



# Beecher Road School

## Summer Math Packet

For

**Students Entering Sixth Grade**



Dear Sixth Grader,

Congratulations on successfully completing fifth grade! In order to help you maintain all the great strategies, skills, and concepts you learned this year and to be ready for sixth grade, we hope you complete the attached summer packet. The packet consists of 2 calendar pages, one for July and one for August. It also includes directions for math games to be played at home as well as cool math books we recommend. We'd like you to try to spend at least ten minutes each day this summer, 4 - 5 days a week, working on the attached problems, reading some of the suggested math books, visiting the websites, or practicing your math facts.

Just a few minutes each day spent "thinking and talking math" will help reinforce the math that you have learned and begin to prepare you for all the new concepts you will learn in sixth grade. The goal of this packet is for you to have fun while you keep your math skills and concepts fresh. Remember to communicate your mathematical thinking by discussing how you approached a problem, what strategies you used and why, and how you know your solution makes sense.

When you have completed the packet, please sign your name on the slip at the bottom of this paper and ask your parent to sign it, too. Please return the slip to your sixth grade teacher in August.

Have a safe and happy summer vacation!



\_\_\_\_\_  
Date

I, \_\_\_\_\_, spent at least 200 minutes  
working on math activities this summer.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Parent Signature



## Grade 6 **SUMMER** Math Ideas

The daily activities in this summer math packet will review math concepts and skills of the grade that has just been completed during the 2015 - 2016 school year. Just a few minutes each day spent "thinking and talking math" will help reinforce the math that has been learned and begin to bridge the foundation for extending to the concepts that will be developed next year. The goal is for you to have fun thinking and working collaboratively to communicate mathematical ideas. While you are working think about how you found your solution and why you chose a particular strategy.

The packet consists of 2 calendar pages, one for July and one for August. Literature, worksheets, and websites are also recommended to explore mathematics in new ways. We encourage you to complete at least 15 math days each month. Keep track of your math in a journal.

### Educational and Fun Websites to Practice Math Student Accountability

I spent at least 10 minutes a day, 4 to 5 times a week, practicing math. I completed at least 250 - 300 minutes of math practice over the course of the summer. I recorded my minutes on the tracking sheet. I returned the recording sheet to my 6th grade math teacher. I also showed my teacher my journal where I kept track of my mathematical thinking.

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Print Name

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Student Signature

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Date

**Math Books To Read:**

*A Gebra Named Al* by Windy Isdell

*Math Curse* by Jon Scieszka

*Chasing Vermeer* by BlueBalliett

*Sir Cumference & the Dragon of Pi* by Cindy Neuschwander

*Sir Cumference & the First Roundtable* by Cindy Neuschwander

*Sir Cumference & the Great Knight of Angleland* by Cindy Neuschwander

*Sir Cumference & the Sword in the Cone* by Cindy Neuschwander

*Number Devil: A Mathematical Adventure* by Hans Magnus Enzensberger

*Counting on Frank* by Rod Clement

*Guinness Book of Records* by Time Inc

*Mathematicians are People Too* by Luetta Reimer & Wilbert Reimer

**Books About Perseverance and Mindset:**

*The Girl Who Never Made Mistakes* by Mark Pett and Gary Rubinstein

*Making a Splash* by Carol E. Reiley

*The Most Magnificent Thing* by Ashley Spires

*Giraffes Can't Dance* by Giles Andreae

*Your Fantastic Elastic Brain* by JoAnn Deak

**[Worksheets for math practice](#)****Websites:**

[www.ixl.com](http://www.ixl.com)

[www.figurethis.nctm.org](http://www.figurethis.nctm.org)

[nrich.maths.org](http://nrich.maths.org)

[www.khanacademy.org](http://www.khanacademy.org)

[Mathforum.org](http://Mathforum.org)

[www.coolmath4kids.com](http://www.coolmath4kids.com)

[www.mathplayground.com](http://www.mathplayground.com)

[illuminations.nctm.org](http://illuminations.nctm.org)

## Entering 6th Grade July 2016

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|--|--|---|--|--|
| With partner, put 5 cards face up. Turn a 6th card, to be a Target Card. Each player uses the cards to make the Target Card #. All 5 cards must be used only once. Use +, -, x, and/or ÷                       | Use four 4's to create problems that will equal 1-12. Remember to use the correct order of operations to solve your problems: Parentheses, Exponents, Multiply or Divide, Add or Subtract. | 286,489 is an odd number. How many times greater is the 8 in the ten thousands place than the 8 in the tens place? Explain your thinking  | Six friends have 4 sandwiches to share. What fraction of a sandwich which each person get?   | Determine the sum and difference:<br>$2\frac{1}{4} + 5\frac{5}{8}$<br>$3\frac{1}{2} - 2\frac{1}{3}$                |
| Express the number 50 in at least 25 different ways. Use all 4 operations and include fractions and decimals.  | Write an expression for: Add 2 and 4 and multiply the sum by 3. Next, add 5 to that product and double the result.   | Choose a favorite professional athlete and research his/her annual salary. How much does s/he earn in a month? A day?   | On Saturday $\frac{3}{4}$ of a 5th grade class went to see a new movie. If $\frac{1}{2}$ of the class went to the afternoon session, what fraction of the class went to the evening session? | A rectangle is twice as long as it is wide. Its width is 5.5 cm. Find the area of the rectangle.                   |
| The sum of two mixed numbers with unlike denominators is $5\frac{3}{5}$ . What might the two mixed numbers be? Show as many different solutions as you can.  | A California Condor has a 114 inch wingspan. How many feet is that?  | You have $2\frac{5}{8}$ pizzas to share equally with 3 people. How much pizza will each person get?   | Each day, Monday through Friday, a baker uses $1\frac{1}{4}$ sacks of flour when baking cakes. Will the baker use more than or less than 5 sacks of flour from Monday through Friday?        | Place parentheses in the following equation to make it true.<br>$6 + 6 \div 6 \times 6 - 6 = 0$                    |
| Deal 3 cards to make a 3- digit number. Even numbers are whole numbers. Odd numbers are decimals. Repeat this. Add the 2 #s. Turn over 3 new cards per turn. Continue to add the # to last score. Game to 300. | Tom built a backyard pen for his new puppy. The length of the pen was $6\frac{1}{4}$ meters and the width was 4 meters. What is the area of the pen?                                       | Multiply two fractions together to get the number 1. What do you notice?  | Write a story for this problem:<br>$2 \div \frac{1}{3}$ .  | 0.75 is the answer. What could the question possibly be? Challenge yourself to think of more questions.            |
| There are 25 popsicles in a box. The coach bought 38 boxes. How many popsicles did the coach buy in all?   | At a baseball stadium there are 548 seats that are divided into 14 rows. How many seats are in each row?   | The fifth grade at your school is selling pizza kits for a fundraiser. There are 121 fifth grade students. Each student has a goal to sell 15 pizza kits. How many pizza kits will fifth grade sell if every student sells 15 pizza kits? | Play the game Battleship<br><a href="#">Math Playground Battleship game</a>  | You bought a drink for \$1.50 and a sandwich for \$2.75. You have \$13.50 left. How much money did you start with? |

## Entering 6th Grade

### August 2016

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|--|---|---|---|---|
| Is a 3 gallon pitcher large enough to hold 25 pints of juice? Explain  | Write a word problem for the equation<br>$\frac{1}{2} \times \frac{2}{3} = X$<br>Solve it!  | There are 3 pizzas. Each child will get $\frac{1}{4}$ of a pizza. How many children will get pizza?   | Find the sum and difference between two decimals. Compare the two decimals using $>$ , $=$ , and $<$ symbols. | Find a fraction or decimal in the newspaper. What did it relate to?                           |
| I am a number less than 50. When divided by 5, my remainder is 4. Who am I? Is there more than 1 correct answer? | Evaluate the following numerical expression.<br>$2 \times (5 + 3 \times 2 + 4)$ Can the parentheses in this expression be removed without changing the value of the expression?   | Jen is 12. Amy is 13. In 25 years, what will be the product of their ages?  | Find the sum of the digits of your phone number. What numbers is it divisible by?                             | Determine the product and quotient:<br>$10.95 \div 1.5$<br>$2.1 \times 5.9$                   |
| If you buy 3 books at \$3.95 each, how much change would you get from \$20.00?                                   | A box 2 centimeters high, 3 centimeters wide, and 5 centimeters long can hold 40 grams of clay. A second box has twice the height, three times the width, and the same length as the first box. How many grams of clay can it hold? | Which shape is described by the clues below?<br><br>The shape has no right angles. All of the sides are congruent. The total of its angles is less than $360^\circ$ | Find examples of quadrilaterals and sort them into categories using their attributes.                         | YOU DID IT! Please bring your journal to your sixth grade teacher on the first day of school! |