Student:

Class:

Date:

Instructions

Respond to each question. Show your work. Bring this with your portfolio.

1. The table below shows the costs of four properties for sale.

Property	Cost (dollars)
1	139,900
2	400,500
3	336,820
4	59,200

Write a number sentence using $<$, $>$, or $=$ that correctly compares the cost of two of the properties for sale.

2. Mr. Tomlin's class is studying what happens when changes are made in numbers. The tasks in parts A-D below are ones that they have studied.

Part A. The number 9 in 1,985 is changed to the number 2. What is the new number? What is the difference in value between the two numbers? Explain why there is this amount of difference when only one number was changed.

Part B. Two numbers in 1,773 are changed. Both 7s are changed to 1s. What is the new number? By how much have the values of the two 7s changed? Compare the amounts that the two numbers have changed. Using place value, explain why the two differences have the values that they do.

Part C. Paul has been given a number of problems to do without a calculator:

$80 \div 8$

$240 \div 24$

$1{,}020 \div 102$

$14{,}330 \div 1{,}433$

What is one way he can use place value to make this an easy task? Why is this true?

Part D. When 6 is multiplied by 10, the 6 moves to the tens column and has the value 60. What values do the numbers below have when they are multiplied by 10? What values do the 6s have? Explain how place value knowledge can be used to find these results.

64×10

638×10

$6{,}503 \times 10$

$62{,}185 \times 10$

3. It is field day at Evans Elementary School, and the red team and the blue team are competing for points.

Part A. At 10:00 a.m., the red team had one thousand three points, and the blue team had eight hundred ninety-seven points. In the space below, write a numerical expression comparing these two numbers using >, =, or <. Write the numbers in standard form.

_____ ____ _____

Part B. By 12:00 p.m., the red team had 2,994 points, and the blue team had 3,006 points. Write these numbers using expanded form in the space below.

2,994 = _____

3,006 = _____

Part C. In the afternoon games, the red team scored 1,501 additional points, and the blue team scored 1,396 additional points. Write a numerical expression comparing the total final scores of each team using >, =, or <. Write the numbers in standard form.

_____ ____ _____

Part D. Complete the sentence below.

The winning team was the _____ team.

4. There are 35,487 people living in the city of Harbor View. There are 35,526 people living in Long Lake and 34,917 people living in Danville. Louisa lives in one of these cities.

Part A. The number of people in Louisa's city rounded to the nearest thousand is 35,000. The number of people in her city rounded to the nearest hundred is 35,500. In which city does Louisa live?

Part B. Explain how to round the number of people in Louisa's city to the nearest ten thousand.

5. Last weekend, 5,643 people went to the grand opening of a new water park.

- 978 people went to the park on Friday.
- 989 people went to the park on Saturday.
- The rest of the people went to the park on Sunday.

How many of the people went to the park on Sunday? Show your work or explain how you got your answer.

6. What number makes this sentence true?

4,625 ÷ 5 = ____

7. A company began the year with $1,973,824. During the first three months of the year, the owner of the company spent money on a few things:

- She paid her employees a total of $267,418.
- She paid $12,927 in rent for office space.
- She paid $23,012 for other expenses.

During the three months, the company made $322,516 by selling its products.

Part A. How much money does the company have at the end of three months?

Part B. Explain how you chose which operations to use to find the answer to Part A.

Use words, numbers, and/or pictures to show your work.

8. **Types of Errors Made during Addition and Subtraction**

Ms. Hogan's students are studying addition and subtraction. They are spending time reviewing the kinds of mistakes students can make in doing these problems. The questions below have to do with these types of errors.

Part A: Kathy added 357 and 143 and reached an incorrect sum of 590.

- What is the correct sum? What is the difference between 590 and the correct sum?
- Explain how Kathy could have reached the incorrect sum.

Part B. Tom started with 78 and added 52.

- What is the correct sum?
- How could Tom have reached the same total if he had started with 39?

Part C. Ms. Hogan gave her students 6 problems to do. She told them some of the totals were correct and some were incorrect.

- Do the problems below to check the answers that are shown. If the answer is correct, answer "Yes" to the question asked and move on to the next question. If the answer is "No," show what the answer should be and explain how the error could have been made.

1. $\begin{array}{r} 46 \\ +54 \\ \hline 100 \end{array}$ Is this answer correct? _____ If "No," show what the answer should be and explain how the error could have been made.

2. $\begin{array}{r} 232 \\ -\ 63 \\ \hline 269 \end{array}$ Is this answer correct? _____ If "No," show what the answer should be and explain how the error could have been made.

3. $\begin{array}{r} 778 \\ +319 \\ \hline 1{,}097 \end{array}$ Is this answer correct? _____ If "No," show what the answer should be and explain how the error could have been made.

4. $\begin{array}{r} 94 \\ -85 \\ \hline 9 \end{array}$ Is this answer correct? _____ If "No," show what the answer should be and explain how the error could have been made.

5. $\begin{array}{r} 842 \\ +659 \\ \hline 1{,}491 \end{array}$ Is this answer correct? _____ If "No," show what the answer should be and explain how the error could have been made.

6. $\begin{array}{r} 220 \\ -107 \\ \hline 127 \end{array}$ Is this answer correct? _____ If "No," show what the answer should be and explain how the error could have been made.

Part D. Four of Ms. Hogan's students are going to play a game in which they will add and subtract tokens. To begin the game, they each must have 100 tokens. They have been given these numbers of tokens:

Julie 143

George 36

Kim 156

Donna 65

- Make a plan to even up the numbers of tokens so that each student has 100. How many should Julie give to George? How many should she give to Donna? How many should Kim give to George? How many should she give to Donna?

9. The seats at the football field are divided into 8 equal sections. Each section can seat 135 people.

   Part A. Write an equation that can be used to find the number of people who can be seated all together.

   Part B. How many people can be seated all together?

   Use words, numbers, and/or pictures to show your work.

10. The Footlight Theater Company is performing a play. The production of the play costs the company $15,300. Tickets cost $5 each. The theater has 15 rows of seats. Each row has 20 seats.

    - On its opening night, the show sold out. How much money did the company make on opening night?
    - The company is planning to begin performing the play 3 nights per week for 3 weeks. How much money will the company make if every show sells out?
    - In the first 3 weeks, the company wants to make all of the money needed to put on the play. How many rows of seats will it need to add in the theater in order to sell enough tickets to pay for the cost of putting on the play? Use words, numbers, and/or pictures to show your work.

11. The fourth grade classes from 4 schools are going to the museum. The table shows the number of buses being used by each school. Each school bus will carry 48 passengers, including teachers.

BUSES FROM EACH SCHOOL

School	Number of Buses
King Elementary	3
Mill Elementary	4
Rose Elementary	4
South Elementary	2

- What will be the total number passengers on all of the buses?
- Explain how you got your answer.
- Show all of your work.

Use words, numbers, and/or pictures to show your work. Write your answer(s) on the paper your teacher gives you.

12. Members of a swim team are selling snow cones to help pay for an upcoming trip to a swim meet. Over the weekend, the team earned $2,464.00. The 8 members on the team will split the money earned equally. How much money will each member receive from the money earned?

13. Tyler and Becky are baking healthy banana muffins for a bake sale. They have doubled their recipe to make 108 muffins. They are using 9 baking trays to bake their muffins. They want to put equal amounts of muffins on each baking tray.

Part A. Using your game pieces to represent muffins and your whiteboards to represent baking trays, divide 108 muffins equally among the baking trays. On the lines below, write a strategy you used to solve the problem and an equation representing the problem.

Strategy:

_____

_____

Equation:

_____

Part B. Tyler and Becky want to arrange the muffins on each tray in equal rows. Using the muffins on one baking tray, construct an array on the tray to show one way they could arrange the muffins in equal rows. Write an equation for this array on the line below.

Equation:_____

Using a second baking tray of muffins, construct another array to show a different way they could arrange the muffins in equal rows. Write an equation for this array on the line below:

Equation:_____

Part C. For the sale, Tyler and Becky want to group all of their muffins into boxes of 6 muffins each. Write and solve an equation to show how many boxes of muffins they are able to have. Write a strategy you used to solve this problem.

Equation: _____

Strategy:
_____

_____

Part D. Tyler thinks they will sell more muffins if they add one more muffin per box. Write and solve an equation (with remainder) to show how many boxes they will have available to sell if they use this method. Use the space below to show your work using words, numbers, or pictures, and write the equation below.

Equation: _____

14. Ms. Delling's class collected 193 canned goods during the first four weeks of a food drive at school. They will be boxing them up for a shelter. Each box can hold 8 cans.

Part A. Write an equation that can be used to calculate the number of boxes, *b*, they will need for all the cans, *c*.

Part B. Calculate the number of boxes they will fill after 4 weeks.

Part C. The food drive will continue for 6 more weeks. Their goal is to fill 120 boxes. About how many cans will they need to collect each week if they want to reach their goal?

Use words, numbers, and/or pictures to show your work.

15. Part A. Lily has 5 stacks of paper. Cassie has twice as many stacks of paper as Lily has. However, each of Cassie's stacks has only 2 pieces of paper in it.

- Write an equation to show the total number of pieces of paper (t) Cassie has.
- How many pieces of paper does Cassie have?

Part B. Lily has 6 pieces of paper in each of her stacks. Cassie would like to have the same number of pieces of paper as Lily has.

- How many pieces of paper would have to be in each of Cassie's stacks for her to have the same number of pieces as Lily does?

Use words, numbers and/or pictures to show your work.

16. Coach Cameron ordered baseballs and basketballs for the school.

- He ordered 45 baseballs.
- He ordered five times as many baseballs as basketballs.

What was the total number of basketballs he ordered?