

Writing and Scoring Test Questions

Based on

Ohio's Academic Content Standards

Constructed Response Scoring Guide

Grade 5

Mathematics

Item 9525

Ohio Achievement Test
Secure Materials

Item: ITS ID: 9525

Item: Ohio Code: 5M0000NXEXM0094S

00. A class needs 64 brownies for a bake sale. Mike brings 28 brownies.

In your **Answer Document**, write two number sentences using different operations to find the number of brownies the class still needs for the bake sale. (2 points)

Scoring Guidelines

Student Responses	
2	<p>Sample Correct Responses:</p> <ul style="list-style-type: none">• $28 + n = 64$ and $64 - 28 = n$, where n is the number of brownies still needed for the bake sale.• $28 + \square = 64$ and $64 - \square = 28$.• $64 - 28 = 36$ and $28 + 36 = 64$. <p>The focus of this task is identifying and using relationships between operations to solve problems. The response provides two correct number sentences using different operations.</p>
1	<p>The response provides partial evidence of identifying and using relationships between operations to solve problems; however, the solution may be incomplete or slightly flawed.</p> <p>For example, the response may:</p> <ul style="list-style-type: none">• Provide one correct number sentence, but the other may be missing or have flaws.• Provide two correctly related number sentences but have computational errors.
0	<p>The response provides inadequate evidence of identifying and using relationships between operations to solve problems. The response provides major flaws in reasoning or irrelevant information.</p> <p>For example, the response may:</p> <ul style="list-style-type: none">• Provide number sentences that are incorrect, such as 64×28 and 28×64.• Be blank or provide unrelated statements.• Copy information from the stem.

**Ohio Achievement Test
Grade 5 Math
Spring 2007
Practice Set 1
ITS: 9525, Item 42
“Brownies”**

Date	Comments	Version
02/09/07	Original Set	1.0

This response received a score of 2 because it shows the ability to identify and use relationships between operations to solve problems. The response provides two correct number sentences using different operations ($28 + n = 64$ AND $64 - 28 = 36$, $n=36$).

42. Write your response to question 42 in the space below.

$$28 + n = 64$$

$$64 - 28 = 36$$

$$n = 36$$

36 brownies are
needed

SCORE:2

SG-1

This response received a score of 2 because it shows the ability to identify and use relationships between operations to solve problems. The response provides two correct number sentences using different operations ($64 - 28 = 36$ AND $28 + 36 = n$, $n=64$).

42. Write your response to question 42 in the space below.

$64 - 28 = 36$ more needed

$$28 + 36 = n$$

$$n = 64$$

SCORE:2

SG-2

This response received a score of 2 because it shows the ability to identify and use relationships between operations to solve problems. The response provides two correct number sentences using different operations ($64 - 28 = 36$ AND $28 + 36 = 64$).

42. Write your response to question 42 in the space below.

$$64 - 28 = 36$$
$$28 + 36 = 64$$
$$36 + 28 = 64$$

SCORE:2

SG-3

This response received a score of 2 because it shows the ability to identify and use relationships between operations to solve problems. The response provides two correct number sentences using different operations ($64 - 28 = 36$ AND $36 + 28 = 64$).

42. Write your response to question 42 in the space below.

$$64 - 28 = 36$$

$$36 + 28 = 64$$

SCORE:2

SG-4

This response received a score of 1 because it provides partial evidence of identifying and using relationships between operations to solve problems; however, the solution may be incomplete or slightly flawed. The response has only one correct number sentence ($64 - 28 = 36$ is written out in words).

42. Write your response to question 42 in the space below.

they still need
36 brownys for
the class because
I subtracted 64 and 28
and it = 36.

SCORE:1

SG-5

This response received a score of 1 because it provides partial evidence of identifying and using relationships between operations to solve problems; however, the solution may be incomplete or slightly flawed. The response has only one correct number sentence ($28 + 36 = 64$). Note: the second number sentence uses two different operations, but not in a way to find the number of brownies still needed.

42. Write your response to question 42 in the space below.

①

$$\begin{array}{r} 1 \\ + 28 \\ 36 \\ \hline 64 \end{array}$$

②

$$\begin{array}{r} 28 \\ + 20 \\ 4 \\ \hline 64 \end{array}$$

SCORE:1

SG-6

This response received a score of 1 because it provides partial evidence of identifying and using relationships between operations to solve problems; however, the solution may be incomplete or slightly flawed. The response has only one correct number sentence ($64 - 28 = 36$).

42. Write your response to question 42 in the space below.

$$\begin{array}{r} 51 \\ 64 \\ \hline 28 \end{array}$$

36 more brownies.

$$\begin{array}{r} 64 \\ 28 \\ \hline 36 \end{array}$$

SCORE:1

SG-7

This response received a score of 1 because it provides partial evidence of identifying and using relationships between operations to solve problems; however, the solution may be incomplete or slightly flawed. The response has only one correct number sentence ($64 - 28 =$, even though it is an unsolved equation, it is a correct way to find the number of brownies still needed).

42. Write your response to question 42 in the space below.

$$28 \div 64$$

$$\begin{array}{r} 64 \\ - 28 \\ \hline \end{array}$$

SCORE:1

SG-8

This response received a score of 0 because it provides inadequate evidence of identifying and using relationships between operations to solve problems; the response provides major flaws in reasoning or irrelevant information. The response does not provide any number sentences; it does find how many brownies are needed, but that is not what was asked by the prompt.

42. Write your response to question 42 in the space below.

They Need 36 More brownies for there
bake sale

SCORE:0

SG-9

This response received a score of 0 because it provides inadequate evidence of identifying and using relationships between operations to solve problems; the response provides major flaws in reasoning or irrelevant information. This response does not provide correct number sentences (while 64-28, would have been a correct number sentence; however, the student solves it incorrectly as equaling 44 and then subtracts 28 from 44, showing inadequate understanding of the task).

42. Write your response to question 42 in the space below.

~~64~~ ~~64~~ ~~64~~

$$\begin{array}{r} 64 \\ - 28 \\ \hline 44 \end{array}$$
$$\begin{array}{r} 3414 \\ - 28 \\ \hline 16 \end{array}$$

16 more brownies
There class
needs.

SCORE:0