

Big Apple Academy

2022

Mathematics Department



Summer Math Homework Package

Grade 5 → 6

It is important that you keep practicing your mathematical Knowledge over the summer to be ready for 6th grade. In this Package you will find a calendar of activities for the month of July and August.

What should you do?

- Take a new notebook for every-day practice. For each day you will need 2 pages;
- Start each day with vocabulary words: copy each word from the given day-list, find and write the meaning of each word in your notebook on the front page (pages 1,3,5, . . . and so on):

https://dynamiclearningmaps.org/sites/default/files/documents/ERP/dlm_math_glossary.pdf


- Use the internet to find the meaning of each word you do not know;
- Solve the problem of the day and write the solution with full explanation on the back page (pages 2,4,6,. . . and so on);
- Have the date of the entry. Have a clear and complete answer. Be neat and organize.


Do not forget to bring your notebook to school on September 6, 2022 - the first school day.

Have a Great Summer!!

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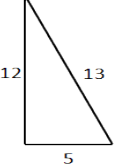

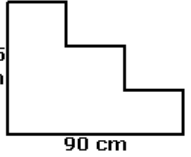
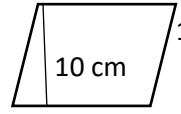
<div style="background-color: black; color: white; padding: 5px; text-align: center;">July</div> <p style="text-align: center;">5 → 6</p> <p style="text-align: center;">Monday</p>	<p style="text-align: center;">Tuesday</p>	<p style="text-align: center;">Wednesday</p>	<p style="text-align: center;">Thursday</p>	<p style="text-align: center;">Friday</p>	<p style="text-align: center;">Saturday</p>	<p style="text-align: center;">Incoming 6th Grade</p>
<p>Scientific notation</p>	<p>Divisibility Divisibility rules</p>	<p>Prime and composite numbers</p>	<p>Prime factorization GCF LCM</p>	<p>Equivalent fractions LCD Simplest form</p>	<p>like denominators unlike denominators</p>	<p style="text-align: center;">Summer Home Work VOCABULARY</p>
<p>Mixed numbers Improper fraction</p>	<p>Reciprocal Multiplicative inverse</p>	<p>Ratio Equal ratios Rate Unit rate</p>	<p>Proportion Cross product</p>	<p>Scale drawing Scale</p>	<p>Percent</p>	
<p>Convert percent to fraction and decimal Convert fraction and decimal to percent</p>	<p>Percent of a number</p>	<p>Sales tax Total cost</p>	<p>Discount Sale price</p>	<p>Increase Decrease</p>	<p>Principal Interest Simple interest</p>	
<p>Commission Rate of commission</p>	<p>Opposites Integers Absolute value</p>	<p>Rational numbers</p>	<p>Exponential form base exponent expanded form</p>	<p>Round Estimate Clustering</p>	<p>Order of operations Properties of operations</p>	

<div style="background-color: black; color: white; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">July</div> <p style="text-align: center; font-weight: bold;">5 → 6 Monday</p>	<p style="text-align: center; font-weight: bold;">Tuesday</p>	<p style="text-align: center; font-weight: bold;">Wednesday</p>	<p style="text-align: center; font-weight: bold;">Thursday</p>	<p style="text-align: center; font-weight: bold;">Friday</p>	<p style="text-align: center; font-weight: bold;">Saturday</p>	<p style="text-align: center; font-weight: bold;">Incoming 6th Grade</p>
<p>Write 0.00000678 in scientific notation.</p>	<p>I am a 3-digit number less than 300. I am divisible by 2 and 5, but not 3. The sum of my digits is 7. What number am I?</p>	<p>The number 59 and I are the only two prime numbers between 50 and 60. Who am I?</p>	<p>I am the least common multiple of two numbers whose sum is 20. One number is 4 greater than the other. What number am I?</p>	<p>Use two prime numbers to create a fraction that is equivalent to $\frac{21}{49}$.</p>	<p>One-half of a number added to one-fourth of 96 is 30. What is the number?</p>	<p style="text-align: center; font-weight: bold;">Summer Home Work for FUN</p>
$4\frac{5}{12} - 2\frac{9}{16}$	$2 - \frac{3}{4}$ $6\frac{1}{4} + \frac{1}{2}$	<p>Which is the better buy: One gallon of milk for \$1.99, or $\frac{1}{2}$ gallon of milk for \$0.98?</p>	<p>Ruth's batting average was 400 after 60 bats. After 20 more bats she lifted her average to 500. How many hits she get in those 20 bats?</p>	<p>Tina wants to enlarge this old photograph of her parents for their anniversary. If the scale is 1 inch = 2.5 inches, what will the dimensions of the final photo be?</p>	<p>I am a three-place decimal that is equivalent to the difference between 1 and $\frac{3}{8}$. What decimal am I ?</p>	
<p>Write $\frac{2}{5}\%$ as a fraction and decimal</p>	<p>What is 20% of $\frac{2}{5}$ of 15</p>	<p>A rug cost \$296 plus $6\frac{1}{2}\%$ sales tax. Find the sales tax and the total cost.</p>	<p>After a discount of 15%, the price of a shirt is \$51. What was the original price of the shirt?</p>	<p>After 2 months on a diet, John's weight dropped from 168 to 147 pounds. By what percent did John's weight drop?</p>	<p>Find the amount of interest and the total amount. \$250 for 2 years at simple interest rate of 7.5% per year.</p>	
<p>Amount sold for \$4,500. Rate of commissions 2.5% Commission?</p>	<p>Compare -6 and -6</p>	<p>Order from greatest to least $-2.4, \frac{5}{8}, -\frac{5}{8}, 0$</p>	<p>Write 78,045 in expanded form using exponents</p>	<p>The sum of my digits is 11. When rounded to the nearest hundred, I am 500. Rounding to the nearest ten makes me 530. What number am I?</p>	<p>Evaluate the expression $2\{ 5[12 + 5(500 - 100) + 99]\}$</p>	

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<div style="background-color: black; color: white; padding: 5px; text-align: center; font-weight: bold; font-size: 1.5em;">August</div> <p style="text-align: center; margin-top: 10px;">5 → 6 Average Monday</p>	<p>Permutations Combinations</p> <p style="text-align: center; font-weight: bold;">Tuesday</p>	<p>Probability</p> <p style="text-align: center; font-weight: bold;">Wednesday</p>	<p>Operations with integers</p> <p style="text-align: center; font-weight: bold;">Thursday</p>	<p>Equation</p> <p style="text-align: center; font-weight: bold;">Friday</p>	<p>expression</p> <p style="text-align: center; font-weight: bold;">Saturday</p>	<p style="text-align: center; font-weight: bold;">Incoming 6th Grade</p>
<p>Exponent Base Power</p>	<p>Order of operation</p>	<p>Coordinate plane Ordered pair Quadrant Origin</p>	<p>Relation Function</p>	<p>t-table linear equation</p>	<p>Angle Acute angle Obtuse angle Right angle Straight angle</p>	<p style="text-align: center; font-weight: bold;">Summer Home Work VOCABULARY</p>
<p>Complementary angles Supplementary angles</p>	<p>Reflex angle</p>	<p>Triangle Classify the triangles by sides and angles</p>	<p>Sum of all angles of a triangle</p>	<p>Perimeter Square Rectangle</p>	<p>Area Rectangle Perimeter</p>	
<p>trapezoid parallelogram rhombus square rectangle</p>	<p>Similar triangles Corresponding sides</p>	<p>Perimeter Area</p>	<p>Parallelogram Area Perimeter</p>	<p>Surface area Area of a square</p>	<p>Circle Radius diameter Circumference</p>	
<p>Area of a circle</p>	<p>Volume Rectangular prism Base Height</p>	<p>Mean Median Mode Range</p>	<p>Review</p>			

<div style="background-color: black; color: white; padding: 5px; text-align: center;"> <h2 style="margin: 0;">August</h2> <p style="margin: 0;">5 → 6</p> <p style="margin: 0;">$3^2 + (-5)^2 - (-1)^3 = ?$</p> <p style="text-align: center; margin: 0;">Monday</p> </div>	<p>Marcy's average score on four tests was 84. Three of scores were 84, 88, and 80. What was the fourth score?</p> <p style="text-align: center;">Tuesday</p>	<p>Eight children line up at the water fountain. Find the number of possible arrangements.</p> <p style="text-align: center;">Wednesday</p>	<p>Find the probability of getting a sum of 5 or a sum of 7 when two cubes are tossed.</p> <p style="text-align: center;">Thursday</p>	<p>Solve $x + (-21) = -59$</p> <p style="text-align: center;">Friday</p>	<p>Evaluate $x - (-2)$ for $x = 3$</p> <p style="text-align: center;">Saturday</p>	<h2 style="text-align: center; margin: 0;">Incoming 6th Grade</h2>										
<p>Compare -7^2 and $(-7)^2$</p>	<p style="text-align: center;">$\frac{-5^2 + (-5)^2}{ 4^2 - 2^5 - (-3)}$</p>	<p>Draw a coordinate plane. Graph and label the points given. (0,5), (-3,1), (-1,0) (-4, -5)</p>	<p>Tell whether relation is a function</p> <table border="1" style="margin: auto;"> <tr> <td>a</td> <td>1</td> <td>6</td> <td>9</td> <td>1</td> </tr> <tr> <td>b</td> <td>3</td> <td>-1</td> <td>-1</td> <td>3</td> </tr> </table>	a	1		6	9	1	b	3	-1	-1	3	<p>Make a T-table. Then graph each equation. $Y = -3$ $Y = -x - 3$ $X = -4$</p>	<p>From midnight to noon, the hands of a clock form straight angles several times. How many times?</p>
a	1	6	9	1												
b	3	-1	-1	3												
<p>Find the complement and supplement of 56° angle.</p>	<p>Draw a 255° angle.</p>	<p>Is it possible to make an equilateral obtuse triangle? Explain.</p>	<p>Find the third angle of a triangle, given that the first two angles are 55° and 70°. What kind of triangle is it?</p>	<p>Find the area of the square which has the same perimeter as a rectangle 12 by 2.</p>	<p>What is the greatest area of a rectangle with a perimeter of 50?</p>											
<p>True or false. All trapezoids are parallelograms. Every square is a rhombus. Every rectangle is a square.</p>	<div style="display: flex; align-items: center;">   </div> <p>$x =$ $y =$</p>	 <p>Find the perimeter and the area.</p>	 <p>Area = ? Perimeter = ?</p>	<p>Find the surface area of a cube with edge of 3.2 meters.</p>	<p>If circumference of a Ferris wheel is 134 meters, what is its diameter? Use 3.14 for π.</p>											
<p>What is the area of a circular garden with a diameter of 4 feet?</p> <p style="text-align: right;">26</p>	<p>An aquarium has a rectangular base 36 in by 12 in. its volume is 6912 in^3. Find its height.</p> <p style="text-align: right;">27</p>	<p>Find the mean, median, mode and range of a data set. 1.8, 1.95, 1.85, 1.8, 1.6</p> <p style="text-align: right;">28</p>	<p>Check everything you solved and prepare your questions for teacher.</p> <p style="text-align: right;">29</p>			