



New York State Testing Program

**2025
Mathematics Test**

Grade 3

**Scoring Leader Materials
Training Set**



Note to Scorers

You may notice that some questions in these scoring materials appear with a bracketed credit value showing the respective number of credits. This is due to a style change that was recently field tested; therefore, not all items will have the bracketed credit value. An example of what the bracketed credit value looks like is provided below for your reference.

Example: Stem of the question. [2]

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	<p>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.</p> <p>This response</p> <ul style="list-style-type: none">• 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	<p>A 1-credit response demonstrates only a partial understanding of the mathematical concepts and/or procedures in the task.</p> <p>This response</p> <ul style="list-style-type: none">• 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	<p>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.</p> <p>This response</p> <ul style="list-style-type: none"> • 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	<p>A 2-credit response demonstrates a partial understanding of the mathematical concepts and/or procedures in the task.</p> <p>This response</p> <ul style="list-style-type: none"> • 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	<p>A 1-credit response demonstrates only a limited understanding of the mathematical concepts and/or procedures in the task.</p> <p>This response</p> <ul style="list-style-type: none"> • 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*	<p>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.</p>

* 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

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

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.

The model shown below is made of triangles of the same size and shape.



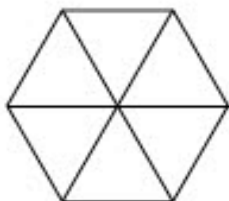
Each triangle is what fraction of the entire area of the model?

Answer _____

EXEMPLARY RESPONSE

31

The model shown below is made of triangles of the same size and shape.



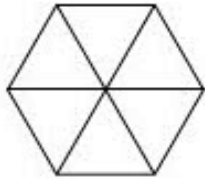
Each triangle is what fraction of the entire area of the model?

Answer 1/6

GUIDE PAPER 1

31

The model shown below is made of triangles of the same size and shape.



Each triangle is what fraction of the entire area of the model?

Answer

Each triangle is the fraction of $\frac{1}{6}$

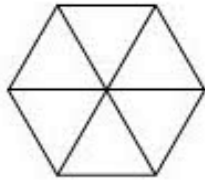
Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

31

The model shown below is made of triangles of the same size and shape.



Each triangle is what fraction of the entire area of the model?

Answer

Each is $\frac{1}{6}$ because the model is cut in six triangles.

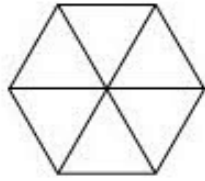
Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 3

31

The model shown below is made of triangles of the same size and shape.



Each triangle is what fraction of the entire area of the model?

Answer

$$\frac{6}{6} = 1 \text{ whole.}$$

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

What number belongs in the blank to make the equation shown below true?

$$5 \times 5 = (5 \times 2) + (5 \times \underline{\quad ? \quad})$$

Answer _____

EXEMPLARY RESPONSE

32

What number belongs in the blank to make the equation shown below true?

$$5 \times 5 = (5 \times 2) + (5 \times \underline{\quad ? \quad})$$

Answer 3

GUIDE PAPER 1

32

What number belongs in the blank to make the equation shown below true?

$$5 \times 5 = (5 \times 2) + (5 \times \underline{\quad ? \quad})$$

Answer

?=3

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

32

What number belongs in the blank to make the equation shown below true?

$$5 \times 5 = (5 \times 2) + (5 \times \underline{\quad ? \quad})$$

Answer

3

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 3

32

What number belongs in the blank to make the equation shown below true?

$$5 \times 5 = (5 \times 2) + (5 \times \underline{\quad ? \quad})$$

Answer

$$5 \times 3 = 15 + 10$$

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

What is the number 17,984 rounded to the nearest hundred?

Answer _____

EXEMPLARY RESPONSE

33

What is the number 17,984 rounded to the nearest hundred?

Answer 18,000

GUIDE PAPER 1

33

What is the number 17,984 rounded to the nearest hundred?

Answer

18,000

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

33

What is the number 17,984 rounded to the nearest hundred?

Answer

18000

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 3

33

What is the number 17,984 rounded to the nearest hundred?

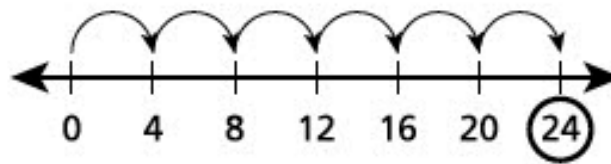
Answer

18,984

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

Pam uses the number line shown below to represent a multiplication equation.



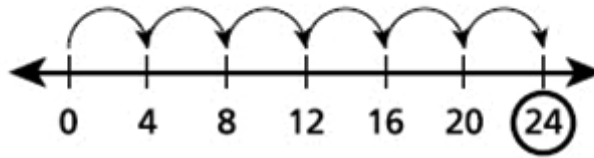
Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

EXEMPLARY RESPONSE

34

Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

Pam's number line represents the equation $4 \times 6 = 24$.

I know this is true because the number line shows 4 in each jump and there are 6 jumps to get to 24.

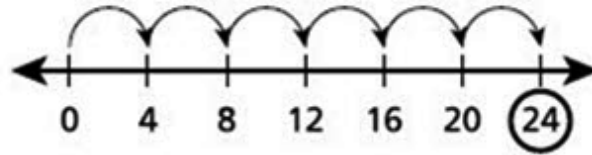
OR

Pam's number line represents the equation $6 \times 4 = 24$.

I know this is true because the number line shows 6 equal groups of 4 which is equal to 24

OR Other valid response

Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

$$4 \times 6 = 24$$

I know my answer is correct because there are 6 jumps and the value of each jump is 4 so $4 \times 6 = 24$ is the answer.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

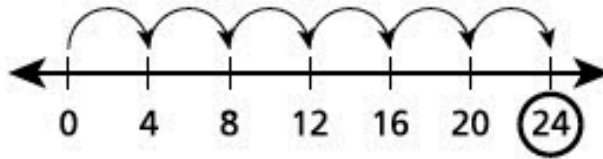
- A correct equation is given and supported by a correct explanation.

This response is complete and correct.

GUIDE PAPER 2

34

Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

pam is counting by 4 6 times.

$$4 \times 6 = 24$$

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

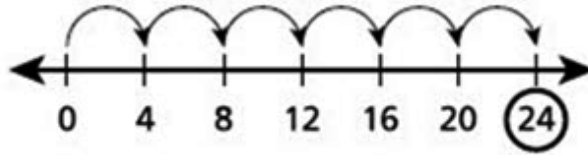
- A correct equation is given and supported by a correct explanation.

This response is complete and correct.

GUIDE PAPER 3

34

Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

the first number is 0 but the second number is 4
so thats how i know the first number in the eqasion is $4 \times$
and than thier are 6 spaces so now i get $4 \times 6 = 24$
4,8,12,16,20,24

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

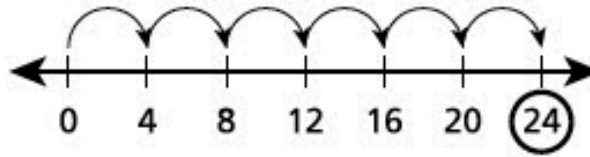
- A correct equation is given and supported by a correct explanation that addresses the group size of 4 and the number of groups needed for a total of 24.

This response is sufficient to demonstrate a thorough understanding.

GUIDE PAPER 4

34

Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

4x6 because if you count the jumps on the number line it is 6 jumps.

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task.

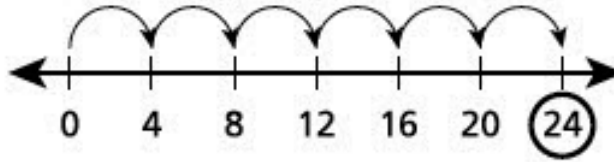
- No equation is given and the explanation “4 x 6 because...it is 6 jumps” is incomplete due to no mention of the size of the jumps each being 4.

This response correctly addresses only some elements of the task.

GUIDE PAPER 5

34

Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

i did $4 \times 8 = 24$ because i am counting by 4s & the last number is 24.

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task.

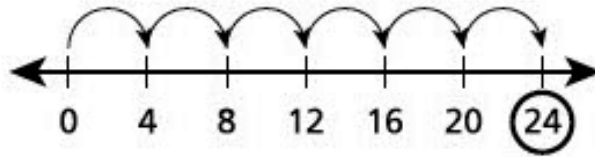
- The explanation of “counting by 4s & the last number is 24” correctly identifies the group size and the total for the multiplication; however, the number of groups is incorrectly identified in the provided incorrect equation of $4 \times 8 = 24$.

This response correctly addresses only some elements of the task.

GUIDE PAPER 6

34

Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

$$\begin{array}{r} \times 6 \\ 4 \\ \hline 24 \end{array}$$

I know this because there are six parts and it is counting by fours

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task.

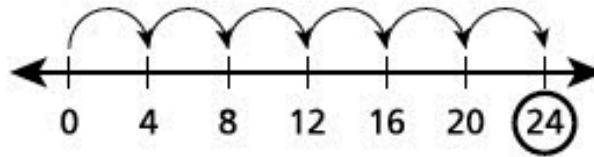
- A correct multiplication fact and explanation are provided; however, per Scoring Policy #10 for 2- and 3-credit responses, in questions requiring number sentences (equations), the number sentences must be written horizontally.

This response correctly addresses only some elements of the task.

GUIDE PAPER 7

34

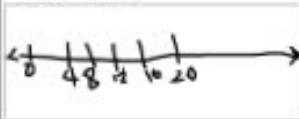
Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

$$6 \times 4 = 20$$



my answer is correct because you need to count the 0

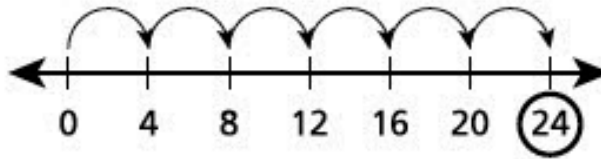
Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task.

- The equation and the reasoning provided are incorrect.

Holistically, this response shows no overall understanding.

Pam uses the number line shown below to represent a multiplication equation.



Write a multiplication equation that can be represented by Pam's number line.

Explain how you know your answer is correct.

$$6 \times 4 = 24$$

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts and procedures in the task.

- A correct equation is given with no explanation.

Per Scoring Policy #3 for 2- and 3-credit responses, this response receives no credit.

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

EXEMPLARY RESPONSE

35

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

$$8 \times 90 = 720$$

I know this is true because 90 is the same as 9 tens, so I can multiply 9 tens by 8 to get 72 tens which is equal to 720.

OR

The value of 8×90 is 720.

I know this is true because I can rewrite 90 as 9×10 , so 8×90 is the same as $8 \times (9 \times 10)$.

If I re-group and multiply 8×9 , I get 72.

I can then multiply 72 by 10 and get 72 tens, which is 720.

OR

The value is 720.

I know this is true because I know that 8 groups of 90 (8×90) is the same as 4 groups of 90 (4×90) plus 4 groups of 90 (4×90).

Then, since $4 \times 9 = 36$ and $4 \times 90 = 360$, I know that $360 + 360 = 720$.

OR Other valid response

35

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

$$8 \times 9 = 72 \quad 72 \times 10 = 720 \quad 8 \times 90 = 720$$

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- A correct solution is given and supported by a correct explanation.

This response is complete and correct.

GUIDE PAPER 2

35

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

$$90 \times 8 = 720$$

$$9 \times 8 = 72$$

So $90 \times 8 = 720$ sense the 9 is in the tens place all you have to do is add the 0.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- A correct solution is given and supported by a correct explanation that addresses place value.

This response is sufficient to demonstrate a thorough understanding.

GUIDE PAPER 3

35

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

90 180 270 360 450 540 630 720 $8 \times 90 = 720$

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- A correct solution is given and supported by a correct explanation that addresses how skip-counting by groups of 9-tens or 90 can be used to determine the answer.

This response is sufficient to demonstrate a thorough understanding.

GUIDE PAPER 4

35

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

720 because $8 \times 9 = 72$

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 solution is given; however, the explanation does not address groups of ten or place value. This response contains the correct solution, but the explanation is incomplete.

GUIDE PAPER 5

35

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

i took away the 0 in 90 and multiplied 8×9 and got 72 and then i just added a 0 to the end and got 720

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 solution is given; however, the explanation does not connect the role of “taking away/adding the 0” to groups of 10, making the explanation insufficient.

This response correctly addresses only some elements of the task.

GUIDE PAPER 6

35

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

Handwritten student work showing the equation $8 \times 90 = 720$. The student has drawn a horizontal line under the 720. There are arrows indicating the relationship between the numbers: one arrow points from the 8 to the 72, another arrow points from the 90 to the 720, and a third arrow points from the 72 to the 720.

The value of 8×90 is the 7 is the hundreds, 2 is the tens, and 0 is the ones.

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 solution is given; however, neither the drawn work nor the explanation that “7 is the hundreds, 2 is the tens, and 0 is the ones” adequately addresses how place value or groups of ten can be used to find the answer.

This response correctly addresses only some elements of the task.

GUIDE PAPER 7

35

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

$$90 \times 8 = 720$$

Score Credit 0 (out of 2 credits)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts and procedures in the task.

- A correct solution is given with no explanation.

Per Scoring Policy #3 for 2- and 3-credit responses, this response receives no credit.

What is the value of 8×90 ? Be sure to include how place value or groups of ten can be used to find your answer.

Explain how you know your answer is correct.

you can blank out the 0 and pretend its not there and do 8×9
 $= 72$



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 solution ($8 \times 9 = 72$) is given.

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.

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.

EXEMPLARY RESPONSE

36

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.

The pie is cut into 8 pieces.

I know this is true because if each piece is $\frac{1}{8}$ of the whole, that means each piece is 1 piece out of 8 total pieces, so there are 8 total pieces in the pie.

OR

The pie is cut into 8 pieces.

I know this is true because the 8 in the denominator of $\frac{1}{8}$ tells you the total number of equal pieces that make up the whole.

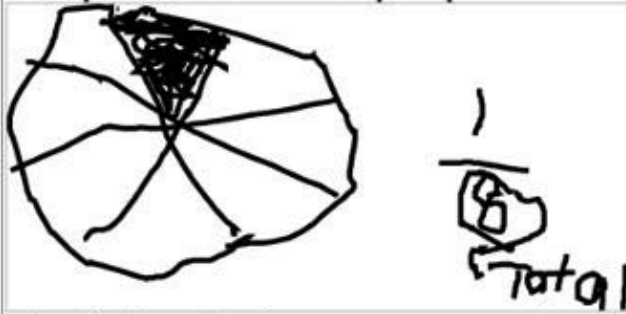
OR Other valid response

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.

The pie is cut into 8 equal pieces.



I looked at the denominator, and it was 8, which must be my total.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- A correct answer is given and supported by a correct explanation and diagram.

This response is complete and correct.

GUIDE PAPER 2

36

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.



The pie is cut into 8 pieces. I know this because $\frac{1}{8}$ is 1 piece of 8.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- A correct answer is given and supported by a correct explanation and diagram.

This response is complete and correct.

GUIDE PAPER 3

36

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.

1 whole (as cut up into eighths) is 8 slices because if a single piece is equalitive to $\frac{1}{8}$, I know eight eighths are equalitive to one whole.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- A correct answer is given and supported by a correct explanation.

This response is complete and correct.

GUIDE PAPER 4

36

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.

So if each piece is $\frac{1}{8}$ and if it is equal-sized then it is $\frac{8}{8}$

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts in the task.

- Reasoning is given for representing the whole as a fraction in terms of eighths; however, the number of pieces the pie is cut into is not given.

This response appropriately addresses only some elements of the task.

GUIDE PAPER 5

36

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.

$8\frac{1}{8}$ because if you have a pie only you buy 1 pie and you cut it into 8 parts that will be 8 slices

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts in the task.

- Although the total number of total slices is stated in the explanation, an incorrect answer of $8\frac{1}{8}$ is given and the explanation is incomplete.

This response appropriately addresses only some elements of the task.

GUIDE PAPER 6

36

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.



Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts in the task.

- A diagram is given that shows the relationship of one slice to the whole; however, the final answer is not given.

This response appropriately addresses only some elements of the task.

GUIDE PAPER 7

36

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.

$\frac{8}{8}$ because $\frac{1}{8}$ is equal to $\frac{8}{8}$ and each slice is $\frac{1}{8}$

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 answer of $\frac{8}{8}$ is given and the explanation that “ $\frac{1}{8}$ is equal to $\frac{8}{8}$ ” is incorrect.

This response is incorrect and shows no overall understanding.

A whole pie is cut into equal-sized pieces. Each piece of the pie is $\frac{1}{8}$ of the whole.

How many pieces is the pie cut into? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain how you found your answer.

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

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.

- A correct answer of 8 is shown; however, it is incorrectly set equal to $\frac{1}{8}$ and no further explanation is provided.

This response is incorrect and shows no overall understanding.

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later.
At what time does Cassandra's bus come?

Show your work.

Answer _____ a.m.

EXEMPLARY RESPONSE

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later. At what time does Cassandra's bus come?

Show your work.

$$6:00 + 15 \text{ mins} = 6:15$$

$$6:15 + 30 \text{ mins} = 6:45$$

6:45 a.m.

OR Other valid process

Answer 6:45 a.m.

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later.
At what time does Cassandra's bus come?

Show your work.

Quarter Past 6 AM = 6:15

Half Hour = 30 min.

$15 + 30 = 45$

6:45 AM

Answer a.m.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- Quarter past six is correctly identified as 6:15 and 30 minutes are added, resulting in the correct answer of 6:45.

This response is complete and correct.

GUIDE PAPER 2

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later. At what time does Cassandra's bus come?

Show your work.

$$6:00 + 15 = 6:15 \text{ A.M.}$$

$$6:15 + 30 = 6:45 \text{ A.M.}$$

Answer

The anser is 6:45 A.M. a.m.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- Quarter past six is correctly identified as 6:15 and 30 minutes are added, resulting in the correct answer of 6:45.

This response is complete and correct.

GUIDE PAPER 3

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later. At what time does Cassandra's bus come?

Show your work.



Answer a.m.

Score Credit 2 (out of 2 credits)

This response demonstrates a thorough understanding of the mathematical concepts and procedures in the task.

- Quarter past six is correctly identified on the provided diagram, along with the addition of the 30 minutes resulting in the correct answer of 6:45.

This response is complete and correct.

GUIDE PAPER 4

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later. At what time does Cassandra's bus come?

Show your work.

6:00 a.m. + quarter past 6:00 = 6:25 + half hour later = 6:55 a.m.

Answer 6:55 a.m.

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task.

- The wake-up time of quarter past six is incorrectly identified as 6:25, resulting in the incorrect answer of 6:55 after 30 minutes is appropriately added.

This response correctly addresses only some elements of the task.

GUIDE PAPER 5

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later. At what time does Cassandra's bus come?

Show your work.

$$\begin{array}{r} 6:00 \\ + \quad 30 \\ \hline 6:30 \end{array}$$

Answer a.m.

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task.

- The quarter of an hour is not included with the 6 hours for the wake-up time; however, the correct number of minutes for the half hour is added to determine the provided answer.

The response correctly addresses only some elements of the task.

GUIDE PAPER 6

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later. At what time does Cassandra's bus come?

Show your work.

$$6:00 + 4 = 6:04 + 30 = 6:34$$

Answer a.m.

Score Credit 1 (out of 2 credits)

This response demonstrates only a partial understanding of the mathematical concepts and procedures in the task.

- An incorrect value for the number of minutes in a quarter of an hour is used, leading to an incorrect final answer.

This response correctly addresses only some elements of the task.

GUIDE PAPER 7

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later. At what time does Cassandra's bus come?

Show your work.

I know this is the answer because a quarter past 6 am is 15 mins and one half hour is 35 mins

Answer

the answer is the bus came at 7 35 AM

a.m.

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 a quarter of an hour is correctly identified as 15 minutes, the given number of minutes for a half-hour is incorrect.
- An incorrect answer is provided, and no work is shown.

Holistically, this response shows no overall understanding of the task.

37

Cassandra wakes up at a quarter past 6 a.m. Her bus comes one-half hour later.
At what time does Cassandra's bus come?

Show your work.

$$6 \text{ am} + 1 \text{ hour} = 7 \text{ am}$$

Answer a.m.

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 answer is provided.

Holistically, this response shows no overall understanding of the task.

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

Answer _____ cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

Answer _____ bags

EXEMPLARY RESPONSE

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

$$6 \times 6 = 36$$

36 cookies

OR Other valid process

Answer 36 cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

$$36 \div 4 = 9$$

9 bags

OR Other valid process

Answer 9 bags

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

$$6 \times 6 = 36$$

Answer

He has 36 cookies.

cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

$$36 \div 4 = 9$$

Answer

He needs 9 bags.

bags

Score Credit 3 (out of 3 credits)

This response demonstrates a thorough understanding of the mathematical concepts in the task.

- Correct answers are given and supported by correct work.

This response is complete and correct.

GUIDE PAPER 2

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

6,12,18,24,30,36

1b,2b,3b,4b,5b,6b

b=bag/s

Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

4,8,12,16,20,24,28,32,36

b=bag/s

b1,b2,b3,b4,b5,b6,b7,b8,b9

Answer bags

Score Credit 3 (out of 3 credits)

This response demonstrates a thorough understanding of the mathematical concepts in the task.

- Correct answers are given and supported by skip-counting first by groups of 6, and then again using groups of 4.

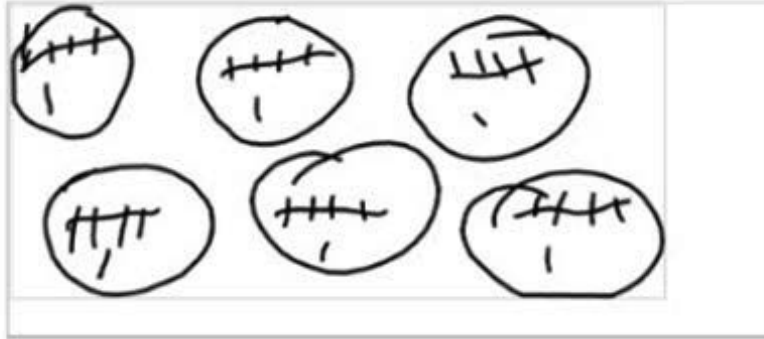
This response contains sufficient work to demonstrate a thorough understanding.

GUIDE PAPER 3

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

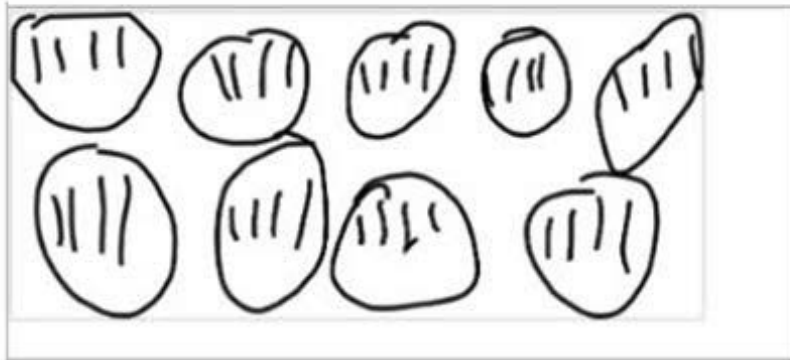
Show your work.



Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.



Answer bags

Score Credit 3 (out of 3 credits)

This response demonstrates a thorough understanding of the mathematical concepts in the task.

- Correct answers are given and supported by correct diagrams.

This response contains sufficient work to demonstrate a thorough understanding.

GUIDE PAPER 4

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

$$6 \times 6 = 42$$

Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.



Answer bags

Score Credit 2 (out of 3 credits)

This response demonstrates a partial understanding of the mathematical concepts in the task.

- The total number of cookies is represented using multiplication; however, a calculation error occurs.
- The number of bags of brownies is determined correctly through the use of an array based on the arrived number of cookies.

This response contains an incorrect solution but provides sound procedures and reasoning.

GUIDE PAPER 5

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.



Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.



Answer bags

Score Credit 2 (out of 3 credits)

This response demonstrates a partial understanding of the mathematical concepts in the task.

- The total number of cookies is provided and supported by a six-by-six array.
- A nine-by-four array is used to show the relationship between the number of bags, the number of brownies in each bag, and the total number of brownies; however, the incorrect number of bags is given as an answer.

This response appropriately addresses most, but not all, aspects of the task.

GUIDE PAPER 6

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

Sam bakes 36 cookies in all. I know because $6 \times 6 = 36$.

Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

$36 \div 4 = 6$

Answer bags

Score Credit 2 (out of 3 credits)

This response demonstrates a partial understanding of the mathematical concepts in the task.

- The total number of cookies is provided and supported by correct work.
- A correct division process is provided to show the relationship between the total number of brownies, the number of brownies in each bag, and the number of bags; however, a calculation error occurs.

This response appropriately addresses most, but not all, aspects of the task.

GUIDE PAPER 7

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

$$6 \times 6 = 36$$

Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

$$6 \times 4 = 24$$

Answer bags

Score Credit 1 (out of 3 credits)

This response demonstrates only a limited understanding of the mathematical concepts in the task.

- The total number of cookies is provided and supported by correct work.
- The number of bags of brownies provided is incorrect.

This response correctly addresses only some elements of the task but reaches an inadequate solution for the number of bags of brownies using faulty/incomplete reasoning.

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

$$6 \times 6 = 36$$

Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

$$4 \times 36 = 9$$

Answer bags

Score Credit 1 (out of 3 credits)

This response demonstrates only a limited understanding of the mathematical concepts in the task.

- The total number of cookies is provided and supported by correct work.
- The correct answer for the number of bags of brownies is given; however, the reasoning shown ($4 \times 36 = 9$) is incorrect.

This response correctly addresses only some elements of the task but reaches an inadequate solution for the number of bags of brownies using faulty reasoning.

GUIDE PAPER 9

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

Sam bakes 36 cookies in all.



Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

Sam uses 9 bags to use for all the brownies.

Answer bags

Score Credit 1 (out of 3 credits)

This response demonstrates only a limited understanding of the mathematical concepts in the task.

- The total number of cookies is provided and supported by correct work.
- The correct answer for the number of bags of brownies is given; however, no work is shown. Per Scoring Policy #3 for 3-credit responses, this part of the response receives no credit.

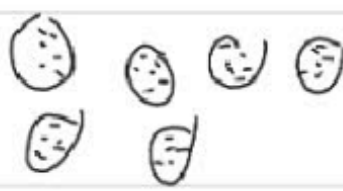
This response correctly addresses only some elements of the task.

GUIDE PAPER 10

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

+	
	
=	

Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

Answer bags

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.

- Even though there are six groups of six shown, the answer given for the total number of cookies is incorrect.
- Incorrect reasoning is used to determine the number of bags of brownies.

Holistically, this response shows no understanding.

38

Sam bakes cookies and puts all of the cookies into bags. If he puts 6 cookies into each of 6 bags, how many cookies does Sam bake?

Show your work.

Answer cookies

Sam also bakes the same number of brownies as cookies. He puts all of the brownies into bags with 4 brownies in each bag. How many bags does Sam use for all of the brownies?

Show your work.

Answer bags

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.

- The correct answers are given with no work.

Per Scoring Policy #3 for 2- and 3-credit responses, this response receives no credit.



Grade 3 Mathematics

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