Continuing to practice and maintain math skills that were learned this year is an essential part of being prepared for the next school year. This summer, every CMS student will be given a packet of assignments to complete.

Here's how summer math will work:

- Students will complete the assigned problems on paper.
- Students will complete the assigned exercises and turn them in to their teacher by September 10, 2021.
- Students are encouraged to look for help on items they are having difficulty with.

In addition to the summer math packet there are many small ways to incorporate math at home. Talking to your children about the math that occurs in everyday life will help them to see how useful math is. You might want to try some of these ideas:

- Cooking
- Playing card games or board games
- Talking about statistics while watching baseball
- Discuss rates as you are driving in the car
- Practice measuring as you are doing home projects
- Compare pricing while looking at the grocery circular

If you have any questions, please contact
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Questions about modifications for special education students, please contact iris.ornberg@chariho.k12.ri.us .

All work is due on September 10, 2021. This will count for two homework grades in quarter 1.

Grade 6→7 Summer

Set 8 Multiply Fractions in Word Problems

➢ **Write a multiplication equation to represent and solve each problem. Show your work.**

1. Manuel has $4\frac{1}{2}$ cups of flour. He plans to use $\frac{2}{3}$ of the flour to bake bread. How many cups of flour will Manuel use to bake bread?

2. Mary plays soccer for $\frac{2}{5}$ hour on Monday. She plays for $2\frac{1}{3}$ times as long on Tuesday. How long does Mary play on Tuesday?

3. Niesha's brother is $3\frac{1}{2}$ feet tall. Niesha is $1\frac{1}{3}$ times as tall as her brother. How tall is Niesha?

Set 9 Divide with Unit Fractions in Word Problems

➢ **Write a division equation to represent and solve each problem. Show your work.**

1. Amelia makes 5 cups of muffin batter. Each muffin requires $\frac{1}{3}$ cup of batter. How many muffins can Amelia make?

2. Drew has $\frac{1}{2}$ of a package of raisins. He shares it equally among himself and 4 friends. What fraction of the original package does each person receive?

3. Pablo cuts 8 apples into quarters. How many apple pieces does he have?

Set 4 Interpret Algebraic Expressions in Real-World Problems

➤ **Identify and interpret the parts of each expression.**

1. A pen costs \$2.50. The expression $4n + 2.50$ represents the cost of buying 4 notebooks and a pen. What is the product in the expression? What does the product represent?

2. Henry has 50 apples. He gives 4 apples each to f friends. What is the difference in the expression $50 - 4f$? What does the difference represent?

3. The number of roses and daisies in 5 bouquets is $5(r + d)$. What is the sum in the expression? What does the sum represent?

Set 5 Evaluate Algebraic Expressions

➤ **Evaluate the expressions. Show your work.**

1. Evaluate $3n + 4$ when $n = 3$.

2. Evaluate $4 - \frac{2}{x}$ when $x = 6$.

3. Evaluate $3(x - 2y)$ when $x = 4$ and $y = 2$.

4. Evaluate $(4a + 2) \div 3$ when $a = 10$.

5. Evaluate $4q + p$ when $q = 3$ and $p = 2$.

6. Evaluate $60 \div c + 2$ when $c = 3$.

7. Evaluate $3 + \frac{h}{3}$ when $h = 8$.

8. Evaluate $5(x + y)$ when $x = 2$ and $y = \frac{1}{3}$.

Name:

Set 1 Ratio Language

➢ **Fill in the blanks to describe each ratio relationship.**

1. A recipe calls for 3 cups of oats and 2 cups of flour.

   There are _____ cups of oats for every 2 cups of flour. The ratio of cups of oats to cups of flour is _____. The ratio of cups of flour to cups of oats is _____.

2. There are 8 cupcakes for every 4 guests.

   There are _____ guests for every 8 cupcakes. The ratio of cupcakes to guests is _____. The ratio of guests to cupcakes is _____.

3. A runner travels 1 mile for every 9 minutes he runs.

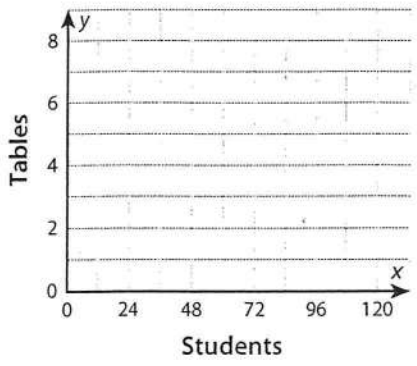
   The ratio of miles run to minutes run is _____. The ratio of minutes run to miles run is _____.

Set 2 Equivalent Ratios in Tables and Graphs

➢ **Complete the table, then plot points on the graph to represent the ratios for problems 1 and 2.**

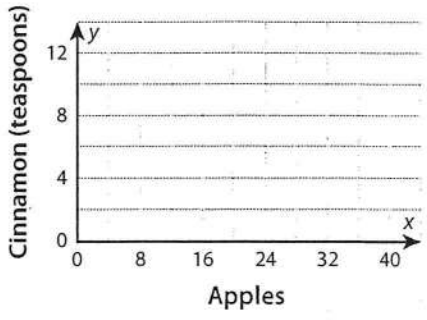
1. A school cafeteria has 1 table for every 12 students.

Students	24			96
Tables	2	4	6	



2. An applesauce recipe calls for 2 teaspoons of cinnamon for every 8 apples.

Apples	8	16	24	32
Cinnamon (teaspoons)				



Name:

Set 1 Rates and Unit Rates

➢ **Fill in the blank with the unit rate.**

1. Liam spends $4 for 2 pounds of grapes. The grapes sell at a rate of $_____ per pound.

2. Latasha reads 9 pages in 3 minutes. Latasha reads at a rate of _____ pages per minute. She reads at a rate of _____ minute per page.

3. A package of 6 pencils costs $3. The cost per pencil is $_____.

4. A pizza dough recipe has a ratio of 5 cups of flour to 2 cups of water. There are _____ cups of flour per cup of water.

Set 2 Solve Unit Rate Problems

➢ **Solve the problems. Show your work.**

1. Maximo can hike 2 miles in 30 minutes. At this rate, how long will it take him to complete a 7-mile hike?

2. Emma has 200 pages of her book left to read. In 4 minutes, she reads 6 pages. At this rate, can she finish her book in 2 hours?

3. It takes a printer 6 minutes to print 40 pages. At this rate, how many pages will it print in 15 minutes?

 Name:

Set 1 Write Equivalent Expressions

➤ **Solve the problems.**

1. Rewrite the expression $3(4w + 2)$ as a sum. Show your work.

2. Write an expression equivalent to $15m + 1 + 3m$ with exactly two terms. Show your work.

3. Write a whole number in each blank to show an expression that is equivalent to $12n - 8$.

   _____ • $n + 5n -$ _____

Set 2 Identify Equivalent Expressions

➤ **Solve the problems.**

1. Are the expressions $2x + 3(x + y) + 4$ and $5x + y + 2(y + 2)$ equivalent? Show your work.

2. Circle all the expressions equivalent to $6d + 10$.

$3d + 10 + 3d$	$2(3d + 5)$	$3(3d + 7)$
$6(d + 1) + 4$	$4d + 10 + 2d$	$4(d + 2) + 2(d + 1)$

Set 3 Solutions of Equations

➤ **Solve the problems. Show your work.**

1. Use substitution to determine if 2 is a solution of the equation $3x = 12$.

2. Use substitution to determine if 5 is a solution of the equation $10 = 2x$.

Set 4 Solve One-Variable Equations

➤ **Solve each equation for *x*. Show your work.**

1. $24 = 4x$
2. $8 + x = 10$
3. $2x = 40$

Set 5 Convert Measurements

➤ **Solve the measurement conversion problems. Show your work.**

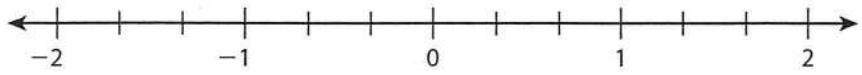
1. If you travel 60 feet in 4 seconds, how fast are you going in yards per minute?

2. If you travel 20 kilometers in 29 minutes, how fast are you going in meters per second?

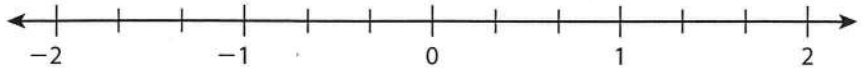
Set 1 Positive and Negative Numbers

➤ **Solve the problems.**

1. Plot and label each of the following rational numbers as a point on the number line: $-1\frac{1}{3}, 0, \frac{2}{3}$.



2. Plot and label the opposite of each number in problem 1 on the number line.



3. What is the opposite of −14? How many units away from 0 is its location on a horizontal number line and in which direction?

4. What is the opposite of 14? How many units away from 0 is its location on a horizontal number line and in which direction?

5. What number is the opposite of the opposite of −14? Show your work.

Set 2 Interpret Statements of Inequality

➤ **Write <, >, or = in each circle to make a true statement. For each statement of inequality, circle the value located farther to the right on the number line.**

1. 5 ◯ −12
2. −32 ◯ −14
3. $\frac{2}{6}$ ◯ $\frac{2}{4}$
4. $2\frac{1}{4}$ ◯ $-2\frac{1}{4}$
5. $-4\frac{2}{3}$ ◯ $-5\frac{1}{4}$
6. $5\frac{1}{8}$ ◯ $5\frac{1}{4}$
7. 7 ◯ $\frac{26}{4}$
8. $-\frac{14}{5}$ ◯ −3.2
9. 6.7 ◯ $\frac{52}{8}$

Set 3 Write Statements of Order

➤ **Write an inequality to express each relationship.**

1. A depth of 10 ft is lower than a depth of 6 ft. An elevation of 7 ft is higher than an elevation of 4 ft.

2. A temperature of −4°C is warmer than a temperature of −11°C. A temperature of −12°C is colder than a temperature of −7°C.

3. A bank balance of $1,500 is more than a bank balance of $150. A bank balance of −$100 is more than a bank balance of –$200.

Set 4 Absolute Value

➤ **Write <, >, or = in each circle to make a true statement.**

1. −2 ◯ 7 and |−2| ◯ |7|
2. −8 ◯ 4 and |−8| ◯ |4|
3. −9 ◯ −1 and |−9| ◯ |−1|
4. 11 ◯ 7 and |11| ◯ |7|
5. 12 ◯ −17 and |12| ◯ |−17|
6. 22 ◯ −21 and |22| ◯ |−21|

Set 5 Identify Solutions of Inequalities

➤ **Solve the problems.**

1. Circle the values that are solutions of the inequality $-10 > m$.

   −5 −10 5 20 −20 −50

2. Circle the values that are solutions of the inequality $h \leq -6$.

   −8 −2 8 2 10 −6

3. Circle the values that are solutions of the inequality $17 \geq g$.

   20 10 −20 −10 17 0