

Math Snacks



Math Snacks is an application that launches a collection of animations that integrate mathematics in a very engaging manner. New Mexico State University created these videos and designed follow up curriculum for each one. The curriculum can be found here: <http://mathsnacks.com/teacher.php>

- **Atlantean Dodgeball:** Understanding and using ratios and proportions to represent quantitative relationships. Relating and comparing different forms of representation for a relationship. Developing, analyzing, and explaining methods for solving problems involving proportions, such as scaling and finding equivalent ratios. Representing, analyzing, and generalizing a variety of patterns with tables, graphs, words, and, when possible, symbolic rules.
- **Bad Date:** Understanding and using ratios and proportions to represent quantitative relationships. Developing, analyzing, and explaining methods for solving problems involving proportions, such as scaling and finding equivalent ratios. Solving problems that arise in mathematics and in other contexts.
- **Number Rights:** Comparing and ordering fractions, decimals, and percents efficiently and finding their approximate locations on a number line. Building new mathematical knowledge through problem solving. Solving problems that arise in mathematics and in other contexts.
- **Overruled!** Developing, analyzing, and explaining methods for solving problems involving proportions, such as scaling and finding equivalent ratios. Solving problems that arise in mathematics and in other contexts. Representing, analyzing, and generalizing a variety of patterns with tables, graphs, words, and symbolic rules.
- **Scale Ella:** Using factors, multiples, prime factorization, and relatively prime numbers to solve problems. Developing, analyzing, and explaining methods for solving problems involving proportions, such as scaling and finding equivalent ratios. Using factors, multiples, prime factorization, and relatively prime numbers to solve problems.

Number Line



Key:
Current **R**eadiness
Current **S**upporting
New **S**tandard

- 8.1 A Compare and order rational numbers in various forms including integers, percents, and positive and negative fractions and decimals
- 8.2 D Order a set of real numbers arising from mathematical and real-world contexts

yHomework?



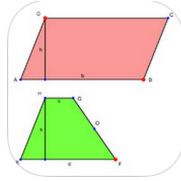
- 7.5 A Use concrete and pictorial models to solve equations and use symbols to record the actions
- 7.11 A Model and solve one-variable, two-step equations and inequalities
- 7.5 B Formulate problem situations when given a simple equation and formulate an equation when given a problem situation
- 7.10 A Write one-variable, two-step equations and inequalities to represent constraints or conditions within problems
- 7.10 C Write a corresponding real-world problem given a one-variable, two-step equation or inequality
- 8.5 A Predict, find, and justify solutions to application problems using appropriate tables, graphs, and algebraic equations
- 8.5 E Solve problems involving direct variation

Pythagoras



- 8.7 C Use pictures or models to demonstrate the Pythagorean Theorem
- 8.6 C Use models and diagrams to explain the Pythagorean Theorem
- 8.7 D Locate and name points on a coordinate plane using ordered pairs of rational numbers
- 8.9 A Use the Pythagorean Theorem to solve real-life problems
- 8.7 C Use the Pythagorean Theorem and its converse to solve problems

Area Formulas



Key:
Current **R**eadiness
Current **S**upporting
New **S**tandard

- 6.4 B Use tables of data to generate formulas representing relationships involving perimeter, area, volume of a rectangular prism, etc.
- 6.8 C Write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers
- 6.8 B Select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight
- 6.8 B Model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes
- 6.8 D Determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles, and volume of right rectangular prisms where dimensions are positive rational numbers
- 7.9 A Estimate measurements and solve application problems involving length (including perimeter and circumference) and area of polygons and other shapes
- 7.9 B Determine the circumference and area of circles
- 7.9 C Determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles

Unit Conversions



Conversions

- 7.4 A Generate formulas involving unit conversions within the same system (customary and metric), perimeter, area, circumference, volume, and scaling

Math Champ (Client /Red) (Host/Blue)



Various TEKS depending on the chosen questions from the predetermined list.

Six Numbers



Key:
Current Readiness
Current Supporting
New Standard

- 7.2 F **Select and use appropriate operations to solve problems and justify the selections.**
- 8.1 B Select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships.

Geometry Volume of Solids Lite



Volume

- 6.4 B Use tables of data to generate formulas representing relationships involving perimeter, area, volume of a rectangular prism, etc.
- 6.8 C *Write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers*
- 8.8 B Connect models to formulas for volume of prisms, cylinders, pyramids, and cones
- 8.6 A *Describe the volume formula $V = Bh$ of a cylinder in terms of its base area and its height*
- 8.6 B *Model the relationship between the volume of a cylinder and a cone having both congruent bases and heights and connect that relationship to the formulas*

Fraction Factory



- 6.1 B **Generate equivalent forms of rational numbers including whole numbers and fractions and decimals**
- 6.4 G **Generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money**
- 7.1 B **Convert between fractions, decimals, whole numbers, and percents mentally, on paper, or with a calculator**

Lobster Diver



- 8.1.A. Compare and order rational numbers in various forms including integers, percents, and positive and negative fractions and decimals
- 8.2 D Order a set of real numbers arising from mathematical and real-world contexts

Ninja Factor



- 6.1 F Identify multiples of a positive integer, common multiples, and the least common multiple of a set of positive integers.

King of Math



- 7.2 F Select and use appropriate operations to solve problems and justify the selections.
- 8.1 B Select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships.

Signed Numbers Lite



- 7.2 F Select and use appropriate operations to solve problems and justify the selections.
- 8.1 B Select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships.

Math Tools Factor



Key:
Current **R**eadiness
Current **S**upporting
New **S**tandard

- 6.1 F Identify multiples of a positive integer, common multiples, and the least common multiple of a set of positive integers.
- 6.7 A *Generate equivalent numerical expressions using order of operations including whole number exponents and prime factorizations*
- 6.1 D Write prime factorizations using exponents
- 6.1 E Identify factors of a positive integer, common factors, and the greatest common factor of a set of positive integers

Math Ref Free



References a multitude of high level mathematics.