# Big Apple Academy
# 2021
# Mathematics Department



## Summer Math Homework Package                                    Grade  3→ 4

It is important that you keep practicing your mathematical Knowledge over the summer to be ready for **4th grade**.
In this      Package you will find a calendar of activities for the month of July and August.  What should you do?
What should you do?

- Take a notebook for everyday 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 **or** just give examples instead. You can also draw pictures for illustrations.
- Use the internet to find the meaning of each word you do not know:

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

- Solve the problems of the day and write the solutions with full explanation on the next page
- Have the date of the entry. Have clear and complete answers. Be neat and organized.

  Do not forget to bring your notebook to school on September 9, 2021 - the first school day.

**Have a Great Summer!!**

**Big Apple Academy**                                    **Mathematics Department**

| July | Tuesday | Wednesday | Thursday | Friday | Saturday | **Incoming 4<sup>th</sup> Grade** |
|---|---|---|---|---|---|---|
| **Monday** | | | | | | |
| Difference<br>Sum    Addends<br>Fact Families<br><br>**5** | Variable<br>Numerical and Algebraic Expressions<br><br>**6** | Equation<br>Rounding<br>Estimation<br><br>**7** | Product<br>Factors<br>Multiples<br><br>**8** | Properties<br>Identity<br>Zero<br>Commutative<br>Associative<br>**9** | Dividend<br>Divisor<br>Quotient<br>Remainder<br><br>**10** | **Summer Home Work** **VOCABULARY** |
| Properties<br>of addition<br><br>Units of Time<br><br>**12** | Survey<br>Data<br>Tally Marks<br><br>**13** | Pictograph<br>Line Plot<br>Bar Graph<br><br>**14** | Place value<br>Compatible numbers<br>Compensation<br><br>**15** | Diagonal<br>convex<br>concave<br> | Parallel<br>perpendicular<br>intersecting<br><br>Coins<br>**17** | |
| Divisibility Rules<br>By 2,3,5,9, and 10<br><br><br>**19** | Quadrilaterals<br>Rectangles<br>Parallelograms<br><br>**20** | Trapezoid<br>Square<br>Rhombus<br><br>**21** | Solid Figures<br>Face<br>Edge<br>Vertex<br>**22** | Polygon<br>Side  Vertex<br>Odd and even numbers<br>**23** | Point<br>Line<br>Line Segment<br>Ray<br>**24** | |
| Angle<br>Type of angles<br>Degree<br><br>**26** | Properties of Multiplication<br><br>Properties of Division<br>**27** | Types of triangles<br>By sides<br>By angles<br><br>**28** | Standard form of the number<br>Expanded form<br>Word form<br>**29** | Types of quadrilaterals<br><br>Change (money)<br>**30** | Types of polygons (pentagon, ...)<br><br>Periods: ones, thousands, millions, billions<br>**31** | |

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## July

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|---------|-----------|----------|--------|----------|
| Write the rule for each pattern and the next numbers 6, 12, 18, _ 4, 32, 256,__ 63, 55, 47, __ 1400,700,350,_ 7,15,12, 20,17,25,22,_, __ Draw 4/6 of a circle **5** | A store had 435 boxes of 200 stamps. 7,187 of them were sold. How many stamps were left? Draw 0.46 **6** | 1/5+60/8+3/5+4/8= 1000 - 899 + 329 x 567 = 8244/9+2917/ 4= 453+26-435= (654-56)x(4/3+2/3)= Draw 3 parallel rays **7** | 28 games were bought for Children's Hospital. Each game cost $16. How much money was spent in all? 2565-577 is about ___? 2565 x 577 is about ___? **8** | Maria bought 4 shirts for $19.50 each and pants for $18.95. She has $1.55 left. How much money did she have? Draw a 156o angle **9** | All factors of 34 are_____ First 5 multiples of 34 are __ Common factors for 24 and 36 are___; for 15 and 75 are___; for 63 and 108 are___ 9842/ 68 + 24/8=? **10** |
| A table 5 by 4 ft has area __ and perimeter ___ A 6 cm wide rectangle with P=30 cm has A=? A 6 cm long rectangle with A=30 sq cm has P=? **12** | How many: Feet in 3 yards Quarts in 4 gallons Ounces in 7 pounds Inches in 368 feet Fl oz in 512 cups Cups in 3 gal? **13** | Draw 3 triangles with a side =10 ½ cm and 2 angles = 60 degree each Draw a pentagon with all its diagonals **14** | Mira has 28 rose bushes in her garden. Each spring, each bush has about 11 rose blooms. About how many rose blooms will Mira have? **Draw 4/7, 1 2/3, 18/6** **15** | Fred is collecting shells on the beach. If he finds a shell every three steps that he takes, how many shells will he find after 398 steps? **16** | Marie is going across the monkey bars at school. There are 16 bars on the monkey bars. If she starts with the first bar and skip two bars each time she swings, how many bars will she touch in all? **17** |
| Jo and Jill are baking cookies. Each batch will make 18 cookies. They want to make enough so that each student can have 2. If there are 25 people, how many batches of cookies do they need to make? **19** | Bryan has six dogs that each eats one- half cup of food each morning. If he has 20 cups of food, how many days can he feed all his dogs? **20** | Skip was counting his change and found that it totaled $6.73. He had 18 pennies, 14 quarters, and 2 half-dollars, and 5 dimes. How many nickels did he have? **21** | Sam has 20 coins, some of them are dimes and others are nickels. If the total is $1.55, how many dimes are there? Draw 4/6 and an equivalent fraction **22** | Every three steps, Norma and Kris would each throw one stone. If they each walked 90 steps, how many rocks were thrown into the river by both Norma and Kris? **23** | Betsy has 2 piles of clothes in her bedroom. There are 15 pairs of pants, 12 shirts. If the washing machine will hold only 4 shirts and 3 pairs of pants at one time, how many loads of laundry will Betsy have to do to clean all of her clothes? **24** |
| What shape has four sides and one pair of opposite sides that are parallel? How many edges does a cube have? How many equal sides does a scalene triangle have? **26** | Marcia is 2 years older than Rosa. Rosa is 3 years older than Lisa. Lisa is 2 years younger than her 11- year-old brother. How old is Marcia? **27** | Ben played basketball for 3 months and made 73 baskets. In February he made 20 baskets and twice that number in March. How many did he make in January? **28** | 1. Simplify: 22 – 1 + 8 –7x4= 22 – (1 + 8 –7)x4= 22 – 1 + (8 –7)x4= (22 – 1 + 8 –7)x4= 2. Find 338x469 - 4779 = **29** | Word form for 0.12 is __ 46,000,077 . 6 is____ 9,000,077 . 011 is____ Expanded form for 56.056 is _____ For 9600. 507 is ___ 5678/7+697= **30** | In 34,678 . 629 Place of digit 4 is__ Its value is__ Place of digit 8 is__ Its value is__ Place of digit 2 is__ Its value is__ Place of digit 9 is__ Its value is__ Compare fractions 4/7__5/7__12/46__8/46__8/11 **31** |

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| August 3 → 4 grade  Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Incoming 4th Grade |
|---|---|---|---|---|---|---|
| Perimeter Area Area of rectangles Perimeter of rectangles  **2** | Order of Operations  Congruent shapes  **3** | Fraction Numerator Denominator Unit Fractions  **4** | Equivalent Fractions Rules to compare fractions  **5** | Prime and Composite Numbers Common Factors MeasuringTools  **6** | Mixed Number Improper fraction Pictographs  **7** | **Summer Home Work** VOCABULARY |
| Customary Units of Length, their relations  Distributive property  **9** | Metric Units Of Capacity, their relations Customary Units of Capacity, their relations  **10** | Customary Units of Weight, their relations Mass and Metric Units, their relations  **11** | Decimals Place Value Tenths Hundredths Thousandths  **12** | Compare Decimals Equivalent Decimals  **13** | Rectangular Prism Metric Units of Length, their relations  **14** | |
| Regrouping Simplest form of fractions  **16** | 3 forms of a number: Standard, Expanded, Word  **17** | Cube cone Sphere cylinder Prisms and pyramids  **18** | Line plot Bar graph Scale Interval  **19** | Coordinates of a point. Units of time  **20** | Number line. Fractions on the number line  **21** | |
| Long multiplication Estimating products  **23** | Temperature: units and important numbers  **24** | Volume Long division  **25** | Natural Numbers Whole Numbers Table of multiplication  **26** | Line of Symmetry Rotation Reflection Translation  **27** | Mental math strategies: compensation, using distributive property, adding unit by unit  **28** | |

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| August / Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|
| Simplify 4/56, 63/54,7/77 27/81,40/48,23/46,12/58 2:46=___ min past ___ = ___ min to ___. 23 min after that will be __:___ Draw obtuse isosceles and right scalene triangles **2** | Draw a decimal fill the blank 4/7=280/? How many edges and faces does a square prism have? A cube has? An octagonal pyramid have? **3** | A tractor weighs 5 tons. How many pounds is that? Write in order from shortest to longest: 2000 dm, 2 m, 2000 cm, 2 km. **4** | Mike bought 2 pounds of chocolate. His coworkers ate 21 ounces of it. How much chocolate does Mike have left? 6 x 79 = 420+____ 464 ÷8= 50+____ **5** | Two thirds of the dogs were brown and one sixths was black. Were there more brown or black dogs? Estimate 53 x 8 x 723 Find 45+6+35+44 **6** | Compare 7tenths and 2fifths; 8 tenths and 3eigths; 9 tenths and 3halves. Is 46 prime or composite? Is it odd or even? Write all its factors. The greatest 2- digit prime number is__? **7** |
| Mandy served salads. There were 5 tomato slices on each. How many salads did she Serve with 120 slices? Compare 3/6__8/16__8/9 7/9  3/9  15/45  8/7 **9** | Luis sold 10 one-gal cartons of milk and 36 one-qt cartons of milk. Did he sell more milk in gallon or quart cartons? Write 65/1000, 7/10, 3/100 as decimals; 0.05 and 0.030 as a fractions **10** | A plane leaves Miami at 12:09 p.m. and lands in NY at 2:12 p.m. The flight was supposed to take 1hour52min. Was the plane on time? 7:25= ___ min to ___ **11** | Find n: $3/5 = n/45$ $12/8 = 144/n$ $n/20 = 6/5$ $24/n=30/60$ $72/54 = 32/n$ 45hm=__ m 273 ÷(84 ÷12)= **12** | Pizzas are to be cut into 8 slices. How many pizzas are needed to serve one slice to each of 185 people? Is 34554 divisible by 3? By 2? 9? 5? 10? Explain 824 ÷3=   759+638x84= **13** | On Monday the cafeteria serves either spaghetti or lasagna with either milk or juice. The dessert is either peaches or bananas. How many combinations can be served? **14** |
| Napkins came in a box of 500. How many people could use 3 napkins each? How many more would be needed for another person? **16** | Sue's guests finished 2 gal of punch. If each guest drank 1 cup of punch, how many guests did she have? Find 3/8 x 6 – 2/8 **17** | Joy worked 5 weeks and 4 days this summer. Yo worked 41 days. Who worked more days? Simplify 20/12, 36/48. **18** | Pedro made a domino chain 132 in long. Muni made one 16 feet long. Whose chain was longer? By how many inches? 76 x 8 = ___+___ **19** | Jim is 4 times older than Kate, who is 3 years younger than Will. How old is Jim if Will is 5 years old? 967000 – 1912 ÷8= **20** | A bread recipe calls for 5 cups of white flour and 1 ½ cups of rye flour. How much more white than rye flour is needed? **21** |
| Of the 12 boys in the class, 2/6 has blonde hair, 1/12 has red hair, and the rest have brown hair. How many boys in the class have brown hair? **23** | The fish tank has 12 goldfish. Sarah and Jim were each allowed to take home ¼ of the fish. How many fish were left in the tank? 756 ÷4= 9 x __? **24** | How many 2-digit numbers have at least one digit 4? What is the perimeter of a rectangular with a width of 8m and a length of 17m? **25** | The length of a room's floor is 12ft. Its perimeter is 42ft. What is the area of the floor? Find 89 x (564 - 679 ÷7) Write 0.3 as a fraction **26** | Kat's backyard is rectangular with area of 50 sq yd. The width is 5 yd. How many yards of fence does Kat need to put around the backyard? **27** | 7    X    8    Y Find X + Y. Compare 0.43__0.7__0.23__2.1 28900-67x943 __ (65/5+6)x45 856 mL__ 1/2 L  45 oz__7 lb **28** |