

Directions: Answer the following question(s).

1 MGSE5.OA.1 (DOK 3)

Solve and explain your thinking. Show your work and provide a written explanation.

$$3 [(32-2) \div 2] - 2$$

Master ID:	3038071	Revision:	5
Rubric:	2 Point(s)		
MGSE5.OA.1: Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.			
2	2 Point Response:		
	The student responds correctly with the answer of 43 and provides a correct and complete explanation/evidence of work for why 43 is correct.		
	<u>Explanation:</u>		
	PEMDAS - for this problem, solve inner parentheses first, then everything within the larger parentheses, then multiplication, then subtraction		
	Step 1: $32 - 2 = 30$		
	Step 2: $30 \div 2 = 15$		
	Step 3: $3 \times 15 = 45$		
	Step 4: $45 - 2 = 43$		
1	1 Point Response:		
	The student responds correctly with the answer of 43, but provides an incomplete, unclear, or incorrect explanation/evidence of work for why 43 is correct.		
0	0 Point Response:		
	The student responds incorrectly, and the explanation/evidence of work is incomplete, unclear, incorrect, or not included.		
Standards:			
MGSE5.OA.1			

2 MGSE5.OA.1 (DOK 3)

Jerome says that the value of $4 + (2 \times 5) + (6 - 2)$ is 22. Paul says the value is 18. Who is correct? Explain.

Master ID:	3037507	Revision:	7
Rubric:	2 Point(s)		
MGSE5.OA.1: Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.			
2	2 Point Response:		
	The student responds correctly by stating that Paul is correct, and provides a correct and complete explanation/evidence of work as to why.		
	<u>Explanation:</u>		
	Paul is correct; the value of the expression is 18.		
	PEMDAS		
	$4 + (2 \times 5) + (6 - 2)$		
	$4 + 10 + (6 - 2)$		
	$4 + 10 + 4$		
	$14 + 4 = 18$		
1	1 Point Response:		
	The student states that Paul is correct, but provides an incomplete, unclear, incorrect explanation/evidence of work as to why.		
0	0 Point Response:		
	The student responds incorrectly, and the explanation/evidence of work provided is incomplete, unclear, incorrect, or not included.		
Standards:			
MGSE5.OA.1			

Directions: Answer the following question(s).

3 MGSE5.OA.2 (DOK 2)

At the restaurant, Bill and his three friends each ordered hamburger meals, which cost \$5 each. They shared the dessert, a giant ice cream brownie sundae, which costs \$16. The total bill was divided so that each friend paid the same amount.

Write an expression that correctly shows how much each person paid, and solve the expression.

Master ID:	3037508	Revision:	5
Rubric:	2 Point(s)		
MGSE5.OA.2: Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.			
2	2 Point Response:		
	The student responds correctly by stating that each person paid \$9, and the student provides a correct and complete expression that shows how much money each person paid.		
	<u>Expression & Solution:</u>		
	$[(4 \times 5) + 16] \div 4$		
	4 people x \$5 each for the hamburger meals		
	\$16 for the dessert, shared 4 ways		
	$4 \times 5 = 20 + 16 = 36$		
	$36 \div 4 = 9$		
	Each person paid \$9		
1	1 Point Response:		
	The student responds correctly by stating that each person paid \$9, but the student provides an incomplete, unclear, or incorrect expression that shows how much money each person paid.		
0	0 Point Response:		
	The student responds incorrectly, and the expression is incomplete, unclear, incorrect, or not included.		
Standards:			
MGSE5.OA.2			

4 MGSE5.OA.2 (DOK 2)

Margaret says that $(8 \times 2) \div 4 + 6$ is the same as 8 times 2 divided by the sum of 4 and 10. John says that she is wrong. What is Margaret's mistake? Explain your thinking.

Master ID:	3037510	Revision:	5
Rubric:	2 Point(s)		
MGSE5.OA.2: Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.			
2	2 Point Response:		
	The student responds correctly by stating Margaret's mistake, and provides an explanation/evidence of work to show why Margaret is incorrect. To correctly solve the problem, one must solve 8×2 , then divide that number (16) by 4, and then add 6. The solution is 10.		
	<u>Explanation:</u>		
	Margaret began correctly with the statement of multiplying 8×2 , but she incorrectly stated that the next step is to divide the sum of 4 and 10.		
	$(8 \times 2) \div 4 + 6$		
	$16 \div 4 + 6$		
	$4 + 6 = 10$		
1	1 Point Response:		
	The student responds correctly by stating Margaret's mistake, but does not provide an explanation/evidence of work to show why Margaret is incorrect.		
0	0 Point Response:		
	The student responds incorrectly, and the explanation/evidence of work is incomplete, unclear, incorrect, or not included.		
Standards:			
MGSE5.OA.2			

Directions: Answer the following question(s).

5 MGSE5.OA.2 (DOK 3)

Translate the verbal expressions below into numerical expressions and compare using $<$, $>$, or $=$. Justify your thinking.

- a.) Multiply 10 by 2, then divide by 4 and add 7
b.) Add 6 and 2, then multiply by 6 and divide by 4

Master ID: 3037509 Revision: 4

Rubric: 2 Point(s)

MGSE5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

2 **2 Point Response:**

The student responds completely and correctly to parts A & B, and provides an explanation/evidence of work that demonstrates how to write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

Explanation/Evidence of Work:

- a.) correct expression - $(10 \times 2) \div 4 + 7$
b.) correct expression - $(6 + 2) \times 6 \div 4$

The expressions are equal; both result in the solution of 12.

1 **1 Point Response:**

The student responds correctly to part A or B, but provides an explanation/evidence of work that is incomplete, unclear, or incorrect. The student demonstrates partial understanding of how to write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

0 **0 Point Response:**

The student responds incorrectly to parts A & B, and the explanation is incomplete, unclear, incorrect, or not included. The student does not demonstrate understanding of how to write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

Standards:

MGSE5.OA.2

6 MGSE5.NBT.1 (DOK 2)

Compare the following numbers:

- A. 3,765
B. 435

Describe how the value of 3 changes in the numbers given above.

- A. The value of 3 in A is one hundred times the value of 3 in B.
B. The value of 3 in B is one thousand times the value of the 3 in A.
C. The value of 3 in A is one hundredth times the value of 3 in B.
D. The value of 3 in B is one thousandth times the value of the 3 in A.

Master ID: 3038321 Revision: 7

Correct: A

Standards:
MGSE5.NBT.1

Directions: Answer the following question(s).

7 MGSE5.NBT.1 (DOK 2)

Arrange these numbers in order from **least** to **greatest**.

480.001 480.1 480 480.01

Master ID:	3037512	Revision:	4
Rubric:	2 Point(s)		
MGSE5.NBT.1: Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.			
2	2 Point Response:		
	The student responds by arranging the numbers in the correct order, least to greatest.		
	<u>Correct Response:</u>		
	1.) 480		
	2.) 480.001		
	3.) 480.01		
	4.) 480.1		
1	1 Point Response:		
	The student responds correctly with 2 out of 4 numbers arranged least to greatest.		
0	0 Point Response:		
	The student responds incorrectly and does not order the numbers correctly from least to greatest.		
Standards:			
MGSE5.NBT.1			

8 MGSE5.NBT.1 (DOK 3)

Is the following statement true?

$9.2 = 9.20 = 9.200$

Why or why not?

Master ID:	3037511	Revision:	5
Rubric:	2 Point(s)		
MGSE5.NBT.1: Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.			
2	2 Point Response:		
	The student responds correctly with the answer of yes, the statement is true, and provides a correct and complete explanation for why it is true.		
	<u>Explanation:</u>		
	$9.2 = 9.20 = 9.200$ because the 2 is in the tenths place in each number. The additional zeros on each number don't add to the value. Additional zeros could be added to each number, and the value is still the same - 9.2.		
1	1 Point Response:		
	The student responds correctly with the answer of yes, the statement is true, but provides an incomplete, unclear, or incorrect explanation for why it is true.		
0	0 Point Response:		
	The student responds incorrectly, and the explanation is incomplete, unclear, incorrect, or not included.		
Standards:			
MGSE5.NBT.1			

Directions: Answer the following question(s).

9 MGSE5.NBT.2 (DOK 2)

Four students answered the following word problem:

A camp uses 86 cups of water to make 100 bowls of oatmeal. How much water is used for each bowl of oatmeal?

Jackson stated the answer is $86 \div 10^0 = 86$ cups.

Michelle stated the answer is $86 \div 10^1 = 8.6$ cups.

Yusef stated the answer is $86 \div 10^2 = 0.86$ of a cup.

Nisha stated the answer is $86 \div 10^3 = 0.086$ of a cup.

Which student's answer is correct?

- A. Jackson is correct; $86 \div 10^0 = 86$ cups.
 B. Michelle is correct; $86 \div 10^1 = 8.6$ cups.
 C. Yusef is correct; $86 \div 10^2 = 0.86$ of a cup.
 D. Nisha is correct; $86 \div 10^3 = 0.086$ of a cup.

Master ID:	3037514	Revision:	4
Correct:	C		
Standards:	MGSE5.NBT.2		

10 MGSE5.NBT.2 (DOK 2)

Destini bought a bracelet that costs \$1.23. Myshaun bought a necklace that costs \$12.30. Which answer could be used to determine the amount of money that Myshaun spent on her necklace compared to the amount Destini spent on her bracelet?

- A. Multiply the value of Destini's bracelet by 10^0 .
 B. Multiply the value of Destini's bracelet by 10^1 .
 C. Multiply the value of Destini's bracelet by 10^2 .
 D. Multiply the value of Destini's bracelet by 10^3 .

Master ID:	3038322	Revision:	3
Correct:	B		
Rubric:	1 Point(s)		
Standards:	MGSE5.NBT.2		

11 MGSE5.NBT.2 (DOK 2)

Fill in the blanks with the correct answer and explain your thinking.

$69.58 \div 10 = \underline{\hspace{2cm}}$
 $69.58 \div 100 = \underline{\hspace{2cm}}$
 $69.58 \div 1,000 = 0.06958$

- A. The quotients are 695.8 and 6.958 because the products were decreased by 10^0 and 10^1 .
 B. The products are 695.8 and 6.958 because the dividends were increased by 10^1 and 10^2 .
 C. The quotients are 6.958 and .6958 because the dividends were decreased by 10^1 and 10^2 .
 D. The quotients are 6.958 and 0.6958 because the dividends were increased by 10^0 and 10^1 .

Master ID:	3038323	Revision:	3
Correct:	C		
Rubric:	1 Point(s)		
Standards:	MGSE5.NBT.2		

Directions: Answer the following question(s).

12 MGSE5.NBT.5 (DOK 2)

Compare the following:

A. $6,345 \times 8$

B. 50,760

Which of the following statements is true?

- A. A is 2 times greater than B.
- B. B is 3 times greater than A.
- C. A and B are equivalent.
- D. A is inversely related to B.

Master ID:	3040381	Revision:	5
Correct:	C		
Standards:	MGSE5.NBT.5		

13 MGSE5.NBT.5 (DOK 2)

Write and solve a word problem using the following expression.

64×32

Master ID:	3037516	Revision:	4
Rubric:	2 Point(s)		
MGSE5.NBT.5: Fluently multiply multi-digit whole numbers using the standard algorithm (or other strategies demonstrating understanding of multiplication) up to a 3-digit by 2-digit factor.			
2	2 Point Response:		
	The student responds correctly with the answer of 2,048 and provides a correct and complete word problem with the expression.		
	<u>Correct Response:</u>		
	The student should correctly show how to multiply 64×32 using the standard algorithm.		
	Sample word problem: Thirty-two students in an art class each brought in a pack of crayons to use during art class this year. Each box contains 64 crayons. How many crayons did the students bring to art class?		
1	1 Point Response:		
	The student responds correctly with the answer of 2,048, but provides an incomplete, unclear, or incorrect word problem with the expression.		
0	0 Point Response:		
	The student responds incorrectly, and the expression is incomplete, unclear, incorrect, or not included.		
Standards:			
MGSE5.NBT.5			

Directions: Answer the following question(s).

14 MGSE5.NBT.5 (DOK 3)

Four kids in Mr. Paul's class solved the problem $42 \times 34 = P$. Their responses are below:

<u>Tyler</u>	<u>John</u>	<u>Mark</u>	<u>Tim</u>
$\begin{array}{r} 42 \\ \times 34 \\ \hline 168 \\ +126 \\ \hline 294 \end{array}$	$\begin{array}{r} 42 \\ \times 34 \\ \hline 168 \\ +1260 \\ \hline 1428 \end{array}$	$\begin{array}{r} 42 \\ \times 34 \\ \hline 168 \\ \hline \end{array}$	$\begin{array}{r} 42 \\ \times 34 \\ \hline 126 \\ +1880 \\ \hline 1806 \end{array}$

Whose solution is correct and why? Justify your answer.

Master ID: 3037515 Revision: 5
 Rubric: 2 Point(s)
 MGSE5.NBT.5: Fluently multiply multi-digit whole numbers using the standard algorithm (or other strategies demonstrating understanding of multiplication) up to a 3-digit by 2-digit factor.

2 2 Point Response:
 The student responds correctly, stating that John's answer is correct. The student also provides a correct and complete explanation to show why John is correct (or the other students are incorrect).
 The student must demonstrate an understanding of the traditional multiplication algorithm.
Explanation:
 Tyler's mistake - he incorrectly lined up the numbers in the 2nd row - $168 + 1260$ - a 0 should be in the ones place, then add the columns.
 Mark's mistake - he didn't complete the problem, though he got started correctly.
 Tim's mistake - he multiplied the tens place (3) first, instead of the ones place (4). 42×4 first, not 42×3

1 1 Point Response:
 The student responds correctly, stating that John's answer is correct. The student also provides, though, an incomplete, unclear, or incorrect explanation to show why John is correct (or the other students are incorrect).

0 0 Point Response:
 The student responds incorrectly, and the explanation is incomplete, unclear, incorrect, or not included.

Standards:
 MGSE5.NBT.5

15 MGSE5.NBT.6 (DOK 2)

Which model below shows a correct area model for $325 \div 25$?

- A. **25**
- | | |
|---|-----|
| 4 | 100 |
| 4 | 100 |
| 4 | 100 |
| 4 | 75 |
- B. **25**
- | | |
|---|-----|
| 4 | 100 |
| 3 | 100 |
| 4 | 100 |
| 7 | 175 |
- C. **25**
- | | |
|---|-----|
| 4 | 100 |
| 4 | 100 |
| 4 | 100 |
| 1 | 25 |
- D. **25**
- | | |
|---|-----|
| 3 | 100 |
| 3 | 100 |
| 3 | 100 |
| 3 | 100 |

Master ID: 3037513 Revision: 3
 Correct: C
 Rubric: 1 Point(s)
 Standards:
 MGSE5.NBT.6

Directions: Answer the following question(s).

16 MGSE5.NBT.6 (DOK 2)

Mrs. Rodriguez wants to recarpet the recreation room at the YMCA that she manages. Below are the price quotes from various carpet companies. The dimensions of the recreation room are 72 ft x 30 ft.

Carpet Masters	Flooring King	Floors DELUXE!	Carpets & More
6 ft x 1 ft roll for \$1.	6 ft x 6 ft roll for \$4.	8 ft x 3 ft roll for \$2.	6 ft x 3 ft roll for \$3.

Answer the following questions and show your work for each:

- Which company should Mrs. Rodriguez choose if she wants the best buy?
- How many rolls of carpet are needed to recarpet the recreation room?
- What will be the total cost of the carpet?

Master ID: 3037517 Revision: 5

Rubric: 4 Point(s)

MGSE5.NBT.6: Fluently divide up to 4-digit dividends and 2-digit divisors by using at least one of the following methods: strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations or concrete models. (e.g., rectangular arrays, area models)

4 **4 Point Response:**

The student responds correctly to parts A, B, & C, and provides an explanation/complete evidence of work to show why each response is correct.

Explanation/Evidence of Work:

72 ft. x 30 ft. = 2,160 ft. (recreation room at the YMCA)

a.) Carpet Masters = \$1 for 6 ft.

Flooring King = \$1 for 9 ft.

Floors Deluxe = \$1 for 12 ft.

Carpets & More = \$1 for 6 ft.

Mrs. Rodriguez gets the most feet of carpeting for the fewest amount at Floors Deluxe.

b.) 2,160 ft. (recreation room) \div 24 ft. (amount of carpet at Floors Deluxe per roll) = 90 rolls of carpet needed

c.) Total cost of the carpet = \$180 (90 rolls of carpet x \$2 per roll)

3 **3 Point Response:**

The student responds correctly to 2 parts (A & B, B & C, or A & C), and provides an explanation/correct evidence of work to show why each of the 2 responses is correct.

2 **2 Point Response:**

The student responds correctly to 2 parts (A & B, B & C, or A & C), but provides incomplete, unclear, or incorrect explanations/evidence of work for each response.

1 **1 Point Response:**

The student responds correctly to A or B or C, and provides an explanation/evidence of work to show why the one part is correct.

Directions: Answer the following question(s).

0 **0 Point Response:**

The student responds incorrectly to parts A, B, & C, and the explanation/evidence of work is incomplete, unclear, incorrect, or not included.

Standards:

MGSE5.NBT.6

17 MGSE5.NBT.6 (DOK 3)

Consider the following equation.

$$938 \div 14 =$$

What is the effect on the quotient if the dividend remains the same, but you increased the divisor? Explain your thinking by giving 2 examples of the equation using different divisors.

Master ID: 3038008 Revision: 6

Rubric: 2 Point(s)

MGSE5.NBT.6: Fluently divide up to 4-digit dividends and 2-digit divisors by using at least one of the following methods: strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations or concrete models. (e.g., rectangular arrays, area models)

2 **2 Point Response:**

The student responds correctly by stating that as the divisor increases, the quotient decreases. The student correctly states the answer to $938 \div 14 = 67$. The student provides 2 complete and correct equations to illustrate this concept.

Explanation/Evidence of Work:

$$938 \text{ (dividend)} \div 14 \text{ (divisor)} = 67 \text{ (quotient)}$$

example equations:

$$938 \div 67 \text{ (divisor increase)} = 14 \text{ (quotient decreases)}$$

$$938 \div 134 \text{ (divisor increase)} = 7 \text{ (quotient decreases)}$$

1 **1 Point Response:**

The student responds correctly by stating that as the divisor increases, the quotient decreases. The student correctly states the answer to $938 \div 14 = 67$. The student provides, though, 2 incomplete, unclear, or incorrect equations to illustrate this concept.

0 **0 Point Response:**

The student responds incorrectly, and the example equations are incomplete, unclear, incorrect, or not included.

Standards:

MGSE5.NBT.6