112

Total Content Points: 1 (7.EE.B.4bx)

Total Practice Points: 0

The student makes a minor calculation error while solving the equation $\$75.00 - 12.50 = \$52.50$, but correctly completes the calculation based on the incorrect amount $\left(\frac{\$52.50}{\$3.95} = 13.29\right)$ and states in Part A that Johanna has enough money to buy 13 gifts (7.EE.B.4bx). In Part B, the student does not attempt to construct a number line that graphs the positive whole number values and 0 (no credit for 7.EE.B.4bz). The student does not attempt to respond to Part C (no credit for 7.NS.A.3). In Part A, the student writes an equation instead of an inequality, $\$75.00 = (\$12.50 + \$3.95x)$ (no credit for MP4). The student performs some calculations correctly, but the calculation error in solving the equation in Part A shows a lack of precision (no credit for MP6).

Total Awarded Points: 1 out of 5

A-12a

Holiday Party Task

Johanna is planning a holiday party She plans to buy a cake for $12.50 and gifts for $3.95 each.

a. Write an inequality that can be used to determine the number of gifts Johanna can buy if she cannot spend more than $75.00 on the party. Explain what each term in your inequality means in the context of the problem.

75,00 + 12,50 + 3,95 = 91,45

b. Solve the inequality you wrote in part a. Use a number line to graph the solutions that make sense in the context of the problem.

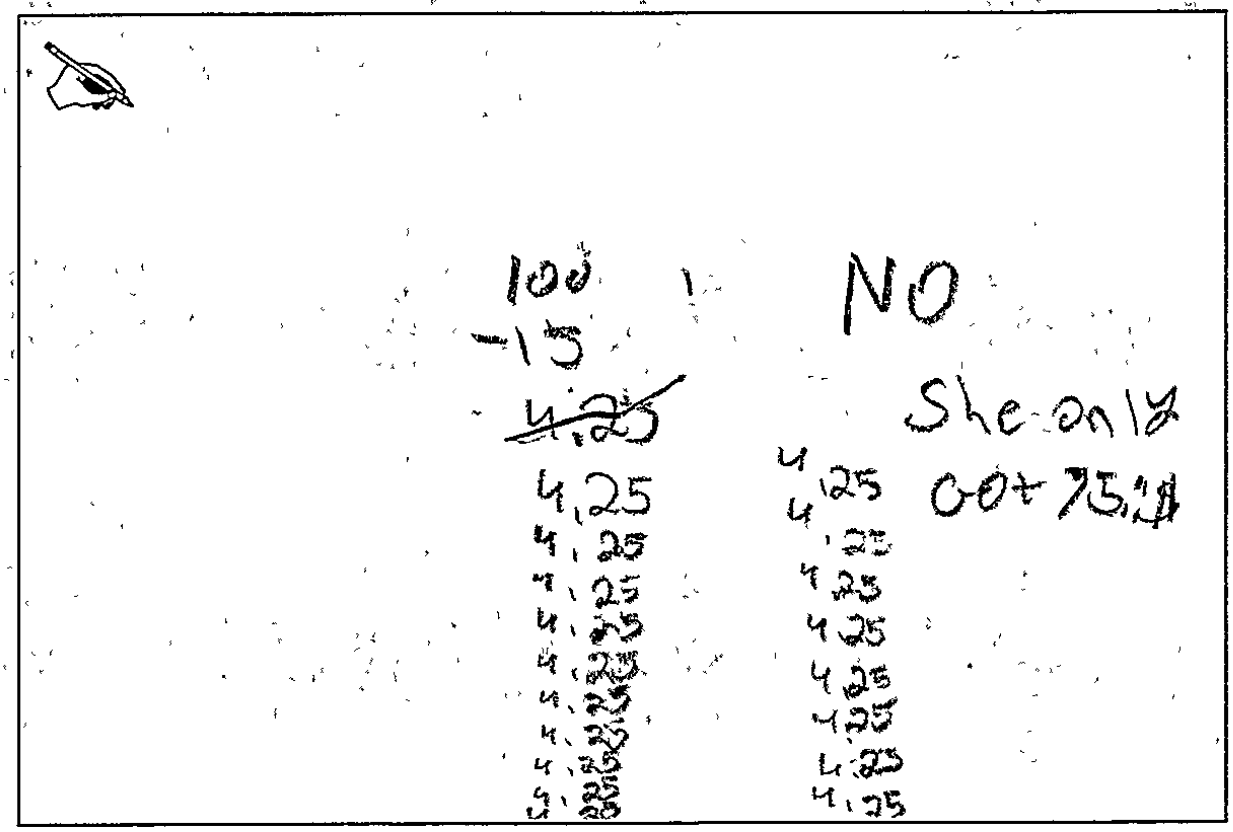
I Added

A-12b

Holiday Party Task

Johanna's mom offers to contribute $25 to the party fund. Johanna has $75.00 of her own money. Since she has more money to spend, Johanna decides to spend $15.00 on the cake and $4.25 on each gift.

c. Does Johanna have enough money to buy 18 gifts? Show each step of your work.



REVIEW YOUR WORK IF YOU HAVE TIME.

Anchor 12 Litho 00207200112

Total Content Points: 0

Total Practice Points: 0

The student does not attempt an answer for the number of gifts Johanna can buy (no credit for 7.EE.B.4bx). In Part B, the student does not attempt to construct a number line that graphs the positive whole number values and 0 (no credit for 7.EE.B.4bz). The student attempts to respond to Part C by subtracting $15 from Johanna's total amount of money, then either successively adding or subtracting $4.25. However, the student reaches an incorrect conclusion, "no," and not enough clear work is shown in order to be able to identify the student's error (no credit for 7.NS.A.3). Instead of an inequality, the student writes an equation in Part A with no variable and without an explanation of terms (no credit for MP4). Although the student performs the one clear calculation present correctly, the student provides insufficient algebraic expressions, calculations, and mathematical notation to demonstrate precision (no credit for MP6).

Total Awarded Points: 0 out of 5