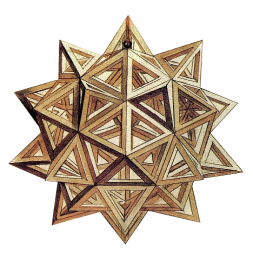
**Big Apple Academy 2018 Mathematics Department**



**Grade 6 🡪 7 Summer Homework Math Package**

It is important that you keep practicing your mathematical Knowledge over the summer to be ready for **7th 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);
* Use the internet to find the meaning of each word you do not know:

[www.a**mathsdictionaryforkids**.com/**dictionary**.html](http://www.amathsdictionaryforkids.com/dictionary.html)

* 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 4, 2018 - the first school day.

**Have a Great Summer!!**

**Big Apple Academy Mathematics Department**

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| **July\_**  **6 🡪 7**  **Monday 2** | Integers, negative integers, positive integers, absolute value  **Tuesday 3** | Distributive Property  **Wednesday 4** | Closure Property counterexamples  **Thursday 5** | Exponent, base, power  **Friday 6** | Laws of Exponents  **Saturday 7** | **Incoming**  **7th Grade** |
| Order of Operations  **9** | Consecutive numbers  **10** | Expression, Evaluation of the Expression  **11** | Like Terms, constant, coefficient, simplest form  **12** | Two- step equation  **13** | Formula  **14** | **Summer Home Work VOCABULARY** |
| Division Property of Equality  **16** | Terminating decimal  **17** | Repeating Decimal  **18** | Compatible numbers  **19** | Negative exponent.  **20** | Scientific Notation  **21** |  |
| Prime Numbers  **23** | Prime factorization    **24** | Least common multiple    **25** | Division Property of Inequality  **26** | Stem- and -Leaf plot  **27** | Factorial  **28** |  |
| Fundamental Counting Principal  **30** | Permutations  **31** | Combinations  **1** |  |  |  | davinci.png |

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| **July\_**  **6 🡪 7**  **Monday 2** | Order from greatest to least:  – 20, 12, – 4,  |– 9|, –|–7|  **Tuesday 3** | Find the values of the missing integers  8[3-6]=\_\*3 – 8\*\_  **Wednesday 4** | Tell whether this set is closed under given operation. If not, provide a counterexample.  Set: Negative integers  Operation: Multiplication.  **Thursday 5** | Use the law of exponents to simplify expression  37 \* 30  34  **Friday 6** | Evaluate:  – ( –8 )2  **7** | **Incoming**  **7th Grade** |
| (6– 24 ÷3) + 32 \* 2  **9** | The sum of the squares of two consecutive num-bers is 135. What are those two numbers?  **10** | Evaluate 5x3y4 for  X= – 2, y= – 1  **11** | -3(r+4) – 4(3-r)  5c-d-8c-d  **12** | Solve and check  34= 9 – w/2  **13** | The perimeter of a square is 28 meters. What is the area?  **14** | **Summer Home Work for FUN** |
| Solve :  9k-4k-8k = -15  **16** | Write 15/16 in decimal form and identify as terminating or repeating **17** | Order from least to greatest  3.33, 3.3, 33 1/3,  -3.3  **18** | Estimate a quotient by using the compa-tible numbers.  622.9 ÷7.75  **19** | Evaluate  90  9-2  **20** | Write in scientific notation  -0. 000000705  **21** |  |
| Find the sum of the first 7 prime numbers.  **23** | Write the prime factorization of this number in exponential form.  36,036  **24** | A pair of numbers has a GCF of 6 and a LCM of 60. What could the numbers be?  **25** | Solve and graph  – 6w – 2w > -80    **26** | Make a stem- and- leaf plot using numbers: 51,53,45,39,36,47,42,33,32,31  **27** | Find the Value  **11!**  **9!**  **4! – 5!**  **28** |  |
| Find the number of 3-digit codes that can be made using all digits, if digits can be repeated and if digits cannot be repeated. **30** | How Many three letter arrangements can you make from the letters in the word Number?  **31** | How many ways can you choose 2 letters from the word MINUS?  **1** |  |  |  | davinci.png |

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| **August-**  **6 🡪 7**  **Monday** | **Tuesday** | **Wednesday** | Pascal’s Triangle  **Thursday 2** | Sequence, term, Arithmetic and geometric sequence  **Friday 3** | Rational Number, Irrational Number  **Saturday 4** | **Incoming**  **7th Grade** |
| Polygon, Interior and Exterior Angles  **6** | Regular Polygon  **7** | Triangle Inequality Theorem  **8** | Quadrilaterals, parallelogram, rectangle, rhombus, square, trapezoid, kite  **9** | Perfect Square  **10** | Pythagorean Theorem  **11** | **Summer Home Work VOCABULARY** |
| Pythagorean triple  **13** | Density property  **14** | Greatest common factor, Divisibility rules  **15** | Ratio, equivalent ratios    **16** | Rate, Unit rate, Unit cost    **17** | Proportion  **18** |  |
| Percent    **20** | Percent Increase  **21** | Profit, selling price  **22** | Sales tax, sales tax rate, Total Cost  **23** | Similar figures  **24** | Law of Exponents for division  **25** |  |
| Linear Equation  **27** | Mean  **28** | Median  **29** | Range, Mode, Central Tendency  **30** | **31** |  | davinci.png |

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| **August-**  **6 🡪 7**  **Monday** | **Tuesday** | **Wednesday** | Draw first 8 rows of Pascal’s l Triangle  **Thursday 2** | Write the rule and find the missing term:  75, 15 ,3,\_\_,0.12…  **Friday 3** | Write three distinct rational numbers and 3 distinct irrational numbers  .  **Saturday 4** | **Incoming**  **7th Grade** |
| Find the measure of each interior and exterior angle of regular pentagon.  **6** | If the sum of the measure of a regular polygon is 1800o, how many sides does the polygon have?  **7** | Can sides lengths 3cm, 5cm, 11 cm be used to form a triangle? Write yes or no, explain.  **8** | List all possible quadrilaterals that have two pairs of adjacent sides that are congruent  **9** | Give examples of a perfect square that is also a perfect cube.    **10** | Determine whether a triangle with sides 4m ,5m, 6m is a right triangle.    **11** | **Summer Home Work for FUN** |
| Find the length of a diagonal of the rectangle whose length is 12 inches and width is 5 inches.  **13** | Write a rational number that is between 1/4 and 1/3.  **14** | What is the greatest common factor of 108, 81, 162 , 216?    **15** | Express each ratio in simplest form.  8:4/5  **16** | Find the Better buy:  3 cans for $4 or 4 cans for $5.50.      **17** | Write two different proportions using this set of numbers  $1.80, $1.20, 14,21  **18** |  |
| What percent of 10 is 1/5  **20** | An amount increased from 40 to 45. Find the Percent increase.  **21** | An antique car dealer made a profit of 15% on a car that cost $60,000. For how much did he sell the car?  **22** | Find tip and total cost of $65 dinner with 18% tip.  **23** | Under the late afternoon sun a lamppost cast a 30ft shadow. Nearby a 5ft tall person casts a shadow 15ft tall. What is the height of the lamp post?.  **24** | (-72x6y3z2) /  (8x5yz2)  **25** |  |
| Solve:  14 – 5(p+3) = -16  **27** | Remove a number from the following set so the mean is 20:  25,23,12,10,20  **28** | Remove a number from the data set so the median is 12:  10,6,3,13,12,4  **29** | Find the median, mean, mode, and range of the set  -2,6,2,-4.  **30** | **31** |  | davinci.png |