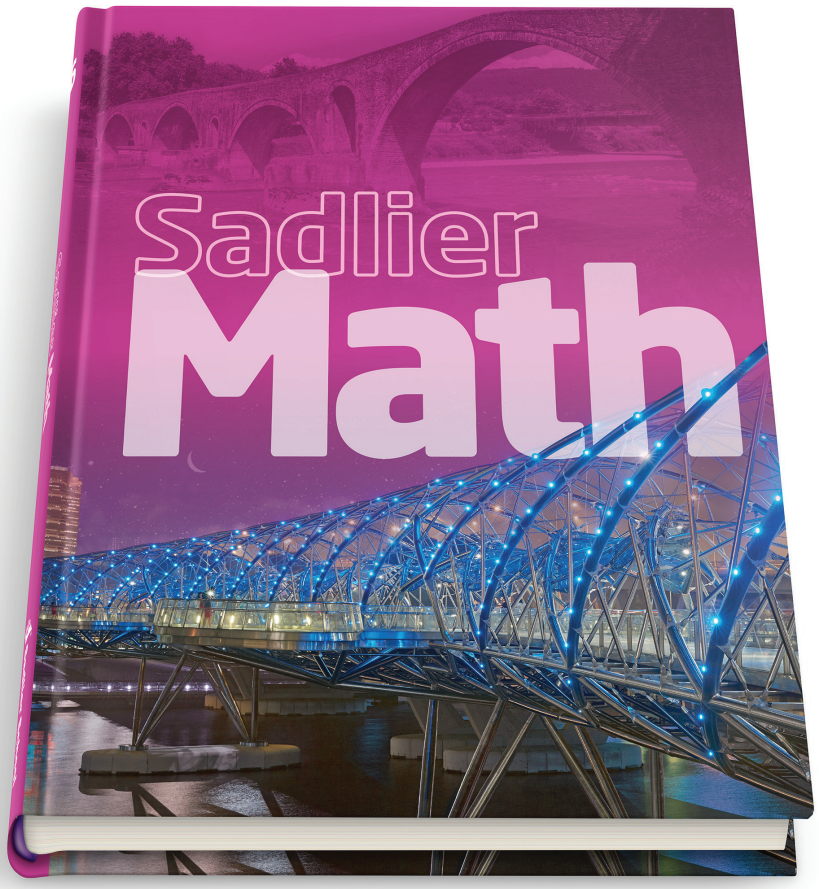
Sadlier Math™

Correlation to the Indiana Academic Standards for Mathematics

Grade 6



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THE NUMBER SYSTEM

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.NS.1 Understand that positive and negative numbers are used to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge). Use positive and negative numbers to represent and compare quantities in real-world contexts, explaining the meaning of 0 in each situation.	**Chapter 9: 9-2** • 9-2 Integers in the Real World—pp. 198–199 (Graph and use integers to represent real-world situations, and explain the meaning of 0 in context; TE Develop Concepts: Moving on the Number Line)
MA.6.NS.2 Understand the integer number system. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; 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 9: 9-1** • 9-1 Integers on the Number Line—pp. 196–197 (Use a number line to represent integers; TE Develop Concepts: Modeling Integers)
MA.6.NS.3 Compare and order rational numbers and plot them on a number line. Write, interpret, and explain statements of order for rational numbers in real-world contexts.	**Chapter 9: 9-1 through 9-3, 9-5 through 9-11** • 9-1 Integers on the Number Line—pp. 196–197 (Use a number line to represent integers; TE Develop Concepts: Modeling Integers) • 9-2 Integers in the Real World—pp. 198–199 (Graph and use integers to represent real-world situations, and explain the meaning of 0 in context; TE Develop Concepts: Moving on the Number Line) • 9-3 Compare and Order Integers—pp. 200–201 (Use a number line to compare and order integers and understand absolute value; TE Develop Concepts: Compare and Order Whole Numbers) • 9-5 Rational Numbers—pp. 204–205 (Use a number line to represent negative and positive rational numbers; TE Develop Concepts: Numbers on a Number Line) • 9-6 Compare and Order Rational Numbers—pp. 206–207 (Use a number line to compare and order rational numbers; TE Develop Concepts: Compare and Order Integers) • 9-7 Plot Points in the Coordinate Plane—pp. 210–211 (Use signs of coordinates to locate and plot points in the coordinate plane; TE Develop Concepts: Describing Movement in Space) • 9-8 Reflections of Points—pp. 212–213 (Use signs of coordinates to recognize when points are reflections across one or both axes; TE Develop Concepts: Symmetry) • 9-9 Distance on the Coordinate Plane—pp. 214–215 (Find the distance between two points on the coordinate plane that have the same x- or y-coordinates; TE Develop Concepts: Perimeter) • 9-10 Plot Polygons—pp. 216–217 (Use vertices to draw a polygon in the coordinate plane, and find the lengths of its sides when vertices share the same x- or y-coordinate; TE Develop Concepts: Compare Coordinates) • 9-11 Problem Solving: Draw a Picture—pp. 218–219 (Use the coordinate plane to draw a picture and solve real-world problems; TE Develop Concepts: Finding Perimeters)

THE NUMBER SYSTEM

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.NS.4 Understand that the absolute value of a number is the distance from zero on a number line. Find the absolute value of real numbers and know that the distance between two numbers on the number line is the absolute value of their difference. Interpret absolute value as magnitude for a positive or negative quantity in a real-world situation.	**Chapter 9: 9-3 & 9-4** • 9-3 Compare and Order Integers—pp. 200–201 (Use a number line to compare and order integers and understand absolute value; TE Develop Concepts: Compare and Order Whole Numbers) • 9-4 Absolute Value as Magnitude—pp. 202–203 (Compare and order integers and understand absolute value as a magnitude in a real-world situation; TE Develop Concepts: Understand Absolute Value)
MA.6.NS.5 Know commonly used fractions (halves, thirds, fourths, fifths, eighths, tenths) and their decimal and percent equivalents. Convert between any two representations (fractions, decimals, percents) of positive rational numbers without the use of a calculator.	**Chapter 11: 11-1 through 11-6** • 11-1 Percent—pp. 254–255 (Use models, fractions, and decimals to express percents; TE Develop Concepts: Translating Between Fractions and Decimals) • 11-2 Relate Percents to Fractions—pp. 256–257 (Rename percents and fractions; TE Develop Concepts: Race to Equate) • 11-3 Relate Percents to Decimals—pp. 258–259 (Rename a percent as a decimal and a decimal as a percent; TE Develop Concepts: Marking Benchmarks) • 11-4 Relate Decimals, Fractions, and Percents—pp. 260–261 (Connect decimals, fractions, and percents; TE Develop Concepts: Repeat or Terminate?) • 11-5 Percents Greater Than 100%—pp. 262–263 (Rename percents greater than 100%; TE Develop Concepts: Equivalent Numbers, Different Ways (improper fractions)) • 11-6 Percents Less Than 1%—pp. 264–265 (Rename percents less than 1%; TE Develop Concepts: Patterns in Division)
MA.6.NS.6 Identify and explain prime and composite numbers.	**Chapter 6: 6-1** • 6-1 Prime Factorization—pp. 124–125 (Use prime factorization to solve problems; TE Develop Concepts: Picturing Factors)
MA.6.NS.7 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers from 1 to 100, with a common factor as a multiple of a sum of two whole numbers with no common factor.	**Chapter 6: 6-1 through 6-4** • 6-1 Prime Factorization—pp. 124–125 (Use prime factorization to solve problems; TE Develop Concepts: Picturing Factors) • 6-2 Greatest Common Factor—pp. 126–127 (Find the greatest common factor of two or more whole numbers; TE Develop Concepts: Model Common Factors) • 6-3 The Distributive Property and Common Factors—pp. 128–129 (Use the Distributive Property to rewrite addition expressions as multiplication expressions; TE Develop Concepts: Represent the Distributive Property) • 6-4 Least Common Multiple—pp. 132–133 (Find the least common multiple (LCM) of two whole numbers; TE Develop Concepts: Using Multiplication Tables to Explore Common Multiples)
MA.6.NS.8 Interpret, model, and use ratios to show the relative sizes of two quantities. Describe how a ratio shows the relationship between two quantities. Use the following notations: *a*/*b*, *a* to *b*, *a*:*b*.	**Chapter 10: 10-1** • 10-1 Ratios—pp. 226–227 (Use ratio concepts and language to describe relationships between quantities; TE Develop Concepts: Comparing Quantities)

THE NUMBER SYSTEM

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.NS.9 Understand the concept of a unit rate and use terms related to rate in the context of a ratio relationship.	**Chapter 10: 10-6 through 10-9** • 10-6 Rates and Unit Rates—pp. 238–239 (Understand, describe, and calculate rates and unit rates; TE Develop Concepts: Ratio Language) • 10-7 Compare Prices—pp. 240–241 (Use rate reasoning to solve problems involving unit pricing; TE Develop Concepts: A Better Buy) • 10-8 Equations for Proportional Relationships—pp. 242–243 (Use ratios and rates to write equations and solve problems; TE Develop Concepts: Proportions) • 10-9 Graphs of Proportional Relationships—pp. 244–245 (Use ratio and rate reasoning to make tables of equivalent ratios and plot pairs of values on the coordinate plane; TE Develop Concepts: Line Graphs)
MA.6.NS.10 Use reasoning involving rates and ratios to model real-world and other mathematical problems (e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations).	**Chapter 10: 10-2, 10-5 through 10-10** • 10-2 Tables of Equivalent Ratios—pp. 228–229 (Use tables of equivalent ratios to solve real-world and mathematical problems; TE Develop Concepts: Model Equivalent Ratios) • 10-5 Compare Ratios—pp. 236–237 (Use tables to compare ratios and solve real-world and mathematical problems; TE Develop Concepts: Compare Unlike Fractions) • 10-6 Rates and Unit Rates—pp. 238–239 (Understand, describe, and calculate rates and unit rates; TE Develop Concepts: Ratio Language) • 10-7 Compare Prices—pp. 240–241 (Use rate reasoning to solve problems involving unit pricing; TE Develop Concepts: A Better Buy) • 10-8 Equations for Proportional Relationships—pp. 242–243 (Use ratios and rates to write equations and solve problems; TE Develop Concepts: Proportions) • 10-9 Graphs of Proportional Relationships—pp. 244–245 (Use ratio and rate reasoning to make tables of equivalent ratios and plot pairs of values on the coordinate plane; TE Develop Concepts: Line Graphs) • 10-10 Problem Solving: Make a Model—pp. 246–247 (Make a table to organize and solve problems; TE Develop Concepts: Making and Using Tables)

COMPUTATION

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.C.1 Divide multi-digit whole numbers fluently using a standard algorithmic approach.	**Chapter 3: 3-1** • 3-1 Divide Whole Numbers—pp. 42–43 (Divide multi-digit whole numbers; TE Develop Concepts: Modeling Multidigit Division)
MA.6.C.2 Compute with positive fractions and positive decimals fluently using a standard algorithmic approach.	**Chapter 1: 1-1 through 1-3** • 1-1 Estimate Decimal Sums and Differences—pp. 2–3 • 1-2 Add Decimals—pp. 4–5 • 1-3 Subtract Decimals—pp. 6–7 **Chapter 2: 2-1 through 2-3** • 2-1 Multiply Decimals by 0.1, 0.01, and 0.001—pp. 22–23 • 2-2 Estimate Decimal Products—pp. 24–25 *continued*

COMPUTATION

Grade 6 Content Standards	*Sadlier Math*, Grade 6
	• 2-3 Multiply with Decimals—pp. 26–27 **Chapter 3: 3-2 through 3-7** • 3-2 Divide Decimals by 10, 100, and 1000—pp. 44–45 • 3-3 Divide Decimals by Whole Numbers—pp. 46–47 • 3-4 Divide Decimals by 0.1, 0.01, and 0.001—pp. 50–51 • 3-5 Estimate Decimal Quotients—pp. 52–53 • 3-6 Decimal Divisors—pp. 54–55 • 3-7 Zeros in Division—pp. 56–57
MA.6.C.3 Solve real-world problems with positive fractions and decimals by using one or two operations.	**Chapter 1: 1-2 & 1-3** • 1-2 Add Decimals—pp. 4–5 • 1-3 Subtract Decimals—pp. 6–7 **Chapter 2: 2-1 through 2-6** • 2-1 Multiply Decimals by 0.1, 0.01, and 0.001—pp. 22–23 • 2-2 Estimate Decimal Products—pp. 24–25 • 2-3 Multiply with Decimals—pp. 26–27 • 2-4 Write Multiplication Expressions—pp. 30–31 • 2-5 Evaluate Multiplication Expressions—pp. 32–33 • 2-6 Problem Solving: Compare Strategies—pp. 34–35 **Chapter 3: 3-2 through 3-10** • 3-2 Divide Decimals by 10, 100, and 1000—pp. 44–45 • 3-3 Divide Decimals by Whole Numbers—pp. 46–47 • 3-4 Divide Decimals by 0.1, 0.01, and 0.001—pp. 50–51 • 3-5 Estimate Decimal Quotients—pp. 52–53 • 3-6 Decimal Divisors—pp. 54–55 • 3-7 Zeros in Division—pp. 56–57 • 3-8 Write Division Expressions—pp. 58–59 • 3-9 Evaluate Division Expressions—pp. 60–61 • 3-10 Problem Solving: Use Logical Reasoning—pp. 62–63 **Chapter 8: 8-1 through 8-12** • 8-1 Multiply Fractions—pp. 164–165 • 8-2 Properties of Multiplication—pp. 166–167 • 8-3 Meaning of Division by a Fraction—pp. 168–169 • 8-4 Model Dividing Fractions by Fractions—pp. 170–171 • 8-5 Divide Fractions by Fractions—pp. 172–173 • 8-6 Estimate Quotients of Fractions and Mixed Numbers—pp. 174–175 • 8-7 Divide with Whole and Mixed Numbers—pp. 176–177 • 8-8 Order of Operations with Fractions—pp. 180–181 • 8-9 Fractions with Money—pp. 182–183 • 8-10 Multiplication and Division Expressions with Fractions—pp. 184–185 • 8-11 Multiplication and Division Equations with Fractions—pp. 186–187 • 8-12 Problem Solving: Use a Model—pp. 188–189

COMPUTATION

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.C.4 Compute quotients of positive fractions and solve real-world problems involving division of fractions by fractions. Use a visual fraction model and/or equation to represent these calculations.	**Chapter 8: 8-3 through 8-11** • 8-3 Meaning of Division by a Fraction—pp. 168–169 • 8-4 Model Dividing Fractions by Fractions—pp. 170–171 • 8-5 Divide Fractions by Fractions—pp. 172–173 • 8-6 Estimate Quotients of Fractions and Mixed Numbers—pp. 174–175 • 8-7 Divide with Whole and Mixed Numbers—pp. 176–177 • 8-8 Order of Operations with Fractions—pp. 180–181 • 8-9 Fractions with Money—pp. 182–183 • 8-10 Multiplication and Division Expressions with Fractions—pp. 184–185 • 8-11 Multiplication and Division Equations with Fractions—pp. 186–187
MA.6.C.5 Evaluate positive rational numbers with whole number exponents.	**Chapter 4: 4-1 & 4-2** • 4-1 Exponents—pp. 70–71 (Write and evaluate expressions with exponents; TE Develop Concepts: Powers of 10) • 4-2 Order of Operations—pp. 72–73 (Use the order of operations to simplify expressions; TE Develop Concepts: Recognize the Need for Order
MA.6.C.6 Apply the order of operations and properties of operations (identity, inverse, commutative properties of addition and multiplication, associative properties of addition and multiplication, and distributive property) to evaluate numerical expressions with nonnegative rational numbers, including those using grouping symbols, such as parentheses, and involving whole number exponents. Justify each step in the process.	**Chapter 1: 1-5** • 1-5 Evaluate Addition and Subtraction Expressions—pp. 12–13 (Evaluate addition and subtraction expressions at specific values of the variables; TE Develop Concepts: Write and Evaluate Addition and Subtraction Expressions) **Chapter 2: 2-5** • 2-5 Evaluate Multiplication Expressions—pp. 32–33 (Evaluate multiplication expressions at specific values of the variables; TE Develop Concepts: Write and Evaluate Expressions) **Chapter 3: 3-9** • 3-9 Evaluate Division Expressions—pp. 60–61 (Write and evaluate division expressions; TE Develop Concepts: Speaking Math: Match situations to expressions) **Chapter 4: 4-1 & 4-2** • 4-1 Exponents—pp. 70–71 (Write and evaluate expressions with exponents; TE Develop Concepts: Powers of 10) • 4-2 Order of Operations—pp. 72–73 (Use the order of operations to simplify expressions; TE Develop Concepts: Recognize the Need for Order) **Chapter 5: 5-1** • 5-1 Solutions of Equations—pp. 98–99 (Use substitution to determine whether a value is a solution of an equation; TE Develop Concepts: Evaluate Expressions) **Chapter 6: 6-3** • 6-3 The Distributive Property and Common Factors—pp. 128–129 (Use the Distributive Property to rewrite addition expressions as multiplication expressions; TE Develop Concepts: Represent the Distributive Property) **Chapter 7: 7-5** • 7-5 Addition and Subtraction Expressions with Fractions—pp. 152–153 (Read, write, and evaluate addition and subtraction expressions with fractions; TE Develop Concepts: Explore Adding Expressions) *continued*

COMPUTATION

Grade 6 Content Standards	*Sadlier Math*, Grade 6
	Chapter 8: 8-2, 8-8 & 8-10 • 8-2 Properties of Multiplication—pp. 166–167 (Use properties of multiplication to multiply fractions and write equivalent expressions; TE Develop Concepts: Illustrated Glossary) • 8-8 Order of Operations with Fractions—pp. 180–181 (Use the order of operations to simplify and evaluate expressions with fractions; TE Develop Concepts: Finding Order) • 8-10 Multiplication and Division Expressions with Fractions—pp. 184–185 (Write and evaluate multiplication and division expressions with fractions; TE Develop Concepts: Expressions on a Roll (algebraic expressions)) **Chapter 14: 14-3** • 14-3 Areas of Trapezoids—pp. 320–321 (Use a formula to find the area of a trapezoid; TE Develop Concepts: Order of Operations & Formulas)

ALGEBRA AND FUNCTIONS

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.AF.1 Evaluate expressions for specific values of their variables, including expressions with whole-number exponents and those that arise from formulas used in real-world problems.	**Chapter 1: 1-5** • 1-5 Evaluate Addition and Subtraction Expressions—pp. 12–13 (Evaluate addition and subtraction expressions at specific values of the variables; TE Develop Concepts: Write and Evaluate Addition and Subtraction Expressions) **Chapter 2: 2-5** • 2-5 Evaluate Multiplication Expressions—pp. 32–33 (Evaluate multiplication expressions at specific values of the variables; TE Develop Concepts: Write and Evaluate Expressions) **Chapter 3: 3-9** • 3-9 Evaluate Division Expressions—pp. 60–61 (Write and evaluate division expressions; TE Develop Concepts: Speaking Math: Match situations to expressions) **Chapter 4: 4-2, 4-6, 4-8 & 4-9** • 4-2 Order of Operations—pp. 72–73 (Use the order of operations to simplify expressions; TE Develop Concepts: Recognize the Need for Order) • 4-6 Use the Distributive Property and Evaluate Algebraic Expressions—pp. 82–83 (Write and evaluate algebraic expressions; Use the Distributive Property to combine like terms; TE Develop Concepts: Model and Evaluate Expressions with the Distributive Property) • 4-8 Identify Equivalent Expressions—pp. 86–87 (Identify equivalent expressions; TE Develop Concepts: Explore Identity Properties) • 4-9 Use Formulas—pp. 88–89 (Evaluate expressions that arise from formulas; TE Develop Concepts: Explore Perimeter) **Chapter 7: 7-5** • 7-5 Addition and Subtraction Expressions with Fractions—pp. 152–153 (Read, write, and evaluate addition and subtraction expressions with fractions; TE Develop Concepts: Explore Adding Expressions) *continued*

ALGEBRA AND FUNCTIONS

Grade 6 Content Standards	*Sadlier Math*, Grade 6
	Chapter 8: 8-10 • 8-10 Multiplication and Division Expressions with Fractions—pp. 184–185 (Write and evaluate multiplication and division expressions with fractions; TE Develop Concepts: Expressions on a Roll (algebraic expressions))
MA.6.AF.2 Apply the properties of operations (e.g., identity, inverse, commutative, associative, distributive properties) to create equivalent linear expressions and to justify whether two linear expressions are equivalent when the two expressions name the same number regardless of which value is substituted into them.	**Chapter 4: 4-7 & 4-8** • 4-7 Apply Properties to Write Equivalent Expressions—pp. 84–85 (Apply properties of operations to write equivalent expressions; TE Develop Concepts: Use Properties to Simplify Expressions) • 4-8 Identify Equivalent Expressions—pp. 86–87 (Identify equivalent expressions; TE Develop Concepts: Explore Identity Properties)
MA.6.AF.3 Define and use multiple variables when writing expressions to represent real-world and other mathematical problems, and evaluate them for given values.	**Chapter 1: 1-4** • 1-4 Write Addition and Subtraction Expressions—pp. 10–11 (Read and write algebraic expressions; TE Develop Concepts: Write Numerical Expressions in Symbols and Words) **Chapter 2: 2-1 & 2-4** • 2-1 Multiply Decimals by 0.1, 0.01, and 0.001—pp. 22–23 (Use multiplication patterns to multiply by 01, 001, and 0001; TE Develop Concepts: Multiply by 0.1, 0.01, and 0.001 by Dividing by Powers of 10) • 2-4 Write Multiplication Expressions—pp. 30–31 (Read and write multiplication expressions with numbers and variables; TE Develop Concepts: Write a Multiplication Expression) **Chapter 3: 3-8** • 3-8 Write Division Expressions—pp. 58–59 (Read and write division expressions with numbers and with letters that stand for numbers; TE Develop Concepts: Translating Verbal Expressions into Mathematical Expressions) **Chapter 4: 4-2 through 4-9** • 4-2 Order of Operations—pp. 72–73 (Use the order of operations to simplify expressions; TE Develop Concepts: Recognize the Need for Order) • 4-3 Parts of Expressions—pp. 74–75 (Identify parts of an expression; TE Develop Concepts: Identify Parts of Expressions) • 4-4 Translate Expressions—pp. 76–77 (Use numbers and variables to translate word phrases to expressions; TE Develop Concepts: Analyze and Compare Numerical Expressions) • 4-5 Translate Expressions Involving Exponents—pp. 78–79 (Use numbers and variables to translate word phrases to expressions involving exponents; TE Develop Concepts: Analyze, Compare, and Rewrite Expressions with Repeated Addition and Repeated Multiplication) • 4-6 Use the Distributive Property and Evaluate Algebraic Expressions—pp. 82–83 (Write and evaluate algebraic expressions; Use the Distributive Property to combine like terms; TE Develop Concepts: Model and Evaluate Expressions with the Distributive Property) • 4-7 Apply Properties to Write Equivalent Expressions—pp. 84–85 (Apply properties of operations to write equivalent expressions; TE Develop Concepts: Use Properties to Simplify Expressions) *continued*

ALGEBRA AND FUNCTIONS

Grade 6 Content Standards	*Sadlier Math*, Grade 6
	• 4-8 Identify Equivalent Expressions—pp. 86–87 (Identify equivalent expressions; TE Develop Concepts: Explore Identity Properties) • 4-9 Use Formulas—pp. 88–89 (Evaluate expressions that arise from formulas; TE Develop Concepts: Explore Perimeter) **Chapter 7: 7-5** • 7-5 Addition and Subtraction Expressions with Fractions—pp. 152–153 (Read, write, and evaluate addition and subtraction expressions with fractions; TE Develop Concepts: Explore Adding Expressions) **Chapter 8: 8-10** • 8-10 Multiplication and Division Expressions with Fractions—pp. 184–185 (Write and evaluate multiplication and division expressions with fractions; TE Develop Concepts: Expressions on a Roll (algebraic expressions))
MA.6.AF.4 Understand that solving an equation or inequality is the process of answering the following question: Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	**Chapter 5: 5-1 & 5-6** • 5-1 Solutions of Equations—pp. 98–99 (Use substitution to determine whether a value is a solution of an equation; TE Develop Concepts: Evaluate Expressions) • 5-6 Solutions of Inequalities—pp. 110–111 (Use substitution to determine whether a value is a solution of an inequality; Identify solutions of an inequality on a number line; TE Develop Concepts: A Living Number Line)
MA.6.AF.5 Solve equations of the form x + p = q, x - p = q, px = q, and x/p = q fluently for cases in which p, q and x are all nonnegative rational numbers. Represent real world problems using equations of these forms and solve such problems.	**Chapter 5: 5-2 & 5-3** • 5-2 Addition and Subtraction Equations—pp. 100–101 (Write equations and use addition and subtraction to solve for a variable; TE Develop Concepts: Brain Teasers: discover pattern; relate addition and subtraction/inverse operations) • 5-3 Multiplication and Division Equations—pp. 102–103 (Write equations and use multiplication and division to solve for a variable; TE Develop Concepts: Estimating Products and Quotients) **Chapter 7: 7-6** • 7-6 Addition and Subtraction Equations with Fractions—pp. 154–155 (Read, write, and solve addition and subtraction equations with fractions; TE Develop Concepts: Modeling Addition) **Chapter 8: 8-11** • 8-11 Multiplication and Division Equations with Fractions—pp. 186–187 (Write and solve multiplication and division equations with fractions; TE Develop Concepts: In Search of a Solution (Multiplication Property of Equality)
MA.6.AF.6 Write an inequality of the form x > c, x ≥ c, x < c, or x ≤ c, where c is a rational number, to represent a constraint or condition in a real-world or other mathematical problem. Recognize inequalities have infinitely many solutions and represent solutions on a number line diagram.	**Chapter 5: 5-5 through 5-8** • 5-5 Inequalities—pp. 108–109 (Write word sentences and math sentences that contain an inequality; TE Develop Concepts: Ordering Numbers (after simplifying expressions)) • 5-6 Solutions of Inequalities—pp. 110–111 (Use substitution to determine whether a value is a solution of an inequality; Identify solutions of an inequality on a number line; TE Develop Concepts: A Living Number Line) • 5-7 Write Inequalities—pp. 112–113 (Recognize when a real-world situation has a limit or boundary and write an inequality to model it; TE Develop Concepts: Inequality Families (write equations and inequalities)) *continued*

ALGEBRA AND FUNCTIONS

Grade 6 Content Standards	*Sadlier Math*, Grade 6
	• 5-8 Solve Inequalities—pp. 114–115 (Solve one-step inequalities; TE Develop Concepts: Equation Stations (equivalent equations))
MA.6.AF.7 Understand that signs of numbers in ordered pairs indicate the quadrant containing the point; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. Graph points with rational number coordinates on a coordinate plane.	**Chapter 9: 9-8** • 9-8 Reflections of Points—pp. 212–213 (Use signs of coordinates to recognize when points are reflections across one or both axes; TE Develop Concepts: Symmetry)
MA.6.AF.8 Solve real-world and other mathematical problems by graphing points with rational number coordinates on a coordinate plane. Include the use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	**Chapter 9: 9-7 through 9-11** • 9-7 Plot Points in the Coordinate Plane—pp. 210–211 (Use signs of coordinates to locate and plot points in the coordinate plane; TE Develop Concepts: Describing Movement in Space) • 9-8 Reflections of Points—pp. 212–213 (Use signs of coordinates to recognize when points are reflections across one or both axes; TE Develop Concepts: Symmetry) • 9-9 Distance on the Coordinate Plane—pp. 214–215 (Find the distance between two points on the coordinate plane that have the same x- or y-coordinates; TE Develop Concepts: Perimeter) • 9-10 Plot Polygons—pp. 216–217 (Use vertices to draw a polygon in the coordinate plane, and find the lengths of its sides when vertices share the same x- or y-coordinate; TE Develop Concepts: Compare Coordinates) • 9-11 Problem Solving: Draw a Picture—pp. 218–219 (Use the coordinate plane to draw a picture and solve real-world problems; TE Develop Concepts: Finding Perimeters)
MA.6.AF.9 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 plane.	**Chapter 10: 10-2, 10-5, 10-7, 10-9 & 10-10** • 10-2 Tables of Equivalent Ratios—pp. 228–229 (Use tables of equivalent ratios to solve real-world and mathematical problems; TE Develop Concepts: Model Equivalent Ratios) • 10-5 Compare Ratios—pp. 236–237 (Use tables to compare ratios and solve real-world and mathematical problems; TE Develop Concepts: Compare Unlike Fractions) • 10-7 Compare Prices—pp. 240–241 (Use rate reasoning to solve problems involving unit pricing; TE Develop Concepts: A Better Buy) • 10-9 Graphs of Proportional Relationships—pp. 244–245 (Use ratio and rate reasoning to make tables of equivalent ratios and plot pairs of values on the coordinate plane; TE Develop Concepts: Line Graphs) • 10-10 Problem Solving: Make a Model—pp. 246–247 (Make a table to organize and solve problems; TE Develop Concepts: Making and Using Tables)

ALGEBRA AND FUNCTIONS

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.AF.10 Use variables to represent two quantities in a proportional relationship in a real-world problem; write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.	**Chapter 13: 13-1 through 13-4** • 13-1 Related Quantities—pp. 298–299 (Identify the relationship between two variables and use rate to solve problems; TE Develop Concepts: Find the Best Deal) • 13-2 Relationships in Words and Tables—pp. 300–301 (Use tables to identify and describe the relationship between dependent and independent variables; TE Develop Concepts: Number Pattern Puzzles) • 13-3 Relationships in Equations and Graphs—pp. 302–303 (Use graphs and equations to describe relationships between dependent and independent variables; TE Develop Concepts: Concentrate on Relationships (between two variables)) • 13-4 Multiple Representations of a Relationship—pp. 306–307 (Use tables, equations, and graphs to represent the relationship between independent and dependent variables; TE Develop Concepts: Make More Equal Parts)

GEOMETRY AND MEASUREMENT

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.GM.1 Convert between measurement systems (English to metric and metric to English) given conversion factors, and use these conversions in solving real-world problems.	**Chapter 12: 12-1 through 12-4** • 12-1 Convert Customary Units—pp. 282–283 (Use ratio reasoning to convert customary units; TE Develop Concepts: Comparing Units of Measure) • 12-2 Convert Metric Units—pp. 284–285 (Use ratio reasoning to convert between metric units; TE Develop Concepts: Comparing Metric Measures) • 12-3 Convert Between Customary and Metric Units—pp. 288–289 (Use ratio reasoning to convert between customary and metric units; TE Develop Concepts: Comparing Systems of Measure) • 12-4 Problem Solving: Choose a Strategy—pp. 290–291 (Choose a strategy to solve conversion problems; TE Develop Concepts: Different Strategies to Solve (conversions))
MA.6.GM.2 Know that the sum of the interior angles of any triangle is 180º and that the sum of the interior angles of any quadrilateral is 360º. Use this information to solve real-world and mathematical problems.	N/A
MA.6.GM.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate; apply these techniques to solve real-world and other mathematical problems.	**Chapter 9: 9-10 & 9-11** • 9-10 Plot Polygons—pp. 216–217 (Use vertices to draw a polygon in the coordinate plane, and find the lengths of its sides when vertices share the same x- or y-coordinate; TE Develop Concepts: Compare Coordinates) • 9-11 Problem Solving: Draw a Picture—pp. 218–219 (Use the coordinate plane to draw a picture and solve real-world problems; TE Develop Concepts: Finding Perimeters)

GEOMETRY AND MEASUREMENT

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.GM.4 Find the area of complex shapes composed of polygons by composing or decomposing into simple shapes; apply this technique to solve real-world and other mathematical problems.	**Chapter 14: 14-1 through 14-3, 14-5 & 14-6** • 14-1 Areas of Parallelograms and Rhombuses—pp. 316–317 (Find the areas of parallelograms; TE Develop Concepts: Name Banners) • 14-2 Areas of Triangles—pp. 318–319 (Use a formula to find the area of triangles; TE Develop Concepts: Areas of Complex Figures) • 14-3 Areas of Trapezoids—pp. 320–321 (Use a formula to find the area of a trapezoid; TE Develop Concepts: Order of Operations & Formulas) • 14-5 Areas of Regular Polygons—pp. 326–327 (Find the area of a regular polygon; TE Develop Concepts: Regular Polygons) • 14-6 Areas of Composite Figures—pp. 328–329 (Find the areas of composite figures; TE Develop Concepts: Creative Geometry (create pictures with shapes))
MA.6.GM.5 Find the volume of a right rectangular prism with fractional edge lengths using unit cubes of the appropriate unit fraction edge lengths (e.g., using technology or concrete materials), and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths to solve real-world and other mathematical problems.	**Chapter 15: 15-4 through 15-6** • 15-4 Use Cubes to Find Volumes—pp. 346–347 (Use cubes to find the volume of a rectangular prism; TE Develop Concepts: Model Fractional Edge Lengths) • 15-5 Volumes of Right Rectangular Prisms—pp. 348–349 (Use formulas to find the volume of a rectangular prism; TE Develop Concepts: Explore Volumes of Prisms) • 15-6 Problem Solving: Compare Models—pp. 350–351 (Compare strategies to solve problems; Relate the mass of an object to its volume; TE Develop Concepts: Different Models)
MA.6.GM.6 Construct right rectangular prisms from nets and use the nets to compute the surface area of prisms; apply this technique to solve real-world and other mathematical problems.	**Chapter 15: 15-1 through 15-3** • 15-1 Nets of Three-Dimensional Figures—pp. 338–339 (Use nets to represent three-dimensional figures; TE Develop Concepts: Relate Two-Dimensional and Three-Dimensional Figures) • 15-2 Use Nets to Find Surface Areas of Prisms—pp. 340–341 (Find the surface area of a prism; TE Develop Concepts: Relate Areas of Rectangles and Triangles to Surface Areas of Prisms) • 15-3 Use Nets to Find Surface Areas of Pyramids—pp. 342–343 (Find the surface area of a pyramid; TE Develop Concepts: Relate Areas of Squares and Triangles to Surface Areas of Pyramids)

DATA ANALYSIS AND STATISTICS

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.DS.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for the variability in the answers. 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 16: 16-1 through 16-5** • 16-1 Statistical Questions—pp. 358–359 (Identify statistical questions; TE Develop Concepts: Exploring Infographics) • 16-2 Measures of Center—pp. 360–361 (Determine measures of center and use them to summarize data sets; TE Develop Concepts: Review Decimal Division) • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 (Determine measures of variation and use them to summarize data sets; TE Develop Concepts: Exploring Measures of Center) • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 (Determine mean absolute deviation; TE Develop Concepts: Making Line Plots with People) • 16-5 Analyze Data—pp. 368–369 (Identify clusters, gaps, and outliers and use them to analyze data; TE Develop Concepts: Analyze Statistical Pictures) **Chapter 17: 17-2 & 17-4** • 17-2 Box Plots—pp. 380–381 (Make and read box plots; TE Develop Concepts: Visualizing Data) • 17-4 Data Distributions—pp. 386–387 (Use data displays to describe data; TE Develop Concepts: Describe Data)
MA.6.DS.2 Select, create, and interpret graphical representations of numerical data, including line plots, histograms, and box plots.	**Chapter 17: 17-1 through 17-3** • 17-1 Dot Plots—pp. 378–379 (Organize data in dot plots and use dot plots to describe the data; TE Develop Concepts: Data Display Review) • 17-2 Box Plots—pp. 380–381 (Make and read box plots; TE Develop Concepts: Visualizing Data) • 17-3 Histograms—pp. 382–383 (Make and read frequency tables and histograms; TE Develop Concepts: Frequency Tables) See also Grade 5 **Chapter 17: 17-1 & 17-2** • 17-1 Line Plots with Whole Numbers and Decimals—pp. 380–381 (Make and use line plots with whole numbers and decimals; TE Develop Concepts: Organizing Data) • 17-2 Line Plots with Fractions and Mixed Numbers—pp. 382–383 (Make and use line plots with fractions and mixed numbers; TE Develop Concepts: Desk Shuffleboard—collect data using fractions and mixed numbers)
MA.6.DS.3 Formulate statistical questions; collect and organize the data (e.g., using technology); display and interpret the data with graphical representations (e.g., using technology).	**Chapter 16: 16-1 & 16-5** • 16-1 Statistical Questions—pp. 358–359 (Identify statistical questions; TE Develop Concepts: Exploring Infographics) • 16-5 Analyze Data—pp. 368–369 (Identify clusters, gaps, and outliers and use them to analyze data; TE Develop Concepts: Analyze Statistical Pictures) **Chapter 17: 17-1 through 17-3** • 17-1 Dot Plots—pp. 378–379 (Organize data in dot plots and use dot plots to describe the data; TE Develop Concepts: Data Display Review) • 17-2 Box Plots—pp. 380–381 (Make and read box plots; TE Develop Concepts: Visualizing Data) • 17-3 Histograms—pp. 382–383 (Make and read frequency tables and histograms; TE Develop Concepts: Frequency Tables)

DATA ANALYSIS AND STATISTICS

Grade 6 Content Standards	*Sadlier Math*, Grade 6
MA.6.DS.4 Summarize numerical data sets in relation to their context in multiple ways, such as: report the number of observations; describe the nature of the attribute under investigation, including how it was measured and its units of measurement; determine quantitative measures of center (mean and/or median) and spread (range and interquartile range), as well as describe any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered; and relate the choice of measures of center and spread to the shape of the data distribution and the context in which the data were gathered.	**Chapter 16: 16-2 through 16-5** • 16-2 Measures of Center—pp. 360–361 (Determine measures of center and use them to summarize data sets; TE Develop Concepts: Review Decimal Division) • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 (Determine measures of variation and use them to summarize data sets; TE Develop Concepts: Exploring Measures of Center) • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 (Determine mean absolute deviation; TE Develop Concepts: Making Line Plots with People) • 16-5 Analyze Data—pp. 368–369 (Identify clusters, gaps, and outliers and use them to analyze data; TE Develop Concepts: Analyze Statistical Pictures) **Chapter 17: 17-1 through 17-4** • 17-1 Dot Plots—pp. 378–379 (Organize data in dot plots and use dot plots to describe the data; TE Develop Concepts: Data Display Review) • 17-2 Box Plots—pp. 380–381 (Make and read box plots; TE Develop Concepts: Visualizing Data) • 17-3 Histograms—pp. 382–383 (Make and read frequency tables and histograms; TE Develop Concepts: Frequency Tables) • 17-4 Data Distributions—pp. 386–387 (Use data displays to describe data; TE Develop Concepts: Describe Data)