



***New York State
Testing Program***

**2025
Mathematics Test**

Grade 7

**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]

Grade 7 Mathematics Reference Sheet

CONVERSIONS

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

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

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

CONVERSIONS ACROSS MEASUREMENT SYSTEMS

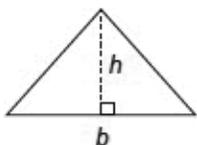
1 inch = 2.54 centimeters
1 meter = 39.37 inches
1 mile = 1.609 kilometers
1 kilometer = 0.6214 mile

1 gallon = 3.785 liters
1 liter = 0.2642 gallon

1 pound = 0.454 kilogram
1 kilogram = 2.2 pounds

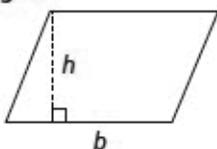
FORMULAS AND FIGURES

Triangle



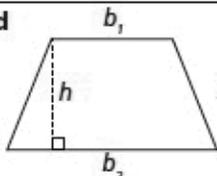
$$A = \frac{1}{2}bh$$

Parallelogram



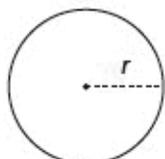
$$A = bh$$

Trapezoid



$$A = \frac{1}{2}h(b_1 + b_2)$$

Circle



$$C = 2\pi r$$
$$C = \pi d$$
$$A = \pi r^2$$

Simple Interest

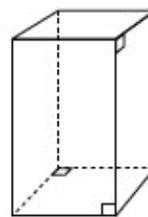
$$I = prt$$

where I is interest,
 p is principal,
 r is rate, and
 t is time

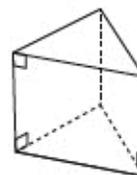
General Prism

$$V = Bh$$

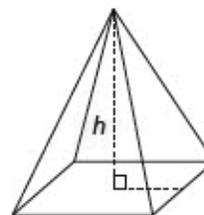
Right Rectangular Prism



Right Triangular Prism



Right Rectangular Pyramid



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).

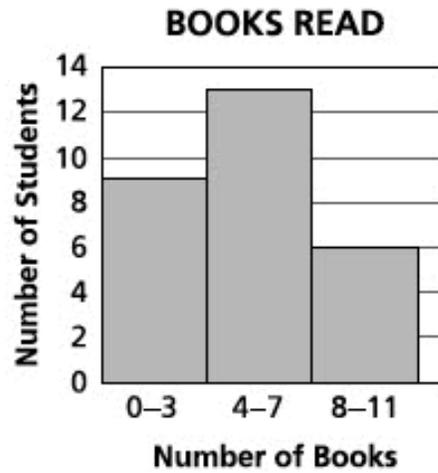
1-Credit Constructed-Response Mathematics Scoring Policies

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 histogram below shows the results from a survey given to each student in a 6th-grade class about the number of books they read over the summer.



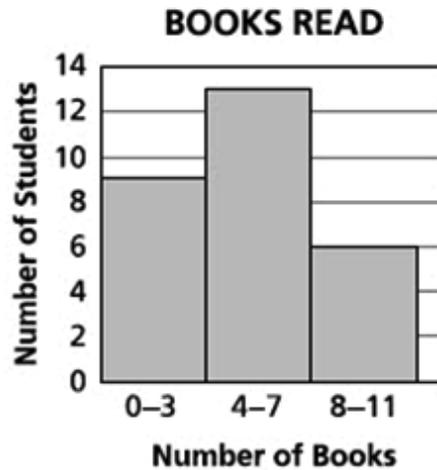
Based on the histogram, how many students were surveyed?

Answer _____ students

EXEMPLARY RESPONSE

39

The histogram below shows the results from a survey given to each student in a 6th-grade class about the number of books they read over the summer.



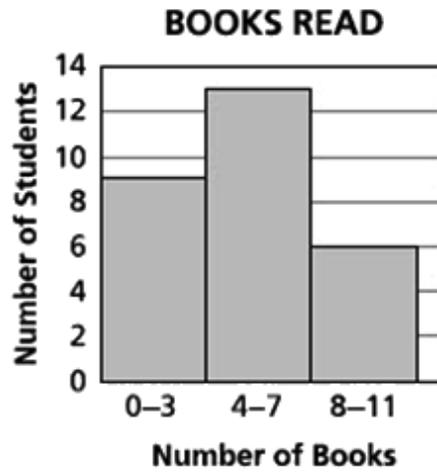
Based on the histogram, how many students were surveyed?

Answer 28 students

GUIDE PAPER 1

39

The histogram below shows the results from a survey given to each student in a 6th-grade class about the number of books they read over the summer.



Based on the histogram, how many students were surveyed?

Answer students

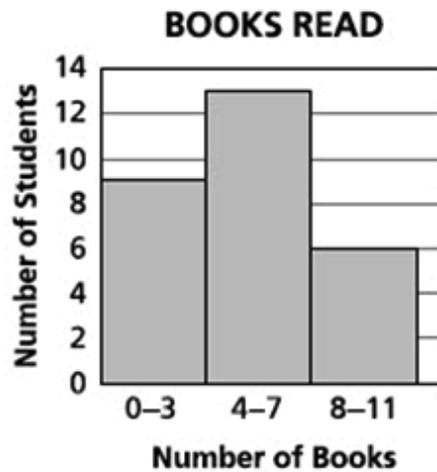
Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

39

The histogram below shows the results from a survey given to each student in a 6th-grade class about the number of books they read over the summer.



Based on the histogram, how many students were surveyed?

Answer $9 + 6 = 15 + 13 = 28$
in total there was 28 kids surveyed students

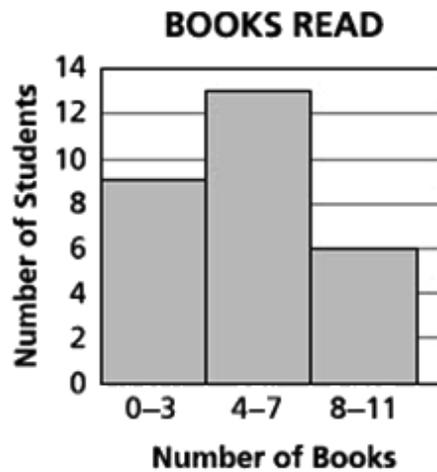
Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 3

39

The histogram below shows the results from a survey given to each student in a 6th-grade class about the number of books they read over the summer.



Based on the histogram, how many students were surveyed?

Answer students

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

An expression is shown below.

$$\frac{0.5(4 - 6)}{0.2}$$

Determine the value of the expression.

Answer _____

EXEMPLARY RESPONSE

40

An expression is shown below.

$$\frac{0.5(4 - 6)}{0.2}$$

Determine the value of the expression.

Answer -5

GUIDE PAPER 1

40

An expression is shown below.

$$\frac{0.5(4 - 6)}{0.2}$$

Determine the value of the expression.

Answer

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

40

An expression is shown below.

$$\frac{0.5(4 - 6)}{0.2}$$

Determine the value of the expression.

$$\frac{0.5(4-6)}{0.2} = \frac{2-3}{.2}$$

$$\frac{-1}{.2} = -5$$

Answer -5

Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 3

40

An expression is shown below.

$$\frac{0.5(4 - 6)}{0.2}$$

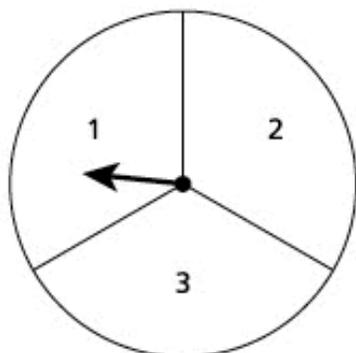
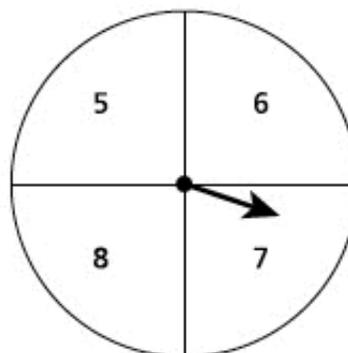
Determine the value of the expression.

Answer

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

Darius will spin the arrows on two spinners. Spinner A is divided into three equal sections and Spinner B is divided into four equal sections as shown below. Darius will spin each arrow one time.

SPINNER A**SPINNER B**

What is the probability that the product of the two numbers that the arrows land on from Darius's spins will be an odd number?

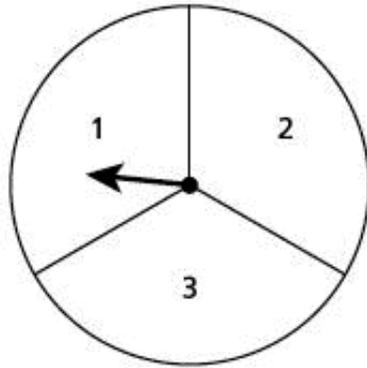
Answer _____

EXEMPLARY RESPONSE

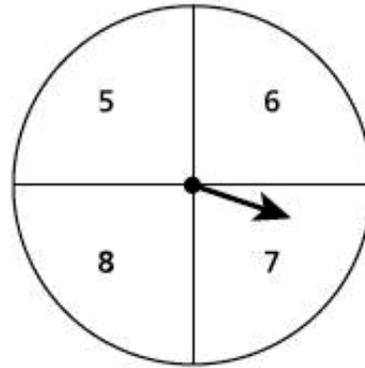
41

Darius will spin the arrows on two spinners. Spinner A is divided into three equal sections and Spinner B is divided into four equal sections as shown below. Darius will spin each arrow one time.

SPINNER A



SPINNER B



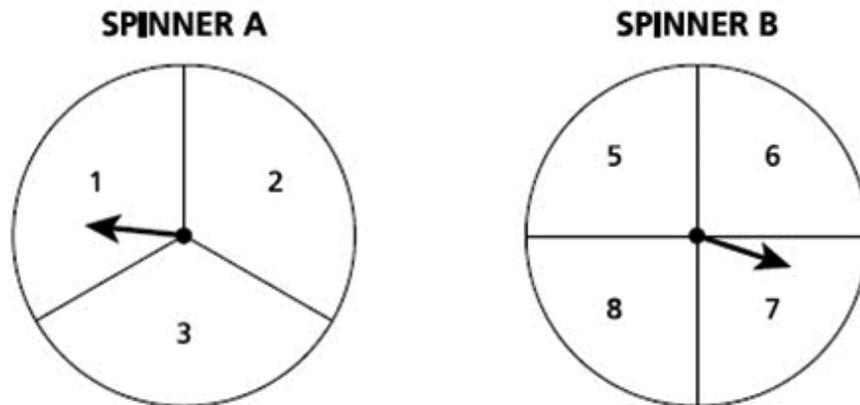
What is the probability that the product of the two numbers that the arrows land on from Darius's spins will be an odd number?

Answer $\frac{4}{12}$ or $\frac{1}{3}$
OR Other valid response

GUIDE PAPER 1

41

Darius will spin the arrows on two spinners. Spinner A is divided into three equal sections and Spinner B is divided into four equal sections as shown below. Darius will spin each arrow one time.



What is the probability that the product of the two numbers that the arrows land on from Darius's spins will be an odd number?

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

Answer $\frac{1}{3}$

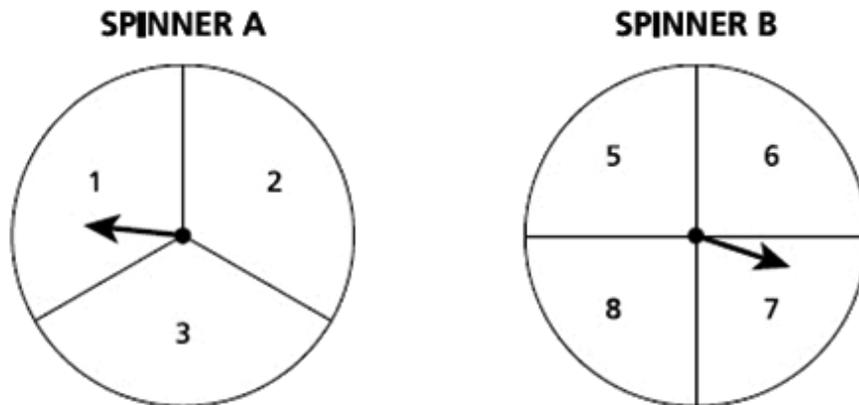
Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 2

41

Darius will spin the arrows on two spinners. Spinner A is divided into three equal sections and Spinner B is divided into four equal sections as shown below. Darius will spin each arrow one time.



What is the probability that the product of the two numbers that the arrows land on from Darius's spins will be an odd number?

Answer

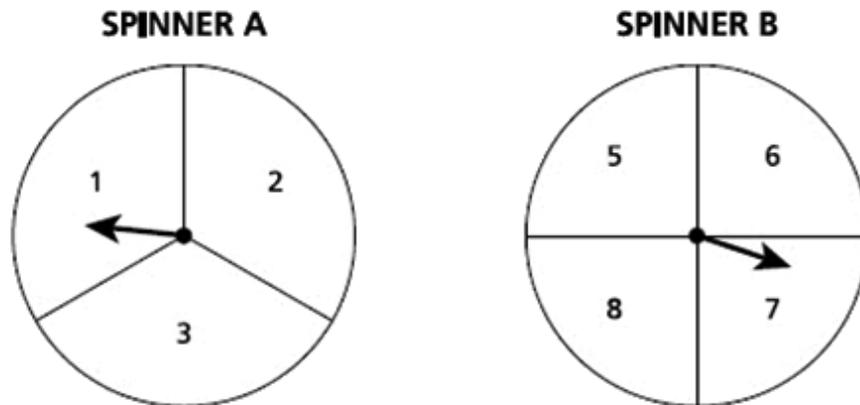
Score Credit 1 (out of 1 credit)

A correct answer is provided.

GUIDE PAPER 3

41

Darius will spin the arrows on two spinners. Spinner A is divided into three equal sections and Spinner B is divided into four equal sections as shown below. Darius will spin each arrow one time.



What is the probability that the product of the two numbers that the arrows land on from Darius's spins will be an odd number?

Answer

Score Credit 0 (out of 1 credit)

An incorrect answer is provided.

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

Answer \$ _____

EXEMPLARY RESPONSE

42

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$3(x + 6.50) = 54.00$$

$$3x + 19.50 = 54.00$$

$$3x = 34.50$$

$$x = 11.50$$

OR Other valid process

Answer \$ 11.50

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$\begin{array}{r}
 (6.50 + x) \times 3 = 54.00 \\
 19.50 + 3x = 54.00 \\
 - 19.50. \qquad - 19.50 \\
 \hline
 3x. =. \quad 34.50 \\
 \hline
 x. \quad 11.50
 \end{array}$$

The cost of the movie tickets were \$11.50 per person

Answer \$

Score Credit 2 (out of 2 credits)

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

- The price of one movie ticket is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 2

42

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$\begin{array}{r} + \\ 3x + 19.5 = 54.00 \\ - 19.5 \\ \hline 34.50 \\ \sqrt{34.50} \\ 3 \\ \hline 11.5 \end{array}$$

Answer \$

Score Credit 2 (out of 2 credits)

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

- The price of one movie ticket is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 3

42

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$6.50 \times 3 = 19.50$$

$$54.00 - 19.50 = 34.50$$

$$34.50 \div 3 = 11.50$$

$$11.50 \times 3 = 34.50 \quad 6.50 \times 3 = 19.50 \quad 34.50 + 19.50 = \$54.00$$

Answer \$

Score Credit 2 (out of 2 credits)

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

- The price of one movie ticket is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 4

42

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$6.50 \times 3 = 19.50$$
$$54 - 19.50 = \$34.50$$

Answer \$

Score Credit 1 (out of 2 credits)

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

- The price for 3 popcorns is correctly determined and correctly subtracted from the total price.
- However, the price of one movie ticket is not determined, and the price of three tickets is inappropriately provided as the solution.

This response correctly addresses only some elements of the task.

GUIDE PAPER 5

42

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$54.00 \div 3 = 18$$

$$18 - 6.50 = 11.05$$

Answer \$

Score Credit 1 (out of 2 credits)

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

- A mathematically sound procedure is used to determine the price of one movie ticket.
- However, a calculation error occurs, resulting in an incorrect solution.

This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 6

42

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$3x + 6.50 = 54$$

$$54 - 6.50 = 47.50$$

$$3x = 47.50$$

$$47.50 \div 3 = 15.8\bar{3}$$

$$x = 15.83$$

Answer \$

Score Credit 1 (out of 2 credits)

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

- An appropriate process is provided to determine the price of one movie ticket.
- However, the price of only 1 popcorn was included, resulting in an incorrect solution.

This response correctly addresses only some elements of the task.

GUIDE PAPER 7

42

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$54/6.5 = 8.3$$

Answer \$

Score Credit 0 (out of 2 credits)

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

- An incorrect procedure is used to determine an incorrect solution.

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

42

Diego, Kris, and Mary each paid the same amount for a movie ticket at a theater. Each person also bought a small popcorn for \$6.50, including tax. The 3 friends spent a total of \$54.00 on the movie tickets and popcorn. What was the price of each movie ticket?

Show your work.

$$54 - 6.50 = 47.5$$
$$47.5 * 3$$

Answer \$

Score Credit 0 (out of 2 credits)

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

- An incorrect procedure is used to determine an incorrect solution.

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

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

EXEMPLARY RESPONSE

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

Yes, because having a balance of \$25 and spending \$25 are opposite quantities.

$$25 + (-25) = 0$$

OR Other valid response

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

yes because if she starts with 25 dollars and then uses 25 dollars than the equation would be $25-25=0$ so yes.

Score Credit 2 (out of 2 credits)

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

- A “yes” response is indicated.
- A correct explanation is provided to demonstrate understanding that opposite quantities combine to make zero.

This response is complete and correct.

GUIDE PAPER 2

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

Yes because if you have 25 and then take 25 away from that you will have nothing left.

Score Credit 2 (out of 2 credits)

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

- A “yes” response is indicated.
- A correct explanation is provided to demonstrate understanding that opposite quantities combine to make zero.

This response is complete and correct.

GUIDE PAPER 3

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

yes because if she has 25 and takes 25 from it she would have a remaining total of 0 not including tax.

Score Credit 2 (out of 2 credits)

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

- A “yes” response is indicated.
- A correct explanation is provided to demonstrate understanding that opposite quantities combine to make zero.

This response is complete and correct.

GUIDE PAPER 4

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

It would be 0 dollars if the purchase was something even, but with tax , it would equal more than 25, which would still be equal to 0, but you would have to pay additional money, so yes, the gift cards balance would be zero.

Score Credit 1 (out of 2 credits)

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

- A “yes” response is indicated, and the explanation demonstrates some understanding of the task.
- However, the explanation is insufficient due to the reference of “the purchase was something even” being unclear.

This response correctly addresses only some elements of the task.

GUIDE PAPER 5

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

yes it would be 0 dollars because it is getting subtracted from the card

Score Credit 1 (out of 2 credits)

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

- A “yes” response is indicated.
- However, the explanation provided is incomplete to demonstrate understanding that opposite quantities combine to make zero. The statement “it is getting subtracted from the card” is insufficient to explain that all of the money is getting subtracted from the card.

This response correctly addresses only some elements of the task.

GUIDE PAPER 6

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

$$25-25 = 0$$

Score Credit 1 (out of 2 credits)

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

- An equation is provided, with the balance of \$0 indicated, providing understanding that opposite quantities combine to make zero.
- However, a “yes” response is not indicated.

This response correctly addresses only some elements of the task.

GUIDE PAPER 7

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

50 dollars, you add 25 plus 25.

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 “yes” response is not indicated, and an incorrect explanation is provided.

This response is incorrect, and, holistically, is insufficient to show any understanding.

43

Andrea had a gift card with a balance of \$25.00. She makes a \$25.00 purchase using the gift card. Would the gift card balance be zero dollars after this transaction?

Explain your answer.

I did divison because it what i thought i needed to do and i divided $25.00 \div 25.00$ and it gave me the answer to 1 so i would say there would be one more dollor left

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 “yes” response is not indicated, and an incorrect explanation is provided.

This response is incorrect, and, holistically, is insufficient to show any understanding.

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

Answer _____ gallon(s)

EXEMPLARY RESPONSE

44

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

$$\frac{3}{8} \text{ gallon water} / 1.5 \text{ hours} = \frac{x}{1} \text{ hour}$$

$$0.375 = 1.5x$$

$$x = 0.25$$

OR Other valid process

Answer 0.25 gallon(s)
OR Equivalent

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

$$\frac{3}{8} = 0.375$$

$$1\frac{1}{2} = 1.5$$

$$0.375 \div 1.5 = 0.25 \text{ gallons per hour}$$

Answer gallon(s)

Score Credit 2 (out of 2 credits)

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

- The amount of water Ryan consumes per hour is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 2

44

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

The student's work is contained within a rectangular box. On the left, there is a diagram of a hand holding a glass. The glass is labeled 'water' with an arrow pointing to it. The glass contains a fraction $\frac{3}{8}$. To the right of the glass, there is a circle containing the fraction $1\frac{1}{2}$, with an arrow pointing to it from the word 'time' written above. In the center, the student has written the calculation: $\frac{3}{8} \times \frac{2}{3} = \frac{3}{4}$. Below this, they have written $\frac{3}{8} \div \frac{3}{2} = \frac{1}{4}$. The final answer, $\frac{1}{4}$, is circled.

Answer gallon(s)

Score Credit 2 (out of 2 credits)

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

- The amount of water Ryan consumes per hour is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 3

44

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

$$\frac{3}{8} \div 3 = \frac{1}{8} \quad \frac{1}{8} \text{ per every } \frac{1}{2} \text{ hour } \frac{1}{8} \times 2 = \frac{2}{8}$$

Answer gallon(s)

Score Credit 2 (out of 2 credits)

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

- The amount of water Ryan consumes per hour is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 4

44

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

$1\frac{1}{2}$ hours is 90 mins and he drinks $\frac{3}{8}$ gallon of water ever 1 $\frac{1}{2}$ hours so he drinks $\frac{1}{8}$ every 30 min

Answer Ryan drinks $\frac{1}{8}$ of a gallon gallon(s)

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 rate of water consumed per half hour is determined using sound reasoning.
- However, the rate per hour is not addressed, and the rate per half hour is inappropriately provided as the solution.

This response correctly addresses only some elements of the task.

GUIDE PAPER 5

44

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

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

Answer gallon(s)

Score Credit 1 (out of 2 credits)

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

- A correct expression is provided to determine the amount of water Ryan consumes per hour.
- However, a calculation error occurs, resulting in an incorrect solution.

This response correctly addresses only some elements of the task.

GUIDE PAPER 6

44

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

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

$$1\frac{1}{2}x = \frac{3}{8}$$

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

Answer $\frac{1}{4}$ gallon(s)

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 equation is provided to determine the amount of water Ryan consumes per hour.
- However, an incorrect order of division is shown in the work.

This response correctly addresses only some elements of the task.

GUIDE PAPER 7

44

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

$$1\frac{1}{2} - \frac{3}{8} = 1\frac{1}{8}$$

Answer $1\frac{1}{8}$ gallon(s)

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 procedure is used to determine an incorrect solution.

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

Ryan drinks $\frac{3}{8}$ gallon of water for every $1\frac{1}{2}$ hours of exercise. At this rate, how much water, in gallons, does Ryan drink per hour of exercise?

Show your work.

$$\frac{3}{8} = .375$$
$$1\frac{1}{2} = 1.5$$
$$.375 \times 1.5 = .5625$$

Answer gallon(s)

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 procedure is used to determine an incorrect solution.

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

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

EXEMPLARY RESPONSE

45

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

The relationship between the price and the number of cans is proportional. I know this because the price in each row is 2.75 times as much as the number of cans for that row.

I divided the price by the number of cans for each row to get the constant of proportionality.

$$5.50/2 = 11.00/4 = 22.00/8 = 27.50/10 = 2.75$$

OR Other valid response

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

$$5.50 \div 2 = 2.75$$

$$4 \times 2.75 = 11$$

$$8 \times 2.75 = 22$$

$$10 \times 2.75 = 27.50$$

The relationship is proportional

Score Credit 2 (out of 2 credits)

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

- A positive response is indicated, and a correct explanation is provided to justify why the relationship is proportional.

This response is complete and correct.

GUIDE PAPER 2

45

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

$$\begin{aligned} 5.50 \div 2 &= 2.75 \\ 11 \div 4 &= 2.75 \\ 22 \div 8 &= 2.75 \\ 27.50 \div 10 &= 2.75 \end{aligned}$$

The table is Proportional

Score Credit 2 (out of 2 credits)

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

- A positive response is indicated, and a correct explanation is provided to justify why the relationship is proportional.

This response is complete and correct.

GUIDE PAPER 3

45

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

yes because i did price \div number of cans and got 2.75 the whole way through

Score Credit 2 (out of 2 credits)

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

- A positive response is indicated, and a correct explanation is provided to justify why the relationship is proportional.

This response contains sufficient work to demonstrate a thorough understanding.

GUIDE PAPER 4

45

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

$$5.50 \div 2 = 2.75$$

$$2.75 \times 4 = 11.00$$

$$2.75 \times 8 = 22.00$$

$$2.75 \times 10 = 27.50$$

2.75 is answer

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 explanation is provided to justify why the relationship is proportional.
- However, a positive response is not indicated.

This response correctly addresses only some elements of the task.

GUIDE PAPER 5

45

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

yes bacuse i have to divied them all and see if i get the same answer

Score Credit 1 (out of 2 credits)

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

- A positive response is indicated.
- However, the explanation provided is incomplete.

This response contains the correct solution, but the required work is incomplete.

GUIDE PAPER 6

45

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

$$5 \div 2 = 2.5$$

$$11 \div 4 = 2.75$$

$$22 \div 8 = 2.75$$

$$27 \div 10 = 2.7$$

not proportional

Score Credit 1 (out of 2 credits)

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

- Although the constant of proportionality is correctly calculated for 4 and 8 cans, transcription errors occur when calculating for 2 and 10 cans, resulting in a response of “not proportional.”

This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 7

45

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

$$2 + 4 + 8 + 10 = 24$$

$$5.50 + 11.00 + 22.00 + 27.50 = 66$$

$$24 + 66 = 90$$

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 positive response is not indicated, and an incorrect explanation using an incorrect procedure is provided.

This response is incorrect, and, holistically, is insufficient to show any understanding.

The table below shows the price, in dollars, of different numbers of cans of soda.

SODA PRICES

| Number of Cans | Price (dollars) |
|----------------|-----------------|
| 2 | 5.50 |
| 4 | 11.00 |
| 8 | 22.00 |
| 10 | 27.50 |

Is the relationship between the price, in dollars, and the number of cans of soda proportional?

Explain how you determined your answer.

it is not proportionaol because it was not even at each number

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 negative response is indicated, and an incorrect explanation is provided.

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

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

Answer _____

EXEMPLARY RESPONSE

46

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$-5y + 3 - 6y + 10y - 1$$

$$-5y - 6y + 10y + 3 - 1$$

$$-11y + 10y + 2$$

$$-y + 2$$

OR Other valid process

Answer $-1y + 2$ or $-y + 2$
OR Other equivalent response

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$-5y + 3 - 6y + 10y - 1$$

$$-5y - 6y + 10y$$

$$-11y + 10y$$

$$-1y$$

$$3 - 1 = 2$$

$$2 - 1y$$

Answer

$$2 - 1y$$

Score Credit 2 (out of 2 credits)

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

- Like terms are correctly identified and combined using a correct process, and a correct simplified expression is provided.

This response is complete and correct.

GUIDE PAPER 2

46

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$\begin{aligned} -5y - 6y + 10y &= -1y \\ +3 - 1 &= 2 \end{aligned}$$

Answer $-1y + 2$

Score Credit 2 (out of 2 credits)

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

- Like terms are correctly identified and combined using a correct process, and a correct simplified expression is provided.

This response is complete and correct.

GUIDE PAPER 3

46

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$\begin{array}{c} (-5y) + (+3) - (-6y) + (+10y) - (-1) \\ -1y + 2 \end{array}$$

Answer

$$-1y + 2$$

Score Credit 2 (out of 2 credits)

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

- Like terms are correctly identified and combined using a correct process, and a correct simplified expression is provided.

This response contains sufficient work to demonstrate a thorough understanding.

GUIDE PAPER 4

46

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$-5y+3-6y+10y-1$$

$$-5y-6y+10y$$

$$-1y$$

$$3-1=2$$

$$-1y-2$$

Answer

Score Credit 1 (out of 2 credits)

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

- Like terms are correctly identified and combined using a correct process.
- However, an incorrect solution is provided.

This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 5

46

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$\begin{aligned} -5y + -6y + 10y &= -1y \\ 3 - 1 &= 2 \end{aligned}$$

Answer

Score Credit 1 (out of 2 credits)

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

- Like terms are correctly identified and combined using a correct process.
- However, no correct simplified expression is provided.

This response correctly addresses only some elements of the task.

GUIDE PAPER 6

46

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$-5y+2-6y+10y-1$$

$$-5y-6y+10y = -1y$$

$$2+-1=1$$

Answer $-1y+1$

Score Credit 1 (out of 2 credits)

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

- A transcription error occurs.
- However, the rest of the work is carried out correctly for the values used.

This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 7

46

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$10y+6y-5y=11y$$

$$3-1=2$$

$$11+2=13$$

Answer

13

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.

- Although the work contains some correct elements, the work is insufficient.

Holistically the work is not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.

46

An expression is shown below.

$$-5y + 3 - 6y + 10y - 1$$

Simplify the expression completely.

Show your work.

$$-5y + 3 - 6y + 10y - 1 \mid > \text{simp}$$

Answer $6y + 10y - 1$

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.

- Like terms are not combined and an incorrect solution is provided.

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

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

Answer _____ square feet

EXEMPLARY RESPONSE

47

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

$$\text{Length: } 8 \times 1.75 = 14 \text{ ft}$$

$$\text{Width: } 6 \times 1.75 = 10.5 \text{ ft}$$

$$A = l \times w$$

$$A = 14 \times 10.5$$

$$A = 147 \text{ ft}^2$$

Answer 147 square feet

47

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

Since 1 inch is equal to 1.75 feet, to find the actual length you would multiply 8×1.75 , and 6×1.75 . Then you would multiply those numbers together to find the area. 14×10.5 is equal to 147 square feet.

Answer square feet

Score Credit 2 (out of 2 credits)

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

- The area of the mural is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 2

47

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

$$8 \times 1.75 \times (6 \times 1.75) = 147$$

Answer 147 square feet square feet

Score Credit 2 (out of 2 credits)

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

- The area of the mural is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 3

47

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

$$\begin{array}{l} 8 \times 1.75 = 14 \\ 6 \times 1.75 = 10.5 \\ 10.5 \times 14 = 147 \end{array}$$

Answer square feet

Score Credit 2 (out of 2 credits)

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

- The area of the mural is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 4

47

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

$$8 \times 6 = 48$$
$$48 \times 1.75 = 84 \text{ ft}$$

Answer square feet

Score Credit 1 (out of 2 credits)

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

- The area of the piece of paper is correctly calculated in square inches.
- However, the conversion of this area to the area of the mural, in square feet, is incomplete.

This response correctly addresses only some elements of the task.

GUIDE PAPER 5

47

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

$$\begin{aligned} &24.5 \\ &1.75 \times 8 = 14 \\ &1.75 \times 6 = 10.5 \\ &10.5 + 14 = 24.5 \end{aligned}$$

Answer square feet

Score Credit 1 (out of 2 credits)

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

- The scale factor is applied correctly, and scaled values for both the length and width are correctly determined.
- However, an incorrect process is used when calculating the area of the mural.

This response correctly addresses only some elements of the task.

GUIDE PAPER 6

47

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

$$1.75 \times 1.75 = 3.0625$$

$$8 \times 8 = 64$$

$$3.0625 \times 64 = 196$$

Answer square feet

Score Credit 1 (out of 2 credits)

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

- A correct process is used to determine the area of the mural.
- However, the length is inappropriately multiplied by itself instead of by the width when calculating the area of the piece of paper.

This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 7

47

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

i

Answer **14 by 10.5** square feet

Score Credit 0 (out of 2 credits)

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

- The scaled dimensions for the width and length are provided, but no work is shown on how the values were obtained.
- The area of the mural is not determined.

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

Jeffrey is painting a rectangular mural on his bedroom wall. He sketches his design on a piece of paper as described below.

- He uses the entire piece of paper for his design.
- The paper has a length of 8 inches and a width of 6 inches.
- The scale factor is 1 inch to 1.75 feet.

What is the actual area, in square feet, of the mural that Jeffrey will paint on his wall?

Show your work.

$$1.75 \times 8 = 14.5 \text{ FT}$$

Answer square feet

Score Credit 0 (out of 2 credits)

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

- The scaled dimension for the length is determined, and it is inappropriately provided as an incorrect solution.
- Although the work contains some correct elements, the amount of completed work is insufficient.

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

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

Answer \$ _____

EXEMPLARY RESPONSE

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$40 \times 0.1 = 4.00$$

$$40 - 4 = 36$$

$$50 \times 0.25 = 12.5$$

$$50 - 12.5 = 37.50$$

$$36 + 37.50 = \$73.50$$

OR

$$0.9 \times 40 = 36.00$$

$$0.75 \times 50 = 37.50$$

$$36.00 + 37.50 = 73.50$$

OR Other valid response

Answer \$ 73.50

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$\begin{aligned}40 \times .90 &= \cancel{\$36} \\50 \times .75 &= 37.5 \\36 + 37.5 &= 73.50\end{aligned}$$

Answer \$

Score Credit 3 (out of 3 credits)

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

- The total amount the customer will spend is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 2

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$\begin{aligned} \frac{10}{100} \times 40 &= 4 \\ 40 - 4 &= 36 \\ \frac{25}{100} \times 50 &= 12.50 \\ 50 - 12.5 &= 37.50 \\ 37.50 + 36 &= 73.50 \end{aligned}$$

Answer \$

Score Credit 3 (out of 3 credits)

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

- The total amount the customer will spend is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 3

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$\begin{aligned}40 \cdot 0.1 &= 4 \\40 - 4 &= 36 \\50 \cdot 0.25 &= 12.50 \\50 - 12.50 &= 37.50 \\37.50 + 36 &= \$73.50\end{aligned}$$

Answer \$

Score Credit 3 (out of 3 credits)

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

- The total amount the customer will spend is correctly determined using a mathematically sound procedure.

This response is complete and correct.

GUIDE PAPER 4

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$\begin{array}{r} \frac{x}{40} = \frac{10}{100} \\ x = 4 \\ 40 - 4 = 35 \end{array} \qquad \begin{array}{r} \frac{x}{50} = \frac{25}{100} \\ x = 12.50 \\ 50 - 12.50 = 37.50 \end{array}$$
$$35 + 37.50 = 72.50$$

Answer \$

Score Credit 2 (out of 3 credits)

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

- The discounts and the discounted price of the long-sleeve shirt are correctly determined.
- However, a calculation error occurs when determining the discounted price of the short-sleeve shirt, resulting in an incorrect solution.

This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 5

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$\$40 \times 0.1 = 4$$

$$4 - 40 = \$36$$

$$50 \times 0.25 = \$12.5$$

$$50 - 12.50 = \$37.50$$

$$37.50 + 36 = \$73.50$$

Answer \$

Score Credit 2 (out of 3 credits)

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

- The total amount the customer will spend is determined.
- However, an incorrect order of subtraction is shown when determining the discounted price of the short-sleeve shirt.

This response correctly addresses only some elements of the task.

GUIDE PAPER 6

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$\begin{aligned}40(0.4) &= \$16 \\40 - 16 &= \$24 \\50(0.25) &= \$12.5 \\50 - 12.5 &= \$37.5 \\37.5 + 24 &= \$61.5\end{aligned}$$

Answer \$

Score Credit 2 (out of 3 credits)

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

- The discounted price of the long-sleeve shirt is correctly determined.
- However, a 40% discount is inappropriately used when determining the discounted price of the short-sleeve shirt, resulting in an incorrect solution.

This response contains an incorrect solution but applies a mathematically appropriate process.

GUIDE PAPER 7

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

| | | |
|-----------|----------|-------------|
| 10%(40) | 25%(50) | |
| 0.10 (40) | 0.25(50) | |
| 4 | 12.5 | 12.5+4=16.5 |

Answer \$

Score Credit 1 (out of 3 credits)

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

- The discount for each type of shirt is correctly determined.
- However, the total amount the customer will spend is not determined, and the sum of the two discounts is inappropriately provided as an incorrect solution.

This response addresses some elements of the task correctly but provides reasoning that is faulty or incomplete.

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$0.10 \times 40 = 4 - 40 = 36$$

$$0.25 \times 50 = 12$$

$$50 - 12.5 = 37.5$$

$$37.5 + 36 = 73.5$$

Answer \$

Score Credit 1 (out of 3 credits)

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

- The total amount the customer will spend is determined.
- However, an incorrect order of subtraction is shown when determining the discounted price of the short-sleeve shirt, and an incorrect equation is shown when determining the discounted price of the long-sleeve shirt.

This response reflects a lack of essential understanding of the underlying mathematical concepts.

GUIDE PAPER 9

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$0.1 \times 40 = 4$ which is the amount we subtract by 40 and we get 36 dollars

Answer \$

Score Credit 1 (out of 3 credits)

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

- The discounted price for the short-sleeve shirt is correctly determined.
- However, the discounted price of the long-sleeve shirt and the total amount the customer will spend is not addressed, and the discounted price of the short-sleeve shirt is inappropriately provided as an incorrect solution.

This response addresses some elements of the task correctly but provides reasoning that is faulty or incomplete.

GUIDE PAPER 10

48

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$10 \div 40 = 39.75$$

$$\text{then } 25 \div 50 = 49.50$$

i added them all up and i got the answer of 89.25

Answer \$

Score Credit 0 (out of 3 credits)

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

- An incorrect procedure is used to determine an incorrect solution.

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

A store is offering discounts on two types of shirts.

- a 10% discount on short-sleeve shirts with an original price of \$40.00
- a 25% discount on long-sleeve shirts with an original price of \$50.00

How much will a customer spend, without tax, if they purchase one of each type of shirt?

Show your work.

$$40.00 \times .10 = 4$$

Answer \$

Score Credit 0 (out of 3 credits)

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

- The amount of the discount for the short-sleeve shirt is correctly determined; however, it is incorrectly provided as a solution.

Although the work contains some correct elements, holistically, it is not sufficient to demonstrate even a limited understanding of the mathematical concepts embodied in the task.



Grade 7
Mathematics

Scoring Leader Materials
2025 Training Set