

**THE FOLLOWING STATE CURRICULUM STANDARDS ARE ADDRESSED BY  
THE QUARTER MILE MATH SOFTWARE  
FOR THE STATE OF SOUTH CAROLINA**

**Grades PK - 2**

**Subject: MATH**

**Standard: Algebra**

**Strand: I. Understand patterns, relations, and functions.**

**Substrand Titles that Address the Substrand**

(Gr. PK-2 ) 1-2. Sequence random numerals between 1 and 100.(A. Sort, classify, and order objects by size, number, and other properties.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-1. Sequence random numerals between 1 and 1,000.(A. Sort, classify, and order objects by size, number, and other properties.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-2. Use numerical patterns to skip count by 2s, 5s, and 10s.(B. Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-2. Skip count by any numeral (1–10) using mental mathematics, paper and pencil, hundreds charts, calculators, and concrete objects (starting at any numeral).(B. Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another.)

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Algebra**

**Strand: II. Represent and analyze mathematical situations and structures using algebraic symbols.**

**Substrand Titles that Address the Substrand**

(Gr. PK-2 ) K-1. Use language such as less than, more than, or the same number as to describe the relative sizes of sets of concrete objects.(B. Use concrete, pictorial, and verbal representations to develop an understanding of invented and conventional symbolic notations.)

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Number And Operations**

**Strand: I. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.**

**Substrand Titles that Address the Substrand**

(Gr. PK-2 ) K-3. Count forward to 20 and backward from 10.(A. Count with understanding and recognize “how many” in sets of objects.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-2. Identify the place value of each digit in a three-digit numeral.(B. Use multiple models to develop initial understandings of place value and the base-ten number system.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-2. Identify the place value of each digit in a four-digit numeral.(B. Use multiple models to develop initial understandings of place value and the base-ten number system.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-1. Compare the magnitudes of three given quantities (a one-digit numeral, a two-digit numeral, and a three-digit numeral).(C. Develop understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers and their connections.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-3. Describe pairs of numerals each less than 100 using the words is greater than, is less than, and equals.(C. Develop understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers and their connections.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-2. Compare and write two whole numerals between 0 and 999, using symbols and words (>, <, =, is greater than, is less than, and equals).(C. Develop understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers and their connections.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) K-1. Identify the numeral that matches a quantity (1–10).(E. Connect number words and numerals to the quantities they represent, using various physical models and representations.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-1. Write the numeral that corresponds to a given set up to 100.(E. Connect number words and numerals to the quantities they represent, using various physical models and representations.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-3. Identify odd and even numerals up to 100.(E. Connect number words and numerals to the quantities they represent, using various physical models and representations.)

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Number And Operations**

**Strand: II. Understand meanings of operations and how they relate to one another.**

**Substrand**

**Titles that Address the Substrand**

(Gr. PK-2 ) K-1. Add and subtract whole numbers using up to ten concrete items.(A. Understand various meanings of addition and subtraction of whole numbers and the relationship between the two operations.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-1. Demonstrate concretely and symbolically the meaning of one-digit and two-digit addition and subtraction.(A. Understand various meanings of addition and subtraction of whole numbers and the relationship between the two operations.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-1. Demonstrate the inverse relationship between addition and subtraction.(A. Understand various meanings of addition and subtraction of whole numbers and the relationship between the two operations.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) K-1. Relate the operation of addition to increase in quantity and subtraction to decrease in quantity.(B. Understand the effects of adding and subtracting whole numbers.)

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Number And Operations**

**Strand: III. Compute fluently and make reasonable estimates.**

**Substrand Titles that Address the Substrand**

(Gr. PK-2 ) 1-1. Explain and describe strategies for addition and subtraction.(A. Develop and use strategies for whole-number computations, with a focus on addition and subtraction.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-1. Recall basic addition facts with sums up to 18 and the corresponding subtraction facts.(B. Develop fluency with basic number combinations for addition and subtraction.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-2. Add and subtract pairs of two-digit whole numbers without regrouping.(B. Develop fluency with basic number combinations for addition and subtraction.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-2. Add and subtract pairs of two-digit whole numbers with and without regrouping.(B. Develop fluency with basic number combinations for addition and subtraction.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-3. Find missing addends and subtrahends in number combinations up to 20.(B. Develop fluency with basic number combinations for addition and subtraction.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-1. Estimate the number of objects in a set of from 5 to 20 objects.(C. Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculators.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 1-2. Determine the most reasonable answer for an addition or subtraction problem.(C. Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculators.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-2. Justify the most reasonable answer for an addition and subtraction problem using paper and pencil and using a calculator.(C. Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculators.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-3. Select the most efficient method to solve an addition or subtraction problem.(C. Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculators.)

**Quarter Mile Math Level 1**

(Gr. PK-2 ) 2-4. Round numbers up to 90 to the nearest 10.(C. Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculators.)

**Quarter Mile Math Level 1**

**Subject: MATH**

**Standard: Data Analysis And Probability**

**Strand: II. Select and use appropriate statistical methods to analyze data.**

<b>Substrand</b>	<b>Titles that Address the Substrand</b>
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(Gr. 3-5 ) 3-1. Find the median and mode of a data set and explain what each indicates about the data set.(B. Use measures of center, focusing on the median, and understand what each does and does not indicate about the data set.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-1. Find the mean, median, and mode of a numerical data set and explain what each indicates about the data set.(B. Use measures of center, focusing on the median, and understand what each does and does not indicate about the data set.)

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number And Operations**

**Strand: III. Compute fluently and make reasonable estimates.**

<b>Substrand</b>	<b>Titles that Address the Substrand</b>
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(Gr. 3-5 ) 3-1. Recall multiplication and division facts through 9.(A. Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related problems, such as  $30 \times 50$ .)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-2. Use basic number combinations to compute related problems in multiplication and division using multiples of 10 (e.g., using  $3 \times 5$  to compute  $30 \times 5$ ).(A. Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related problems, such as  $30 \times 50$ .)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-1. Use basic number combinations to compute related problems in multiplication and division using multiples of 100 and 1,000.(A. Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related problems, such as  $30 \times 50$ .)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-1. Compare and contrast different addition and subtraction algorithms to select the most efficient one for solving a given problem.(B. Develop fluency in adding, subtracting, multiplying, and dividing whole numbers.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-3. Demonstrate fluency in the use of both addition and subtraction algorithms and explain the steps involved.(B. Develop fluency in adding, subtracting, multiplying, and dividing whole numbers.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-2. Demonstrate fluency in the use of a multiplication algorithm and explain the steps involved.(B. Develop fluency in adding, subtracting, multiplying, and dividing whole numbers.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-2. Demonstrate fluency in the use of a division algorithm and explain the steps involved.(B. Develop fluency in adding, subtracting, multiplying, and dividing whole numbers.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-1. Round whole numbers to the nearest 10, 100, and 1,000.(C. Develop and use strategies to estimate the results of whole-number computations and to judge the reasonableness of such results.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-2. Estimate whole number sums and differences, describe the method used, and determine the reasonableness of the results.(C. Develop and use strategies to estimate the results of whole-number computations and to judge the reasonableness of such results.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-1. Round whole numbers to the nearest 10,000, 100,000, and 1,000,000.(C. Develop and use strategies to estimate the results of whole-number computations and to judge the reasonableness of such results.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-2. Estimate and determine the reasonableness of the product of whole numbers (one factor with two digits or less and the other factor with three digits or less).(C. Develop and use strategies to estimate the results of whole-number computations and to judge the reasonableness of such results.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-2. Apply a variety of computational estimation strategies to solve problems involving whole numbers.(C. Develop and use strategies to estimate the results of whole-number computations and to judge the reasonableness of such results.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-1. Round decimals to the nearest tenth and hundredth.(D. Develop and use strategies to estimate computations involving fractions and decimals in situations relevant to students' experience.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-2. Develop and use strategies to estimate sum and difference of decimals.(D. Develop and use strategies to estimate computations involving fractions and decimals in situations relevant to students' experience.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-1. Round decimals to the nearest tenth, hundredth, and thousandth.(D. Develop and use strategies to estimate computations involving fractions and decimals in situations relevant to students' experience.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-2. Estimate the sum and difference of decimals through thousandths and determine the reasonableness of the results.(D. Develop and use strategies to estimate computations involving fractions and decimals in situations relevant to students' experience.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-1. Add and subtract commonly used fractions using concrete models, pictorial models, and equivalent forms.(E. Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-4. Add and subtract decimals through thousandths.(E. Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-1. Select appropriate methods and tools and use the selected method or tool to solve addition and subtraction problems.(F. Select appropriate methods and tools for computing with whole numbers from among mental computation, estimation, calculators, and paper and pencil according to the context and nature of the computation and use the selected method or tool.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-1. Create and solve problems involving addition, subtraction, multiplication, and division of whole numbers using appropriate methods and tools.(F. Select appropriate methods and tools for computing with whole numbers from among mental computation, estimation, calculators, and paper and pencil according to the context and nature of the computation and use the selected method or tool.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number And Operations**

**Strand: I. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.**

**Substrand Titles that Address the Substrand**

(Gr. 3-5 ) 3-1. Explain the place value structure of whole numbers through hundred thousands.(A. Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-2. Read and write whole numbers.(A. Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-3. Compare whole numbers using symbols ( $>$ ,  $<$ ,  $=$ ) and words (is greater than, is less than, and equals).(A. Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 3-7. Read and write amounts of money using the dollar sign (\$) and decimal notation (.).(A. Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-1. Explain the place value structure of whole numbers including periods (thousands, millions, billions, etc.).(A. Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-3. Order lists of three or more numbers that contain whole numbers, decimals, or both.(A. Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals.)

**Quarter Mile Math Level 1**

(Gr. 3-5 ) 5-2. Compare fractions using symbols ( $>$ ,  $<$ , and  $=$ ) and words (is greater than, is less than, and equals).(D. Use models, benchmarks, and equivalent forms to judge the size of fractions.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-1. Write equivalent forms of commonly used fractions.(E. Recognize and generate equivalent forms of commonly used fractions, decimals, and percents.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-2. Write equivalent forms of decimals.(E. Recognize and generate equivalent forms of commonly used fractions, decimals, and percents.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-3. Identify and represent common fraction-decimal equivalents.(E. Recognize and generate equivalent forms of commonly used fractions, decimals, and percents.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-1. Represent fractions as decimals and percents using concrete and pictorial models.(E. Recognize and generate equivalent forms of commonly used fractions, decimals, and percents.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-2. Identify equivalent relationships among fractions, decimals, and percents such as  $1/4 = .25 = 25%$ ,  $1/3 = 33\ 1/3%$ ,  $2/5 = .40 = 40%$ ,  $1/2 = .50 = 50%$ , and  $3/4 = .75 = 75%$ .(E. Recognize and generate equivalent forms of commonly used fractions, decimals, and percents.)

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-3. Determine the least common multiple of two whole numbers.(G. Describe classes of numbers according to characteristics such as the nature of their factors.)

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number And Operations**

**Strand: II. Understand meanings of operations and how they relate to one another.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 3-5 ) 5-1. Solve problems using multiplication and division.( A. Understand various meanings of multiplication and division.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 4-3. Apply divisibility rules for 2, 5, and 10.(D. Understand and use properties of operations, such as the distributivity of multiplication over addition.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

(Gr. 3-5 ) 5-1. Apply the divisibility rules for 3, 6, and 9.(D. Understand and use properties of operations, such as the distributivity of multiplication over addition.)

**Quarter Mile Math Level 1**

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Algebra**

**Strand: II. Represent and analyze mathematical situations and structures using algebraic symbols.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 6-8 ) 6-1. Use order of operations to evaluate numerical expressions.(A. Develop an initial conceptual understanding of different uses of variables.)

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Data Analysis And Probability**

**Strand: II. Select and use appropriate statistical methods to analyze data.**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 6-1. Create and solve problems involving the mean, median, mode, and range of a set of data.(A. Find, use, and interpret measures of center and spread, including mean and interquartile range.)

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number And Operations**

**Strand: I. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 6-1. Show the relationship among fractions, decimals, and percents.(A. Work flexibly with fractions, decimals, and percents to solve problems.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 7-1. Write and use the appropriate equivalent forms of whole numbers, fractions, decimals, and percents.(A. Work flexibly with fractions, decimals, and percents to solve problems.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 8-1. Solve real-world problems involving the use of percents greater than 100 percent or less than 1 percent.(C. Develop meaning for percents greater than 100 and less than 1.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 6-1. Evaluate powers of ten up to 10 to the sixth power.(E. Develop an understanding of large numbers and recognize and appropriately use exponential, scientific, and calculator notation)

**Quarter Mile Math Level 2**

(Gr. 6-8 ) 7-1. Translate to standard form a number written in exponential form, in scientific notation, and in calculator notation.(E. Develop an understanding of large numbers and recognize and appropriately use exponential, scientific, and calculator notation)

**Quarter Mile Math Level 2**

(Gr. 6-8 ) 8-1. Use scientific notation to write very large numbers and numbers less than one.(E. Develop an understanding of large numbers and recognize and appropriately use exponential, scientific, and calculator notation)

**Quarter Mile Math Level 2**

(Gr. 6-8 ) 6-1. Solve problems using prime factorization, common multiples, and common factors and then explain the reasoning used.(F. Use factors, multiples, prime factorization, and relatively prime numbers to solve problems.)

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Number And Operations**



**Strand: III. Compute fluently and make reasonable estimates.**

**Substrand Titles that Address the Substrand**

(Gr. 6-8 ) 6-1. Select appropriate methods and tools to solve problems requiring the addition and subtraction of fractions and decimals.(A. Select appropriate methods and tools for computing with fractions and decimals from among mental computation, estimation, calculators or computers, and paper and pencil, depending on the situation, and apply the selected methods.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 7-1. Applying all operations to fractions, decimals, and integers, select appropriate methods and tools to solve problems.(A. Select appropriate methods and tools for computing with fractions and decimals from among mental computation, estimation, calculators or computers, and paper and pencil, depending on the situation, and apply the selected methods.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 8-1. Select appropriate methods and tools to solve problems requiring the use of rational numbers.(A. Select appropriate methods and tools for computing with fractions and decimals from among mental computation, estimation, calculators or computers, and paper and pencil, depending on the situation, and apply the selected methods.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 6-1. Using models, divide commonly used fractions (including decimals).(B. Develop and analyze algorithms for computing with fractions, decimals, and integers and develop fluency in their use.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 6-2. Use models and numbers to develop and analyze algorithms with fractions and decimals.(B. Develop and analyze algorithms for computing with fractions, decimals, and integers and develop fluency in their use.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 6-3. Add, subtract, multiply, and divide fractions (including decimals) to solve a variety of applied and mathematical problems.(B. Develop and analyze algorithms for computing with fractions, decimals, and integers and develop fluency in their use.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 7-2. Add, subtract, multiply, and divide integers to solve a variety of applied and mathematical problems.(B. Develop and analyze algorithms for computing with fractions, decimals, and integers and develop fluency in their use.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 8-1. Compute with rational numbers to solve a variety of applied and mathematical problems.(B. Develop and analyze algorithms for computing with fractions, decimals, and integers and develop fluency in their use.)

**Quarter Mile Math Level 2**

**Quarter Mile Math Level 3**

(Gr. 6-8 ) 6-1. Estimate the sums and differences of fractions, describe the method used, and determine the reasonableness of results.(C. Develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results.)

**Quarter Mile Math Level 2**

(Gr. 6-8 ) 7-1. Estimate the products, and quotients of fractions and decimals, describe the method used, and determine the reasonableness of results.(C. Develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results.)

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 6-8 ) 7-2. Estimate the sums and differences of integers, describe the method used, and determine the reasonableness of results.(C. Develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results.)

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

(Gr. 6-8 ) 8-1. Justify the reasonableness of an estimate of rational number computations.(C. Develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results.)

**Quarter Mile Math Level 2**  
**Quarter Mile Math Level 3**

**Grades 9 - 12**

**Subject: MATH**

**Standard: Algebra**

**Strand: I. Understand patterns, relations, and functions.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-12) 3. Use patterns to generate the laws of exponents and apply them in problem-solving situations.(A. Generalize patterns using explicitly defined and recursively defined functions.)

**Quarter Mile Math Level 2**

**Subject: MATH**

**Standard: Algebra**

**Strand: II. Represent and analyze mathematical situations and structures using algebraic symbols.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-12) 1. Find specific function values and evaluate expressions.(A. Understand the meaning of equivalent forms of expressions, equations, inequalities, and relations.)

**Quarter Mile Math Level 3**

(Gr. 9-12) 2. Simplify polynomial expressions and perform polynomial arithmetic.(A. Understand the meaning of equivalent forms of expressions, equations, inequalities, and relations.)

**Quarter Mile Math Level 3**

(Gr. 9-12) 1. Transform and solve equations and inequalities, factoring as necessary in problem situations.(B. Write equivalent forms of equations, inequalities, and systems of equations and solve them with fluency—mentally or with paper and pencil in simple cases and using technology in all cases)

**Quarter Mile Math Level 3**

(Gr. 9-12) 2. Solve systems of linear equations using concrete models, graphs, tables, and algebraic methods.(B. Write equivalent forms of equations, inequalities, and systems of equations and solve them with fluency—mentally or with paper and pencil in simple cases and using technology in all cases)

**Quarter Mile Math Level 3**

(Gr. 9-12) 3. Select a method for solving linear equations and inequalities and then solve the equations and inequalities.(B. Write equivalent forms of equations, inequalities, and systems of equations and solve them with fluency—mentally or with paper and pencil in simple cases and using technology in all cases)

**Quarter Mile Math Level 3**

**Subject: MATH**

**Standard: Number And Operations**

**Strand: I. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.**

**Substrand**

**Titles that Address the Substrand**

(Gr. 9-12) 1. Read, write, and represent very large and very small numbers in a variety of forms including exponential and radical.(A. Develop a deeper understanding of very large and very small numbers and of various representations of them.)

**Quarter Mile Math Level 3**