South Carolina Tutorials are designed specifically for the South Carolina College and Career Readiness Standards and the South Carolina Academic Standards to prepare students for the South Carolina End-of-Course Examination Program (EOCEP), ACT Aspire, and the South Carolina Palmetto Assessment of State Standards (SCPASS).

Math Tutorials offer targeted instruction, practice and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. They automatically identify and address learning gaps down to elementary-level content, using adaptive remediation to bring students to grade-level no matter where they start. Students engage with the content in an interactive, feedback-rich environment as they progress through standards-aligned modules. By constantly honing the ability to apply their knowledge in abstract and real world scenarios, students build the depth of knowledge and higher order skills required to demonstrate their mastery when put to the test.

In each module, the Learn It and Try It make complex ideas accessible to students through focused content, modeled logic and process, multi-modal representations, and personalized feedback as students reason through increasingly challenging problems. The Review It offers a high impact summary of key concepts and relates those concepts to students' lives. The Test It assesses students' mastery of the module's concepts, providing granular performance data to students and teachers after each attempt. To help students focus on the content most relevant to them, unit-level pretests and posttests can quickly identify where students are strong and where they're still learning.

Unit 1: Number Sense

- **RATIONAL AND IRRATIONAL NUMBERS**
  - 6.NR.1.1: Convert positive rational numbers into equivalent forms among terminating decimals, fractions (including mixed numbers), and percentages. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200.
- **EXPONENTS**
  - 6.PAFR.2.1: Identify parts of an algebraic expression using the mathematical terms sum, difference, term, variable, product, factor, quotient, coefficient, and constant.
- **DECIMAL OPERATIONS**
  - 6.PAFR.3.7: Add, subtract, multiply, and divide multidigit positive decimals, up to the thousandths place, to solve problems in mathematical and real-world situations.

Unit 2: Fraction Operations

- **MULTIPLYING FRACTIONS**

- 6.PAFR.3.6: Add, subtract, multiply, and divide positive fractions, including mixed numbers in mathematical and real-world situations. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200.

- **DIVIDING FRACTIONS**
  - 6.PAFR.3.6: Add, subtract, multiply, and divide positive fractions, including mixed numbers in mathematical and real-world situations. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200.
- **SOLVING PROBLEMS BY DIVIDING FRACTIONS**
  - 6.PAFR.3.6: Add, subtract, multiply, and divide positive fractions, including mixed numbers in mathematical and real-world situations. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200.

Unit 3: Signed Numbers

- **SIGNED NUMBERS**
  - 6.NR.2.3: Represent quantities with integers in real-world situations and explain the meaning of zero.
  - 6.NR.2.4: Identify and compare the opposite value and absolute value of positive and negative rational numbers.
- **INEQUALITIES AND COMPARISONS**
  - 6.NR.2.1: Compare two positive rational numbers and write statements using the symbols for is equal to (=), is not equal to (), is less than (), and/or is greater than () in mathematical and real-world situations. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200.
  - 6.NR.2.3: Represent quantities with integers in real-world situations and explain the meaning of zero.
  - 6.NR.2.4: Identify and compare the opposite value and absolute value of positive and negative rational numbers.
- **ABSOLUTE VALUE**
  - 6.NR.2.4: Identify and compare the opposite value and absolute value of positive and negative rational numbers.

Unit 4: Operations with Rational Numbers

- **ADDING RATIONAL NUMBERS**
  - 6.PAFR.3.5: Add, subtract, multiply, and divide integers in mathematical and real-world situations.
- **SUBTRACTING RATIONAL NUMBERS**
  - 6.PAFR.3.4: Apply the properties of operations to create equivalent algebraic expressions and justify the properties used. Limit properties to the Identity, Inverse, Commutative, Associative, and Distributive Properties.
  - 6.PAFR.3.5: Add, subtract, multiply, and divide integers in mathematical and real-world situations.
- **MULTIPLYING RATIONAL NUMBERS**

- 6.PAFR.3.5: Add, subtract, multiply, and divide integers in mathematical and real-world situations.

- **DIVIDING RATIONAL NUMBERS**
  - 6.PAFR.3.5: Add, subtract, multiply, and divide integers in mathematical and real-world situations.

Unit 5: Ratios and Rates

- **RATIOS**
  - 6.PAFR.2.6: Interpret the concept of a ratio as the relationship between two quantities, including part-to-part and part-to-whole.
- **RATES AND UNIT RATES**
  - 6.PAFR.2.7: Explain the relationship between ratios and rates, including unit rates.
  - 6.PAFR.2.8: Solve ratio and rate problems in real-world situations.
- **UNIT CONVERSION**
  - 6.PAFR.2.9: Use one-step dimensional analysis to convert units within the metric or customary systems.
- **SOLVING PERCENT PROBLEMS**
  - 6.PAFR.2.6: Interpret the concept of a ratio as the relationship between two quantities, including part-to-part and part-to-whole.

Unit 6: Numerical and Algebraic Expressions

- **UNDERSTANDING PARTS OF AN EXPRESSION**
  - 6.PAFR.2.1: Identify parts of an algebraic expression using the mathematical terms sum, difference, term, variable, product, factor, quotient, coefficient, and constant.
- **EQUIVALENT EXPRESSIONS**
  - 6.PAFR.3.4: Apply the properties of operations to create equivalent algebraic expressions and justify the properties used. Limit properties to the Identity, Inverse, Commutative, Associative, and Distributive Properties.
- **USING PROPERTIES TO ADD AND SUBTRACT**
  - 6.PAFR.3.3: Identify the additive inverse of a number and add additive inverses to find their sum is equal to zero.
- **USING PROPERTIES TO MULTIPLY AND DIVIDE**
  - 6.PAFR.3.2: Identify the multiplicative inverse of a number and multiply multiplicative inverses to find their product is equal to 1.

Unit 7: Using Expressions

- **EVALUATING EXPRESSIONS**
  - 6.PAFR.2.1: Identify parts of an algebraic expression using the mathematical terms sum, difference, term, variable, product, factor, quotient, coefficient, and constant.

- 6.PAFR.2.3: Evaluate numerical expressions with positive whole number bases and positive whole number exponents using the Order of Operations.

- **WRITING EXPRESSIONS**
  - 6.PAFR.2.1: Identify parts of an algebraic expression using the mathematical terms sum, difference, term, variable, product, factor, quotient, coefficient, and constant.
- **WRITING EXPRESSIONS TO SOLVE PROBLEMS**
  - 6.PAFR.2.4: Write and evaluate expressions using variables to represent quantities in mathematical and real-world situations.

Unit 8: Equations and Inequalities

- **SOLUTIONS OF EQUATIONS AND INEQUALITIES**
  - 6.PAFR.2.5: Write and solve one-step equations and inequalities with one variable involving positive rational numbers in mathematical and real-world situations.
- **SOLVING ADDITION EQUATIONS**
  - 6.PAFR.2.5: Write and solve one-step equations and inequalities with one variable involving positive rational numbers in mathematical and real-world situations.
- **SOLVING MULTIPLICATION EQUATIONS**
  - 6.PAFR.2.5: Write and solve one-step equations and inequalities with one variable involving positive rational numbers in mathematical and real-world situations.
- **SOLVING INEQUALITIES**
  - 6.PAFR.3.1: Represent the solutions of inequalities on a number line and explain that the solution set may contain an infinite number of solutions. Limited to the symbols for is less than () and is greater than ().

Unit 9: Coordinate Plane

- **QUADRANTS AND AXES**
  - 6.MGSR.3.1: Plot ordered pairs in all four quadrants and identify points on a graph by writing ordered pairs.
- **PLOTTING POINTS IN THE COORDINATE PLANE**
  - 6.MGSR.3.1: Plot ordered pairs in all four quadrants and identify points on a graph by writing ordered pairs.
- **COORDINATE DRAWINGS**
  - 6.MGSR.3.1: Plot ordered pairs in all four quadrants and identify points on a graph by writing ordered pairs.
  - 6.MGSR.3.2: Graph a polygon on a coordinate plane given the coordinates of the vertices.

Unit 10: Algebra and Functional Reasoning

- **INDEPENDENT AND DEPENDENT VARIABLES**

- 6.PAFR.1.1: Use tables, graphs, verbal descriptions, and equations to represent the relationship between independent and dependent variables of functions.
- 6.PAFR.1.2: Identify the independent and dependent variable of a function in mathematical and real-world situations.

- **MULTIPLE REPRESENTATIONS: TABLES, GRAPHS, AND EQUATIONS**
  - 6.PAFR.1.1: Use tables, graphs, verbal descriptions, and equations to represent the relationship between independent and dependent variables of functions.
  - 6.PAFR.1.2: Identify the independent and dependent variable of a function in mathematical and real-world situations.

Unit 11: Angles

- **GEOMETRIC DRAWINGS**
  - 6.MGSR.2.2: Determine the measure of angles using a protractor.
- **ANGLE RELATIONSHIPS**
  - 6.MGSR.2.1: Determine if two angles are complementary or supplementary.

Unit 12: Two and Three Dimensional Geometry

- **AREA**
  - 6.MGSR.1.1: Find the area of a triangle, square, rectangle, parallelogram, and trapezoid.
  - 6.MGSR.1.4: Find the area of composite figures by decomposing them into triangles and rectangles to solve mathematical and real-world situations.
- **NETS AND SURFACE AREA**
  - 6.MGSR.1.2: Create nets to represent three-dimensional shapes.
  - 6.MGSR.1.3: Calculate the surface area of rectangular prisms, right triangular prisms, rectangular pyramids, and right triangular pyramids using two-dimensional nets.
- **SURFACE AREA OF PRISMS AND PYRAMIDS**
  - 6.MGSR.1.3: Calculate the surface area of rectangular prisms, right triangular prisms, rectangular pyramids, and right triangular pyramids using two-dimensional nets.
- **VOLUME**
  - 6.MGSR.1.5: Calculate the volume of a right rectangular prism using the formula (= h) in mathematical and real-world situations.

Unit 13: Summarizing Data

- **MEASURES OF CENTER AND VARIABILITY**
  - 6.DPSR.1.4: Calculate and interpret the median, mode, range, interquartile range in mathematical and real-world situations.
- **CHOOSING APPROPRIATE MEASURES TO SUMMARIZE DATA SETS**

- 6.DPSR.1.3: Use the shape of the graph to determine whether median or mode best describes the data set.

- **SUMMARIZING DATA USING MEASURES OF CENTER AND VARIABILITY**
  - 6.DPSR.1.4: Calculate and interpret the median, mode, range, interquartile range in mathematical and real-world situations.
- **BOX PLOTS**
  - 6.DPSR.1.2: Create box plots to represent numerical data sets in mathematical and real-world situations.
  - 6.DPSR.1.4: Calculate and interpret the median, mode, range, interquartile range in mathematical and real-world situations.

Unit 14: Probability

- **POPULATIONS AND SAMPLES**
  - 6.DPSR.1.1: Identify the sample size for a numerical set of data in mathematical and real-world situations.
- **CALCULATING PROBABILITY**
  - 6.DPSR.2.1: Given the probability of a random event, expressed as a number from 0 to 1, state the likelihood of the event occurring.
  - 6.DPSR.2.2: Find the probability of simple events in mathematical and real-world situations. Limit denominators to 2, 4, 5, 8, 10, 25, 50, and 100.
- **PROBABILITY, EVENTS, AND OUTCOMES**
  - 6.DPSR.2.1: Given the probability of a random event, expressed as a number from 0 to 1, state the likelihood of the event occurring.
- **ADDITION AND SUBTRACTION RULES IN PROBABILITY**
  - 6.DPSR.2.3: Given the probability of an event, identify and calculate the complement of that event.