Fifth Grade Common Core
Word Problems

Operations and Algebraic Thinking:
5.0A1: Write and Interpret numerical expression.

Maxwell bought a new pair of skis for $350. He put $110 down and received a student discount of $30. His mother gave him $\frac{1}{2}$ of the balance for his birthday. Which of these expressions could be used to find the amount Maxwell still owes on the skis?

A. $350 - 110 + 30 \div 2$
B. $350 - (110 - 30) \div 2$
C. $[350 - (110 - 30) \div 2]$
D. $[350 - (110 + 30)] \div 2$

Answer: ________

5.0A2: Write and interpret numerical expressions.

Let $n$ stand for the number. Evaluate each expression for $n = 4$

2 plus 5 times a number

Answer:
5.0A3: Analyze patterns and relationships.

What is the rule for the following table? Complete the table and graph the data.

\[ x + \_\_\_ = y \]

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td></td>
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</tbody>
</table>

Plot each ordered pair from the table. Use a ruler to make a scale.
5.NBT.1  Understand the Place Value System.
Bobby is helping buy meats, for grilling, for the school picnic. He bought 10 pounds of sausage at $1.69 per pound, 100 pounds of hamburgers at $1.99 per pound, 1,000 pounds of hot dogs at $2.09 per pound, and 100 pounds of chicken at $3.69 per pound. Which of the items he bought cost the most?

Answer:__________

5.NBT.2  Understand the Place Value System.
There are 165 children taking swimming lessons at the pool. If 10 children will be assigned to each instructor, how many instructors need to be hired?

Answer:______________

5.NBT.3  Understand the Place Value System.
There are 5 types of grains of sand: coarse, very coarse, medium, fine and very fine. A grain of coarse sand can have a diameter of 0.716mm.

Write three numbers that are greater than 0.716mm from least to greatest?

_________________   _______________   _______________

5.NBT.3a  Understand the Place Value System.
Johnny weighs 97.356 pounds. Read and write this number using base–ten numerals, number names, and expanded form.
5.NBT.3b  Understand the Place Value System.

The Australian Cockroach measures 3.582 centimeters compared to the American Cockroach that measures 3.576 centimeters. Compare these numbers using >, <, or =.

3.582 ______ 3.57

5.NBT.4  Understand the Place Value System.

The average rainfall in New York City is 60.187 inches. What is the average rainfall when rounded to the nearest tenth?

Answer: _______________

5.NBT.5  Perform operations with multi-digit whole numbers and with decimals to hundredths.

A sporting goods factory puts out 98 playground balls in each shipment. Each ball costs $2. What is the total cost of playground balls in three shipments?

Answer: _______________

5.NBT.6  Perform operations with multi-digit whole numbers and with decimals to hundredths.

1. Connor spent $36 to buy a new collar for each of his dogs. If each collar cost $6, how many dogs does Connor have?
Answer: _______________
2. Katelynn needs to order 24,000 pushpins for her company. If the pushpins come in boxes of 8,000, how many boxes should she order? Answer:___________

3. A farmer needs to ship 71 pumpkins to a grocery store. If each crate can hold 19 pumpkins, how many crates will the farmer need? Answer:___________

5.NBT.7 Perform operations with multi-digit whole numbers and with decimals to hundredths.

1. Kristina had $60.33 in her checking account. Then, she spent $12.69 from the account. How much money is left in Kristina’s checking account? Answer:____________

2. A new restaurant is opening soon, so it needs furniture. The management spent $5,393.00 on new tables and $8,953.00 on new chairs. How much did the management spend in all? Answer:____________

3. Dave bought a package of 4 chocolate cookies. Each cookie weighed 0.5 ounces. How much did the 4 cookies weigh all together? Answer: ______________

4. A measuring tape costs $9.43. If Peter buys 6 measuring tapes, how much will it cost? Answer:______________

5. Seven fancy bottles cost $3.57. The cost of each bottle is the same. What is the cost of each bottle? Answer:______________

6. Samuel has $9.36. How much money will Samuel have left if he buys a photo album and a dog calendar?
5.NF.1 and 5.NF.2: Use equivalent fractions as a strategy to add and subtract fractions.

1. During a visit to an orchard, Debbie picked 1/5 of a bag of Golden Delicious apples, 1/5 of a bag of Macintosh apples, and 3/5 of a bag of Cortland apples. How many bags of fruit did Debbie pick in total?

Simplify your answer and write it as a proper fraction or as a whole or mixed number. Answer: ____________

2. Lara ran 3/4 of a mile and walked 3/8 of a mile. How much farther did Lara run than walk?

Simplify your answer. _________________

3. During a canned food drive, items were sorted into bins. The drive resulted in 3/4 of a bin of soup, 3/4 of a bin of vegetables, and 3/4 of a bin of pasta. Altogether, how many bins would the canned food take up?

Simplify your answer and write it as a proper fraction or as a whole or mixed number. ____________

4. At the beach, Gavin and his sister both built sandcastles and then measured their heights. Gavin's sandcastle was 3 7/8 feet tall and his sister's was 2 3/8 feet tall. How much taller was Gavin's sandcastle than his sister's?
Simplify your answer and write it as a proper fraction or as a whole or mixed number. __________

5.NF. 3: Apply and extend previous understanding of multiplication and division to multiply and divide fractions.

1. What fraction of the shape is not shaded?

Answer: ________________

Use a slash ( / ) to separate the numerator and denominator.

Answer: ________________

5.NF.4a: Apply and extend previous understanding of multiplication and division to multiply and divide fractions.

1. The Willis Tower previously known as The Sears Tower in Chicago is about 1,460 feet tall. If you took an elevator \( \frac{3}{4} \) the way up the tower, how far from the ground would you be in feet?

Answer: ________________
2. Complete the table. Simplify each answer and write it as a proper fraction or as a whole or mixed number.

**Rule: multiply by: 1/3**

<table>
<thead>
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<th>In</th>
<th>Out</th>
</tr>
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<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

**5.NF.4b: Apply and extend previous understanding of multiplication and division to multiply and divide fractions.**

1. Each side of a square family room is 10 ½ meters long. What is the family room's area? Answer:___________

2. The perimeter of a rectangular piece of metal is 24 centimeters. It is 4 ½ centimeters wide. How long is it? Answer:___________

**5.NF.5a: Apply and extend previous understanding of multiplication and division to multiply and divide fractions.**

1. Jan is making a sign for her sister’s birthday. The sign says “HAPPY BIRTHDAY” in all capital letters. If each letter is ¾ inches long, estimate the length needed to spell out “HAPPY BIRTHDAY.”
5.NF.5b: Apply and extend previous understanding of multiplication and division to multiply and divide fractions.

1. At a taffy pull, Greg stretched the taffy to 6 feet. Joey stretched it 1 1/3 times far as Greg. Mary stretched it 2/3 as far. Sue stretched it 6/6 as far. Who stretched it the farthest? The least?

Farthest Answer:___________

Least Answer:___________

5.NF.6: Apply and extend previous understanding of multiplication and division to multiply and divide fractions.

1. Gary's lemon cookie recipe calls for 2/5 of a cup of sugar. How much sugar would Gary use to make 1/2 of a batch of cookies?

Answer:______________

2. Amy operates an orange juice stand. On Monday she used 1 2/5 bags of oranges. On Tuesday she used 1 1/4 times as many oranges as on Monday. How many bags of oranges did Amy use on Tuesday?

*Simplify your answer and write it as a proper fraction or as a whole or mixed number.* ________________

5.NF.7a: Apply and extend previous understanding of multiplication and division to multiply and divide fractions.

1. Mr. Johns bought a block of fudge that weighed 3/4 of a pound. He cut the fudge into 2 equal pieces. What was the weight of each piece of fudge?
2. Alec's bird feeder holds \( \frac{3}{4} \) of a cup of birdseed. Alec is filling the bird feeder with a scoop that holds \( \frac{3}{8} \) of a cup. How many scoops of birdseed will Alec put into the feeder?

Simplify your answer and write it as a proper fraction or as a whole or mixed number. ____________