

**THE FOLLOWING STATE CURRICULUM STANDARDS ARE ADDRESSED BY
THE QUARTER MILE MATH SOFTWARE
FOR THE STATE OF NEW MEXICO**

Subject: MATH
Standard: Algebra... Algebraic Concepts And Applications.
Strand: Represent and analyze mathematical situations and structures using algebraic symbols.

Substrand **Titles that Address the Substrand**

(Gr. PreK-4) 1-3. Solve open number sentences that have variables representing numbers up to 10 (e.g., $10 = _ + 2$).
Quarter Mile Math Level 1

(Gr. PreK-4) 2-3. Construct and solve open number sentences that have variables representing numbers up to 20 (e.g., $20 = _ + 6$).
Quarter Mile Math Level 1

(Gr. PreK-4) 3-1. Determine the value of variables in missing part problems (e.g., $139 + _ = 189$).
Quarter Mile Math Level 1
Quarter Mile Math Level 2

(Gr. PreK-4) 4-3. Express mathematical relationships using equations.
Quarter Mile Math Level 2

(Gr. PreK-4) 4-4. Determine the value of variables in simple equations (e.g., $80 \times 15 = 40 \times _$).
Quarter Mile Math Level 2

Subject: MATH
Standard: Algebra... Algebraic Concepts And Applications.
Strand: Use mathematical models to represent and understand quantitative relationships.

Substrand **Titles that Address the Substrand**

(Gr. PreK-4) 3-4. Select appropriate operational and relational symbols to make an expression true (e.g., "If $4 _ 3 = 12$, what operational symbol goes in the box?").
Quarter Mile Math Level 2

Subject: MATH
Standard: Algebra... Algebraic Concepts And Applications.
Strand: Understand patterns, relations, and functions.

Substrand **Titles that Address the Substrand**

(Gr. PreK-4) 2-3. Construct and solve open sentences that have variables (e.g., $10 = _ + 7$).
Quarter Mile Math Level 1

(Gr. PreK-4) 3-2. Solve problems involving numeric equations.
Quarter Mile Math Level 2

(Gr. PreK-4) 3-3. Select appropriate operational and relational symbols to make an expression true (e.g., "If $4 _ 3 = 12$, what operational symbol goes in the box?").

Quarter Mile Math Level 2

(Gr. PreK-4) 4-4. Use and interpret variables, mathematical symbols, and properties to write and simplify expressions and sentences: use letters, boxes, or other symbols to stand for any number in simple expressions or equations (e.g., demonstrate an understanding of the concept of a variable); interpret and evaluate mathematical expressions using parentheses; use and interpret formulas (e.g., $\text{Area} = \text{Length} \times \text{Width}$ or $A = L \times W$) to answer questions about quantities and their relationships.

Quarter Mile Math Level 2

Subject: MATH

Standard: Data Analysis And Probability... Formulate Questions, Analyze Data, And Determine Probabilities.

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

Substrand **Titles that Address the Substrand**

(Gr. PreK-4) 4-2. Use the concepts of median, mode, maximum, minimum, and range and draw conclusions about a data set.

Quarter Mile Math Level 2

Subject: MATH

Standard: Number And Operations... Numerical Concepts And Mathematical Operations.

Strand: Compute fluently and make reasonable estimates.

Substrand **Titles that Address the Substrand**

(Gr. PreK-4) 1-1. Use strategies for whole-number computation, with a focus on addition and subtraction (e.g., counting on or counting back, doubles, sums that make 10, direct modeling with pictures or objects, numerical reasoning based on number combinations and relationships).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 1-2. Demonstrate a variety of methods to compute (e.g., objects, mental computation, paper and pencil, and estimation).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 1-3. Perform addition and subtraction with whole number combinations.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 1-4. Use and explain estimation strategies to determine the reasonableness of answers involving addition and subtraction.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 2-1. Use and explain strategies for addition and subtraction of multi-digit whole numbers.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 2-2. Model and solve problems representing adding and subtracting amounts of money using dollars and coins.

Quarter Mile Math Level 2

(Gr. PreK-4) 2-3. Use addition combinations (addends through 10) and related subtraction combinations, and develop strategies for computing based on number sense (e.g., $25 + 37$: Take 3 from the 25 and use it to turn 37 into 40; then add 40 and 22 to get 62).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 2-4. Select and use a variety of appropriate strategies methods to compute (e.g., objects, mental computation, estimation, paper and pencil).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 2-5. Skip-count by 2, 5, and 10 to develop multiplicative reasoning and notational representations (e.g., 5, 10, 15, 20; $4 \times 5 = 20$; four groups of 5 equals 20).

Quarter Mile Math Level 1

(Gr. PreK-4) 3-1. Choose computational methods based on understanding the base-ten number system, properties of multiplication and division, and number relationships.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 3-2. Use strategies (e.g., 6×8 is double 3×8) to become fluent with the multiplication pairs up to 10×10 .

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 3-3. Compute with basic number combinations (e.g., multiplication pairs up to 10×10 and their division counterparts).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 3-4. Demonstrate reasonable estimation strategies for measurement, computation, and problem solving.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 4-1. Demonstrate multiplication combinations through 12×12 and related division facts, and use them to solve problems mentally and compute related problems (e.g., 4×5 is related to 40×50 , 400×5 , and 40×500).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 4-2. Add, subtract, and multiply up to two double-digits accurately and efficiently.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 4-3. Use a variety of strategies (e.g., rounding and regrouping) to estimate the results of whole number computations and judge the reasonableness of the answers.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 4-4. Use strategies to estimate computations involving fractions and decimals.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

Subject: MATH

Standard: Number And Operations... Numerical Concepts And Mathematical Operations.

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

Substrand**Titles that Address the Substrand**

(Gr. PreK-4) K-1. Demonstrate an understanding of the place-value structure of the base-ten number system: count with understanding and recognize "how many" in sets of objects up to 20; read and write whole numbers up to 20; compare and order whole numbers up to 20; connect numerals to the quantities they represent using various physical models; use an organized counting method to keep track of quantities while counting (one-to-one correspondence) (e.g., touch object once and only once as counting a set); order sets of objects and numbers from least to most or most to least.

Quarter Mile Math Level 1

(Gr. PreK-4) 1-1. Demonstrate an understanding of the place-value structure of the base-ten number system: read, write, model, and sequence whole numbers up to 100 (including filling in missing numbers in a sequence); count with understanding and recognize "how many" in sets of objects up to 50; count orally by 2s to 20 and by 5s and 10s to 100; count orally backward from 100; compare and order numbers up to 100; decompose and recombine numbers using manipulatives (e.g., by breaking numbers apart and recombining) to create and construct equivalent representations for the same number (e.g., $10 = 3 + 7$ or $1 + 2 + 7$ or $3 + 2 + 5$); group objects by 10s and 1s to explore place value (e.g., 24 equals two tens and four ones); use ordinal numbers (e.g., what position?) and cardinal numbers (e.g., how many?) appropriately; connect number words and numbers to the quantities they represent.

Quarter Mile Math Level 1

(Gr. PreK-4) 2-1. Understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000 and develop flexible ways of thinking about numbers: use multiple models to explore place value and the base-ten number system; represent whole numbers and use them in flexible ways including decomposing and recombining numbers and see their relationships (e.g., 3 is one less than 4, one more than 2, two less than 5); identify whether a set of objects has an odd or even number of elements; compare and order numbers using a variety of terms (e.g., tens, less than, odd numbers); apply strategies for computation utilizing an understanding of place value (e.g., $48 + 25$ would be $40 + 20$ is 60, $8 + 5$ is 13, $60 + 13$ is 73).

Quarter Mile Math Level 1

(Gr. PreK-4) 2-2. Apply counting skills and number sense through meaningful activities: count and recognize "how many" in sets of objects up to 1,000; count forward and backward from given numbers to 1,000; connect number words and numerals to the quantities they represent using physical models and other representations (e.g., 23 can be twenty-three 1s, one 10 and thirteen 1s, or two 10s and three 1s); model how many parts make a whole using equal fractional parts (e.g., $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{6}$ as equal parts of a whole).

Quarter Mile Math Level 1

(Gr. PreK-4) 3-1. Exhibit an understanding of the place-value structure of the base-ten number system by: reading, modeling, writing, and interpreting whole numbers up to 10,000; comparing and ordering numbers up to 1,000; recognizing the position of a given number in the base-ten number system and its relationship to benchmark numbers such as 10, 50, 100, 500.

Quarter Mile Math Level 1**Quarter Mile Math Level 2**

(Gr. PreK-4) 3-2. Use whole numbers by using a variety of contexts and models (e.g., exploring the size of 1,000 by skip-counting to 1,000 using hundred charts or strips 10 or 100 centimeters long).

Quarter Mile Math Level 1

(Gr. PreK-4) 3-3. Identify some representations for some numbers and generate them by decomposing and recombining numbers (e.g., $853 = 8 \times 100 + 5 \times 10 + 3$; $85 \times 10 + 3 = 853$; $853 = 900 - 50 + 3$).

Quarter Mile Math Level 1

(Gr. PreK-4) 3-4. Identify the relationship among commonly encountered factors and multiples (e.g., factor pairs of 12 are 1×12 , 2×6 , 3×4 ; multiples of 12 are 12, 24, 36).

Quarter Mile Math Level 2

(Gr. PreK-4) 3-7. Use common fractions for measuring and money (e.g., using fractions and decimals as representations of the same concept, such as half of a dollar = 50 cents).

Quarter Mile Math Level 2

(Gr. PreK-4) 4-1. Exhibit an understanding of the place-value structure of the base-ten number system by reading, modeling, writing, and interpreting whole numbers up to 100,000; compare and order the numbers: recognize equivalent representations for the same number and generate them by decomposing and combining numbers (e.g., $853 = 8 \times 100 + 5 \times 10 + 3$; $853 = 85 \times 10 + 3$; $853 = 900 - 50 + 3$); identify the numbers less than 0 by extending the number line and using negative numbers through familiar applications (e.g., temperature, money).

Quarter Mile Math Level 2

(Gr. PreK-4) 4-2. Identify fractions as parts of unit wholes, as parts of groups, and as locations on number lines: use visual models and other strategies to compare and order commonly used fractions; use models to show how whole numbers and decimals (to the hundredths place) relate to simple fractions (e.g., $\frac{1}{2}$, $\frac{5}{10}$, 0.5); identify different interpretations of fractions - division of whole numbers by whole numbers. ratio. equivalence, ordering of fractions, parts of a whole or parts of a set.

Quarter Mile Math Level 2

(Gr. PreK-4) 4-3. Add and subtract fractions with common and uncommon denominators using a variety of strategies (e.g., manipulatives, numbers, pictures): recognize and generate equivalent decimal forms of commonly used fractions (e.g., halves, quarters, tenths, fifths); identify the numbers less than 0 by extending the number line and using negative numbers through familiar applications (e.g., temperature, money).

Quarter Mile Math Level 2

(Gr. PreK-4) 4-4. Recognize classes of numbers (e.g., odd, even, factors, multiples, square numbers) and apply these concepts in problem-solving situations.

Quarter Mile Math Level 2

Subject: MATH

Standard: Number And Operations... Numerical Concepts And Mathematical Operations.

Strand: Understand the meaning of operations and how they relate to one another.

Substrand **Titles that Address the Substrand**

(Gr. PreK-4) K-1. Represent numbers using pictures, objects, or numerals.

Quarter Mile Math Level 1
Quarter Mile Math Level 2

(Gr. PreK-4) 1-2. Solve addition and subtraction problems with one- and two-digit numbers (e.g., $5 + 58 = \underline{\quad}$).

Quarter Mile Math Level 1
Quarter Mile Math Level 2

(Gr. PreK-4) 1-3. Find the sum of three one-digit numbers to the sum of 15.

Quarter Mile Math Level 1
Quarter Mile Math Level 2

(Gr. PreK-4) 1-4. Understand and use the inverse relationship between addition and subtraction to solve problems and check solutions (e.g., $8 + 6 = 14$ is related to $14 - 6 = 8$).

Quarter Mile Math Level 1
Quarter Mile Math Level 2

(Gr. PreK-4) 2-1. Find the sum of two whole numbers up to three digits long (e.g., $235 + 476 = \underline{\quad}$; $564 - 273 = \underline{\quad}$).

Quarter Mile Math Level 1
Quarter Mile Math Level 2

(Gr. PreK-4) 2-2. Find the difference of two whole numbers up to three digits long.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 2-3. Understand and use the inverse relationships between addition and subtraction to solve problems and check solutions ($28 + 31 = 59$; therefore, $59 - 31 = 28$).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 3-2. Find the sum or difference of two whole numbers between 0 and 10,000.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 3-3. Solve simple multiplication and division problems (e.g., $135 \div 5 = _$).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 3-6. Identify and use relationship between multiplication and division (e.g., division is the inverse of multiplication) to solve problems.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 3-7. Select and use operations (e.g., addition, multiplication, subtraction, division) to solve problems.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 4-1. Demonstrate an understanding of and the ability to use: standard algorithms for the addition and subtraction of multi-digit numbers; standard algorithms for multiplying a multi-digit number by a two-digit number and for dividing a multi-digit number by a one-digit number.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 4-2. Select and use appropriate operations (addition, subtraction, multiplication, and division) to solve problems.

Quarter Mile Math Level 1

Quarter Mile Math Level 2

(Gr. PreK-4) 4-3. Extend the uses of whole numbers to the addition and subtraction of simple decimals (positive numbers to two places).

Quarter Mile Math Level 1

Quarter Mile Math Level 2

Grades 5 - 8

Subject: MATH

Standard: Algebra... Algebraic Concepts And Applications.

Strand: Analyze changes in various contexts.

Substrand

Titles that Address the Substrand

(Gr. 5-8) 6-1. Represent and explain changes using one-step equations with one variable.

Quarter Mile Math Level 3

(Gr. 5-8) 6-2. Solve problems that involve change using proportional relationships.

Quarter Mile Math Level 3

Subject: MATH

Standard: Algebra... Algebraic Concepts And Applications.

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

Substrand Titles that Address the Substrand

(Gr. 5-8) 5-1. Compute the value of the expression for specific numerical values of the variable.

Quarter Mile Math Level 3

(Gr. 5-8) 5-2. Use a letter to represent an unknown number.

Quarter Mile Math Level 3

(Gr. 5-8) 5-3. Understand the differences between the symbols for "less than", "less than or equal to", "greater than", and "greater than or equal to".

Quarter Mile Math Level 1

(Gr. 5-8) 6-2. Use letters to represent an unknown in an equation.

Quarter Mile Math Level 3

(Gr. 5-8) 6-3. Solve one-step linear equations and inequalities in one variable with positive whole-number solutions.

Quarter Mile Math Level 3

(Gr. 5-8) 6-4. Demonstrate that a variable can represent a single quantity that changes.

Quarter Mile Math Level 3

(Gr. 5-8) 7-1. Write verbal expressions and sentences as algebraic expressions and equations: evaluate algebraic expressions; solve simple linear equations; graph and interpret results.

Quarter Mile Math Level 3

(Gr. 5-8) 7-3. Use the order of operations to evaluate algebraic expressions.

Quarter Mile Math Level 3

(Gr. 5-8) 7-4. Simplify numerical expressions by applying properties of rational numbers.

Quarter Mile Math Level 3

(Gr. 5-8) 8-2. Solve two-step linear equations and inequalities in one variable with rational solutions.

Quarter Mile Math Level 3

(Gr. 5-8) 8-3. Evaluate formulas using substitution.

Quarter Mile Math Level 3

(Gr. 5-8) 8-4. Demonstrate understanding of the relationships between ratios, proportions, and percents and solve for a missing term in a proportion.

Quarter Mile Math Level 3

(Gr. 5-8) 8-6. Formulate and solve problems involving simple linear relationships, find percents of a given number, variable situations, and unknown quantities.

Quarter Mile Math Level 3

Subject: MATH

Standard: Data Analysis And Probability... Formulate Questions, Analyze Data, And Determine Probabilities.

Strand: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.

Quarter Mile Math Level 3

(Gr. 5-8) 5-6. Simplify numerical expressions using order of operations.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 5-7. Recognize and explain the differences between exact and approximate values.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 6-1. Estimate quantities involving rational numbers using various estimations.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 6-2. Use estimates to check reasonableness of results and make predictions in situations involving rational numbers.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 6-5. Convert fractions to decimals and percents and use these representations in estimations, computations, and applications.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 6-7. Compute and perform multiplication and division of fractions and decimals and apply these procedures to solving problems.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 7-1. Use estimation to check reasonableness of results, and use this information to make predictions in situations involving rational numbers, pi, and simple algebraic equations.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 7-2. Convert fractions to decimals and percents and use these representations in estimations, computations, and applications.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 7-3. Read, write, and compare rational numbers in scientific notation (e.g., positive and negative powers of 10) with approximate numbers using scientific notation.

Quarter Mile Math Level 2

(Gr. 5-8) 7-4. Calculate the percentage of increases and decreases of a quantity.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 7-5. Add and subtract fractions with unlike denominators.

Quarter Mile Math Level 2

(Gr. 5-8) 8-2. Use a variety of computational methods to estimate quantities involving real numbers.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 8-4. Use real number properties to perform various computational procedures and explain how they were used.

Quarter Mile Math Level 2
Quarter Mile Math Level 3

(Gr. 5-8) 8-5. Perform and explain computations with rational numbers, pi, and first-degree algebraic expressions in one variable in a variety of situations.

Quarter Mile Math Level 2
Quarter Mile Math Level 3

Subject: MATH

Standard: Number And Operations... Numerical Concepts And Mathematical Operations.

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

Substrand Titles that Address the Substrand

(Gr. 5-8) 5-2. Demonstrate understanding of the magnitude of the value of numbers from thousandths to millions, including common fractions.

Quarter Mile Math Level 2

(Gr. 5-8) 5-3. Represent place value using concrete or illustrated models up to one billion (1,000,000,000).

Quarter Mile Math Level 2

(Gr. 5-8) 5-4. Interpret percents as part of a hundred (i.e., find decimal and percent equivalents for common fractions, explain how they represent the same value, and compute a given percent of a whole number).

Quarter Mile Math Level 2
Quarter Mile Math Level 3

(Gr. 5-8) 5-6. Identify prime and composite numbers to 50.

Quarter Mile Math Level 2

(Gr. 5-8) 6-2. Use equivalent representations for rational numbers (e.g., integers, decimals, fractions, percents, ratios, numbers with whole-number exponents).

Quarter Mile Math Level 2
Quarter Mile Math Level 3

(Gr. 5-8) 6-4. Identify greatest common factor and least common multiples for a set of whole numbers.

Quarter Mile Math Level 2

(Gr. 5-8) 7-4. Read, write, and compare rational numbers in scientific notation (e.g., positive and negative powers of 10) with approximate numbers using scientific notation.

Quarter Mile Math Level 2

(Gr. 5-8) 7-5. Simplify numerical expressions using order of operations.

Quarter Mile Math Level 2
Quarter Mile Math Level 3

(Gr. 5-8) 8-2. Demonstrate the magnitude of rational numbers (e.g., trillions to millions).

Quarter Mile Math Level 2

Subject: MATH

Standard: Number And Operations... Numerical Concepts And Mathematical Operations.

Strand: Understand the meaning of operations and how they relate to one another.

Substrand Titles that Address the Substrand

(Gr. 5-8) 5-2. Add and subtract decimals.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 5-3. Add and subtract fractions and mixed numbers without regrouping and express answers in simplest form.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 5-4. Find the factors and multiples of whole numbers.

Quarter Mile Math Level 2

(Gr. 5-8) 5-7. Demonstrate proficiency with division, including one- and two-digit divisors.

Quarter Mile Math Level 2

(Gr. 5-8) 5-8. Solve simple problems involving the addition and subtraction of fractions and mixed numbers.

Quarter Mile Math Level 2

(Gr. 5-8) 5-9. Represent and use fractions and decimals in equivalent forms.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 6-4. Use proportions to solve problems.

Quarter Mile Math Level 2

(Gr. 5-8) 6-6. Determine the least common multiple and the greatest common divisor of whole numbers and use them to solve problems with fractions.

Quarter Mile Math Level 2

(Gr. 5-8) 7-1. Add, subtract, multiply, and divide rational numbers (e.g., integers, fractions, terminating decimals) and take positive rational numbers to whole-number powers.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 7-2. Convert terminating decimals into reduced fractions.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

(Gr. 5-8) 7-3. Calculate given percentages of quantities and use them to solve problems (e.g., discounts of sales, interest earned, markups, commission, profit, simple interest).

Quarter Mile Math Level 2

(Gr. 5-8) 7-4. Add and subtract fractions with unlike denominators.

Quarter Mile Math Level 2

(Gr. 5-8) 7-5. Multiply, divide, and simplify rational numbers by using exponent rules.

Quarter Mile Math Level 2

(Gr. 5-8) 7-8. Simplify and evaluate positive rational numbers raised to positive whole number powers.

Quarter Mile Math Level 2

(Gr. 5-8) 7-9. Solve addition, subtraction, multiplication, and division problems that use positive and negative integers and combinations of these operations.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

Subject: MATH
Standard: Algebra, Functions, And Graphs... Algebraic Concepts And Applications.
Strand: Analyze changes in various contexts.

Substrand **Titles that Address the Substrand**

(Gr. 9-12) 3. Calculate the percentage of increase and decrease of a quantity.

Quarter Mile Math Level 2

Quarter Mile Math Level 3

Subject: MATH
Standard: Algebra, Functions, And Graphs... Algebraic Concepts And Applications.
Strand: Represent and analyze mathematical situations and structures using algebraic symbols.

Substrand **Titles that Address the Substrand**

(Gr. 9-12) 2. Simplify numerical expressions using the order of operations, including exponents.

Quarter Mile Math Level 3

(Gr. 9-12) 4. Simplify algebraic monomial expressions raised to a power (e.g., $[5xy^2]^3$) and algebraic binomial (e.g., $[5x^2 + y]^2$) expressions raised to a power.

Quarter Mile Math Level 3

(Gr. 9-12) 7. Know, explain, and use equivalent representations for the same real number including: integers; decimals; percents; ratios; scientific notation; numbers with integer exponents; inverses (reciprocal); prime factoring.

Quarter Mile Math Level 3

(Gr. 9-12) 10. Know, explain, and use equivalent representations for algebraic expressions.

Quarter Mile Math Level 3

Subject: MATH
Standard: Algebra, Functions, And Graphs... Algebraic Concepts And Applications.
Strand: Use mathematical models to represent and understand quantitative relationships.

Substrand **Titles that Address the Substrand**

(Gr. 9-12) 2. Use a variety of computational methods (e.g., mental arithmetic, paper and pencil, technological tools).

Quarter Mile Math Level 3

(Gr. 9-12) 5. Solve applications involving systems of equations.

Quarter Mile Math Level 3