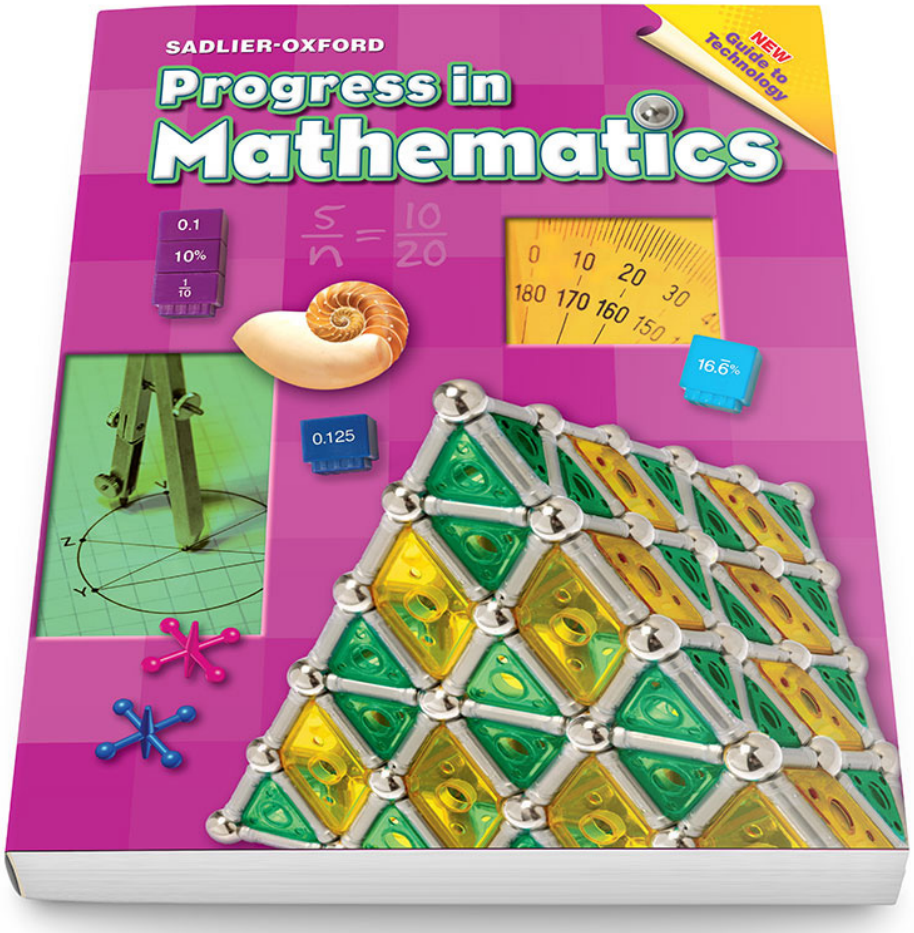
Progress in Mathematics

Correlation to the Archdiocese of Cincinnati
2020 Graded Course of Study for Mathematics

Grade 6



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STANDARD 1 – RATIO AND PROPORTIONAL RELATIONSHIP (RP)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.RP.6.1 Understand ratio concepts and use ratio reasoning to solve problems.	
M.RP.6.1.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	**Chapter 11 Ratio, Proportion, and Percent** 11-1 Ratio—pp. 376–377
M.RP.6.1.2 Understand the concept of a unit rate a/b associated with a ratio with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship.	**Chapter 11 Ratio, Proportion, and Percent** 11-2B Ratios and Unit Rates—Online 11-3 Rates (unit rate, unit price)—pp. 380–381
M.RP.6.1.3 Use ratio and rate reasoning to solve real-world and mathematical problems.	**Chapter 11 Ratio, Proportion, and Percent** 11-1 Ratio—pp. 376–377 11-2A Ratio and Rate Tables—Online 11-3 Rates (unit rate, unit price)—pp. 380–381 11-4 Proportions—pp. 382–383
M.RP.6.1.4 Make tables of equivalent ratios relating quantities with whole number measurements; find missing values in the tables; and plot the pairs of values on the coordinate plans. Use tables to compare ratios.	**Chapter 11 Ratio, Proportion, and Percent** 11-2A Ratio and Rate Tables—Online 11-3A Compare Ratios (use tables to compare ratios)—Online **Chapter 14 More Concepts in Algebra** 14-7A Model Rates—Online
M.RP.6.1.5 Solve unit rate problems including those involving unit pricing and constant speed.	**Chapter 11 Ratio, Proportion, and Percent** 11-3 Rates (unit rate, unit price)—pp. 380–381 11-4 Proportions—pp. 382–383 11-4A Model Proportions with Double Number Lines—Online 11-4B Model Proportions with Tape Diagrams—Online 11-5 Solve Proportions—pp. 384–385 11-6 Write Proportions—pp. 386–387 11-7 Proportions and Similar Figures—pp. 388–389 11-8 Use Proportions—pp. 390–391 **Chapter 12 Percent Applications** 12-9 Better Buy—pp. 430–431 **Chapter 13 Measurement** 13-1 Measure Metric Length—pp. 448–449 13-2 Measure Metric Capacity and Mass—pp. 450–451 13-3 Measure Customary Length—pp. 452–453 13-4 Measure Customary Capacity and Weight—pp. 454–455

continued

STANDARD 1 – RATIO AND PROPORTIONAL RELATIONSHIP (RP)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.RP.6.1 Understand ratio concepts and use ratio reasoning to solve problems.	
	13-5 Compute Customary Units—pp. 456–457 13-6 Compute with Time—pp. 458–459 13-7 Relate Customary and Metric Units—pp. 460–461 13-7A Use Proportions to Convert Units—Online 13-7 Relate Customary and Metric Units—pp. 460–461 13-7A Use Proportions to Convert Units—Online
M.RP.6.1.6 Find a percent of a quantity as a rate per 100, e.g., 30% of a quantity means 30/100 times the quantity; solve problems involving finding the whole, given a part and the percent.	**Chapter 12 Percent Applications** 12-1 Mental Math: Percent—pp. 414–415 12-3 Percentage of a Number—pp. 418–419 12-4 Find the Rate—pp. 420–421 12-5 Find the Original Number—pp. 422–423 12-6 Percent Problems—pp. 424–425 12-13 Problem Solving Strategy: Write an Equation (find sales tax)—pp. 438–439
M.RP.6.1.7 Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or diving quantities.	**Chapter 13 Measurement** 13-1 Measure Metric Length—pp. 448–449 13-2 Measure Metric Capacity and Mass—pp. 450–451 13-3 Measure Customary Length—pp. 452–453 13-4 Measure Customary Capacity and Weight—pp. 454–455 13-5 Compute Customary Units—pp. 456–457 13-7 Relate Customary and Metric Units—pp. 460–461 13-7A Use Proportions to Convert Units—Online

STANDARD 2 – THE NUMBER SYSTEM (NS)

Grade 6 Standard & Benchmark Description	*Sadlier Math*, Grade 6
M.NS.6.1 Apply and extend previous understanding of multiplication and division to divide fractions by fractions.	
M.NS.6.1.1 Interpret and compute quotients of fractions, and solve world problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.	**Chapter 8 Fractions: Multiplication, Division, and Probability** 8-5 Meaning of Division—pp. 258–259 8-5A Dividing with Fractions—Online 8-6 Divide Fractions by Fractions—pp. 260–261 8-8 Divide with Whole and Mixed Numbers—pp. 264–265

STANDARD 2 – THE NUMBER SYSTEM (NS)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.NS.6.2 Compute fluently with multi-digit numbers and find common factors and multiples.	
M.NS.6.2.1 Fluently divide multi-digit numbers using the standard algorithm.	**Skills Update** Trial Quotients—p. 10 Divide Whole Numbers—p. 11 **Chapter 3 Division: Whole Numbers and Decimals** 3-1 Short Division—pp. 88–89 3-3 Divide Whole Numbers—pp. 92–93
M.NS.6.2 Compute fluently with multi-digit numbers and find common factors and multiples.	
M.NS.6.2.2 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	**Skills Update** Add Whole Numbers and Decimals—p. 5 Subtract Whole Numbers and Decimals—p. 6 **Chapter 1 Number Sense, Addition, and Subtraction** 1-7 Addition of Whole Numbers and Decimals—pp. 46–47 1-8 Subtraction of Whole Numbers and Decimals—pp. 48–49 1-9 Addition and Subtraction of Decimals—pp. 50–51 **Chapter 2 Multiplication: Whole Numbers and Decimals** 2-1 Multiplication Patterns—pp. 66–67 2-4 Multiply with Decimals—pp. 72–73 **Chapter 3 Division: Whole Numbers and Decimals** 3-4 Divide Decimals by 10, 100, and 1,000—pp. 94–95 3-5 Divide Decimals by Whole Numbers—pp. 96–97 3-6 Patterns with Tenths, Hundredths, and Thousandths—pp. 98–99 3-8 Decimal Divisors—pp. 102–103 3-9 Zeros in Division—pp. 104–105
M.NS.6.2.3 Find the greatest common factor of two whole number less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12.	**Skills Update** Factors, Multiples, and Divisibility—p. 3 **Chapter 6 Number Theory and Fractions** 6-2 Prime and Composite Numbers—pp. 180–181 6-3 Prime Factorization—pp. 182–183 6-4 Equivalent Fractions—pp. 184–185

continued

STANDARD 2 – THE NUMBER SYSTEM (NS)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.NS.6.2 Compute fluently with multi-digit numbers and find common factors and multiples.	
	6-5 Greatest Common Factor—pp. 186–187 6-5A The Distributive Property and Common Factors—Online 6-6 Fractions in Simplest Form—pp. 188–189 6-9 Least Common Multiple—pp. 194–195
M.NS.6.2.4 Use the distributive property to express a sum of two whole numbers 1 – 100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express 36 + 8 as 4 (9 +2).	**Chapter 6 Number Theory and Fractions** 6-5A The Distributive Property and Common Factors—Online
M.NS.6.3 Apply and extend previous understandings of numbers to the system of rational numbers.	
M.NS.6.3.1 Understand that positive and negative numbers are used together to describe quantities having opposite directions of values, e.g., temperature above/below zero, elevation above/below sea level.	**Chapter 5 Integers** 5-1 Integers—pp. 150–151 5-1A Integers in the Real World—Online 5-2 Compare and Order Integers—pp. 152–153
M.NS.6.3.2 Use positive and negative numbers to represent quantities in real world contexts, explaining the meaning of 0 in each situation.	**Chapter 5 Integers** 5-1 Integers—pp. 150–151 5-1A Integers in the Real World—Online 5-2 Compare and Order Integers—pp. 152–153
M.NS.6.3.3 Understand a rational number as a point on the number line.	**Chapter 6 Number Theory and Fractions** 6-16 Rational Numbers—pp. 208–209 6-17 Compare and Order Rational Numbers—pp. 210–211
M.NS.6.3.4 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.	**Chapter 5 Integers** 5-1 Integers—pp. 150–151 5-1A Integers in the Real World—Online 5-2 Compare and Order Integers—pp. 152–153 **Chapter 6 Number Theory and Fractions** 6-16 Rational Numbers—pp. 208–209 6-17 Compare and Order Rational Numbers—pp. 210–211

STANDARD 2 – THE NUMBER SYSTEM (NS)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.NS.6.3 Apply and extend previous understandings of numbers to the system of rational numbers.	
M.NS.6.3.5 Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line.	**Chapter 5 Integers** 5-1 Integers (opposites)—pp. 150–151 5-1A Integers in the Real World (opposite of the opposite of a number)—Online 5-2 Compare and Order Integers—pp. 152–153 **Chapter 6 Number Theory and Fractions** 6-16 Rational Numbers (opposites)—pp. 208–209 6-17 Compare and Order Rational Numbers—pp. 210–211
M.NS.6.3.6 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.	**Chapter 5 Integers** 5-1 Integers (opposites)—pp. 150–151 5-1A Integers in the Real World (opposite of the opposite of a number)—Online 5-2 Compare and Order Integers—pp. 152–153 **Chapter 6 Number Theory and Fractions** 6-16 Rational Numbers (opposites)—pp. 208–209 6-17 Compare and Order Rational Numbers—pp. 210–211
M.NS.6.3.7 Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane.	**Chapter 14 More Concepts in Algebra** 14-5 Graph Ordered Pairs—pp. 504–505 14-6 Graph Reflections and Translations—pp. 506–507
M.NS.6.3.8 Recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.	**Chapter 14 More Concepts in Algebra** 14-5 Graph Ordered Pairs—pp. 504–505 14-6 Graph Reflections and Translations—pp. 506–507
M.NS.6.3.9 Find and position integers and other rational numbers on a horizontal or vertical number line diagram.	**Chapter 5 Integers** 5-1 Integers—pp. 150–151 5-1A Integers in the Real World—Online 5-2 Compare and Order Integers—pp. 152–153 **Chapter 6 Number Theory and Fractions** 6-8 Fraction Sense—pp. 192–193 6-10 Compare Fractions—pp. 196–197 6-11 Order Fractions—pp. 198–199 6-12 Relate Fractions to Decimals—pp. 200–201

continued

STANDARD 2 – THE NUMBER SYSTEM (NS)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.NS.6.3 Apply and extend previous understandings of numbers to the system of rational numbers.	
	6-14 Rename Decimals as Fractions—pp. 204–205 6-16 Rational Numbers—pp. 208–209 6-17 Compare and Order Rational Numbers—pp. 210–211 **Chapter 14 More Concepts in Algebra** 14-5 Graph Ordered Pairs—pp. 504–505
M.NS.6.3.10 Find and position pairs of integers and other rational numbers on a coordinate plane.	**Chapter 14 More Concepts in Algebra** 14-5 Graph Ordered Pairs—pp. 504–505
M.NS.6.3.11 Understand ordering and absolute value of rational number.	**Chapter 5 Integers** 5-1 Integers (absolute value)—pp. 150–151 5-1A Integers in the Real World—Online 5-2 Compare and Order Integers—pp. 152–153 5-2A Use Reasoning to Compare and Order Rational Numbers—Online **Chapter 6 Number Theory and Fractions** 6-10 Compare Fractions—pp. 196–197 6-11 Order Fractions—pp. 198–199 6-16 Rational Numbers—pp. 208–209 6-17 Compare and Order Rational Numbers—pp. 210–211
M.NS.6.3 Apply and extend previous understandings of numbers to the system of rational numbers.	
M.NS.6.3.12 Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret -3° > -7° as a statement that -3°C is warmer than -7°C on a number line oriented from left to right.	**Chapter 5 Integers** 5-2 Compare and Order Integers—pp. 152–153 5-2A Use Reasoning to Compare and Order Rational Numbers—Online **Chapter 6 Number Theory and Fractions** 6-10 Compare Fractions—pp. 196–197 6-11 Order Fractions—pp. 198–199 6-12 Relate Fractions to Decimals—pp. 200–201 6-16 Rational Numbers—pp. 208–209 6-17 Compare and Order Rational Numbers—pp. 210–211

STANDARD 2 – THE NUMBER SYSTEM (NS)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.NS.6.3 Apply and extend previous understandings of numbers to the system of rational numbers.	
M.NS.6.3.13 Write, interpret and explain statements of order for rationale numbers in real-world contexts. For example, write -3°C > -7°C to express the fact that -3°C is warmer than -7°C.	**Chapter 5 Integers** 5-1 Integers—pp. 150–151 5-2 Compare and Order Integers—pp. 152–153 5-2A Use Reasoning to Compare and Order Rational Numbers—Online 5-9 Temperature—pp. 166–167 **Chapter 6 Number Theory and Fractions** 6-10 Compare Fractions—pp. 196–197 6-11 Order Fractions—pp. 198–199 6-17 Compare and Order Rational Numbers—pp. 210–211
M.NS.6.3.14 Understand the absolute value of a rational number as its distance form 0 on the number line.	**Chapter 5 Integers** 5-1 Integers (absolute value)—pp. 150–151 5-2 Compare and Order Integers—pp. 152–153 5-2A Use Reasoning to Compare and Order Rational Numbers (absolute value)—Online 5-5 Multiply Integers—pp. 158–159
M.NS.6.3.15 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.	**Chapter 5 Integers** 5-1 Integers (absolute value)—pp. 150–151 5-2 Compare and Order Integers—pp. 152–153 5-2A Use Reasoning to Compare and Order Rational Numbers (absolute value as magnitude)—Online
M.NS.6.3.16 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.	**Chapter 5 Integers** 5-2 Compare and Order Integers—pp. 152–153 5-2A Use Reasoning to Compare and Order Rational Numbers—Online 5-10 Problem Solving Strategy: Make a Table—pp. 168–169
M.NS.6.3.17 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.	**Chapter 5 Integers** 5-1 Integers (absolute value)—pp. 150–151 **Chapter 14 More Concepts in Algebra** 14-5 Graph Ordered Pairs—pp. 504–505 14-5A Distances and the Coordinate Plane—Online 14-5B Graphing Polygons—Online 14-10 Problem Solving Strategy: Use More Than One Strategy—pp. 514–515

STANDARD 3 – EXPRESSIONS AND EQUATIONS (EE)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.EE.6.1 Apply and extend previous understandings of arithmetic to algebraic expressions.	
M.EE.6.1.1 Write and evaluate numerical expressions involving whole-number exponents.	**Chapter 1 Number Sense, Addition, and Subtraction** 1-3 Place Value and Exponents—pp. 38–39 **Chapter 2 Multiplication: Whole Numbers and Decimals** 2-5 Exponents—pp. 74–75 **Chapter 4 Expressions and Equations** 4-1 Order of Operations—pp. 122–123 4-2A Expressions Involving Exponents—Online 4-3 Evaluate Algebraic Expressions—pp. 126–127 **Chapter 8 Fractions: Multiplication, Division, and Probability** 8-9 Order of Operations with Fractions—pp. 266–267
M.EE.6.1.2 Write, read, and evaluate expressions in which letters stand for numbers.	**Chapter 1 Number Sense, Addition, and Subtraction** 1-10 Addition and Subtraction Expressions—pp. 52–53 **Chapter 3 Division: Whole Numbers and Decimals** 3-10 Multiplication and Division Expressions—pp. 106–107 **Chapter 4 Expressions and Equations** 4-2 Translate Expressions—pp. 124–125 4-8 Use Formulas—pp. 136–137
M.EE.6.1 Apply and extend previous understandings of arithmetic to algebraic expressions.	
M.EE.6.1.3 Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation "Subtract *y* from 5" as 5 – *y*.	**Chapter 1 Number Sense, Addition, and Subtraction** 1-10 Addition and Subtraction Expressions—pp. 52–53 **Chapter 3 Division: Whole Numbers and Decimals** 3-10 Multiplication and Division Expressions—pp. 106–107 **Chapter 4 Expressions and Equations** 4-2 Translate Expressions—pp. 124–125 4-8 Use Formulas—pp. 136–137

STANDARD 2 – THE NUMBER SYSTEM (NS)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.EE.6.1 Apply and extend previous understandings of arithmetic to algebraic expressions.	
M.EE.6.1.4 Identify parts of an expression using mathematical terms (sums, term, product, factor, quotient, and coefficient); view one or more parts of an expression as a single entity. For example, describe the expression 2(8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.	**Chapter 1 Number Sense, Addition, and Subtraction** 1-10 Addition and Subtraction Expressions—pp. 52–53 **Chapter 3 Division: Whole Numbers and Decimals** 3-10 Multiplication and Division Expressions—pp. 106–107 **Chapter 4 Expressions and Equations** 4-1A Expressions—Online 4-2 Translate Expressions—pp. 124–125
M.EE.6.1.5 Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems.	**Chapter 1 Number Sense, Addition, and Subtraction** 1-11 Evaluate Addition and Subtraction Expressions—pp. 54–55 **Chapter 2 Multiplication: Whole Numbers and Decimals** 2-5 Exponents—pp. 74–75 **Chapter 3 Division: Whole Numbers and Decimals** 3-11 Evaluate Multiplication and Division Expressions—pp. 108–109 **Chapter 4 Expressions and Equations** 4-1 Order of Operations—pp. 122–123 4-1A Expressions—Online 4-2 Translate Expressions—pp. 124–12
M.EE.6.1.6 Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = ½$.	**Chapter 4 Expressions and Equations** 4-1 Order of Operations—pp. 122–123 4-1A Expressions—Online 4-2 Translate Expressions—pp. 124–12 4-2A Expressions Involving Exponents—Online

STANDARD 2 – THE NUMBER SYSTEM (NS)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.EE.6.1 Apply and extend previous understandings of arithmetic to algebraic expressions.	
M.EE.6.1.7 Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3(2 + *x*) to produce the equivalent expression 6 + 3*x*.	**Skills Update** Properties of Addition and Multiplication—p. 8 **Chapter 4 Expressions and Equations** 4-2 Translate Expressions—pp. 124–125 4-3B Simplify Expressions—Online **Chapter 7 Fractions: Addition and Subtraction** 7-1 Addition Properties: Fractions—pp. 222–223 **Chapter 8 Fractions: Multiplication, Division, and Probability** 8-3 Properties of Multiplication—pp. 254–255
M.EE.6.1.8 Apply the distributive property to the expression 24*x* + 18*y* to produce the equivalent expression 8(4*x* + 3*y*).	**Chapter 2 Multiplication: Whole Numbers and Decimals** 2-3 Multiply Whole Numbers (distributive property)—pp. 70–71 **Chapter 4 Expressions and Equations** 4-3A Equivalent Expressions—Online **Chapter 8 Fractions: Multiplication, Division, and Probability** 8-3 Properties of Multiplication—pp. 254–255
M.EE.6.1.9 Apply properties of operations to *y* + *y* + *y* to produce the equivalent expression 3*y*.	**Chapter 4 Expressions and Equations** 4-3A Equivalent Expressions—Online **Chapter 8 Fractions: Multiplication, Division, and Probability** 8-3 Properties of Multiplication—pp. 254–255
M.EE.6.1.10 Identify when two expressions are equivalent, i.e., when the two expressions name the same number regardless of which value is substituted into them. For example, expression *y* + *y* + *y* and 3*y* are equivalent because they name the same number regardless of which number *y* stands for.	**Chapter 4 Expressions and Equations** 4-3A Equivalent Expressions—Online

STANDARD 3 – EXPRESSIONS AND EQUATIONS (EE)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.EE.6.2 Reason about and solve one-variable equations and inequalities.	
M.EE.6.2.1 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true?	**Chapter 4 Expressions and Equations** 4-4 Equations and Inequalities—pp. 128–129 4-4A Inequalities—Online **Chapter 5 Integers** Enrichment: Inequalities in One Variable—p. 173
M.EE.6.2.2 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	**Chapter 1 Number Sense, Addition, and Subtraction** 1-10 Addition and Subtraction Expressions—pp. 52–53 1-11 Evaluate Addition and Subtraction Expressions—pp. 54–55 **Chapter 3 Division: Whole Numbers and Decimals** 3-10 Multiplication and Division Expressions—pp. 106–107 3-11 Evaluate Multiplication and Division Expressions—pp. 108–109 **Chapter 4 Expressions and Equations** 4-1A Expressions—Online 4-2 Translate Expressions—pp. 124–125 4-3 Evaluate Algebraic Expressions—pp. 126–127 4-3A Equivalent Expressions—Online 4-3B Simplify Expressions—Online 4-5 Addition Equations—pp. 130–131 4-6 Subtraction Equations—pp. 132–133 4-7 Multiplication and Division Equations—pp. 134–135 4-10 Problem Solving Strategy: Use More Than One Step—pp. 140–141 **Chapter 7 Fractions: Addition and Subtraction** 7-8 Addition and Subtraction Expressions with Fractions—pp. 236–237 7-9 Addition and Subtraction Equations with Fractions—pp. 238–239 **Chapter 8 Fractions: Multiplication, Division, and Probability** 8-11 Multiplication and Division Expressions with Fractions—pp. 270–271 8-12 Multiplication and Division Equations with Fractions—pp. 272–273

STANDARD 3 – EXPRESSIONS AND EQUATIONS (EE)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.EE.6.2 Reason about and solve one-variable equations and inequalities.	
M.EE.6.2.3 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.	**Chapter 1 Number Sense, Addition, and Subtraction** 1-12 Problem Solving Strategy: Write an Equation—pp. 56–57 **Chapter 4 Expressions and Equations** 4-5 Addition Equations—pp. 130–131 4-6 Subtraction Equations—pp. 132–133 4-7 Multiplication and Division Equations—pp. 134–135 4-7A Write an Equation—Online 4-10 Problem Solving Strategy: Use More Than One Step—pp. 140–141 **Chapter 7 Fractions: Addition and Subtraction** 7-9 Addition and Subtraction Equations with Fractions—pp. 238–239 **Chapter 8 Fractions: Multiplication, Division, and Probability** 8-12 Multiplication and Division Equations with Fractions—pp. 272–273
M.EE.6.2.4 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem.	**Chapter 4 Expressions and Equations** 4-4A Inequalities—Online 4-4B Write Inequalities—Online
M.EE.6.2.5 Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.	**Chapter 4 Expressions and Equations** 4-4A Inequalities—Online 4-4B Write Inequalities—Online
M.EE.6.3 Represent and analyze quantitative relationships between dependent and independent variables.	
M.EE.6.3.1 Use variables to represent two quantities in a real-world problem that change in relationship to one another.	**Chapter 14 More Concepts in Algebra** 14-4A Independent and Dependent Variables—Online 14-8A Related Variables—Online

STANDARD 3 – EXPRESSIONS AND EQUATIONS (EE)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.EE.6.3 Represent and analyze quantitative relationships between dependent and independent variables.	
M.EE.6.3.2 Write an equation to express one quantity thought of as the dependent variable in terms of the other quantity, thought of as the independent variable.	**Chapter 1 Number Sense, Addition, and Subtraction** 1-12 Problem Solving Strategy: Write an Equation—pp. 56–57 **Chapter 4 Expressions and Equations** 4-5 Addition Equations—pp. 130–131 4-6 Subtraction Equations—pp. 132–133 4-7 Multiplication and Division Equations—pp. 134–135 4-7A Write an Equation—Online 4-10 Problem Solving Strategy: Use More Than One Step—pp. 140–141 **Chapter 7 Fractions: Addition and Subtraction** 7-9 Addition and Subtraction Equations with Fractions—pp. 238–239 **Chapter 8 Fractions: Multiplication, Division, and Probability** 8-12 Multiplication and Division Equations with Fractions—pp. 272–273
M.EE.6.3.3 Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For examples, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = rt$ to represent the relationship between distance and time.	**Chapter 4 Expressions and Equations** 14-4 Functions and Ordered Pairs—pp. 502–503 14-4A Independent and Dependent Variables—Online 14-8 Graph Functions—pp. 510–511 14-8A Related Variables—Online 14-9 Algebraic Patterns—pp. 512–513 14-10 Problem Solving Strategy: Use More Than One Strategy—pp. 514–515

STANDARD 4 – GEOMETRY (G)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.G.6.1 Solve real-world mathematical problems involving area, surface area, and volume.	
M.G.6.1.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real world and mathematical problem.	**Skills Update** Perimeter and Area of Rectangles—p. 25 **Chapter 13 Measurement** 13-9 Area of Rectangles and Squares—pp. 464–465 13-10 Area of Triangles and Parallelograms—pp. 466–467 13-11 Area of Trapezoids—pp. 468–469 13-11A Plane Figures and Area—Online
M.G.6.1.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism.	**Chapter 13 Measurement** 13-16 Volume of Prisms—pp. 478–479 13-16A Use Partial Cubes to Find Volume—Online 13-16B Volume of a Prism—Online
M.G.6.1.3 Apply formulas $V = l \cdot w \cdot h$ and $V = B \cdot h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	**Chapter 13 Measurement** 13-16 Volume of Prisms—pp. 478–479 13-16A Use Partial Cubes to Find Volume—Online 13-16B Volume of a Prism—Online
M.G.6.1.4 Draw polygons in the coordinate plane given coordinates for the vertices.	**Chapter 14 More Concepts in Algebra** 14-5 Graph Ordered Pairs—pp. 504–505 14-5B Graphing Polygons—Online 14-6 Graph Reflections and Translations—pp. 506–507 14-7 Graph Rotations—pp. 508–509
M.G.6.1.5 Use coordinates to find the length of a side joining points with the same first coordinate. Apply these techniques in the context of solving real-world and mathematical problems.	**Chapter 14 More Concepts in Algebra** 14-5 Graph Ordered Pairs—pp. 504–505 14-5A Distances and the Coordinate Plane—Online 14-5B Graphing Polygons—Online
M.G.6.1.6 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	**Chapter 10 Geometry** 10-17 Solid Figures—pp. 362–363 **Chapter 13 Measurement** 13-13A Use Nets to Find Surface Area—Online 13-14 Surface Area of Cubes, Rectangular Prisms, and Cylinders—pp. 474–475

continued

STANDARD 4 – GEOMETRY (G)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.G.6.1 Solve real-world mathematical problems involving area, surface area, and volume.	
	13-15 Surface Area of Pyramids and Triangular Prisms—pp. 476–477 **Blackline Masters** Nets—TE p. T54

STANDARD 5 – STATISTICS AND PROBABILITY (SP)

Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.SP.6.1 Develop understanding of statistical variability.	
M.SP.6.1.1 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 questions because of the variability in students' ages.	**Chapter 9 Data and Statistics** 9-6A Statistical Characteristics of a Data Set—Online
M.SP.6.1.2 Collect Date: Design and use a plan to collect appropriate data to answer a statistical question.	**Chapter 9 Data and Statistics** 9-1 Surveys—pp. 292–293 9-2 Samples—pp. 294–295 9-3 Bias in Surveys—pp. 296–297
M.SP.6.1.3 Analyze Data: Select appropriate graphical methods and numerical measures to analyze data by displaying variability with a group. Compare individual to individual, and compare individual to a group.	**Chapter 9 Data and Statistics** 9-6 Analyze Data—pp. 302–303 9-6A Statistical Characteristics of a Data Set—Online 9-6B Choosing the Best Measures to Describe Data (measures of variability)—Online 9-7 Box-and-Whisker Plots—pp. 304–305 9-7A Describe Data—Online 9-13 Histograms—pp. 316–317
M.SP.6.1.4 Interpret Results: Draw logical conclusions from the data based on the original question.	**Chapter 9 Data and Statistics** 9-4 Record and Interpret Data—pp. 298–299

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Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.SP.6.1 Develop understanding of statistical variability.	
M.SP.6.1.5 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.	**Chapter 9 Data and Statistics** 9-6A Statistical Characteristics of a Data Set—Online 9-7 Box-and-Whisker Plots—pp. 304–305 9-7A Describe Data—Online 9-13 Histograms—pp. 316–317
M.SP.6.1.6 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.	**Chapter 9 Data and Statistics** 9-5 Apply Measures of Central Tendency and Range—pp. 300–301 9-6B Choosing the Best Measures to Describe Data (measures of variability)—Online
M.SP.6.2 Summarize and describe distributions.	
M.SP.6.2.1 Display numerical data in plots on a number line, including dot plots, line plots, histograms, and box plots.	**Chapter 9 Data and Statistics** 9-6 Analyze Data—pp. 302–303 9-6A Statistical Characteristics of a Data Set—Online 9-7 Box-and-Whisker Plots—pp. 304–305 9-7A Describe Data—Online 9-13 Histograms—pp. 316–317
M.SP.6.2.2 Summarize numerical data sets in relation to their context.	**Chapter 9 Data and Statistics** 9-3A Summarize the Data—Online
M.SP.6.2.3 Report the number of observations.	**Chapter 9 Data and Statistics** 9-3A Summarize the Data—Online 9-4 Record and Interpret Data—pp. 298–299 9-7A Describe Data—Online
M.SP.6.2.4 Describe the nature of the attribute under investigation, including how it was measured and its units of measurement.	**Chapter 9 Data and Statistics** 9-3A Summarize the Data—Online 9-7A Describe Data—Online

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Grade 6 Standard & Benchmark Description	*Progress in Mathematics*, Grade 6
M.SP.6.2 Summarize and describe distributions.	
M.SP.6.2.5 Find the quantitative measures of center (median and/or mean) for a numerical data set and recognize that this value summarizes the data set with a single number. Interpret mean as an equal or fair share. Find measures of variability (range and interquartile range) as well as informally describe the shape and the presence of clusters, gaps, peaks, and outliers in a distribution.	**Chapter 9 Data and Statistics** 9-5 Apply Measures of Central Tendency and Range—pp. 300–301 9-6 Analyze Data—pp. 302–303 9-6B Choosing the Best Measures to Describe Data (measures of variability)—Online 9-7 Box-and-Whisker Plots—pp. 304–305 9-7A Describe Data—Online 9-8 Stem-and-Leaf Plots—pp. 306–307 9-9 Line Graphs—pp. 308–309
M.SP.6.2.6 Choose the measures of center and variability, based on the shape of the data distribution and the context in which the data was gathered.	**Chapter 9 Data and Statistics** 9-5 Apply Measures of Central Tendency and Range—pp. 300–301 9-6B Choosing the Best Measures to Describe Data (measures of variability)—Online 9-7A Describe Data—Online