Tips to Help Your Math Student at Home

Created by The Title 1 Department

Be Proactive

- Put an emphasis on homework at home
  - Make a schedule with your child, so they know when their homework time is everyday.
  - If your child has no homework, they can work on Classworks, flashcards, or apps that enhance their learning process.
  - Provide all necessary homework supplies

Be Proactive

- Have a good relationship with your child's teacher
  - Having open lines of communication with the teacher is a key factor in your child's success.
  - Know when assignments are due and what is expected out of your child in the classroom.
- Help your child with organization
  - This will decrease the amount of lost homework assignments.

Helping with Math

- Note taking
  - Encourage your child to take notes during math.
    - Multiple math problems with steps on how to solve
    - Detailed notes

- Even if they say the don't need to write down multiple problems with steps, it will be beneficial when they have different types of problems for homework.

Helping with Math

- Make sure your child reads the directions on EVERY piece of homework they have before completing it.
  - DO NOT let them assume they know the directions without reading them.
- Make sure your child knows you are available for help.
  - Children usually feel more comfortable asking questions in a one-on-one setting.

Classworks

- Have your child work on their instruction from home!
- Teachers used this program for progress monitoring.
- The instruction on Classworks is based on each students individual needs.
- You can access Classworks from the Harris County Board of Education Website. The link is located in the quick links section on the right hand side of the webpage. Once you click on Classworks Student, log in with the following information and you're ready to go!

Username: Last Name

Student ID: Lunch room number

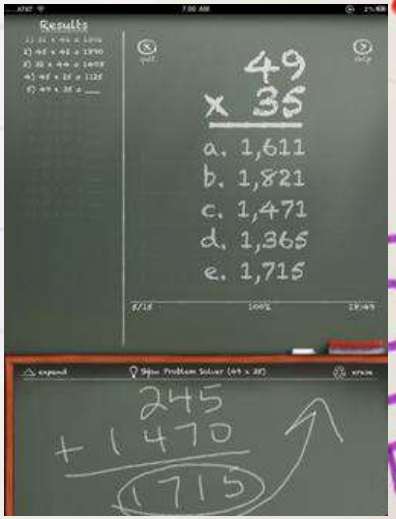
Password: warriors

- https://www.georgiaoas.org/servlet/a2l
- Parents can access reports from tests their children have taken by logging in as the student and viewing reports. Also, parents are informed when teachers share reports on their child's success on assessments. Reports are all aligned to the state standards so success on these assessments shows ability on the state curriculum.
- The Georgia Test Identifier (GTID) will be the Logon ID for all students. Their password is warriors.

Apps

- **Numbler**
- Numbler is a game where players build math equations in a familiar crossword-style board. All the mental fun of popular board and online games, but with numbers instead of letters. A fun and educational way for students to sharpen their math skills.

- **Mathboard**
- MathBoard features:
  - Random problem generation (up to 250 questions per quiz).
  - Addition, Subtraction, Multiplication, Division, Squares, Cubes and Square Roots
  - Number ranges are configurable from -1000 to 1000, including the ability to require certain numbers to be in each.



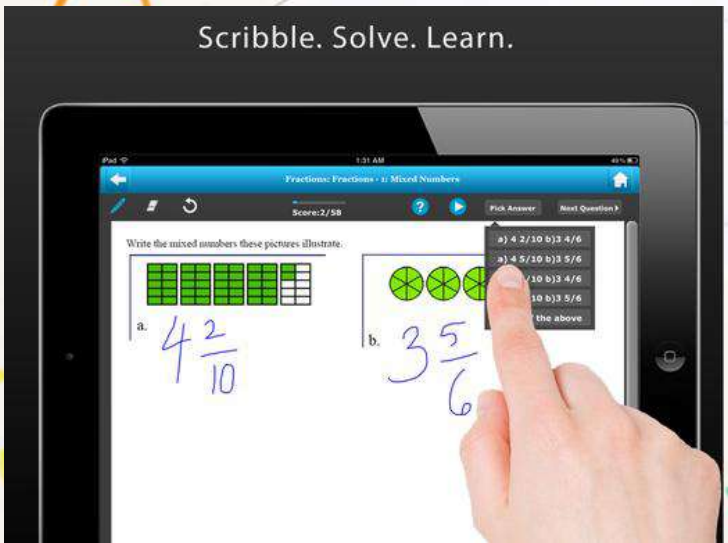
Apps

- **Addition & Multiplication Number Bubbles**
- This app contains two games--Addition and Multiplication(base on Chinese Multiplication Table).
  ☞ Addition:Select number bubbles whose sum is equal to the target number.
  ☞ Multiplication:Select two number bubble whose product is equal to the target number.

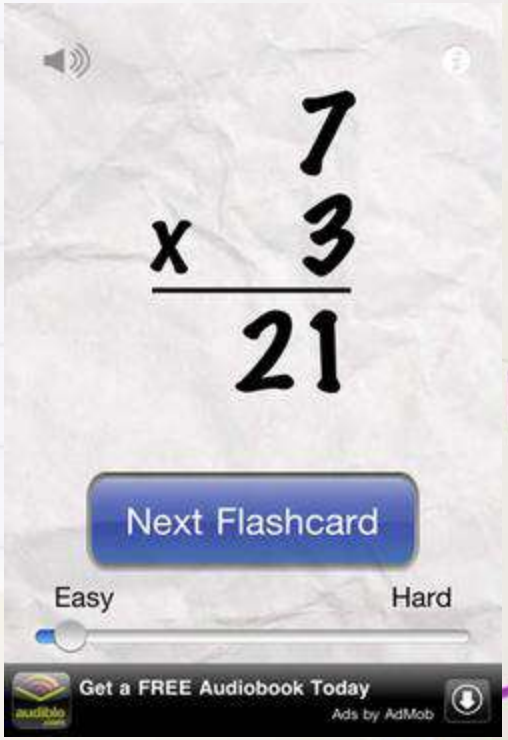
- **Simply Multiplication for iPAD**
- Simply Multiplication for iPad is an app that allows the user to practice simple basic multiplication facts or extend the users ability to work out complex multiplication problems up to three digit numbers.

Apps

- Fractions !!!
- Fractions !!! by Math Pentagon has one of the largest collection of Algebra worksheets on iPad. It is a structured math learning program that engages students to practice math worksheets, exercises & teacher assignments.



- **Awesome Flashcard Multiplication Free**



Apps

- Math !!!
- Splash Math - 3rd Grade Math Worksheets for School HD
- Simplify Fraction
- Algebra !!!
- Alge-Bingo
- Geometry !!!
- Geometry (Mathomatrix)
- Lobster Diver HD
- Math Fractions Understanding Fractions Lite
- Math Edge +
- My Math App
- Algebra Kaiser

Websites

- Ask Dr. Math
  - www.mathforum.org
- SOS Math
  - www.sosmath.com
- Educating Jane (for girls)
  - www.educatingjane.com
- Algebra Help
  - www.algebrahelp.com
- Learning Games for Kids
  - http://www.learninggamesforkids.com/
- www.iknowthat.com/games
- www.mathisfun.com
- www.math.com
- www.coolmath.com
- www.ixl.com
- www.solvemymath.com
- Www.aplusmath.com
- www.aaamath.com
- www.onlinemathlearning.com

What Your Child is Expected to Know

- Go to https://www.georgiastandards.org/Common-Core/ to see topic your child should have mastered this year.

5th Grade Standards

- **Graph points on the coordinate plane to solve real-world and mathematical problems.**
- **MCC5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., *x-axis and x-coordinate, y-axis and y-coordinate).***
- **MCC5.G.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.**
- **Classify two-dimensional figures into categories based on their properties.**
- **MCC5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.***
- **MCC5.G.4 Classify two-dimensional figures in a hierarchy based on properties.**

- **Analyze patterns and relationships.**
- **MCC5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.***
- **MCC5.G.4 Classify two-dimensional figures in a hierarchy based on properties.**

- **Convert like measurement units within a given measurement system.**
- **MCC5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.**

- **Represent and interpret data.**
- **MCC5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.***

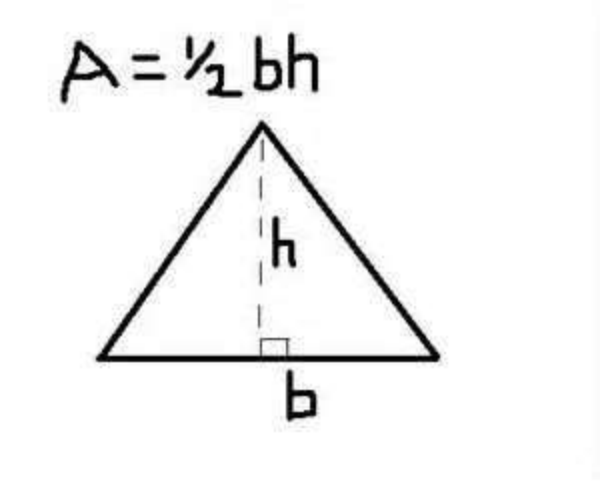
- **Geometric Measurement: understand concepts of volume and relate volume to multiplication and division.**
- **MCC5.MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.**
- **a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.**
- **b. A solid figure which can be packed without gaps or overlaps using *n unit cubes is said to have a volume of n cubic units.***

- **MCC5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.**
- **MCC5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.**
- **a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.**
- **b. Apply the formulas *V = l × w × h and V = b × h for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.***
- **c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.**

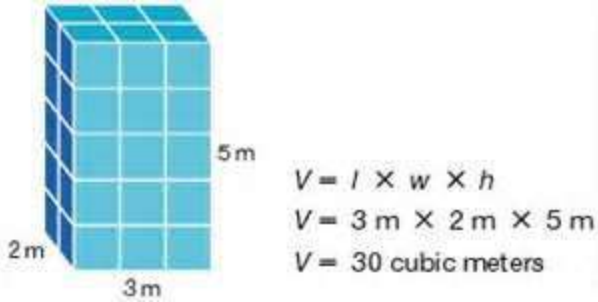

6th Grade Standards

CCGPS Unit 5 Geometry

- **MCC6.G.1 Find area of right triangles, other triangles, special quadrilaterals, and polygons.**

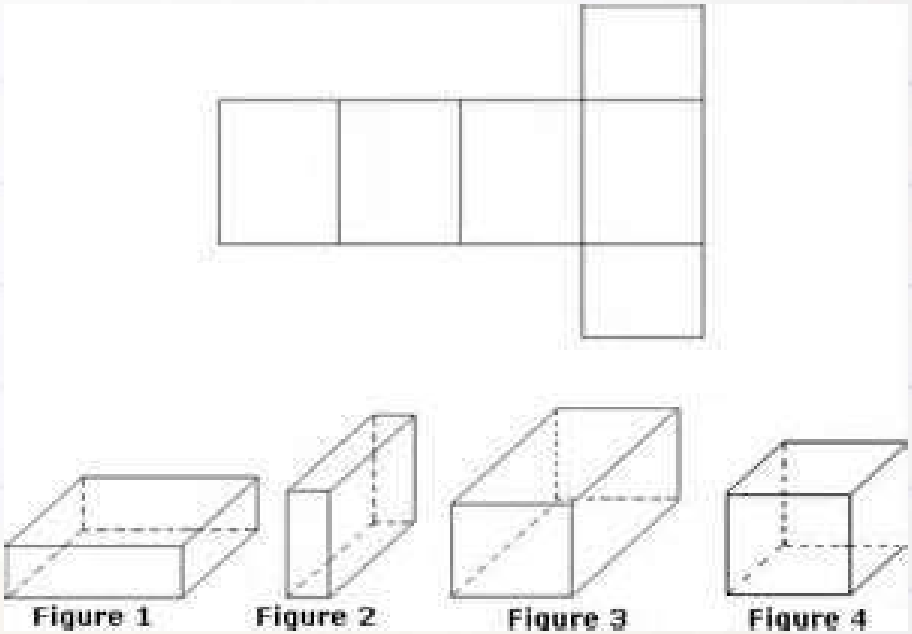


- **MCC6.G.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes**



CCGPS Unit 5 Geometry

- **MCC6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures.**



CCGPS Unit 7 Rational Expressions: Numbers and their Opposites

- **MCC6.NS.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.**
- **MCC6.NS.6 Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.**
- **MCC6.NS.6a Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite.**

CCGPS Unit 7 Rational Expressions: Numbers and their Opposites

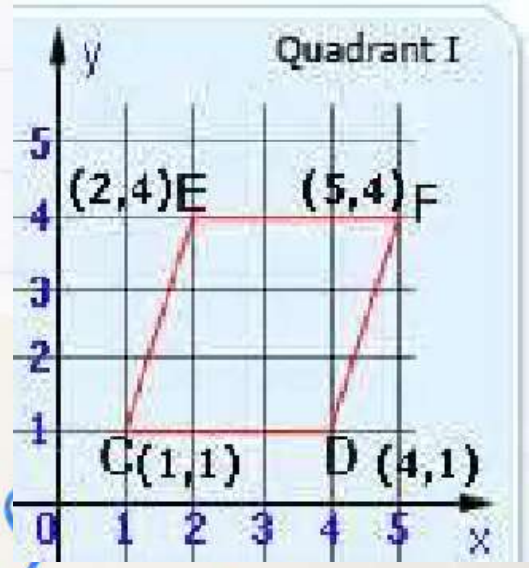
- **MCC6.NS.6b Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.**
- **MCC6.NS.6c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.**
- **MCC6.NS.7 Understand ordering and absolute value of rational numbers.**
- **MCC6.NS.7a Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret – – 7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.***

CCGPS Unit 7 Rational Expressions: Numbers and their Opposites

- **MCC6.NS.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3°C > –7°C to express the fact that –3°C is warmer than –7°C.***
- **MCC6.NS.7c Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write |–30| = 30 to describe the size of the debt in dollars.***
- **MCC6.NS.7d Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.***
- **MCC6.NS.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.**

CCGPS Unit 7 Rational Expressions: Numbers and their Opposites

- **MCC6.G.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.**



CCGPS Unit 6 Statistics

- **MCC6.SP.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.***
- **MCC6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.**

CCGPS Unit 6 Statistics

- **MCC6.SP.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.**
- **MCC6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.**

CCGPS Unit 6 Statistics

- **MCC6.SP.5 Summarize numerical data sets in relation to their context, such as by:**
- **a. Reporting the number of observations.**
- **b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.**
- **c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data was gathered.**
- **d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.**