New York State Testing Program

2024

Mathematics Test

Grade 5

Scoring Leader Materials

Training Set

Grade 5 Mathematics Reference Sheet

CONVERSIONS

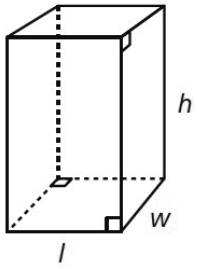
1 yard = 3 feet
1 mile = 5,280 feet
1 mile = 1,760 yards

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 liter = 1,000 milliliters

1 pound = 16 ounces
1 ton = 2,000 pounds
1 kilogram = 1,000 grams

FORMULAS AND FIGURES

Right Rectangular Prism



$V = l \times w \times h$
$V = B \times h$

1-Credit Constructed-Response Rubric

1 Credit	A 1-credit response is a **correct answer** to the question which indicates a thorough understanding of mathematical concepts and/or procedures.
0 Credits*	A 0-credit response is incorrect, irrelevant, or incoherent.

* Condition Code A is applied whenever a student who is present for a test session leaves an entire constructed-response question in that session completely blank (no response attempted).

2-Credit Constructed-Response Holistic Rubric

2 Credits	A 2-credit response includes the correct solution to the question and demonstrates a thorough understanding of the mathematical concepts and/or procedures in the task. This response • indicates that the student has completed the task correctly, using mathematically sound procedures • contains sufficient work to demonstrate a thorough understanding of the mathematical concepts and/or procedures • may contain inconsequential errors that do not detract from the correct solution and the demonstration of a thorough understanding
1 Credit	A 1-credit response demonstrates only a partial understanding of the mathematical concepts and/or procedures in the task. This response • correctly addresses only some elements of the task • may contain an incorrect solution but applies a mathematically appropriate process • may contain the correct solution but required work is incomplete
0 Credits*	A 0-credit response is incorrect, irrelevant, incoherent, or contains a correct solution obtained using an obviously incorrect procedure. Although some elements may contain correct mathematical procedures, holistically they are not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.

* Condition Code A is applied whenever a student who is present for a test session leaves an entire constructed-response question in that session completely blank (no response attempted).

3-Credit Constructed-Response Holistic Rubric

3 Credits	A 3-credit response includes the correct solution(s) to the question and demonstrates a thorough understanding of the mathematical concepts and/or procedures in the task. This response • indicates that the student has completed the task correctly, using mathematically sound procedures • contains sufficient work to demonstrate a thorough understanding of the mathematical concepts and/or procedures • may contain inconsequential errors that do not detract from the correct solution(s) and the demonstration of a thorough understanding
2 Credits	A 2-credit response demonstrates a partial understanding of the mathematical concepts and/or procedures in the task. This response • appropriately addresses most but not all aspects of the task using mathematically sound procedures • may contain an incorrect solution but provides sound procedures, reasoning, and/or explanations • may reflect some minor misunderstanding of the underlying mathematical concepts and/or procedures
1 Credit	A 1-credit response demonstrates only a limited understanding of the mathematical concepts and/or procedures in the task. This response • may address some elements of the task correctly but reaches an inadequate solution and/or provides reasoning that is faulty or incomplete • exhibits multiple flaws related to misunderstanding of important aspects of the task, misuse of mathematical procedures, or faulty mathematical reasoning • reflects a lack of essential understanding of the underlying mathematical concepts • may contain the correct solution(s) but required work is limited
0 Credits*	A 0-credit response is incorrect, irrelevant, incoherent, or contains a correct solution obtained using an obviously incorrect procedure. Although some elements may contain correct mathematical procedures, holistically they are not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.

* Condition Code A is applied whenever a student who is present for a test session leaves an entire constructed-response question in that session completely blank (no response attempted).

1-Credit Constructed-Response Mathematics Scoring Policies (2024)

1. The student is **not** required to show work for a 1-credit constructed-response question, therefore, any work shown will **not** be scored. A clearly identified correct response should still receive full credit.
2. If the student clearly identifies a correct answer but fails to write that answer in the answer space, the student should still receive full credit.
3. If the student provides one legible response (and one response only), the rater should score the response, even if it has been crossed out.
4. If the student has written more than one response but has crossed some out, the rater should score only the response that has **not** been crossed out.
5. If the student provides more than one response but does not indicate which response is to be considered the correct response and none have been crossed out, the student shall not receive credit.
6. If the student does not provide the answer in the form as directed in the question, the student will not receive credit.
7. In questions requiring number sentences, the number sentences must be written horizontally.
8. When measuring angles with a protractor, there is a +/- 5 degrees deviation allowed of the true measure.
9. Condition Code A is applied whenever a student who is present for a test session leaves an entire constructed-response question in that session completely blank (no response attempted). This is not to be confused with a score of zero wherein the student does respond to part or all of the question, but that work results in a score of zero.

2- and 3-Credit Constructed-Response Mathematics Scoring Policies (2024)

1. If a student shows the work in other than a designated "Show your work" or "Explain" area, that work should still be scored.
2. If the question requires students to show their work, and the student shows appropriate work and clearly identifies a correct answer but fails to write that answer in the answer space, the student should still receive full credit.
3. If students are directed to show work or provide an explanation, a correct answer with **no** work shown or **no** explanation provided, receives **no** credit.
4. If students are **not** directed to show work, any work shown will **not** be scored. This applies to questions that do **not** ask for any work and questions that ask for work for one part and do **not** ask for work in another part.
5. If the student provides one legible response (and one response only), the rater should score the response, even if it has been crossed out.
6. If the student has written more than one response but has crossed some out, the rater should score only the response that has **not** been crossed out.
7. If the student provides more than one response, but does not indicate which response is to be considered the correct response and none have been crossed out, the student shall not receive full credit.
8. Trial-and-error responses are **not** subject to Scoring Policy #6 above, since crossing out is part of the trial-and-error process.
9. If a response shows repeated occurrences of the same conceptual error within a question, the conceptual error should **not** be considered more than once in gauging the demonstrated level of understanding.
10. In questions requiring number sentences, the number sentences must be written horizontally.
11. When measuring angles with a protractor, there is a +/- 5 degrees deviation allowed of the true measure.
12. Condition Code A is applied whenever a student who is present for a test session leaves an entire constructed-response question in that session completely blank (no response attempted). This is not to be confused with a score of zero wherein the student does respond to part or all of the question but that work results in a score of zero.

36

Calvin has a box in the shape of a right rectangular prism. He packs it with unit cubes to determine its volume. The dimensions of the box are listed below.

- length: 16 inches
- width: 7 inches
- height: 8 inches

Each unit cube is 1 cubic inch. How many unit cubes will Calvin need to completely fill the box?

Answer _____ unit cubes

EXEMPLARY RESPONSE

36

Calvin has a box in the shape of a right rectangular prism. He packs it with unit cubes to determine its volume. The dimensions of the box are listed below.

- length: 16 inches
- width: 7 inches
- height: 8 inches

Each unit cube is 1 cubic inch. How many unit cubes will Calvin need to completely fill the box?

Answer 896 unit cubes

GUIDE PAPER 1

36

Calvin has a box in the shape of a right rectangular prism. He packs it with unit cubes to determine its volume. The dimensions of the box are listed below.

- length: 16 inches
- width: 7 inches
- height: 8 inches

Each unit cube is 1 cubic inch. How many unit cubes will Calvin need to completely fill the box?

Answer 896 unit cubes

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

36

Calvin has a box in the shape of a right rectangular prism. He packs it with unit cubes to determine its volume. The dimensions of the box are listed below.

- length: 16 inches
- width: 7 inches
- height: 8 inches

Each unit cube is 1 cubic inch. How many unit cubes will Calvin need to completely fill the box? [1]

V = L × W × H

L = 16 inches
W = 7 inches
H = 8 inches

16 × 7 = 112 inches

112 × 8 = 896 cubic inches

Answer 896 unit cubes

Score Credit 1 (out of 1 credit)

A correct answer is provided.

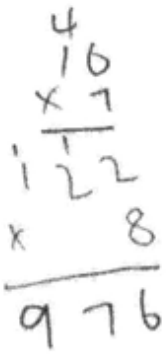
GUIDE PAPER 3

36

Calvin has a box in the shape of a right rectangular prism. He packs it with unit cubes to determine its volume. The dimensions of the box are listed below.

- length: 16 inches
- width: 7 inches
- height: 8 inches

Each unit cube is 1 cubic inch. How many unit cubes will Calvin need to completely fill the box? [1]



Answer 976 unit cubes

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

37

A family takes a cake to a party. When the family is ready to leave the party, $\frac{3}{4}$ of the cake is left. The family leaves $\frac{1}{2}$ of the leftover cake at the party and takes the remaining cake home. What fraction of all of the cake does the family take home?

Answer _____ of the cake

EXEMPLARY RESPONSE

37

A family takes a cake to a party. When the family is ready to leave the party, $\frac{3}{4}$ of the cake is left. The family leaves $\frac{1}{2}$ of the leftover cake at the party and takes the remaining cake home. What fraction of all of the cake does the family take home?

Answer $^{3}/_{8}$ *OR equivalent* of the cake

GUIDE PAPER 1

37

A family takes a cake to a party. When the family is ready to leave the party, $\frac{3}{4}$ of the cake is left. The family leaves $\frac{1}{2}$ of the leftover cake at the party and takes the remaining cake home. What fraction of all of the cake does the family take home?

Answer $\frac{3}{8}$ of the cake

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

37

A family takes a cake to a party. When the family is ready to leave the party, $\frac{3}{4}$ of the cake is left. The family leaves $\frac{1}{2}$ of the leftover cake at the party and takes the remaining cake home. What fraction of all of the cake does the family take home? [1]

$\frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$

Answer $\frac{3}{8}$ of the cake

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 3

37

A family takes a cake to a party. When the family is ready to leave the party, $\frac{3}{4}$ of the cake is left. The family leaves $\frac{1}{2}$ of the leftover cake at the party and takes the remaining cake home. What fraction of all of the cake does the family take home?

Answer 3/4 x1/2 =3/4 of the cake

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

38

A teacher has 55 sheets of stickers with a total of 1,320 stickers. Each sheet has the same number of stickers. How many stickers are on each sheet?

Answer _____ stickers

EXEMPLARY RESPONSE

38

A teacher has 55 sheets of stickers with a total of 1,320 stickers. Each sheet has the same number of stickers. How many stickers are on each sheet?

Answer 24 stickers

GUIDE PAPER 1

38

A teacher has 55 sheets of stickers with a total of 1,320 stickers. Each sheet has the same number of stickers. How many stickers are on each sheet?

Answer 24 stickers

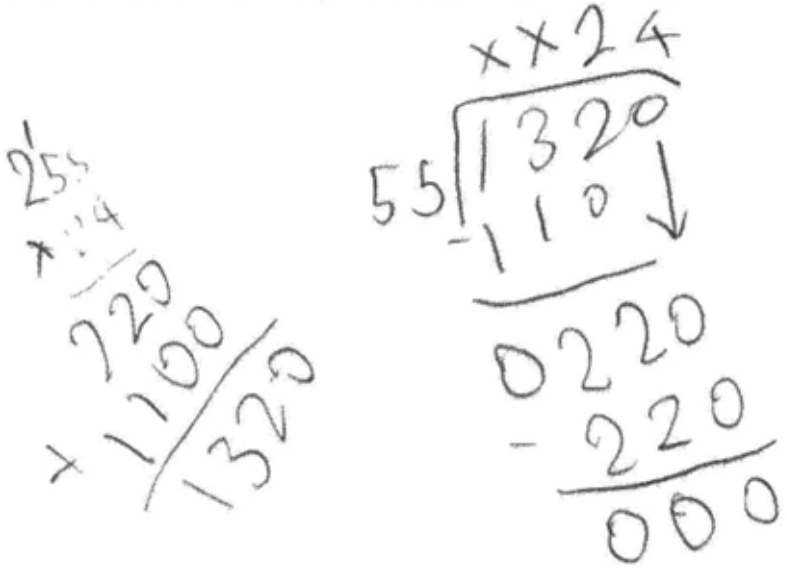
Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

38

A teacher has 55 sheets of stickers with a total of 1,320 stickers. Each sheet has the same number of stickers. How many stickers are on each sheet? [1]



Answer 24 stickers

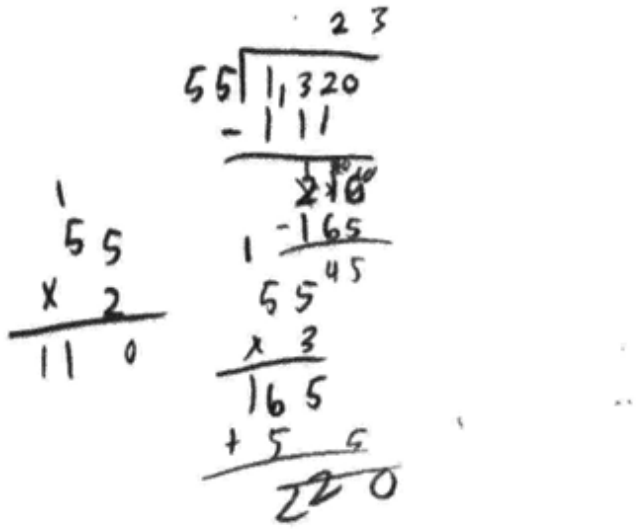
Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 3

38

A teacher has 55 sheets of stickers with a total of 1,320 stickers. Each sheet has the same number of stickers. How many stickers are on each sheet? [1]



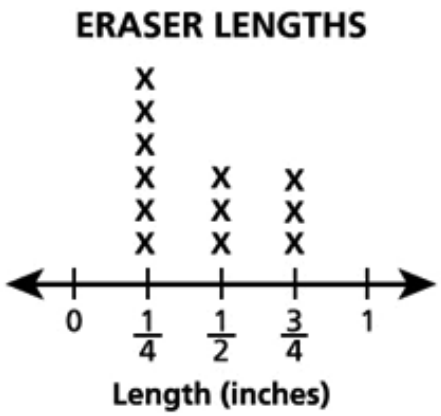
Answer 23 stickers

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end?

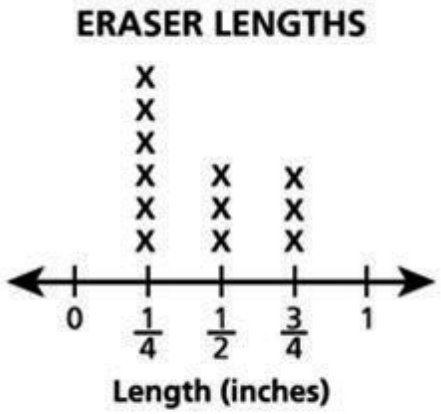
Show your work.

Answer _____ inches

EXEMPLARY RESPONSE

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end?

Show your work.

$1/4 + 1/4 + 1/4 + 1/4 + 1/4 + 1/4 = 6/4 = 1\,1/2$

$1/2 + 1/2 + 1/2 = 3/2 = 1\,1/2$

$3/4 + 3/4 + 3/4 = 9/4 = 2\,1/4$

$1\,1/2 + 1\,1/2 + 2\,1/4 = 5\,1/4$

OR

$(6 \times 1/4) + (3 \times 1/2) + (3 \times 3/4) =$

$6/4 + 3/2 + 9/4 = 6/4 + 6/4 + 9/4 = 21/4$

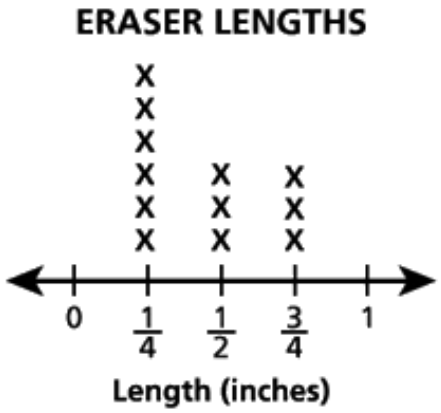
OR other valid process

Answer $5\,1/4$ *or* $21/4$ inches

OR equivalent

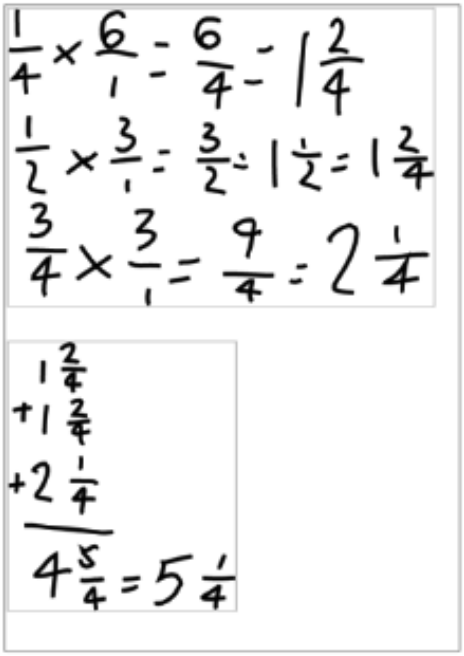
39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end?

Show your work.



Answer $5\frac{1}{4}$ inches

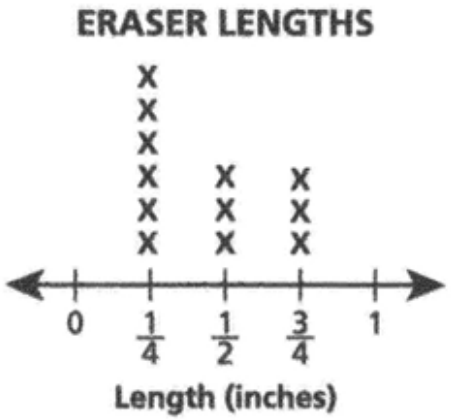
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The total length of all the erasers is correctly calculated using sound procedures. This response is complete and correct.

GUIDE PAPER 2

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end? [2]

Show your work.

$\frac{1}{4} \times \frac{6}{1} = \frac{6}{4}$

$\frac{1}{2} \times \frac{3}{1} = \frac{3}{2} = \frac{6}{4}$

$\frac{3}{4} \times \frac{3}{1} = \frac{9}{4}$

$\frac{6}{4} + \frac{6}{4} = \frac{12}{4} + \frac{9}{4} = \frac{21}{4}$

$\frac{21}{4} = 5\frac{1}{4}$

Answer $5\frac{1}{4}$ inches

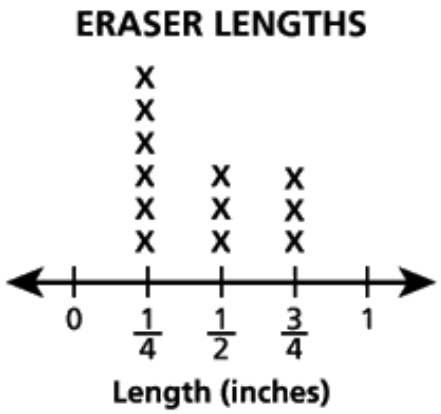
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The total length of all the erasers is correctly calculated using sound procedures. This response is complete and correct.

GUIDE PAPER 3

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end?

Show your work.

$\frac{6}{4} = 1\frac{2}{4}$

$\frac{3}{2} = 1\frac{2}{4}$

$\frac{9}{4} = 2\frac{1}{4}$

$1\frac{2}{4} + 1\frac{2}{4} + 2\frac{1}{4} = 5\frac{1}{4}$

Answer $5\frac{1}{4}$ inches

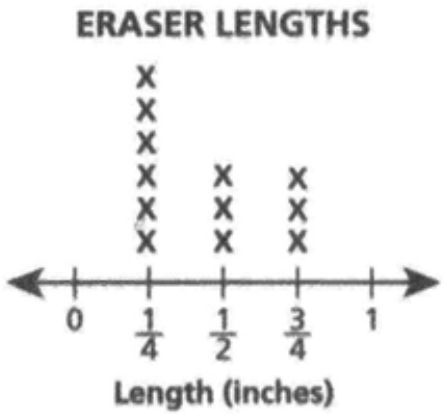
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The total length of all the erasers is correctly calculated using sound procedures. This response contains sufficient work to demonstrate a thorough understanding.

GUIDE PAPER 4

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end? [2]

Show your work.

$1\frac{1}{2} + 1\frac{1}{2} + 1\frac{1}{4} = 4\frac{1}{4}$

$(6 \times \frac{1}{4}) + (3 \times \frac{1}{2}) + (3 \times \frac{3}{4})$

$= 4\frac{1}{4}$

Answer $4\frac{1}{4}$ inches

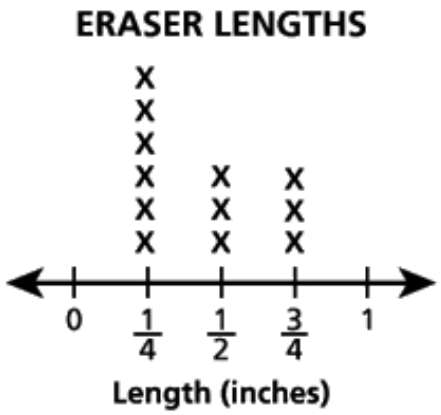
Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. Although a correct expression is written to determine the total length, one of the quantities is incorrectly calculated (1¼), resulting in an incorrect solution. This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 5

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end?

Show your work.

$$\frac{1}{4} \times 6 = 1\frac{2}{4}$$

$$\frac{1}{2} \times 3 = 1\frac{1}{2}$$

$$\frac{3}{4} \times 3 = 2\frac{2}{4}$$

$$1\frac{2}{4} + 2\frac{2}{4} + 1\frac{1}{2} = 5\frac{2}{4}$$

Answer $5\frac{2}{4}$ inches

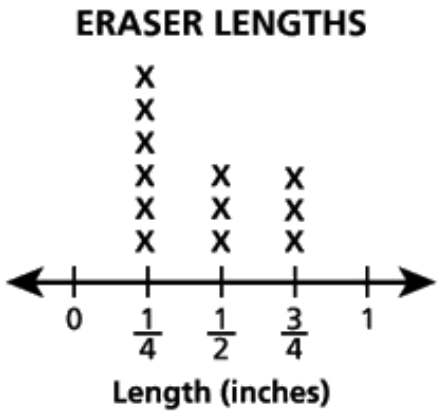
Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. A total length of all the erasers is determined using a sound procedure, however, a multiplication error results in an incorrect value of 2¾ leading to an incorrect solution. This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 6

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end?

Show your work.

$$(\frac{1}{4} \times 6) + (\frac{1}{2} \times 3) + (\frac{3}{4} \times 3) = 5$$

Answer 5 inches

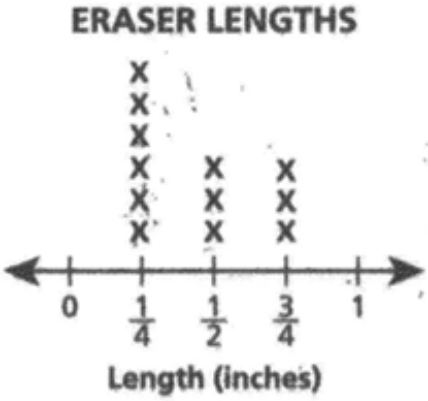
Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. A correct expression is written to determine the total length; however, an incorrect solution is provided. This response correctly addresses only some elements of the task.

GUIDE PAPER 7

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end? [2]

Show your work.

LCM
4 8 12
2 2 4 8
1 4 8 12

1/4
1.2
2.2
3/4
4.2

1/4 + 2/4 + 3/4 = 6/4

4 | 6 (1) − 4 = 2

2/4

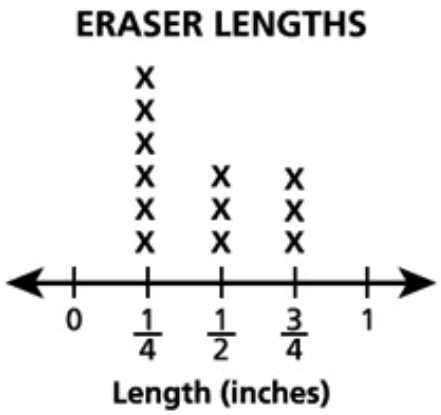
Answer 1 2/4 inches

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. Although some of the lengths are added, holistically, this response is insufficient to show any understanding.

39

Students in a fifth-grade math class measured the lengths of 12 erasers. The line plot below shows the results.



What is the total length, in inches, of all the erasers when they are lined up end to end?

Show your work.

$$5\frac{1}{2} + \frac{3}{4} = 6\frac{1}{4}$$

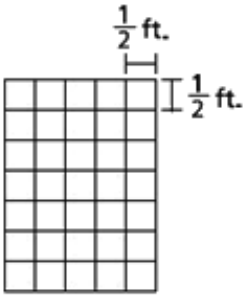
Answer $6\frac{1}{4}$ inches

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. An incorrect expression is written to determine the total length, and an incorrect solution is provided. It is not clear how the values in the expression are obtained. Holistically, this response is insufficient to show any understanding.

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top?

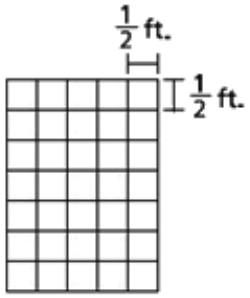
Show your work.

Answer _____ square feet

EXEMPLARY RESPONSE

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top?

Show your work.

$(1/2 \times 5) \times (1/2 \times 7) = 5/2 \times 7/2 = 35/4 = 8\,3/4$

OR

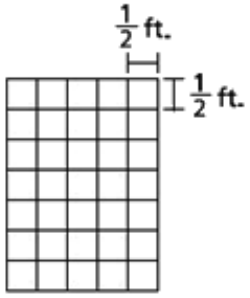
$(1/2 \times 1/2) \times 35 = 1/4 \times 35 = 35/4 = 8\,3/4$

OR other valid process

Answer $35/4$ *or* $8\,3/4$ *or equivalent* square feet

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top?

Show your work.

$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ $35 \times \frac{1}{4} = \frac{35}{4} = 8\frac{3}{4}$ square feet

5x7=35 square tiles

Answer $8\frac{3}{4}$ square feet square feet

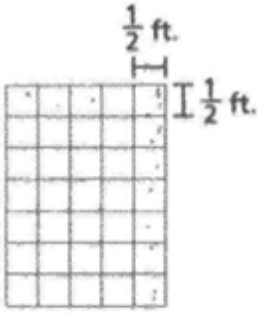
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The area of one tile is correctly calculated and correctly multiplied by the total number of tiles to determine the total area. This response is complete and correct.

GUIDE PAPER 2

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top? [2]

Show your work.

$7 \times \frac{1}{2} = \frac{7}{2} = 3\frac{1}{2}$

$\frac{5}{1} \times \frac{1}{2} = \frac{5}{2} = 2\frac{1}{2}$

$3\frac{1}{2} \times 2\frac{1}{2} =$

$\frac{7}{2} \times \frac{5}{2} = \frac{35}{4} = 8\frac{3}{4}$

Answer $8\frac{3}{4}$ square feet

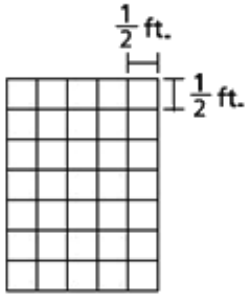
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The dimensions of the table top are correctly calculated and correctly multiplied to determine the total area. This response is complete and correct.

GUIDE PAPER 3

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top?

Show your work.

Area = L X W
3.5 X 2.5
8.75

Answer 8.75 square feet

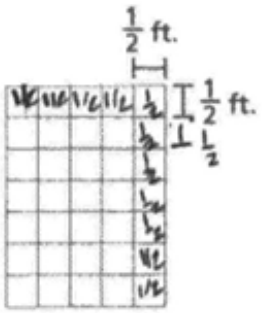
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The dimensions of the table top are correctly identified and correctly multiplied to determine the total area. Although the work to calculate the dimensions is not shown, this response contains sufficient work to demonstrate a thorough understanding.

GUIDE PAPER 4

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



$1\frac{1}{2} \times \frac{5}{2} = \frac{35}{4}$

What is the area, in square feet, of the table top? [2]

Show your work.

$4\overline{)35}$ 07, 32, 03

$7\frac{3}{4}$

Answer $7\frac{3}{4}$ square feet

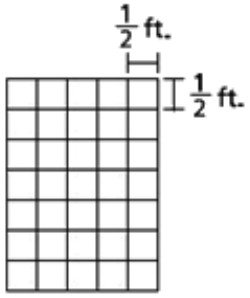
Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. The dimensions of the table top are correctly calculated and multiplied to determine the total area; however, an error occurs when converting $^{35}/_{4}$ to a mixed number. This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 5

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top?

Show your work.

$5 \times 7 = 35 \div 2 = 17\frac{1}{2}$

Answer $17\frac{1}{2}$ square feet

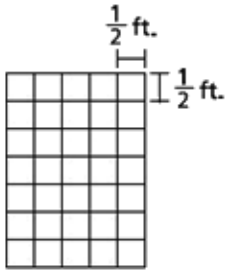
Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. The total number of tiles is correctly calculated; however, it is inappropriately divided by 2 instead of 4 when determining the total area. This response correctly addresses only some elements of the task.

GUIDE PAPER 6

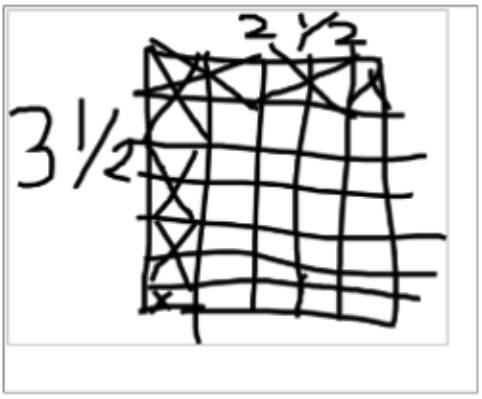
40

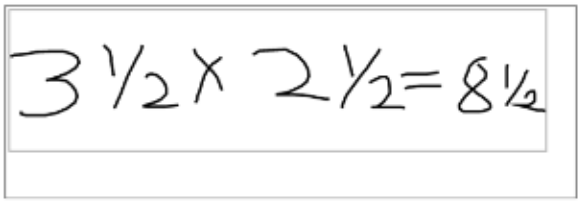
A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top?

Show your work.





Answer square feet

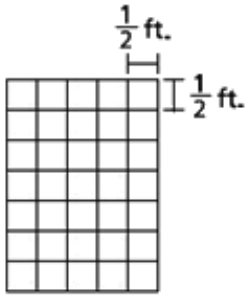
Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. The dimensions of the table top are correctly calculated, and a correct expression is written to determine the total area; however, a multiplication error results in an incorrect solution. This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 7

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top?

Show your work.

$\frac{1}{2} \times 30 = 17\frac{1}{2}$

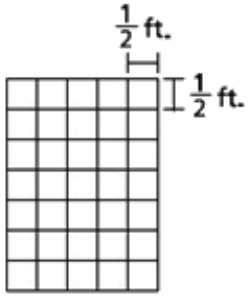
Answer $17\frac{1}{2}$ square feet

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The total number of tiles and the area of one tile are incorrectly identified, and the values are incorrectly multiplied. This response is incorrect and is insufficient to show any understanding.

40

A table top is completely covered with square tiles as shown below. Each square tile has a side length of $\frac{1}{2}$ foot.



What is the area, in square feet, of the table top?

Show your work.

I believe that the area is 70/2, I think this because there are 35 cubes and since 1/2 is for each side 35 + 35 = 70

Answer 70 square feet

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. Two incorrect solutions and an incorrect explanation are provided. Holistically, this response is insufficient to show any understanding.

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

EXEMPLARY RESPONSE

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

Rosa has more cards in her collection.
To find the number Steve has you would multiply the number Rosa has by $^1/_8$, and when you multiply a whole number by a fraction less than one the product is less than the original whole number.

OR other valid explanation

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

Rosa has more baseball cards because a fraction less than one is only part of a whole, in this case, the amount of baseball cards that Rosa has is the whole and the amount of cards that Steve has is the fraction less than one.

1
got

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. Rosa is correctly identified to have more cards, and a correct explanation comparing the fraction with 1 is provided to support the choice. Although the amount of cards that Steve has is stated to be "*the fraction less than one*," this is previously defined as the "*part of a whole*" in the explanation. Holistically, the explanation is sufficient to show a thorough understanding.

GUIDE PAPER 2

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

Rosa; To find Steve's amount of cards, you need to divide Rosa by 8. That would give you what $\frac{1}{8}$ of the total amount is, or, a smaller portion.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. Rosa is correctly identified to have more cards, and a correct explanation comparing values using division and a diagram is provided to support the choice. The explanation is complete and correct.

GUIDE PAPER 3

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

Rosa has more baseball cards, because Steve only has $\frac{1}{8}$ as many, so his collection is smaller because $\frac{8}{8}$ equals a whole (Rosas amount of cards) so $\frac{1}{8}$ (Steves amount) is smaller. Therefore saying that Rosa has more cards.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. Rosa is correctly identified to have more cards, and a correct explanation comparing ⅛ with ⅜ is provided to support the choice. The explanation is sufficient to show a thorough understanding.

GUIDE PAPER 4

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

Rosa has more baseball cards because Steve has $\frac{1}{8}$ as many as Rosas $\frac{8}{8}$

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. Rosa is correctly identified to have more cards, and the explanation suggests some understanding ("*has ⅛ as many as Rosas ⅜*"). However, the explanation is incomplete because the two fractions are not compared. This response correctly addresses only some elements of the task.

GUIDE PAPER 5

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

Rosa has more base ball cards.Evidence is WHEN SOMEONE HAS A FRACTION OF THAT MEANS THAT THE PERSON WITH THE FRACTION HAS A A PEICE OF WHAT THE OTHER PERSON HAS

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. Rosa is correctly identified to have more cards, however, a partially correct explanation is provided. The fraction is not identified to be less than 1, and the written explanation is incorrect for fraction values higher than 1. This response correctly addresses only some elements of the task.

GUIDE PAPER 6

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

Rosa has more cards. Steve has 1/8 of Rosa amount of cards. If Rosa had 20 cards Steve would have 1/8 of 20 cards.

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. Rosa is correctly identified to have more cards, and the explanation suggests some understanding. However, the explanation is incomplete because the values are not clearly compared. This response correctly addresses only some elements of the task.

GUIDE PAPER 7

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

Rosa has more baseball cards than Steve.
A few things I know about fractions is there are sometimes Consecutive and Prime numbers, And they there are also different vocabularis for fractions. fractions can also become Mixed numbers when using an operation. Fractions can sometimes have switched Places, where a the Bigger/ larger number is the Numerator and a smaller number is the Denominator.

Rosa = 1 = $\frac{1}{1}$ =

Steve = $\frac{1}{8}$ = 

$\frac{1}{8} \times \frac{2}{1} = \frac{2}{8} = \frac{1}{4}$

2 = rosa & steve.

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. Although Rosa is correctly identified to have more cards and the meaning of ⅛ as it relates to a whole is correctly represented using a diagram, the explanation is irrelevant. Holistically, the explanation is insufficient to show any understanding.

41

Rosa and Steve each have a baseball card collection. Steve has $\frac{1}{8}$ as many baseball cards in his collection as Rosa. Who has more baseball cards? Be sure to include what you know about fractions in your answer.

Explain your answer.

I think Rosa has more because the bigger the Denominator the smaller the pieces.

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. Although Rosa is correctly identified to have more cards, fraction values are not compared, and an irrelevant explanation is provided. The explanation is insufficient to show any understanding.

42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.

EXEMPLARY RESPONSE

42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.

The standard form is 362.408.

The student did not represent the hundredths and thousandths digits correctly in the expanded form. The digit 0 should be multiplied by $^1/_{100}$ and the digit 8 should be multiplied by $^1/_{1,000}$.

OR

The standard form is 362.408.

The student put 8 in the hundredths place, and 8 should be in the thousandths place.

Or other valid explanation

42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.

The student was supposed to do (4 x 1/10) then (0 x 1/100) and then go on until you get to thousandths but he didn't add the zero as the place holder, so that the 8 could be in the thousandths place. The correct answer would be (3x100) + (6x10) + (1x2) + (4x1/10) + (0x1/100) + (8x1/1000) because the eight landed in the thousandths place. 362.408. The number the student wrote was 362.48. which was wrong.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The error is correctly identified and explained using place values and expanded form, and the number is correctly written in standard form. The explanation is complete and correct.

GUIDE PAPER 2

42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

362.408

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.

The error was $\left(8 \times \frac{1}{100}\right)$. The correct way is $(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{1000}\right)$

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The error is correctly identified and explained using expanded form, and the number is correctly written in standard form. Although the digit 0 is not referenced in the expanded form, the explanation is sufficient to show a thorough understanding.

GUIDE PAPER 3

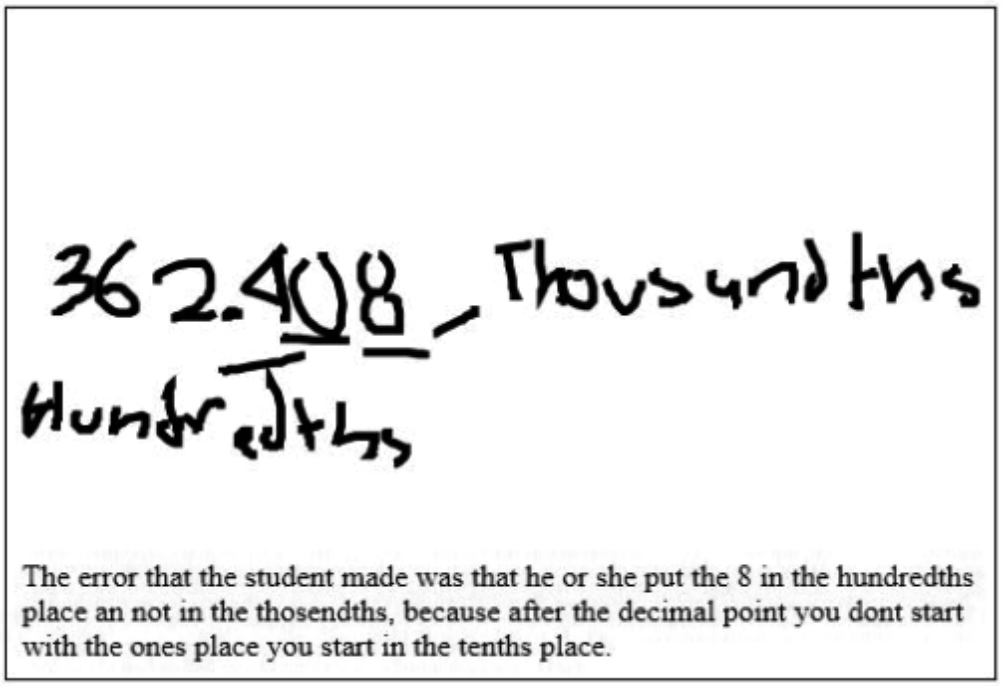
42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.



Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The error is correctly identified and explained using place values, and the number is correctly written in standard form. The explanation is complete and correct.

GUIDE PAPER 4

42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below. 362.408

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.

The student mutplyed the 8 by the wrong so his answer would be 362.48.

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. The error is correctly identified, and the explanation contains a correct number in standard form; however, the explanation is incomplete because the error is not clearly explained. This response correctly addresses only some elements of the task.

GUIDE PAPER 5

42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.

The error the student made is, the student put the 8 in the hundredths place when it was supposed to be in the thousandths place.

$$(3 \times 100) + (6 \times 10) + (1 \times 2) + (4 \times \frac{1}{10}) + (8 \times \frac{1}{1000})$$

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. The error is correctly identified and explained using place values and expanded form; however, the number is not written in standard form. This response correctly addresses only some elements of the task.

GUIDE PAPER 6

42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.

The student didn't add the decimal for 362.408. Also, it shows eight hundredths, not eight thousands.

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. The error is correctly identified and partially explained, and the number is correctly written in standard form; however, the thousandths place value is incorrectly explained as thousands. This response correctly addresses only some elements of the task.

GUIDE PAPER 7

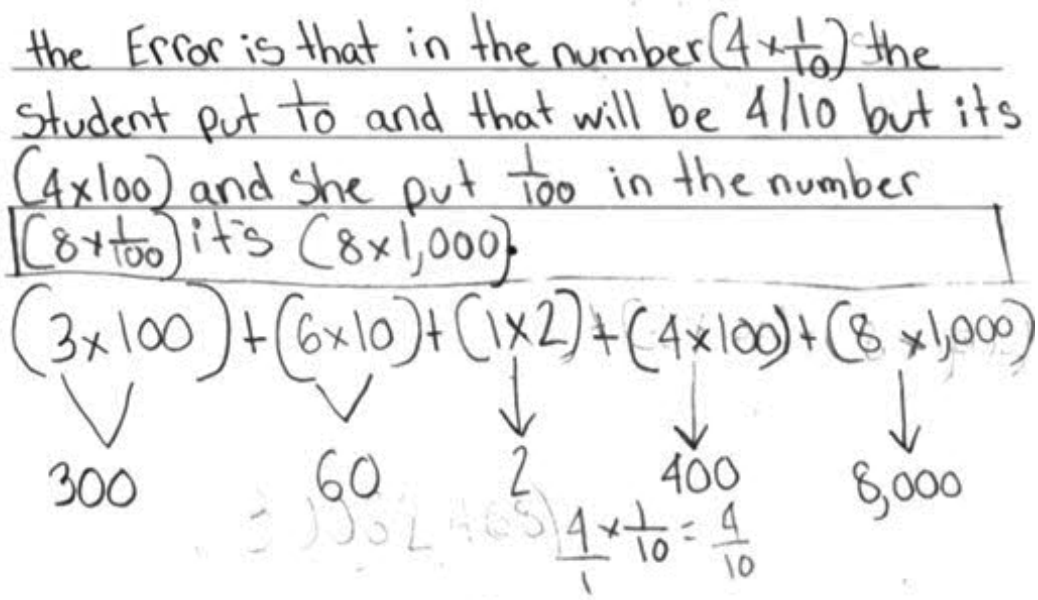
42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.



Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The error is incorrectly explained, and the number is not written in standard form. The explanation is insufficient to show any understanding.

42

A student incorrectly wrote the number three hundred sixty-two and four hundred eight thousandths in expanded form as shown below.

$$(3 \times 100) + (6 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

What error did the student make when writing the number in expanded form? Be sure to include the correct number in standard form in your answer.

Explain your answer.

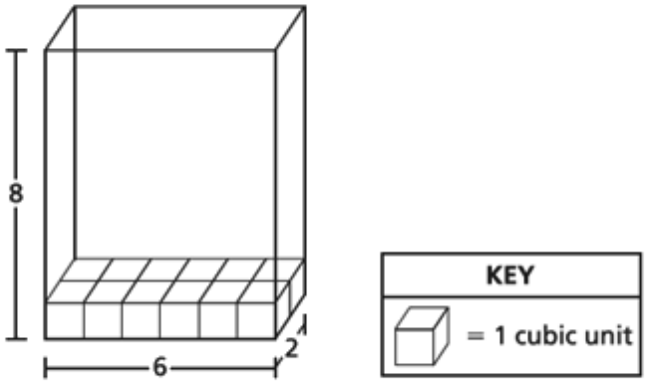
The studnts error is the number was .048 when he/her put $\frac{1}{10}$ and $\frac{1}{100}$ when it is suppose to be $\frac{1}{100}$ and $\frac{1}{1000}$. So what he/her put down 1 tenth and 1 hundedth, the anwser was 1 hundedths and 1 thousenths.

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. Although 1/100 is correctly identified as an error and this error is correctly explained, the rest of the explanation is incorrect. An additional error is identified and incorrectly explained, and an incorrect decimal part of the number is written. Holistically, the explanation is insufficient to show any understanding.

43

The base of the right rectangular prism shown below is filled with unit cubes.



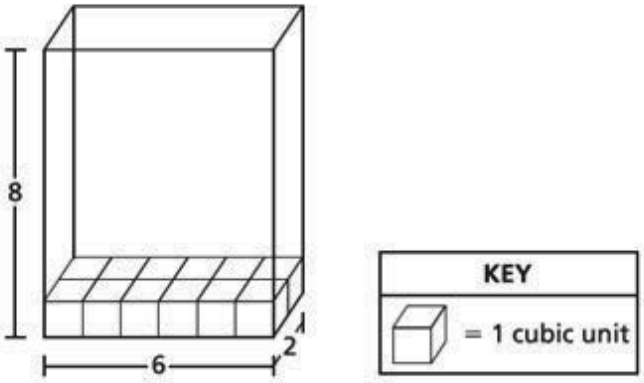
How many more unit cubes are needed to completely fill the right rectangular prism?

Explain how you determined your answer.

EXEMPLARY RESPONSE

43

The base of the right rectangular prism shown below is filled with unit cubes.



How many more unit cubes are needed to completely fill the right rectangular prism?

Explain how you determined your answer.

$12 \times 8 = 96$ cubes are needed to fill the entire box. The bottom layer is filled with $6 \times 2 = 12$ cubes.
So, $96 - 12 = 84$ more cubes are needed to completely fill the box.

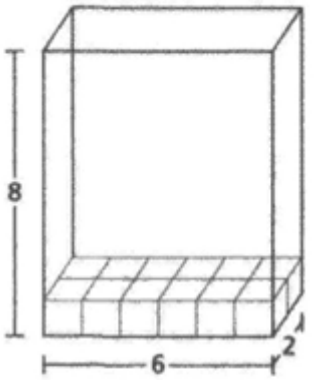
OR

The remaining height of the prism to fill with blocks is 7 unit cubes. So, $7 \times 6 \times 2 = 42 \times 2 = 84$ more cubes are needed to completely fill the box.

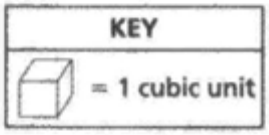
OR other valid explanation

43

The base of the right rectangular prism shown below is filled with unit cubes.



7 x 6 x 2
42
x 2
84



How many more unit cubes are needed to completely fill the right rectangular prism? [2]

Explain how you determined your answer.

The answer is 84 unit cubes left because if you look at the rectangular prism you can see that there is already on layer of unit cubes in the rectangular prism. If the height is 8 but there is already one layer down it would be 7 instead of 8.

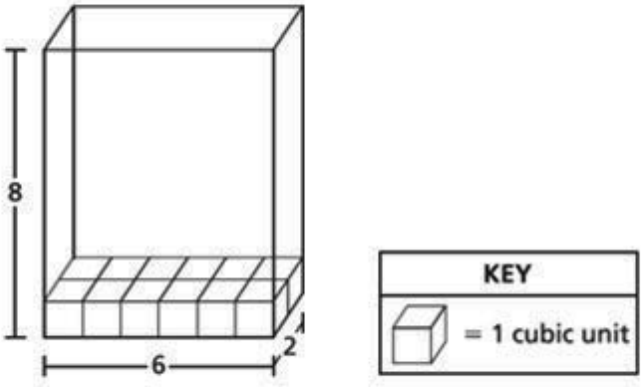
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The height of the empty part of the prism is correctly identified, and the additional number of unit cubes needed to fill the prism is correctly determined. The explanation is complete and correct.

GUIDE PAPER 2

43

The base of the right rectangular prism shown below is filled with unit cubes.



How many more unit cubes are needed to completely fill the right rectangular prism?

Explain how you determined your answer.

84 cubic units because 6 × 2 × 8 = 96 and 6 × 2 = 12
so 96 - 12 =84

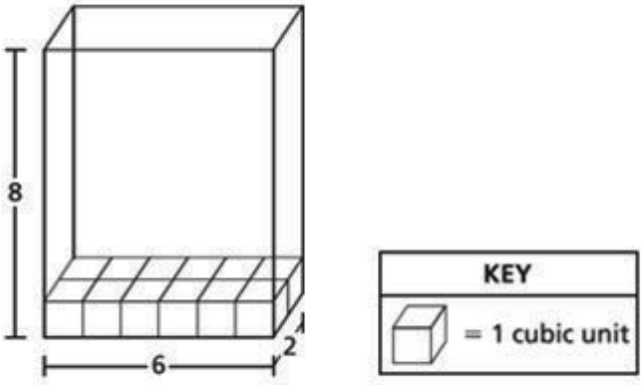
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The total volume of the prism is correctly calculated, and the bottom layer of the prism is correctly subtracted from the total volume to determine the additional number of unit cubes needed to fill the prism. The explanation is complete and correct.

GUIDE PAPER 3

43

The base of the right rectangular prism shown below is filled with unit cubes.



How many more unit cubes are needed to completely fill the right rectangular prism?

Explain how you determined your answer.

$12 \times 7 = 84$

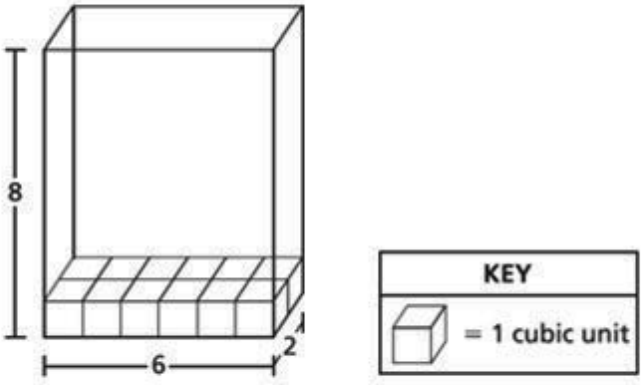
Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The height of the empty part of the prism is correctly identified, and the additional number of unit cubes needed to fill the prism is correctly determined. The explanation is sufficient to show a thorough understanding.

GUIDE PAPER 4

43

The base of the right rectangular prism shown below is filled with unit cubes.



How many more unit cubes are needed to completely fill the right rectangular prism?

Explain how you determined your answer.

i think he will need 86 more cubic

12
12
12
12
12
12
12
12
= 98 -12=86 so 86

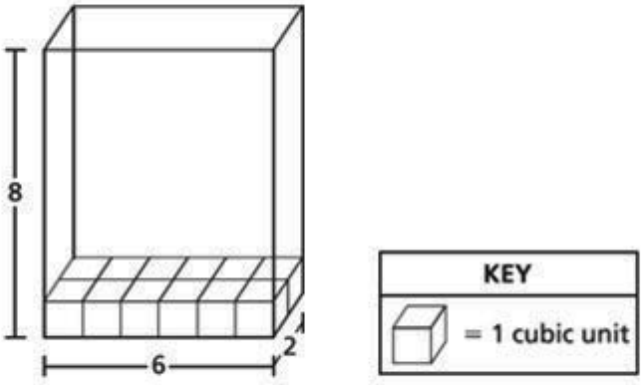
Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. Repeated addition is used to determine the total volume, and the bottom layer is correctly subtracted from the calculated total volume; however, a calculation error occurs when adding the layers, resulting in an incorrect solution. This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 5

43

The base of the right rectangular prism shown below is filled with unit cubes.



How many more unit cubes are needed to completely fill the right rectangular prism?

Explain how you determined your answer.

I deturmed my answer by seeinhg that it is now 1 cubic unit high but everything alse is the same so I did $1 \times 6 = 6$ then did $6 \times 2 = 12$ and then did 12×7 because it needs 7 more storyies to fully complet the rectangle.

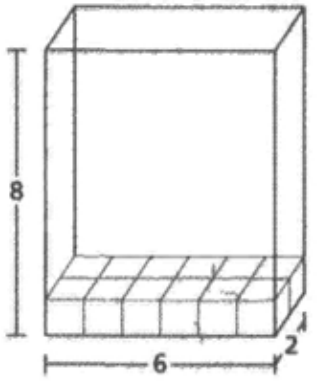
Score Credit 1 (out of 2 credits)

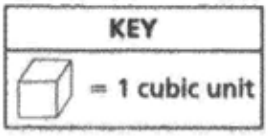
This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. The height of the empty part of the prism is correctly identified, and a correct expression is written to determine the additional number of unit cubes needed to fill the prism; however, the solution is not clearly identified. This response correctly addresses only some elements of the task.

GUIDE PAPER 6

43

The base of the right rectangular prism shown below is filled with unit cubes.





How many more unit cubes are needed to completely fill the right rectangular prism? [2]

Explain how you determined your answer.

You need 96 more unit cubes, I know this because I multiplied the length, the width, and the height of the rectangel

8x6x2
N
x12
8
96

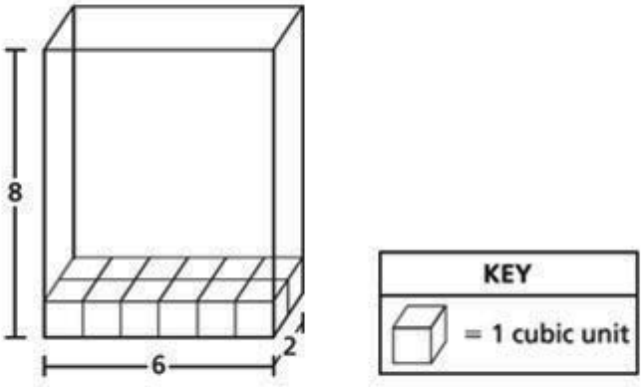
Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task. The total volume of the prism is correctly determined; however, the volume of the empty part of the prism is not addressed. This response correctly addresses only some elements of the task.

GUIDE PAPER 7

43

The base of the right rectangular prism shown below is filled with unit cubes.



How many more unit cubes are needed to completely fill the right rectangular prism?

Explain how you determined your answer.

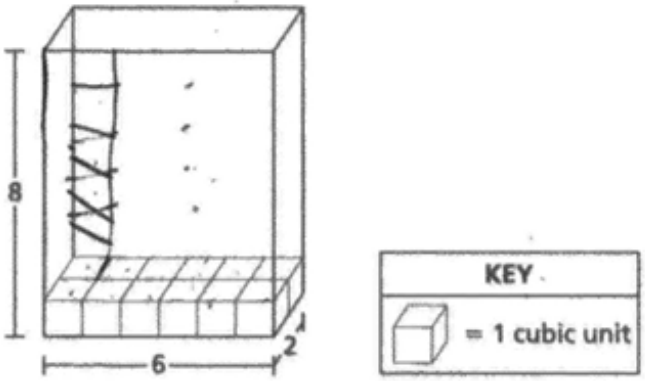
84 cubes

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The correct solution is provided with no explanation. Per Scoring Policy #3 for 2- and 3-credit responses, this response receives no credit.

43

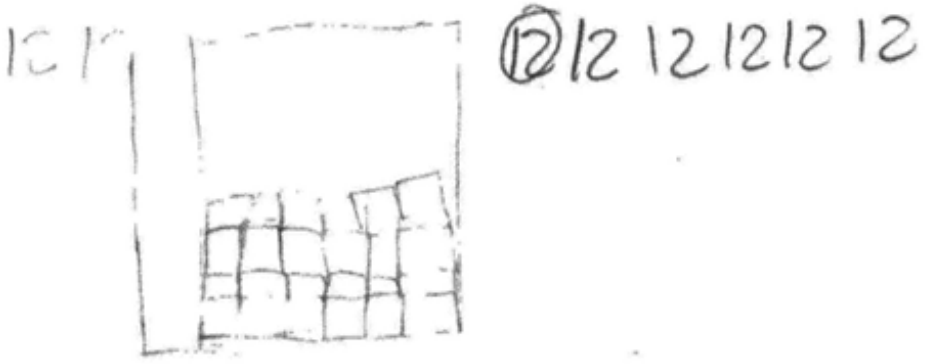
The base of the right rectangular prism shown below is filled with unit cubes.



How many more unit cubes are needed to completely fill the right rectangular prism? [2]

Explain how you determined your answer.

They need 5 more unit cubes to fill up the whole thing.



Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. Although the number of unit cubes in the bottom layer is correctly identified, and an attempt is made to count the additional number of unit cubes needed to fill the prism, an incorrect solution is provided, and it is not clear how it is obtained. Holistically, the explanation is insufficient to show any understanding.

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.

Answer $_____

EXEMPLARY RESPONSE

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.

$18 \times \$6.75 = \$121.50$

$18/1.5 = 12$

$12 \times \$18.75 = \$225$

$\$225.00 - \$121.50 = \$103.50$

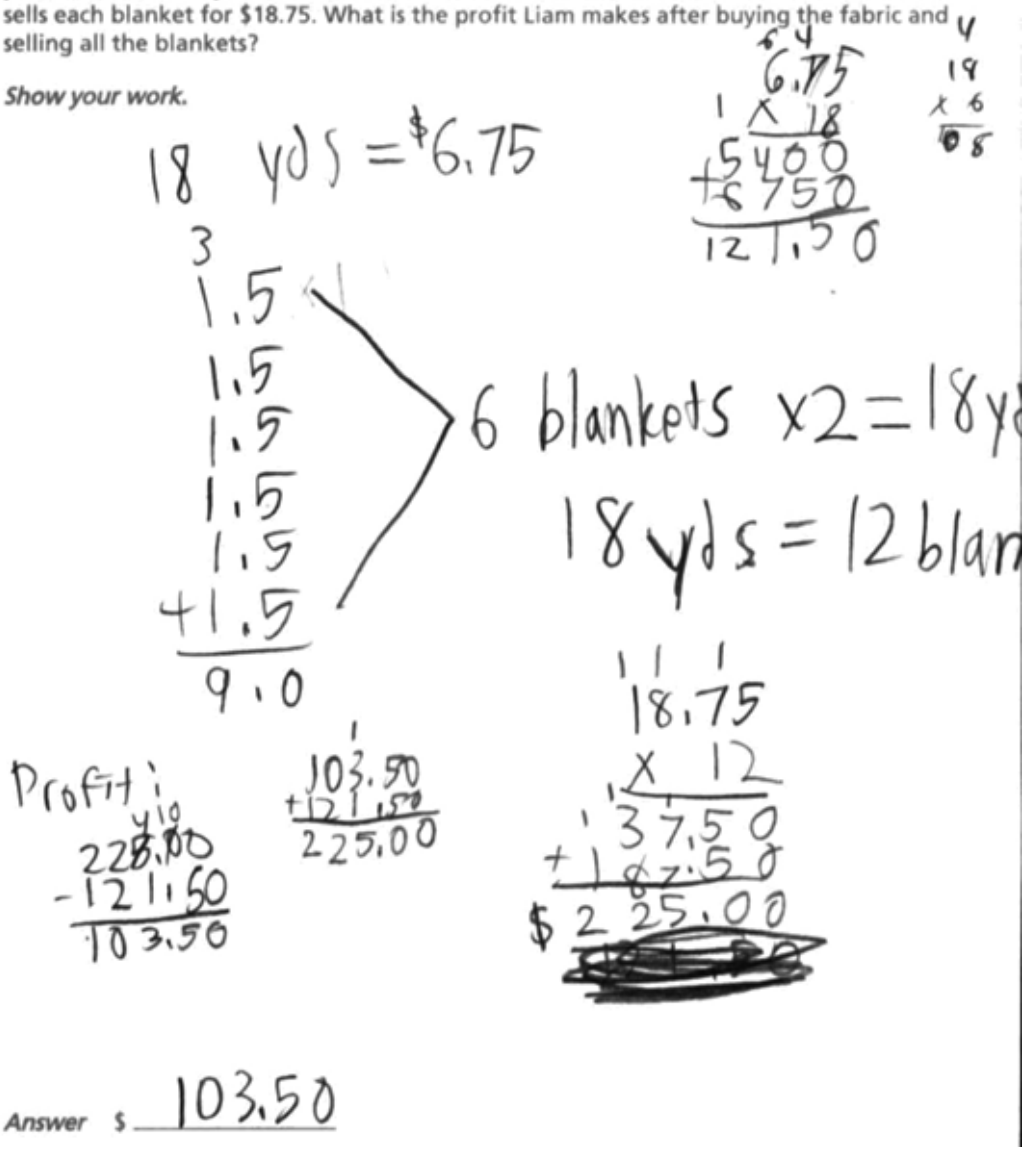
OR other valid process

Answer $ 103.50

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.



Answer $ 103.50

Score Credit 3 (out of 3 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The profit after buying the fabric and selling all the blankets is correctly calculated using sound procedures. This response is complete and correct.

GUIDE PAPER 2

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.

$18 \times \$6.25 = \$121.50$
$1.5 \times 12 = 18$
$12 \times \$18.75 = \$225.00$
$\$225.00 - \$121.50 = \$103.50$

Answer $ 103.50

Score Credit 3 (out of 3 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The profit after buying the fabric and selling all the blankets is correctly calculated using sound procedures. This response is complete and correct.

GUIDE PAPER 3

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.

18 x 6.75 = 121.5 12 x 18.75 = 225 225 - 121.5

Answer $ 103.50

Score Credit 3 (out of 3 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task. The profit after buying the fabric and selling all the blankets is correctly calculated using sound procedures. Although the work to calculate the number of blankets is not shown, this response contains sufficient work to demonstrate a thorough understanding.

GUIDE PAPER 4

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.

$$\begin{array}{r} \times \dfrac{6.75}{18} \\ \hline 121.50 \end{array} \quad 18 \div 1.5 = 12 \quad \begin{array}{r} \times \dfrac{18.75}{12} \\ \hline 224.00 \end{array} \quad -\dfrac{224.00}{121.50}$$

102.50

Answer $ 102.50

Score Credit 2 (out of 3 credits)

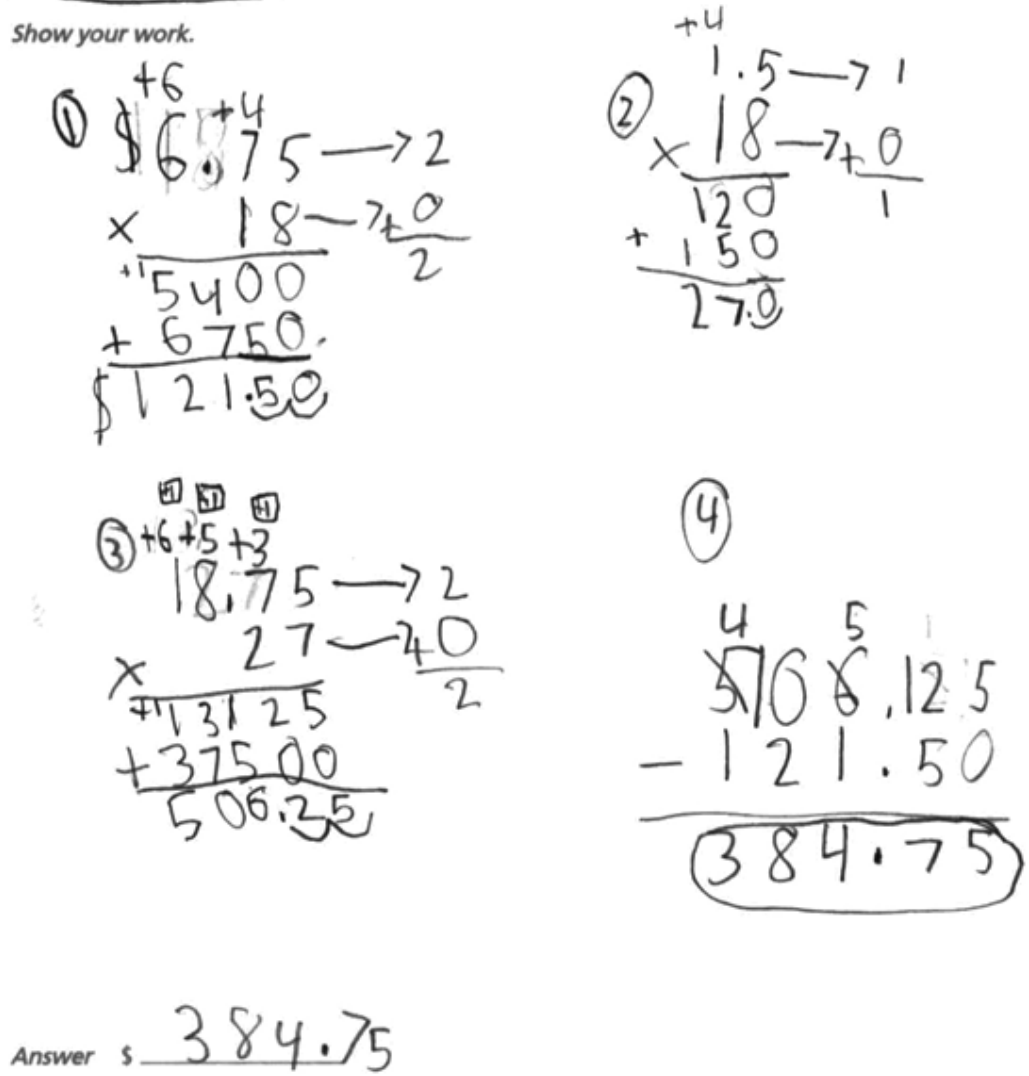
This response demonstrates a partial understanding of the mathematical concepts and procedures in the task. The number of blankets and the cost of fabric are correctly calculated; however, a multiplication error occurs when determining the revenue from selling all the blankets. The calculated revenue and cost are correctly subtracted to determine the profit. This response contains an incorrect solution but provides sound procedures.

GUIDE PAPER 5

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.



Answer $ 384.75

Score Credit 2 (out of 3 credits)

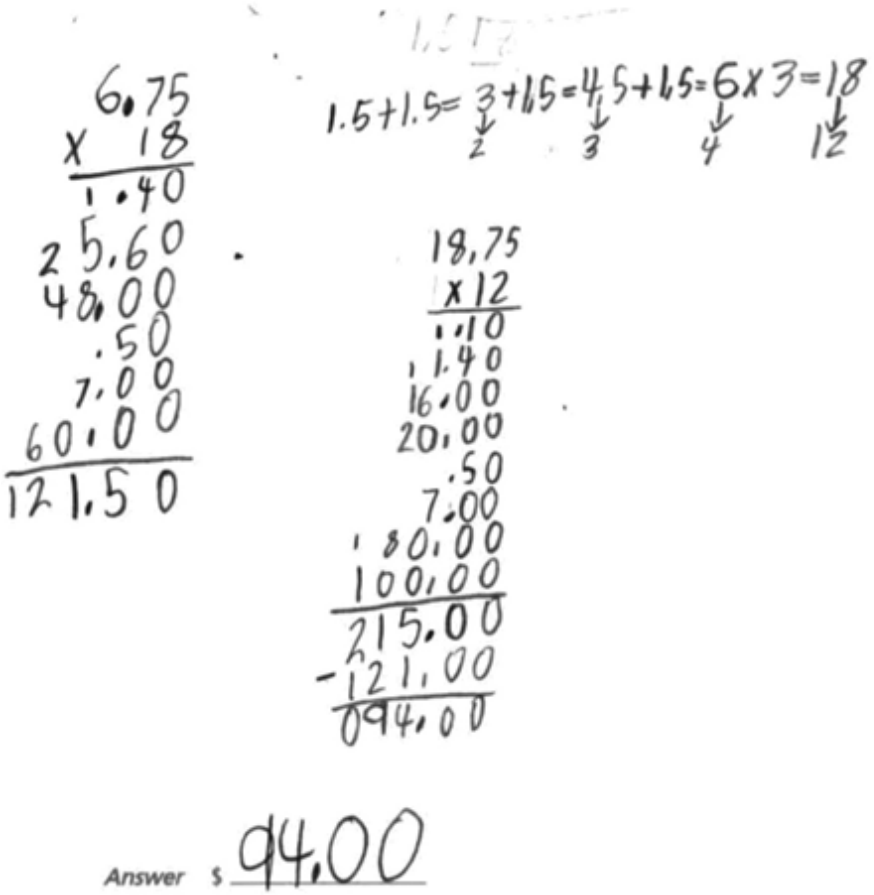
This response demonstrates a partial understanding of the mathematical concepts and procedures in the task. The cost of fabric is correctly calculated. A correct process is used to determine revenue and profit; however, the number of blankets is incorrectly calculated, resulting in an incorrect solution. This response reflects some minor misunderstanding of the underlying mathematical concepts and procedures.

GUIDE PAPER 6

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.



Answer $ 94.00

Score Credit 2 (out of 3 credits)

This response demonstrates a partial understanding of the mathematical concepts and procedures in the task. The number of blankets and the cost of fabric are correctly calculated; however, a multiplication error occurs when determining the revenue from selling all the blankets. The cost of fabric is inappropriately truncated when calculating profit. This response appropriately addresses most, but not all, aspects of the task.

GUIDE PAPER 7

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.

$225 − $121.50 = $103.50

Answer $ 103.50

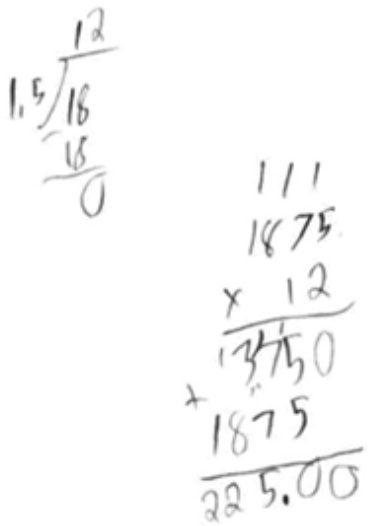
Score Credit 1 (out of 3 credits)

This response demonstrates only a limited understanding of the mathematical concepts and procedures in the task. Although the profit is correctly calculated, it is not clear how revenue and cost are determined. This response contains the correct solution, but the required work is limited.

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.



Answer $ 225

Score Credit 1 (out of 3 credits)

This response demonstrates only a limited understanding of the mathematical concepts and procedures in the task. The number of blankets and the revenue from selling all the blankets are correctly calculated; however, the cost of fabric and profit are not addressed. This response addresses some elements of the task correctly but provides reasoning that is incomplete.

GUIDE PAPER 9

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.

$18 \times \$6.75 = \$55.10$ spent on fabric

$18 \div 1.5 = 12$ how many blankets

$12 \times 18.75 = 225.10$ makes after selling the blankets

$$\begin{array}{r} 225.10 \\ -\ 55.10 \\ \hline 230.00 \end{array}$$

Answer $ 230.00

Score Credit 1 (out of 3 credits)

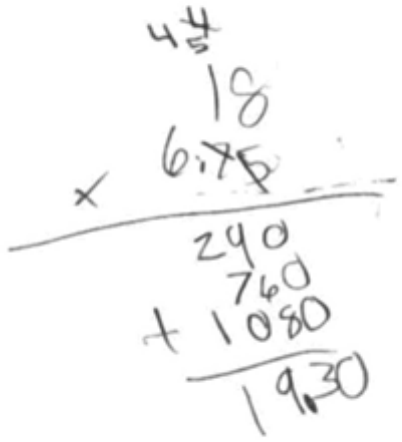
This response demonstrates only a limited understanding of the mathematical concepts and procedures in the task. The number of blankets is correctly calculated, and correct expressions are written to determine revenue and cost; however, multiplication errors are made, and the subtraction is written in an incorrect order and is incorrectly carried out when determining the profit. This response addresses some elements of the task correctly but exhibits multiple flaws related to misunderstanding of important aspects of the task.

GUIDE PAPER 10

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.



Answer $ 19.30

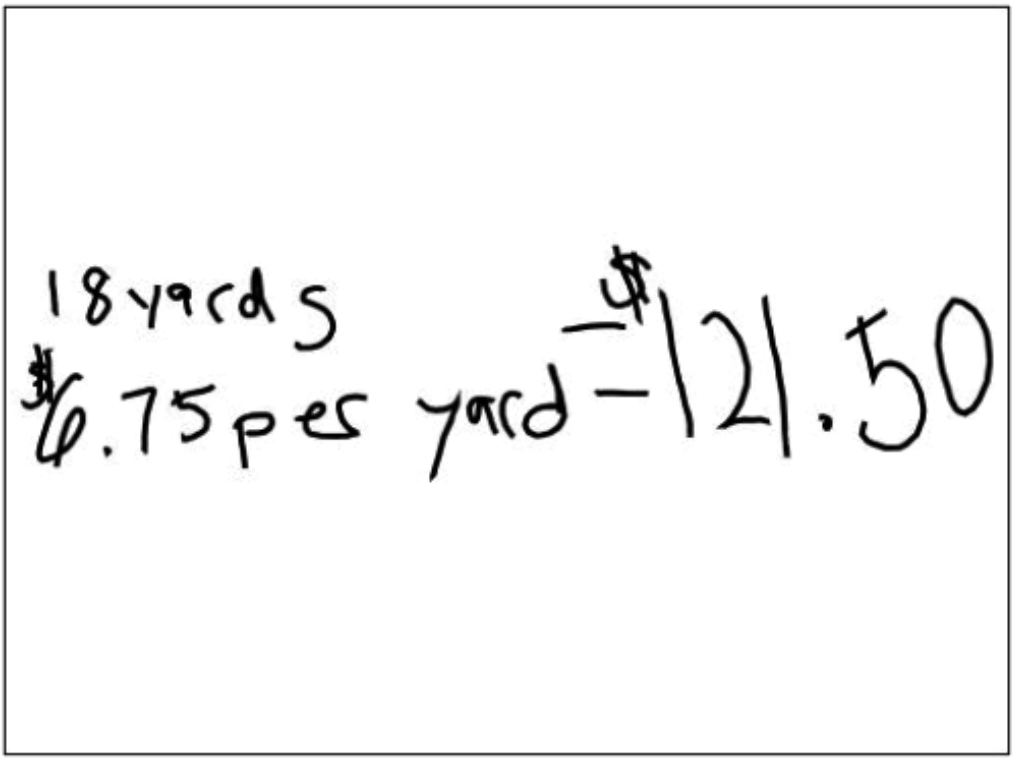
Score Credit 0 (out of 3 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts and procedures in the task. Although a correct process is written to determine the cost of fabric, it is incorrectly calculated. The number of blankets, revenue and profit are not addressed. Holistically, this response is insufficient to show any understanding.

44

Liam makes and sells handmade blankets. He buys 18 yards of fabric at a rate of $6.75 per yard. Liam uses 1.5 yards of fabric to make each blanket, and uses all of the fabric. Liam sells each blanket for $18.75. What is the profit Liam makes after buying the fabric and selling all the blankets?

Show your work.



Answer $ 121.50

Score Credit 0 (out of 3 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts and procedures in the task. Although the cost of fabric is correctly identified, the number of blankets, revenue and profit are not addressed. Holistically, this response is insufficient to show any understanding.

Grade 5
Mathematics

Scoring Leader Materials
2024 Training Set