

During your summer break, the math teachers at King Middle School would like you to apply what you have learned this year toward your everyday summer life. On the back side of this paper, you will find 25 different activities that will guide you to practice some of the concepts you learned this year. You are to complete 15 of the activities and have your parent initial each square that you have completed. You will notice that some of the squares allow you to practice your math facts. [www.xtramath.org](http://www.xtramath.org) is a free website where you can create a log-in and practice addition, subtraction, multiplication and division facts. When you master a set of facts, print out a certificate of completion and attach it to this sheet.

**In order for receive full credit for this assignment, please attach all work to this form.**

**Due Date: September 2, 2016**

**Deadline: September 9, 2016**

Once you have finished completing 15 of the 25 squares, please answer the questions below using complete sentences.

1) Which square was the easiest to complete? Why do you think it was easy for you?

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2) Which square was the most difficult to complete? Why do you think it was so challenging for you?

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3) Pick a square you did not complete. Why did you choose not to complete it?

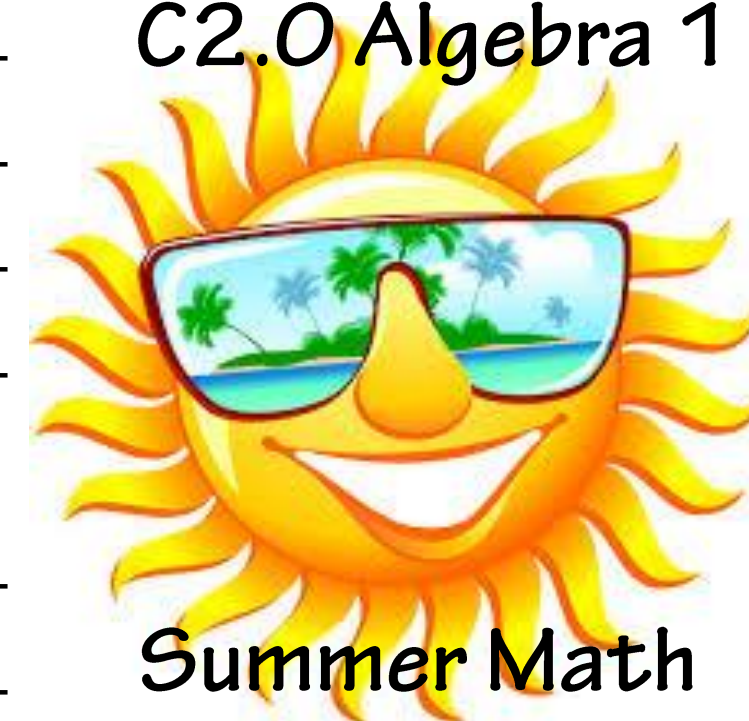
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**Students Entering  
C2.0 Algebra 1**



**Summer Math  
Homework**

<p>Research 2 cell phone carriers (i.e. Verizon and Sprint) and compare their data plans. Which one is the better buy if you don't text much? Which is the better plan if you text a lot?</p>	<p>Create a sequence of 5 numbers with a common difference (i.e. +3 or -5) and one with a common ratio (i.e. <math>\times 3</math> or <math>\times 1/5</math>). Ask a family member or a friend to figure out the 10<sup>th</sup> term in the sequences.</p>	<p>Calculate your average speed on a road trip. If you are going on a trip by car this summer, calculate your average rate of speed for the trip.</p>	<p>Plan an imaginary road trip. Look up the distance and the speed limit for the highway(s) you'd travel to get to your destination. Calculate the time it would take you to get there if you travel the speed limit.</p>	<p><a href="http://www.mcpsmd.org">www.mcpsmd.org</a> (type in "Math Dude" into the search bar") Watch the Math Dude episode on graphic representations Unit 1.1</p>
<p>Create 4 equations and solve, showing all work. Include a 1-step equation, a 2-step equation, an equation with variables on both sides, and an equation that includes the distributive property.</p>	<p><a href="http://www.mcpsmd.org">www.mcpsmd.org</a> (Type "Math Dude" into the search bar") Watch the Math Dude episode on solving multi-step equations Unit 1.3</p>	<p>Collect data on the high temperatures each day for a week. Find the Median, Upper and Lower Quartiles, and the Upper and Lower Extremes for the set of data.</p>	<p>Go to <a href="http://www.thefutureschannel.com">www.thefutureschannel.com</a> and click to watch the "Moorpark Zoo" short movie and the "Designing Toy Cars" clip to see how what math is used in two different careers.</p>	<p>If you go to the pool a lot in the summer, collect data for 10 days on the daily high temperature and the number of minutes you spent at the pool. Graph the data (Remember to label!) Is there a relationship between the two variables?</p>
<p>Create a picture pattern with 3 terms. Ask a family member or friend to draw the next 3 pictures in the pattern.</p>	<p>Create a rules of divisibility limerick! For example: Dividing by 6 "If you need to divide by six Then I can teach you some tricks If the rules for 2 and 3 Work for divisibility Then the number is divisible by 6!"</p>	<p>Create 4 equations and solve, showing all work. Include a 1-step equation, a 2-step equation with a fraction, and a 2-step equation with a decimal.</p>	<p>Visit a local bank and inquire about a savings account and how you earn interest on your money. Find out about the interest rate and calculate how much money you would have in a year if you deposited \$ 20 into an account. What if you deposited \$ 10 a month into an account?</p>	<p>Distance = rate <math>\times</math> time <a href="http://www.balloonhq.com/balloon_car/balloon_car.html#cars">http://www.balloonhq.com/balloon_car/balloon_car.html#cars</a> Choose 4 of your favorite balloon cars and calculate their rate. Determine which of your 4 favorites was the fastest.</p>
<p><a href="http://www.mcpsmd.org">www.mcpsmd.org</a> (Type "Math Dude" into the search bar") Watch the Math Dude episode on slope-intercept form of a line. Unit 3.3</p>	<p>Create 3 "functions" with input and output values. Have a friend or family member try to figure out the function "rule".</p>	<p>Create 3 challenging patterns and list the first 5 terms. (i.e. J,F,M,A,M (Jan, Feb, Mar, April, May). Ask a family member or friend to figure them out.</p>	<p><a href="http://www.mcpsmd.org">www.mcpsmd.org</a> (type in "Math Dude" into the search bar") Watch the Math Dude episode on solving one step equations Unit 1.2</p>	<p>Collect data on the high temperatures each day for one week. Find the measures of central tendency for the data. (Mean, Median, and Mode)</p>
<p><a href="http://www.mcpsmd.org">www.mcpsmd.org</a> (type in "Math Dude" into the search bar") Watch the Math Dude episode on the Laws of Exponents and Multiplying Monomials Unit 6.1 and 6.2</p>	<p>Research how math is used to build a skateboard ramp. Create your own design (for a ramp or park) using what you learned in your research.</p>	<p>Find your favorite dessert recipe. Cut the recipe in half and write out the new recipe.</p>	<p>Borrow a friend or family member's graphing calculator. Become familiar with the keys. Go to <a href="http://www.hotmath.com">www.hotmath.com</a> and click on "graphing calculators" on the left side. Under "getting started" click on TI-84 to watch a tutorial on how to use the calculator.</p>	<p>Log onto <a href="http://www.KhanAcademy.org">www.KhanAcademy.org</a> and review a lesson on factoring. Factor the following: <math>x^2 - 15x + 56</math> <math>2x^2 - 3x - 2</math> <math>4x^2 + 15x - 4</math></p>