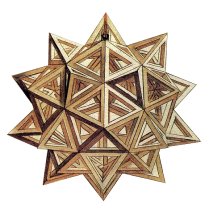
**Big Apple Academy 2018 Mathematics Department**

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**Grade 5 🡪 6 Summer Homework Math Package**

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):

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

* 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 4, 2018 - the first school day.

**Have a Great Summer!!**

**Big Apple Academy Mathematics Department**

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| **July\_**  **5 🡪 6**    **Monday** | **Tuesday** | **Wednesday** | **Thursday** | Variable  Expression  Equation  Properties of equality  **Friday 29** | Decimal  Negative power of ten  **Saturday 30** | **Incoming**  **6th Grade** |
| Scientific notation  **2** | Divisibility  Divisibility rules  **3** | Prime and composite numbers  **4** | Prime factorization  GCF  LCM  **5** | Equivalent fractions  LCD  Simplest form  **6** | like denominators  unlike denominators    **7** | **Summer Home Work VOCABULARY** |
| Mixed numbers  Improper fraction  **9** | Reciprocal  Multiplicative inverse  **10** | Ratio  Equal ratios  Rate  Unit rate  **11** | Proportion  Cross product  **12** | Scale drawing  Scale  **13** | Percent  **14** |  |
| Convert percent to fraction and decimal  Convert fraction and decimal to percent **16** | Percent of a number  **17** | Sales tax  Total cost  **18** | Discount  Sale price  **19** | Increase  Decrease  **20** | Principal  Interest  Simple interest  **21** |  |
| Commission  Rate of commission  **23** | Opposites  Integers  Absolute value  **24** | Rational numbers  **25** | Exponential form  base  exponent  expanded form  **26** | Round  Estimate  Clustering  **27** | Order of operations  Properties of operations  **28** | davinci.png |

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| **July\_**  **5 🡪 6**  **Monday** | .  **Tuesday** | **Wednesday** | **Thursday** | Decide if the solution is correct.  12n – 5 = 4n + 35  n = 4  **Friday 29** | In the number 44.444 which digit has 1/10 the value of the 4 in the hundredth place?  **Saturday 30** | **Incoming**  **6th Grade** |
| Write 0.00000678  in scientific notation.  **2** | 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? **3** | The number 59 and I are the only two prime numbers between 50 and 60.Who am I?  **4** | 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?  **5** | Use two prime numbers to create a fraction that is equivalent to .      **6** | One-half of a number added to one-fourth of 96 is 30. What is the number?  **7** | **Summer Home Work for FUN** |
| 4 - 2  **9** | **10** | Which is the better buy: One gallon of milk for $1.99, or gallon of milk for $0.98?  **11** | 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?  **12** | 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 dimen-sions of the final photo be?  **13** | I am a three-place decimal that is equivalent to the difference between 1 and. What decimal am I ?  **14** |  |
| Write % as a fraction and decimal  **16** | What is 20% of  of 15  **17** | A rug cost $296 plus 6% sales tax. Find the sales tax and the total cost.  **18** | After a discount of 15%, the price of a shirt is $51. What was the original price of the shirt?  **19** | After 2 month on a diet, John’s weight dropped from 168 to 147 pounds. By what percent did John’s weight drop? **20** | Find the amount of interest and the total amount. $250 for 2 years at simple interest rate of 7.5% per year. **21** |  |
| Amount sold for $4,500. Rate of commissions 2.5%  Commission?  **23** | Compare  |-6| and -6  **24** | Order from greatest to least  -2.4, , - , 0  **25** | Write 78,045 in expanded form using exponents  **26** | 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? **27** | Evaluate the expression  2{ 5[12 + 5(500 - 100) + 99]}  **28** | davinci.png |

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| **August-**  **5 🡪 6**  Average  **Monday 30** | Permutations  Combinations    **Tuesday 31** | Probability  **Wednesday 1** | Operations with integers  **Thursday 2** | Equation  **Friday 3** | expression    **Saturday 4** | **Incoming**  **6th Grade** |
| Exponent  Base  Power  **6** | Order of operation  **7** | Coordinate plane  Ordered pair  Quadrant  Origin  **8** | Relation  Function  **9** | t-table  linear equation  **10** | Angle  Acute angle  Obtuse angle  Right angle  Straight angle  **11** | **Summer Home Work VOCABULARY** |
| Complementary angles  Supplementary angles  **13** | Reflex angle  **14** | Triangle  Classify the triangles by sides and angles      **15** | Sum of all angles of a triangle      **16** | Perimeter  Square  Rectangle      **17** | Area  Rectangle  Perimeter  **18** |  |
| trapezoid  parallelogram  rhombus  square  rectangle  **20** | Similar triangles  Corresponding sides  **21** | Perimeter  Area  **22** | Parallelogram  Area  Perimeter  **23** | Surface area  Area of a square  **24** | Circle  Radius  diameter  Circumference  **25** |  |
| Area of a circle  **27** | Volume  Rectangular prism  Base  Height  **28** | Mean  Median  Mode  Range  **29** | Review  **30** |  |  | davinci.png |

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| **August-**  **5 🡪 6**  32 + (–5)2 – (–1)3 = ?    **Monday 30** | Marcy’s average score on four tests was 84. Three of scores were 84, 88, and 80. What was the fourth score?  **Tuesday 31** | Eight children line up at the water fountain. Find the number of possible arrangements.  **Wednesday 1** | Find the probability of getting a sum of 5 or a sum of 7 when two cubes are tossed.  **Thursday 2** | Solve  x + (–21) = –59  **Friday 3** | Evaluate  x – (–2)  for x = 3      **Saturday 4** | **Incoming**  **6th Grade** |
| Compare  –72  and (–7)2  **6** | **7** | Draw a coordinate plane. Graph and label the points given.  (0,5), (–3,1), (–1,0) (–4, –5)  **8** | Tell whether relation is a function   |  |  |  |  |  | | --- | --- | --- | --- | --- | | a | 1 | 6 | 9 | 1 | | b | 3 | -1 | -1 | 3 |   **9** | Make a T-table. Then graph each equation.  Y = -3  Y = – x –3  X = – 4  **10** | From midnight to noon, the hands of a clock form straight angles several times. How many times?  **11** | **Summer Home Work for FUN** |
| Find the complement and supplement of 56° angle.  **13** | Draw a 255° angle.  **14** | Is it possible to make an equilateral obtuse triangle? Explain.  **15** | Find the third angle of a triangle, given that the first two angles are 55° and 70°. What kind of triangle is it?  **16** | Find the area of the square which has the same perimeter as a rectangle 12 by 2.  **17** | What is the greatest area of a rectangle with a perimeter of 50?  **18** |  |
| True or false.  All trapezoids are parallelograms.  Every square is a rhombus.  Every rectangle is a square.  **20** | two similar triangles with dimensions shown  x =  y =  **21** | Q_ARE05 Find the perimeter and the area.  **22** | 15cm  10 cm  20cm  Area = ?  Perimeter = ?  **23** | Find the surface area of a cube with edge of 3.2 meters.  **24** | If circumference of a Ferris wheel is 134 meters, what is its diameter? Use 3.14 for π.  **25** |  |
| What is the area of a circular garden with a diameter of 4 feet?      **27** | An aquarium has a rectangular base 36 in by 12 in. its volume is 6912 in3. Find its height.  **28** | Find the mean, median, mode and range of a data set.  1.8, 1.95, 1.85, 1.8, 1.6  **29** | **Check everything you solved and prepare your questions for teacher.**  **30** |  |  | davinci.png |