# Clover School District
# Summer Math Learning Packet
## *Students Entering Grade 5*

These summer math activities will enable your child to review math concepts and reinforce skills learned this year. Just a few minutes each day spent "thinking and talking about math" will help reinforce all the math that has been learned and begin to bridge the foundation for extending to concepts that will be developed next year. The goal is for your child to have fun thinking and working collaboratively to communicate mathematical ideas. While your child is working, ask him/her how the solution was found and why a particular strategy was chosen.

**The math practice in this summer packet addresses 3 critical areas in grade 4:**
1. developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends
2. developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers
3. understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.

This packet consists of 2 calendar pages, one for June and one for July. There are problems included for each day of the week, excluding weekends. Literature, APPs and websites are also recommended to explore mathematics in different ways. We encourage your child to complete at least 15 math days each month. We hope your child will spend at least 10 minutes a day, 4 to 5 times a week, practicing math. Create a goal with your child to help him/her stay strong in math over the summer. For example, my child will aim to complete at least 250 minutes of math practice over the course of the summer and keep track of his/her learning in a math journal. A math journal records your work either in print or digital format. See the example of a "great" journal entry.

**If the activities suggested do not seem to "fit your child" or you have your own websites/literature/math practice you would like to do, please feel free to substitute your own activities that better suit your child's needs or learning style. Examples: practice multiplication facts using flashcards, count money, etc.**

Student mathematicians - keep your mathematics skills sharp and have a safe and enjoyable summer. ☺

## Clover School District
### *Each Child, Each Day...Excellence*

# Entering Grade 5 Students Summer Math Ideas

## Math Tools You Will Need:

| | |
|---|---|
| Notebook for math journal | Coins |
| Pencil | Dice |
| Crayons | Ruler/measuring tape |
| Regular deck of playing cards | |

## DIRECTIONS:

Do your best to complete as many of these summer math activities as you can! Record your work in your math journal every day. In August, share your Math Journal with your fifth grade teacher.

## Each journal entry should:

- ✓ Have the date of the entry
- ✓ Have a clear and complete answer
- ✓ Be neat and organized

### Here is an example of a "Great" journal entry:

> June 1, 2023
> Today I looked at the weather section of the newspaper and recorded the predicted high temperature for the next 5 days: 82, 88, 90, 76, 81. I rearranged the data from the least to greatest number, then found 82 to be the middle value, which is the median temperature.

## Worksheets to Practice Math:

http://www.gregtangmath.com/resources
http://www.commoncoresheets.com/

## Websites:

http://www.funbrain.com/
http://www.aplusmath.com/
http://pbskids.org/cyberchase/math-games/
http://www.gregtangmath.com/
http://bedtimemath.org
http://www.figurethis.org./index.html
http://xtramath.org/
http://www.summermathtools.weebly.com
http://www.mathgoodies.com
http://www.brainbashers.com/
http://hoodamath.com
http://www.mathsisfun.com/index.htm

## Games to Play: (You will need a regular deck of cards.)

### 1. Multiplication Compare

Remove all the face cards from a deck of cards. The ace will equal 1. Deal out the cards equally between 2 to 3 players. Each player turns over 4 cards and multiplies a 2-digit number by a 2-digit number. Use the symbols <, >, or = to compare the products. The person with the highest product wins all the cards.

### 2. Close to 1000

Deal 8 cards to each player. Use any 6 cards to make two 3-digit numbers. Try to make the sum close to or exactly 1000. For example, you combine 148 and 853 to make 1001. Your score is 1 because the difference between 1001 and 1000 is 1. The lowest score after five rounds wins!

**Other games to play**: Monopoly, Othello, Battleship, Connect Four, Mastermind, Mancala, Legos, K'Nex, Simon, Yahtzee

## Math Books to Read:

**Counting on Frank** by Rod Clement
**A Grain of Rice** by Helena Clare Pittman
**Sideways Arithmetic from Wayside School** by Louis Sachar
**Divide and Ride** by Stuart Murphy
**Lemonade for Sale** by Stuart Murphy

## APPs:

| Grades 3-5 | All Grades |
|---|---|
| • Everyday Mathematics, Addition Top It<br>• Everyday Mathematics, Beat the Computer, Multiplication<br>• Everyday Mathematics, Divisibility Dash<br>• Everyday Mathematics, Equivalent Fractions<br>• Pizza Fractions 1<br>• My Times Tables<br>• Tony's Fraction's Pizza Shop<br>• Pearl Diver HD<br>• Lobster Diver HD<br>• Factor Samurai – multiplication and division<br>• Fraction App by tap to Learn<br>• Dare to Share Fairly<br>• Long Division Touch<br>• Math Ninja HD<br>• Quick Math<br>• Wuzzit Trouble<br>• Sushi Monster<br>• Deep Sea Duel<br>• Zap Zap Fractions<br>• MathLand (Critical Thinking skills) | • KENKEN<br>• Kakooma<br>• Quick Math – Arithmetic & Times Tables<br>• Pick-a-Path<br>• Sumdog<br>• Conundra Math<br>• Thinking Blocks<br>• Fast Facts Addition, Subtraction<br>• Fast Facts Multiplication, Division |

# June 2023 Entering Fifth Grade Mathematics Calendar

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| | June | We encourage your child to <br> • complete at least 15 math days each month, <br> • spend at least 10 minutes a day, 4 to 5 times a week, practicing math, <br> • use a math journal to record his/her work, and <br> • create a goal to help him/her stay strong in math over the summer. | | **1** Skip count by 5's starting at 1. <br> 1, 6, 11, … <br><br> What patterns do you notice? Explain why you think these patterns are | **2** Billy decides he wants to build a flower garden. He has an area of 284 square feet. He builds a wall with a width of 4 feet. What would the length need to be? | **3** |
| **4** | **5** Identify, record, and classify angles: acute (less than 90°), obtuse (greater than 90°), right (90°) in everyday things (buildings, bridges, furniture…). | **6** Write down the names and prices of 5 cars you find in the newspaper or internet. Order the prices from least to greatest. Round the prices to the nearest thousand. | **7** 15 friends want to order pizza for dinner. They predict that each person will eat 1/3 of a pizza. How many pizzas should they order? What if there were 9 friends and they each ate 1/3 of a pizza? | **8** Visit the website www.setgame.com. <br><br> Play and enter to win a prize! | **9** The sum of two mixed numbers is 5. What might the two mixed numbers be? <br> Show as many different solutions as you can. Explain your strategy. | **10** |
| **11** | **12** Play the game ***Multiplication Compare.*** (see directions) | **13** Play a strategy game. What strategy did you use? Would you use it again? | **14** Make a paper airplane and fly it. Measure how far it goes. Try a few times. Record the distances in your journal. Would it be more accurate to use kilometers, meters or centimeters to measure? | **15** Play **Baseball** at www.funbrain.com. <br><br> Challenge yourself. | **16** Visit www.KenKenPuzzle.com. <br><br> Select a puzzle to play. | **17** |
| **18** | **19** Write down the numbers you see on 2 license plates. Create 4 math problems with these numbers using all 4 operations (+, -, x, ÷). | **20** Tom and Ben ordered a pizza for lunch. They each ate 1/3 of the pizza. How much pizza was eaten? How much pizza was left? | **21** Play the game **Close to 1000.** (see directions) | **22** Write three facts about the number 28. Is this number prime or composite? How do you know? Round this number to the nearest 10. | **23** A lawn water sprinkler rotates 65 degrees and pauses. It then rotates 25 more degrees in the same direction. What is the total degree rotation of the sprinkler? To cover a full 360 degrees, how many more degrees will it move? | **24** |
| **25** | **26** Visit www.gregtangmath.com. Play any game of your choice for 10 minutes. | **27** Visit the website **www.setgame.com.** <br><br> Play and enter to win a prize! | **28** Solve the riddle: I have 5 in the tenths place. I have 7 in the thousandths place. I have 4 in the ones place. I have 2 in the hundredths place. What decimal am I? Write your own riddle. | **29** Go to www.gregtangmath.com. <br><br> Play **Kakooma Multiplication** for 10 minutes. | **30** With a partner, take turns scooping coins from a cup. Write the total in dollars and cents using decimal notation. Compare totals using <, >, or =. Take ten turns. | |

# July 2023 Entering Fifth Grade Mathematics Calendar

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| **We encourage your child to** <br>• **complete at least 15 math days each month,** <br>• **spend at least 10 minutes a day, 4 to 5 times a week, practicing math,** <br>• **use a math journal to record his/ her work, and** <br>• **create a goal to help him/her stay strong in math over the summer.** | | | | | | **1** |
| **2** | **3** I earn $5 per hour babysitting and $4 per hour for weeding the garden. Last week I did 7 hours babysitting and 6 hours weeding. How much more money do I need to buy a game that costs $80.00? | **4** Visit www.gregtangmath.com. Pick a book to read and complete the problems as you read. Record the book you read in your journal. | **5** Window 1 has a length of 5 feet and a width of 8 feet. Window 2 has a length of 6 feet and a width of 9 feet. What is the difference in the perimeters of Window 1 and Window 2? | **6** A cake recipe calls for you to use ¾ cup of milk, ¼ cup of oil, and ⅔ cup of water. How much liquid was needed to make the cake? Is this more or less than a pint? How do you know? | **7** Write a word problem whose answer is 154. Have someone solve the problem. | **8** |
| **9** | **10** List some capital letters (H, F…) that have one pair of parallel lines. Are there any that have two pair of parallel lines or three? | **11** Make the largest and smallest numbers you can find using the digits 4, 1, 7, 8, and 2. Find their difference and sum. | **12** Visit www.gregtangmath.com. Play **NUMTANGA** for 10 minutes. | **13** What factors can you use in this equation, __ x 5 = __ , to make a product that is an odd number between 30 and 60? Show all possible solutions. Explain your strategy. | **14** Use 5 playing cards to make the largest 5-digit number possible. Represent the number in numeral, word, and expanded forms. Repeat with 5 more cards. | **15** |
| **16** | **17** Visit the game room at www.aplusmath.com. <br><br>Record what you played. | **18** Have a scavenger hunt for real-world examples of parallel lines (ex. railroad tracks). | **19** Play a game. What strategy did you use? Would you use that strategy again? | **20** A regular pentagon measures 2⅛ cm on one side. What is the perimeter of the pentagon? | **21** There are two cakes on the counter that are the same size. The first cake has ½ of it left. The second has $\frac{5}{12}$ of it left. Which cake has more left? Prove your answer. | **22** |
| **23** | **24** Visit www.gregtangmath.com. Read The Best of Times and answer the questions. | **25** Sally is five years old. Her mom is eight times older. How old is Sally's mom? | **26** Measure 10 objects smaller than an inch to the nearest ¼, ½, or ⅛ inch. Put the data on a line plot. How many objects measured ¼ inch? ½ inch? What is the total length of all the objects? | **27** The difference between two mixed numbers is 3¼. What might the two mixed numbers be? Show as many different solutions as you can. Explain your strategy. | **28** Play the game **Close to 1000**. (See directions) | **29** |
| **30** | **31** Vowels are worth $50 each, consonants are worth $40. Can you make a word worth exactly $200? $600? | **YOU DID IT!** Please bring your journal to your fifth grade teacher on the 1st day of school. | | | | |

**Entering Grade 5 Answer Key - 2023**
**Answers will vary for many of the activities depending on the choices students make.**
**Below are the answers for activities with specific solutions.**

**June 1**

1, 6, 11, 16, 21…
Example pattern: The pattern is an even number followed by an odd number.
This pattern is happening because an even plus an odd number is odd (6 + 5 = 11), and an odd plus an odd is an even number (11 + 5 = 16).

**June 2**

Area is 284 square feet and the width is 4 feet. I need to find the length.
Area = length X width, so 284 = length X 4. To find the length, divide 284 by 4. The length is 71 feet.

**June 7**

| 5 pizzas for 15 friends | 15 x 1/3 = 5 |
| 3 pizzas for 9 friends | 9 x 1/3 = 3 |

**June 9**

Examples:
2 1/2 + 2 1/2 = 5
1 3/4 + 3 1/4 = 5
1 1/4 + 3 3/4 = 5

**June 20**

1/3 + 1/3 = 2/3 of the pizza was eaten.
1/3 of the pizza was left.

**June 22**

28 is a composite number. Possible answers for three facts: 28 is an even number; 7 X 4 is equal to 28; 7 + 7 + 7 +7 = 28; 28 can be divided into 2 equal groups, 4 equal groups, 7 equal groups, or 14 equal groups. When rounded to the nearest ten, it is 30.

A prime number is a whole number greater than zero that has exactly two different factors, one and itself. For example, 5 is a prime number because its only two factors are 1 and 5.

A composite number is a whole number greater than zero that has more than two different factors. For example, 8 is a composite number because its factors are 1, 2, 4, and 8.

1 is neither prime nor composite. It is not prime because it does not have exactly two factors. It is not composite because it does not have more than 2 factors. 1 is a *special* number.

**June 23**

The sprinkler rotated 90 degrees. The sprinkler needs to rotate 270 degrees to cover the full 360 degrees.

**June 28**

4.527

**June 30**

Examples:
$0.58 > $0.26
$1.13 < $1.24

**July 3**

7 hours of babysitting times 5 dollars per hour  7 x 5 = 35 dollars
6 hours of weeding times 4 dollars per hour 6 x 4 = 24 dollars

$24 + $35 = $59
$80 - $59 = $21
You need $21 more dollars to buy the game.

**July 5**

Window 1 perimeter: 5 + 8 + 5 + 8 = 26 feet
Window 2 perimeter: 6 + 9 + 6 + 9 = 30 feet
Difference in perimeters of window 1 and window 2: 30 – 26 = 4 feet

**July 6**

¾ + ¼ + 2/4 = 6/4 = 1 2/4 or 1½
1 2/4 cups of liquid
This is less than a pint because there are 2 cups in a pint.

**July 10**

E, F, H, I, M, N, Z
E has 3 parallel lines

**July 11**

The largest number is 87,421. The smallest is 12,478

Their sum is 99,899. Their difference is 74,943.


**July 13**

$7 \times 5 = 35$

$9 \times 5 = 45$

$11 \times 5 = 55$


**July 14**

Example: Numeral: 86,532

Word Form: eighty six thousand five hundred thirty-two
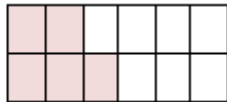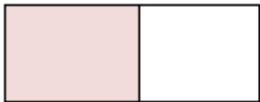
Expanded Form: $86,532 = 80,000 + 6,000 + 500 + 30 + 2$


**July 20**
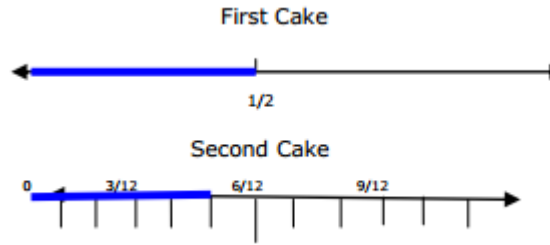
A pentagon has 5 sides. $2\ 1/8 \times 5 = 10\ 5/8$ cm


**July 21**

Examples:

Area model: The first cake has more left over. The second cake has 5/12 left which is smaller than ½.



Linear/Number Line model:



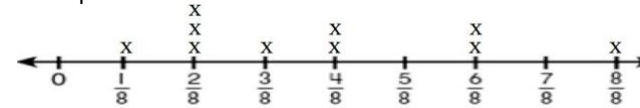I know that 6/12 equals 1/2. Therefore, the 1st cake which has 6/12 has more left than 5/12.


**July 25**

Sally's mom is 40 years old.


**July 26**

Example:




**July 27**

Examples:

$5\ \tfrac{3}{4} - 2\ 2/4 = 3\ \tfrac{1}{4}$

$9\ \tfrac{3}{4} - 6\ 2/4 = 3\ \tfrac{1}{4}$

$4\ 2/4 - 1\tfrac{1}{4} = 3\ \tfrac{1}{4}$