New York State Testing Program

2019

Mathematics Test

Grade 3

Scoring Leader Materials

Training Set

2-Point Holistic Rubric

2 Point	A two-point 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 Point	A one-point 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 Point*	A zero-point 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-Point Holistic Rubric

3 Point	A three-point 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 Point	A two-point 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 Point	A one-point 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 Point*	A zero-point 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).

2019 2- and 3-Point Mathematics Scoring Policies

Below are the policies to be followed while scoring the mathematics tests for all grades:

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 items that do **not** ask for any work and items 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 has been crossed out, the student shall not receive full credit.

8. If the student makes a conceptual error (that is an error in understanding rather than an arithmetic or computational error), that student shall not receive more than 50% credit.

9. Trial-and-error responses are **not** subject to Scoring Policy #6 above, since crossing out is part of the trial-and-error process.

10. 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.

11. In questions requiring number sentences, the number sentences must be written horizontally.

12. When measuring angles with a protractor, there is a +/- 5 degrees deviation allowed of the true measure.

13. 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.

34

Wyatt wants to solve the equation below to find the missing factor.

$$8 \times \underline{\ ?\ } = 24$$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

_____

_____

_____

34

Wyatt wants to solve the equation below to find the missing factor.

$8 \times \underline{\ ?\ } = 24$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

Given $8 \times ? = 24$, then $24 \div 8 = 3$

because $8 \times 3 = 24$.

or other valid explanation

34

Wyatt wants to solve the equation below to find the missing factor.

$8 \times \underline{\ ?\ } = 24$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

so if $8 \times\ ? = 24$ that means $24 \div 3 = 8$ so $8 \times 3 = 24$

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. A correct division equation with the calculated missing factor is provided. The explanation is complete and correct.

34

Wyatt wants to solve the equation below to find the missing factor.

$8 \times \underline{\ ?\ } = 24$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

$\begin{array}{r} \times\ {}^{8}_{f} \\ \hline 24 \end{array}$

$8 \times ?=24$

$24 \div 8=f$

8,16,24

1,2,3

f=3

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. A correct division equation with the calculated missing factor is provided. The explanation is complete and includes the first 3 multiples of 8. The response is complete and correct.

GUIDE PAPER 3

34

Wyatt wants to solve the equation below to find the missing factor.

$8 \times \underline{?} = 24$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

Wyatt can turn 8×?=24 to 24÷8=? now Wyat
just has to solve the equation 24÷8=? and
the question mark in 24÷8=? -> is 3 so now
Wyatt can figerout 8× _?_ =24!

3

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. A correct division equation with the calculated missing factor is provided. The explanation is complete and correct.

34

Wyatt wants to solve the equation below to find the missing factor.

$8 \times \underline{\ ?\ } = 24$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

$24 \div 3 = 8$

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. A division equation containing the missing factor is provided; however, the explanation is insufficient. This response correctly addresses only some elements of the task.

34

Wyatt wants to solve the equation below to find the missing factor.

8 × __?__ = 24

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

She can ~~Whet~~ use division to sol

8 × ?=24 She can use division like this

24 ÷ 8 = ? .

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. A correct division equation is provided, but the value of the missing factor is not included. This response correctly addresses only some elements of the task.

34

Wyatt wants to solve the equation below to find the missing factor.

$$8 \times \underline{\ ?\ } = 24$$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

> He can find out by starting with doing 8 groups and in the groups draw as many dots he needs to get 24. And the answer is $8 \times 3 = 24$.

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The correct missing factor is provided. The explanation shows some understanding of the division with the grouping, but there is no division equation. This response correctly addresses only some elements of the task.

34

Wyatt wants to solve the equation below to find the missing factor.

$$8 \times \underline{\ ?\ } = 24$$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

$$8 \times 3 = 24$$

Score Point 0 (out of 2 points)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The missing factor 3 is correctly substituted in the provided equation, but no understanding of a division problem is demonstrated. Therefore, holistically, this is not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.

34

Wyatt wants to solve the equation below to find the missing factor.

$8 \times \underline{\ ?\ } = 24$

How can Wyatt find the missing factor by changing the equation to a division problem? Be sure to include the value of the missing factor in your answer.

Explain your answer.

$(8) \div (24) = 6$

Score Point 0 (out of 2 points)

Although a division equation is attempted, it is written in the incorrect order and the missing factor is incorrect. Holistically, this is not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B ? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

_____

_____

_____

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

The same whole sandwich will be divided into different amounts. Since Family A has 4 people, each person will get ¼ of the sandwich and since Family B has 2 people, each person will get ½ of the sandwich.

or

Since Family A has 4 people and Family B has 2 people, the same whole sandwich will be divided into different amounts because the larger the number that is dividing the whole, the more and the smaller the pieces of the whole.

or other valid explanation

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.
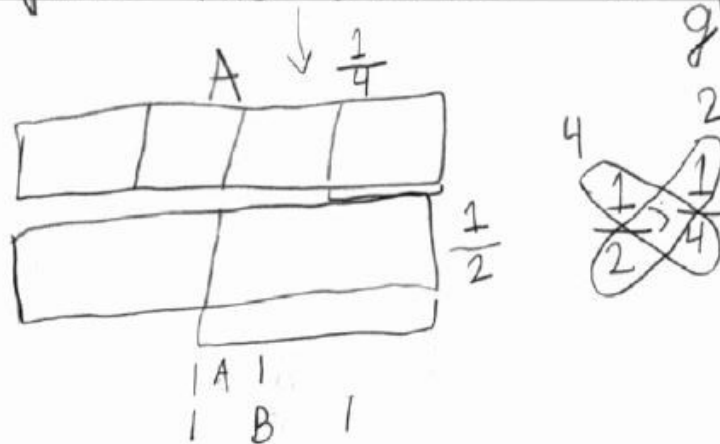
Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

Family A will get a different amount because the more people you have the smaller the pices get.

A

B

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The explanation correctly describes that when dividing a whole, the larger the number the whole is divided by, the smaller each portion becomes. This concept is supported with the drawing. The response is complete and correct.

GUIDE PAPER 2

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

1 half FB   1 fourth FA
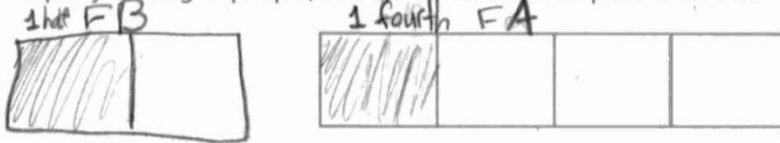
Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

No, a person from family A won't get the same amount because a person from family B gets one half and a person from family A will get one fourth.

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The sandwich portion sizes for Family A and Family B are correctly identified. The explanation is complete and correct.

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

A person from family B will get more than a person from family A. The more the piece the smaller the piece gets.

A ↓ $\frac{1}{4}$

$\frac{1}{2}$

|A|
| B |

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

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The portion size for each family member is correctly identified. The "butterfly method" is used to explain which fraction is larger, and is supported with the drawing. The response is complete and correct.
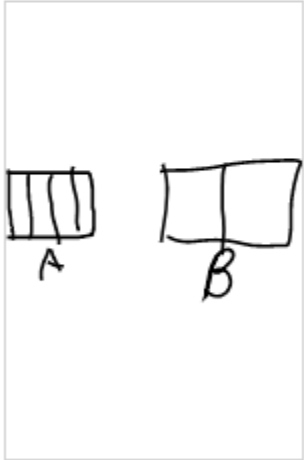
GUIDE PAPER 4

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

Every family get a equally pice and I cut it to pice sice there 4 people so I cot it into 4forthors and sice there are 2 people I cut it to havles.

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The portion size for each family is correctly identified, but the explanation compares sandwich portions within each family, not to the other family. This response correctly addresses only some elements of the task.

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

$$b = 2 \quad \text{equeal parts} \, a\frac{1}{4} \, b\frac{1}{2}$$
$$a = 4 \quad \text{equeal parts}$$

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The portion size for each family is correctly shown as a fraction, but the explanation does not say if the portion sizes are the same or different. This response correctly addresses only some elements of the task.

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B ? Be sure to include what you know about fractions or parts of a whole in your answer.
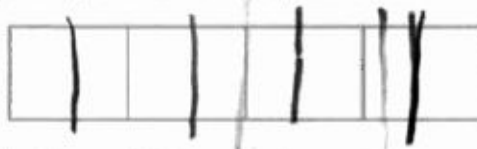
Explain your answer.

No, because one person in family A is going to get one piece and one person in family is going to get two pieces.

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The explanation correctly explains that the family members will get different amounts of the sandwich by implying that each portion for Family B is equivalent to two of Family A's portions, but the phrasing is vague and unclear. Holistically, there is a partial understanding. This response correctly addresses only some elements of the task.

GUIDE PAPER 7

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

$2 \times 4 = S$ A person from family A will get the same amount of a sandwich as a person from family B.
2,4,6,8
S=8

Score Point 0 (out of 2 points)

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

35

Two families buy large sandwiches of the same size. Family A shares one sandwich equally among 4 people, as represented in the picture below.

Family B shares one sandwich equally between 2 people.

Will a person from Family A get the same amount or a different amount of a sandwich as a person from Family B? Be sure to include what you know about fractions or parts of a whole in your answer.

Explain your answer.

it is the same because I divided it into 2 pieces

Score Point 0 (out of 2 points)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The student misinterprets the question and divides each ¼ portion of Family A's sandwich further into two ⅛ portions. The explanation is incorrect.
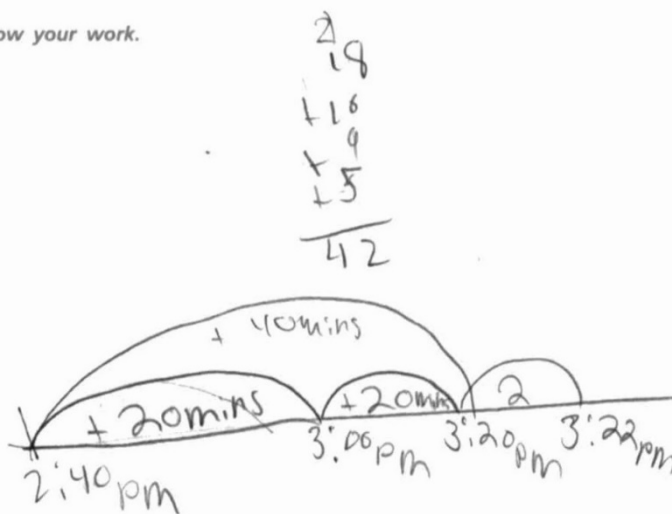
36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter

- 18 minutes to bake the cupcakes

- 5 minutes to let them cool

- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

Answer _____ p.m.

36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter

- 18 minutes to bake the cupcakes

- 5 minutes to let them cool

- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

2:40 + :09 = 2:49 p.m.

2:49 + :18 = 3:07 p.m.

3:07 + :05 = 3:12 p.m.

3:12 + :10 = 3:22 p.m.

or

9 + 18 + 5 + 10 = 42 minutes

2:40 + :42 = 2:82 p.m. = 3:22 p.m.

or other valid process

Answer   3:22   p.m.

36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter

- 18 minutes to bake the cupcakes

- 5 minutes to let them cool

- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

Answer ___3:22___ p.m.

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The total time to complete the cupcakes is correctly calculated and correctly added to the start time using a number line. The response is complete and correct.

GUIDE PAPER 2

36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter

- 18 minutes to bake the cupcakes

- 5 minutes to let them cool

- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

$$2{:}40 + 9 = 2{:}49 \quad 2{:}49 + 18 = 3{:}07 \quad 3{:}07 + 5 = 3{:}12 \quad 3{:}12 + 10 = 3{:}22$$

Answer $\boxed{3{:}22}$ p.m.

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The time Suzy will finish frosting the cupcakes is correctly calculated by adding the duration of each step to the current time. The response is complete and correct.

36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter

- 18 minutes to bake the cupcakes

- 5 minutes to let them cool

- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

$$9 + 18 + 5 + 10 = 42 + 2:40 = 3:22$$

Answer | 3:22 | p.m.

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The total time to complete the cupcakes is correctly calculated and correctly added to the start time. The response is complete and correct.
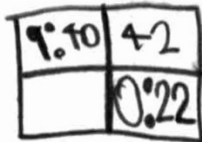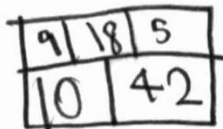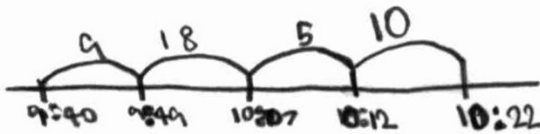
36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter

- 18 minutes to bake the cupcakes

- 5 minutes to let them cool

- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

2:40 + 18=3:08
3:08 + 10=3:18
3:18+9=3:27
3:27+5=3:32

Answer | 3:32 | p.m.

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. A correct process is used to determine the time Suzy will finish frosting the cupcakes by adding the duration of each separate step to the current time, but the first step has an addition error: $2:40 + :18 \neq 3:08$. This response contains an incorrect solution but applies an appropriate process.

36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter

- 18 minutes to bake the cupcakes

- 5 minutes to let them cool

- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

$$
\begin{array}{r} 9 \\ + 18 \\ \hline 27 \end{array}
\qquad
\begin{array}{r} 5 \\ + 10 \\ \hline 15 \end{array}
$$

$$
\begin{array}{r} 27 \\ + 15 \\ \hline 42 \end{array}
$$

Answer [42] p.m.

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The total time to complete the cupcakes is correctly calculated; however, this total is not added to the start time and is inappropriately provided as the solution. This response correctly addresses only some elements of the task.

36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

I need to find what time did Suzy finish frosting the cupcakes. I will mark the number line and a bar model.

- 9 minutes to mix the batter
- 18 minutes to bake the cupcakes
- 5 minutes to let them cool
- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

I noticed I did my steps in order to count them to the total answer. I also noticed I counted the steps on my first bar model then added it my second bar model.

Answer 10:22 p.m.

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. A correct process is used to determine the time Suzy will finish frosting the cupcakes, but the start time of 9:40 is incorrect. This response contains an incorrect solution but applies an appropriate process.

36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter
- 18 minutes to bake the cupcakes
- 5 minutes to let them cool
- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work. 10 minutes

$$\begin{array}{r} + 19 \\ 18 \\ \hline 127 \\ + 05 \\ \hline 32 \\ + 16 \\ \hline 4{:}02 \end{array}$$

Answer ___4:02___ p.m.

Score Point 0 (out of 2 points)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The response shows no overall understanding of what minutes and hours represent. Holistically, this is not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.

36

Suzy made cupcakes for her friends. She started at 2:40 p.m. The list below shows the number of minutes it took to complete each step of the process.

- 9 minutes to mix the batter

- 18 minutes to bake the cupcakes

- 5 minutes to let them cool

- 10 minutes to frost the cupcakes

What time did Suzy finish frosting the cupcakes?

Show your work.

$9 + 18 = 26 \quad 26 + 5 = 31 \quad 31 + 10 = 41$

Answer 41 p.m.

Score Point 0 (out of 2 points)

Although the process to calculate the total time to complete the cupcakes is correct, an addition error occurs ($9 + 18 \neq 26$) and the result is not added to the start time. Holistically, the work is not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

Answer _____ miles

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

$2 + 2 = 4$ miles traveled per day

$4 \times 40 = 160$ total miles

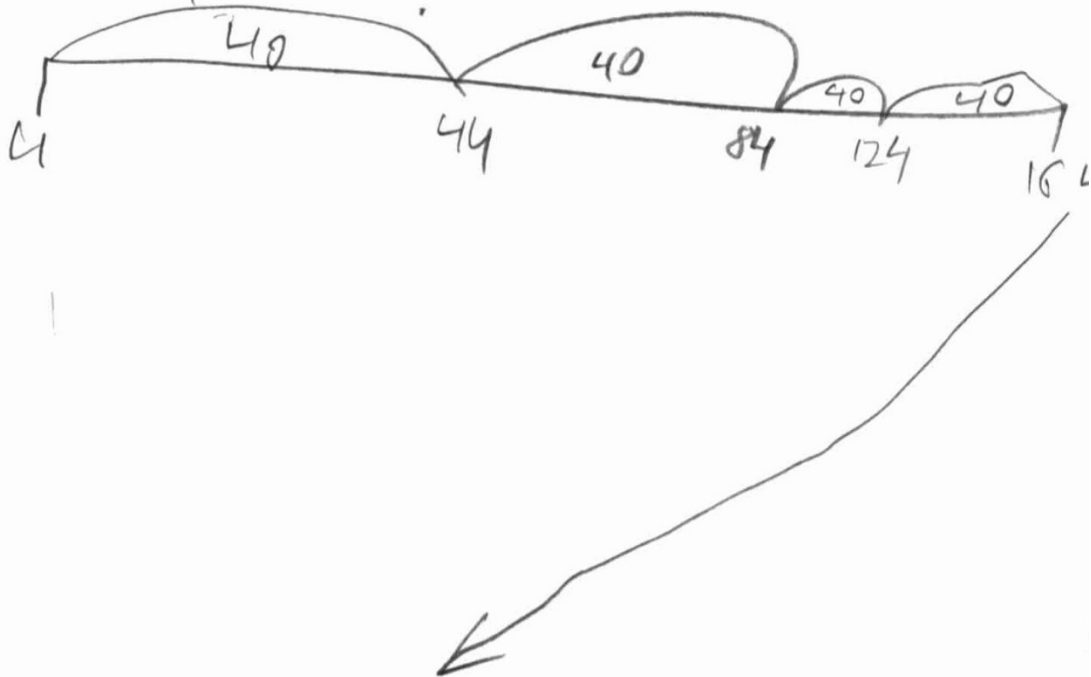*or other valid process*

Answer _____160_____ miles

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

> STEP 1: $2 + 2 = 4$
> STEP 2: $4 \times 40 = 160$

160 Miles In Total

Answer _____ miles

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The number of miles traveled per day is correctly calculated and multiplied by 40 to obtain the total distance traveled. The response is complete and correct.

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

To school | To home

$40 \times 2 = 80$ $40 \times 2 = 80$

Add them together

$$\begin{array}{r} +80 \\ 80 \\ \hline 160 \end{array}$$

Answer ___160___ miles

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The total number of miles traveled is correctly calculated. The response is complete and correct.

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

$2 \times 40 = 80$
$2 \times 4 = 8$
$2 \times 80 = 160$
$2 \times 8 = 16$

Answer [160] miles

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The total number of miles traveled is correctly calculated using multiplication. The multiplications $2 \times 4 = 8$ and $2 \times 8 = 16$ are calculation aids that do not detract from the correct solution. The response is complete and correct.

GUIDE PAPER 4

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

$$2 \times 2 = 4$$

$$4 \times 40 = ?$$

Answer 164 _____ miles

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The number of miles traveled per day is correctly calculated. A number line illustrates 4 × 40, but incorrectly starts at 4. This response contains an incorrect solution but applies an appropriate process.

GUIDE PAPER 5

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

$$2 \times 40 = 80$$

Answer ____80____ miles

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The total distance is calculated for only a one-way trip, not the round-trip distance to school and back. This response correctly addresses only some elements of the task.

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

4,8,12,16,20, 24, 28,32, 36,40, 44, 48,52,56,60,
64, 68, 72,76,80, 84,88,92,96, 100, 104,108,
112,116, 120, 124, 128,132, 136, 140, 148, 152
156,160,(164,)

She will ride her bike 164 miles in 40 days.

Answer __164__ miles

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The number of miles traveled is calculated by appropriately skip counting by fours; however, the value 144 is missing from the pattern, leading to an incorrect 40th term and answer. This response contains an incorrect solution but applies an appropriate process.

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

$$2+2=4$$
$$4 \div 40 = \boxed{10}$$

Ashlynn will ride 10 miles in 40 days.

Answer _____10_____ miles

Score Point 0 (out of 2 points)

Although the 4 miles traveled per day is correctly calculated, an incorrect procedure is used to determine the total number of miles. Holistically, this response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task.

37

Ashlynn rides her bike 2 miles to school and 2 miles home each day. How many total miles will Ashlynn ride her bike to school and home in 40 days?

Show your work.

$2 \times 2 = 4 \quad 40 + 4 = 44$

Answer 44 miles

Score Point 0 (out of 2 points)

Although the 4 miles traveled per day is correctly calculated, an incorrect procedure is used to determine the total number of miles. Holistically, this response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task.

38

Two figures are shown below.

FIGURE A

KEY

$\square$ = 1 square foot

FIGURE B

What is the difference, in square feet, between the area of Figure A and the area of Figure B ?

Explain how you found your answer.

_____

_____

_____

38

Two figures are shown below.

KEY

□ = 1 square foot
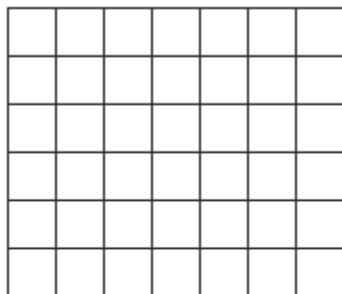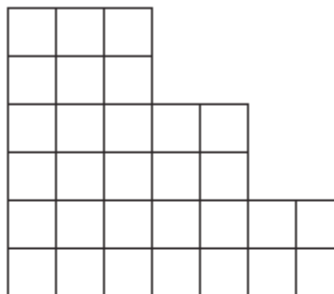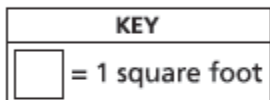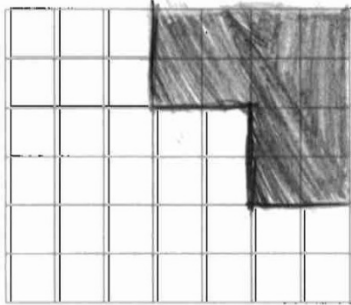
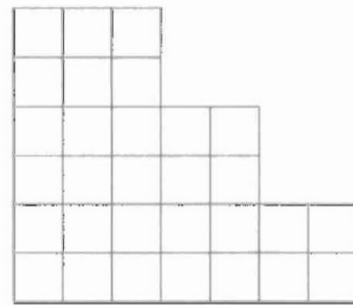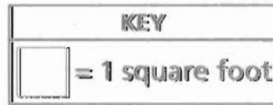FIGURE A   FIGURE B

What is the difference, in square feet, between the area of Figure A and the area of Figure B ?

Explain how you found your answer.

The area of figure A can be found by $6 \times 7 = 42$ or by counting the squares. The area of figure B can be found by $(3 \times 6) + (2 \times 4) + (2 \times 2) = 30$ or by counting the squares. The difference is $42 - 30 = 12$ square feet.

or other valid explanation
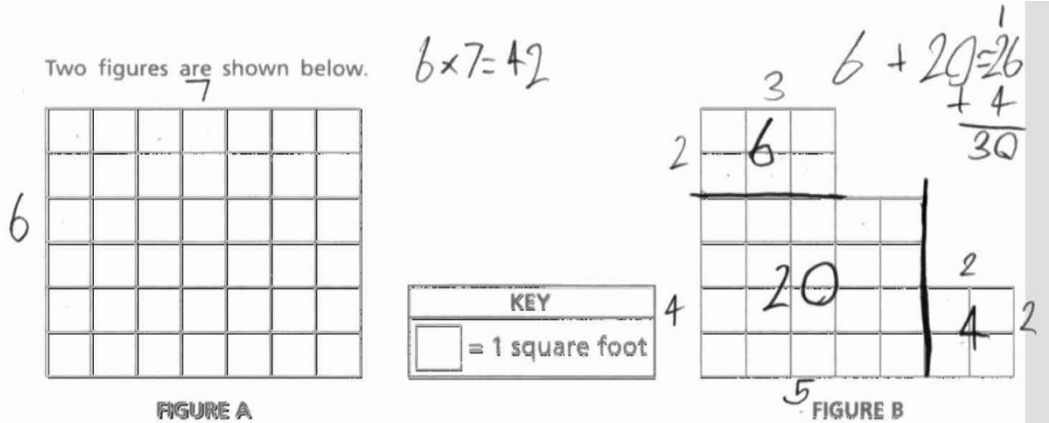
38

Two figures are shown below. $6 \times 7 = 42$

$6 + 20 = 26$
$\overline{+\ 4}$
$\overline{30}$
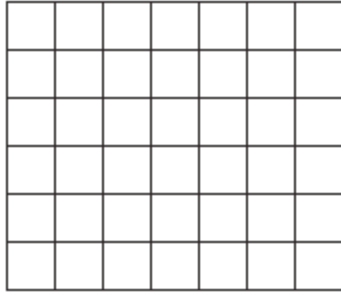
FIGURE A

| | KEY |
| | ☐ = 1 square foot |

FIGURE B

What is the difference, in square feet, between the area of Figure A and the area of Figure B?

Explain how you found your answer.

The difference is 12 square feet beca-
use $6 \times 7 = 42$, and $6 + 20 = 26 + 4 = 30$, so
$42 - 30 = 12$

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The areas of Figure A and Figure B are correctly calculated and the difference between the areas is correctly determined. The explanation is complete and correct.

GUIDE PAPER 2

38

Two figures are shown below.

KEY

☐ = 1 square foot

FIGURE A

FIGURE B

12 Square feet
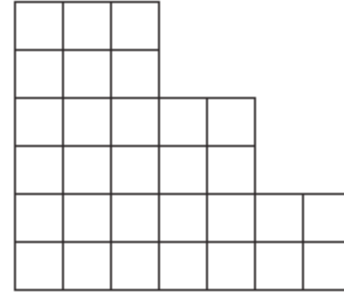
What is the difference, in square feet, between the area of Figure A and the area of Figure B?

Explain how you found your answer.

I found my awnser by looking at figure B and drew lines to make the same shape and counted the squares that I shaded

---

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. Figure B is overlaid on Figure A, and then the squares that do not overlap (the shaded squares) are counted to compute the difference. The explanation is complete and correct.

38

Two figures are shown below.

KEY
☐ = 1 square foot

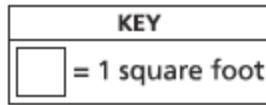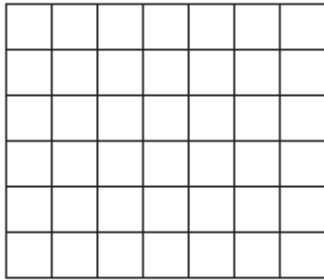FIGURE A   FIGURE B
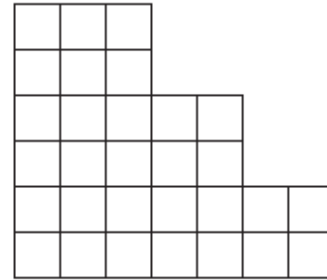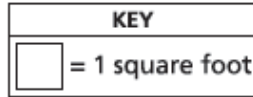
What is the difference, in square feet, between the area of Figure A and the area of Figure B?

Explain how you found your answer.

there is 12 more in figure A $42 - 12 = 30$

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The areas of Figure A and Figure B are correctly calculated and the difference between the areas is correctly determined. The explanation is complete and correct.

38

Two figures are shown below.

KEY

☐ = 1 square foot

FIGURE A　　　　　　　　**FIGURE B**

What is the difference, in square feet, between the area of Figure A and the area of Figure B ?

Explain how you found your answer.

6 × 6 = 3 6

3 6

−

3 0

6

the diffrence is 6 because 6 × 6 = 36 and I counted the other shapes areia and that terned out to be 30 so 36 − 30 = 6.

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The area of Figure B is correctly derived by counting. An incorrect width is used to calculate the area of Figure A. The obtained areas are correctly subtracted to determine the difference between the two areas. This response correctly addresses only some elements of the task.

38

Two figures are shown below.

6 | 42 | 6

KEY

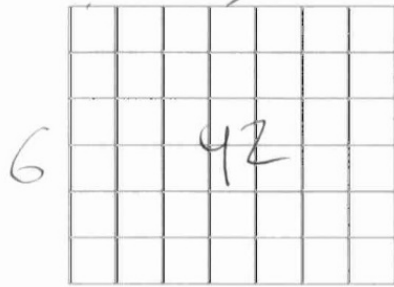☐ = 1 square foot

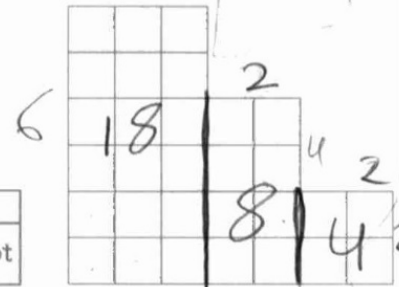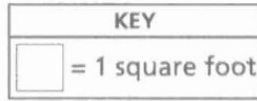**FIGURE A**

6 | 18 | 2 | 4 | 2
8 | 4 | 2

3 **FIGURE B**

What is the difference, in square feet, between the area of Figure A and the area of Figure B?

Explain how you found your answer.

I multipled the Perimeters of Figures A, B and got my answers which shows Figure A has a greater area than Figure B.

7 × 6 = 42

Figure A

$$\begin{array}{r} 14 \\ 18 \\ +18 \\ \hline 30 \end{array}$$

Figure B

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. The areas of Figure A and B are correctly calculated, but the explanation is not complete because the difference is not addressed. The rectangle side lengths are inappropriately referred to as "*perimeters.*" This response correctly addresses only some elements of the task.

38

Two figures are shown below.

3×6
$= 18$

2×4
$= 8$

$2 \times 2 = 2$

KEY

$\square$ = 1 square foot

FIGURE A

FIGURE B

$6 \times 7 = 42$

28

What is the difference, in square feet, between the area of Figure A and the area of Figure B?

Explain how you found your answer.

14, is the diffrence, and figure A is bigger than figure B

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. A correct process is used to calculate the areas of Figure A and Figure B; however, a calculation error occurs in part of the work determining the area of Figure B ($2 \times 2 \neq 2$). The obtained areas are correctly subtracted to determine the difference between the two areas. This response correctly addresses only some elements of the task.

38

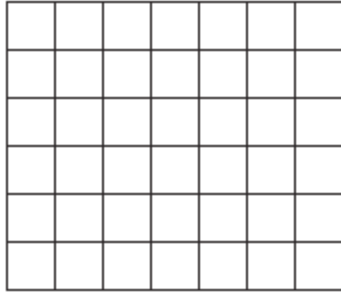Two figures are shown below.

FIGURE A
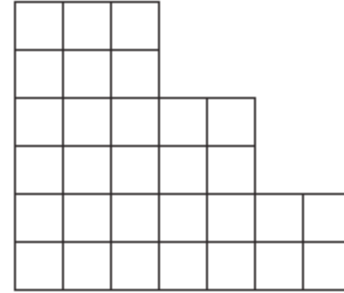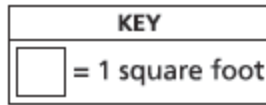
KEY

= 1 square foot

FIGURE B

What is the difference, in square feet, between the area of Figure A and the area of Figure B?

Explain how you found your answer.

The diffrence between the areaof figureA than figureB is 12 feet long

---

Score Point 0 (out of 2 points)

This explanation is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. A correct answer is given with incorrect units and with no explanation. Per Scoring Policy #3, a correct answer with no explanation receives no credit.
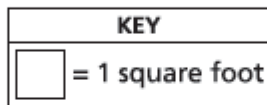
38

Two figures are shown below.
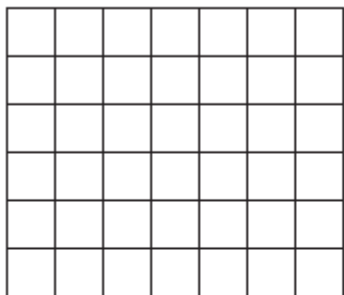

KEY

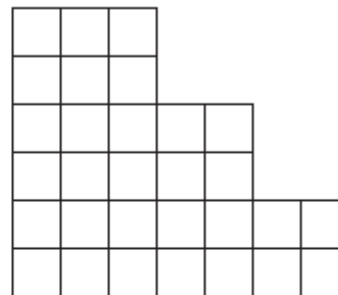☐ = 1 square foot

FIGURE A

FIGURE B

What is the difference, in square feet, between the area of Figure A and the area of Figure B?

Explain how you found your answer.

$45 + 28 = 19$

Score Point 0 (out of 2 points)

This explanation is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The areas of Figure A and B are incorrect. The explanation is incorrect because the difference between the areas is shown with addition, not subtraction.

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

_____

_____

_____

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

The ribbon is cut into 6 equal pieces so the denominator is 6. Since Gianna uses 4 pieces the numerator is 4, and $\frac{4}{6}$ of the ribbon is used.

or other valid explanation

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

$\frac{4}{6}$ there wore 6 in all and 4 were use so the denominater is 6 and the numerater is 4

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The fraction of the ribbon that Gianna uses for her project is correct. The explanation correctly describes what the numerator and denominator in the fraction represent. The explanation is complete and correct.

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

How I Found My Answer was I Shaded in 4 Sqcares from the 6 squares They gave Me and Then I Found out My Answer has to be $\frac{4}{6}$

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

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

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The fraction of the ribbon that Gianna uses for her project is correct. The explanation is complete and correct.
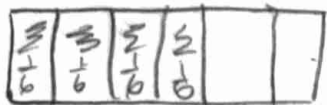
GUIDE PAPER 3

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

$\frac{4}{6}$

Score Point 2 (out of 2 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The fraction of the ribbon that Gianna uses for her project is correct. The correct shading in the diagram representing the ribbon fraction is a sufficient explanation. The response is complete and correct.

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

> she used 4 pieces of ribbon and there are 2 left and therev are in all 6 so she used 4 6

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. This response demonstrates that the student understands there are 6 pieces total, of which 4 are used in the project. However, "4 6" is not sufficient notation to indicate the fraction ⁴⁄₆. This response correctly addresses only some elements of the task.

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

She uses 4/6 for the projeu bec

she used 4/6 fox a projeut"

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. This response provides the correct answer, but the denominator 6 is insufficiently explained. This response correctly addresses only some elements of the task.

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

she uses $\frac{4}{5}$ beccuse
She has 5 peaces
and she tukes four.

Score Point 1 (out of 2 points)

This response demonstrates only a partial understanding of the mathematical concepts in the task. A correct numerator is provided; however, the total number of pieces is miscounted, leading to an incorrect denominator. This response correctly addresses only some elements of the task.

GUIDE PAPER 7

39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

Score Point 0 (out of 2 points)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The answer of ⅘ is obtained using an incorrect procedure.
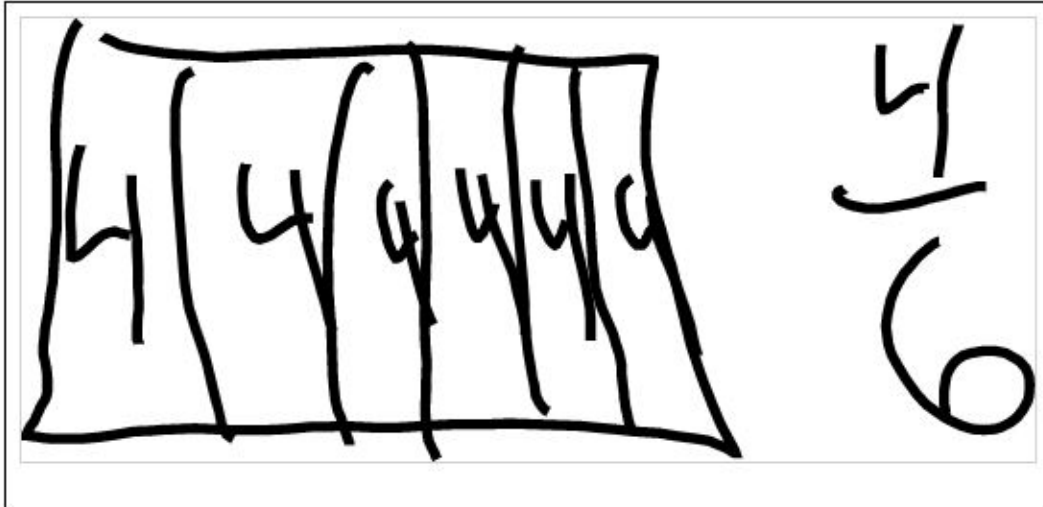
39

Gianna cuts a ribbon into equal pieces as shown below.

She uses 4 pieces of the ribbon for a project. What fraction of the ribbon does Gianna use for the project?

Explain how you found your answer.

$\frac{2}{4}$. I got my answer by filling in 4 of the boxes and then I saw there were 2 left so $\frac{2}{4}$ is my answer.

Score Point 0 (out of 2 points)

Although the diagram is shaded correctly, the explanation shows no valid understanding of how it is represented as a fraction. Holistically, this response is not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

Answer _____ pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

Answer _____ ounces

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

$15 \div 3 = 5$ pancakes

or other valid process

Answer _____5_____ pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?
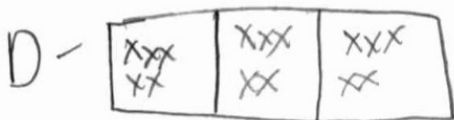
Show your work.

$8 \times 3 = 24$ ounces of juice

or other valid process

Answer _____24_____ ounces

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.
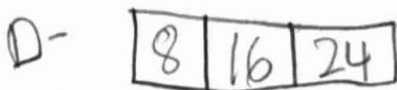
W- Each person will get _5_ small pancakes

D-
| Xxx Xx | Xxx xx | Xxx xx |

W— 15÷3=5 small pancakes

Answer ___5 small___ pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

W- Ms. Ross needs _24_ ounces of orange juice.

D-
| 8 | 16 | 24 |

W- 8×3=24 ounces

Answer ___24___ ounces

Score Point 3 (out of 3 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The number of pancakes each person can get and the total amount of orange juice needed are correctly calculated. The response is complete and correct.

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

$15 \div 3 = p$
3,6,9,12,15
p=5

Answer | Each person gets 5 small panckes. | pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

$8 \times 3 = O$
8,16,24
O=24ounces

Answer | She needs 24 ounces of orange juice. | ounces

Score Point 3 (out of 3 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The number of pancakes each person can get and the total amount of orange juice needed are correctly calculated. The "*O*" in the work is understood to signify the variable O, for orange juice, not the number zero. The response is complete and correct.

GUIDE PAPER 3

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

there is 5 of 2's and 5 of 1's and 5 of 3's

Answer 5 pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

there are 3 people and 8 ounces so ......

$$\begin{array}{r}8\\8\\+8\\\hline 24\end{array}$$

Answer 24 ounces

Score Point 3 (out of 3 points)

This response demonstrates a thorough understanding of the mathematical concepts in the task. The number of pancakes each person can get is correctly derived. A correct process is shown by drawing 15 pancakes, and grouping them by numbering them 1 through 3. The total amount of orange juice is correctly calculated by repeatedly adding 8. The response is complete and correct.

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

1person	1person	1person
1	1	1
1	1	1	$15 \div 3 = 5$
1	1	1
1	1	1
1	1	1	5 in each

the answer is 5 because $15 \div 3 = 5$.

Answer each person gets 5 pancakes pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

3people
$8 \times 3 = 27$
the answer is 27

Answer she needs 27 ounces ounces

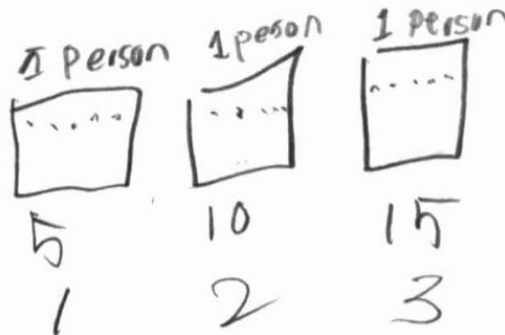
Score Point 2 (out of 3 points)

This response demonstrates a partial understanding of the mathematical concepts in the task. The number of pancakes each person can get is correctly calculated. The process to determine the total amount of juice needed is correct, but a multiplication error results in an incorrect answer. This response contains an incorrect solution but applies sound procedures.

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

1 Person   1 peson   1 Persin

5   10   15

1   2   3

Answer _____2_____ pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

8, 16, 24

$3 \times 8 = 8 \times 3$

$3 \times 8 = 24$

$8 \times 3 = 24$

Answer _____ ounces

Score Point 2 (out of 3 points)

This response demonstrates a partial understanding of the mathematical concepts in the task. The drawing for the pancake distribution shows understanding of division, but the number of people, not the number of pancakes, is inappropriately provided as the solution. The total amount of juice needed is correctly calculated. Although the amount of orange juice needed is not on the answer line, per Scoring Policy #2, if the student does not write the answer in the answer space, but in this case clearly identifies the answer by circling the 24, then the student shall receive credit for this. This response reflects a minor misunderstanding of the underlying procedures.

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

$$15 \div 3 = 5$$

Answer | 5 | pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

$$6 \times 8 = 48 \text{ounces}$$

Answer | 48 | ounces

Score Point 2 (out of 3 points)

This response demonstrates a partial understanding of the mathematical concepts in the task. The number of pancakes each person can get is correctly calculated. However, the total amount of juice needed is calculated using an appropriate process, but is calculated for 6 people, not 3. This response reflects a minor misunderstanding of the underlying procedures.
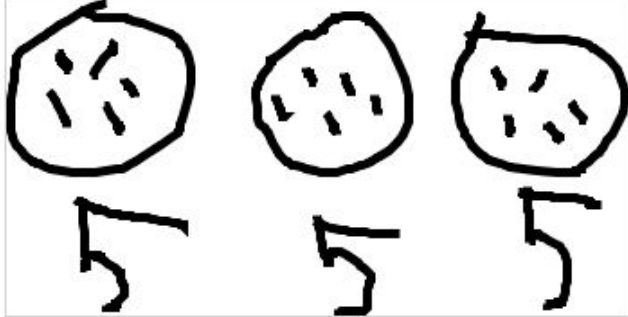
40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?
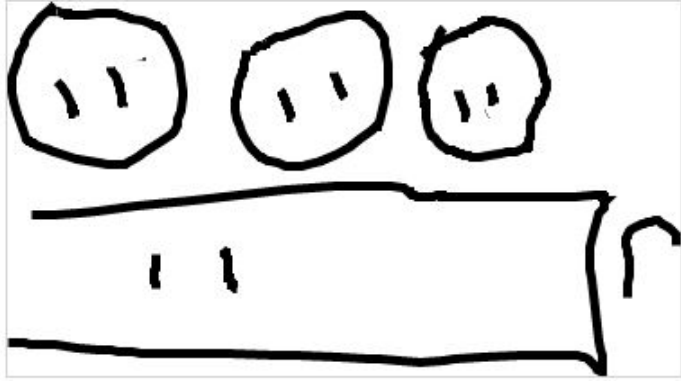
Show your work.

$15 \div 3 = 5$

Answer | 5 pancakes | pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

$8 \div 3 = 2\,r2$

Answer | 2 r2 | ounces

Score Point 1 (out of 3 points)

This response demonstrates only a limited understanding of the mathematical concepts in the task. The number of pancakes each person can get is correctly calculated, but the method to determine the total amount of juice is incorrect. This response addresses only some elements of the task correctly.

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

each person gets 5 pancaks.

Answer | each person gets 5 | pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

she needs 24 onces.

Answer | she needs 24 | ounces

Score Point 1 (out of 3 points)

This response demonstrates only a limited understanding of the mathematical concepts in the task. The number of pancakes each person can get is correctly derived using a diagram. The answer for the total amount of juice needed is correct, but no work is shown for that calculation. This response contains the correct solutions but the required work is limited.

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

$5 \times 3 = 15$

Answer ___5___ pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

$5 \times 3 = 15$

$$\begin{array}{r} 15 \\ +\ 8 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 1\,5 \\ +\ 8 \\ \hline 23 \end{array}$$

Answer ___23___ ounces

Score Point 1 (out of 3 points)

This response demonstrates only a limited understanding of the mathematical concepts in the task. The number of pancakes each person can get is correctly calculated. The answer and work to determine the total amount of juice are incorrect. This response addresses only some elements of the task correctly.

40

Ms. Ross is making breakfast for her family. She makes 15 small pancakes to share equally among 3 people. How many small pancakes will each person get?

Show your work.

5

Answer | 5 | pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

24

Answer | 24 | ounces

Score Point 0 (out of 3 points)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. There is no work for either the number of pancakes each person receives, or the total amount of juice needed. Per Scoring Policy #3 a correct answer with no work receives no credit.

40

Ms. Ross is making breakfast for her family. She makes ⑮ small pancakes to share equally among ③ people. How many small pancakes will each person get?

Show your work.

$$+ \begin{array}{c} 15 \\ 3 \\ \hline 18 \end{array}$$

Answer ___8___ pancakes

Ms. Ross also wants to give each person a glass of orange juice. If each person gets 8 ounces, how many total ounces of orange juice does she need?

Show your work.

$$\begin{array}{c} 8 \\ 3 \\ \hline 11 \end{array}$$

Answer ___11___ ounces

Score Point 0 (out of 3 points)

This response is not sufficient to demonstrate even a limited understanding of the mathematical concepts in the task. The work consists of adding the numbers that appear in the prompt, with no real understanding of what the numbers represent. The answers are incorrect.