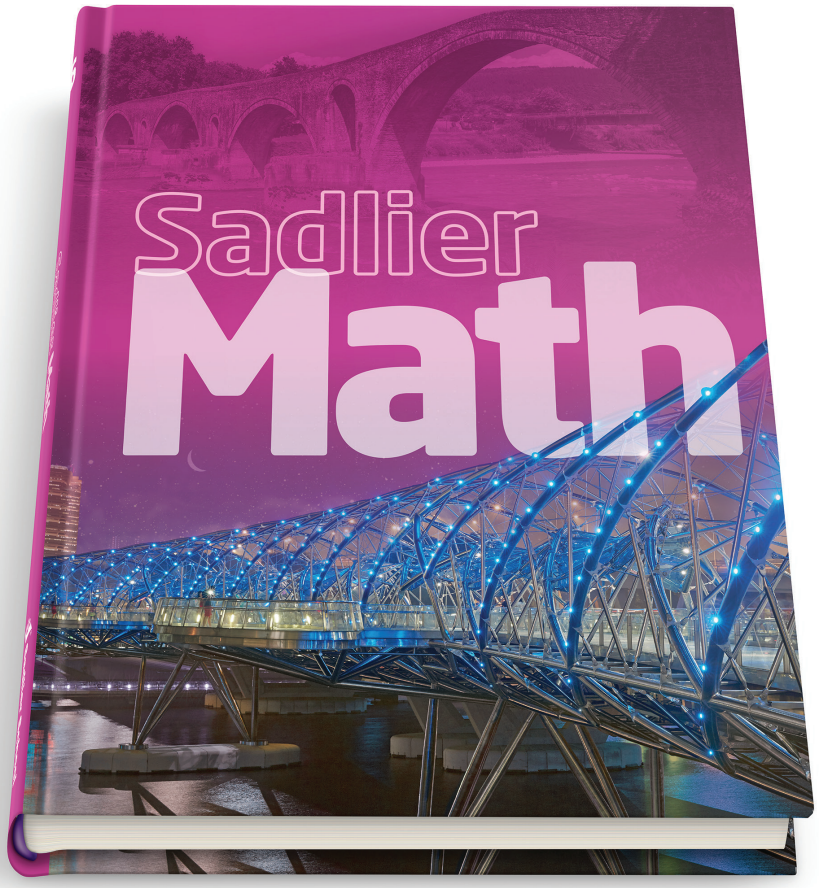
# *Sadlier Math*™

## Correlation to the Texas Essential Knowledge and Skills for Mathematics

**Grade 6**

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# Chapter 111. Subchapter B. Elementary, §111.26, Grade 6, Adopted 2012.

| Grade 6 Content Standards | *Sadlier Math*, Grade 6 |
|---|---|
| **(2) Number and operations. The student applies mathematical process standards to represent and use rational numbers in a variety of forms. The student is expected to:** | |
| (A) classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers; | **Chapter 9: 9-5**<br>• 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) |
| (B) identify a number, its opposite, and its absolute value; | **Chapter 9: 9-5**<br>• 9-3 Compare and Order Integers—pp. 200–201 (Use a number line to compare and order integers and understand absolute value)<br>• 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) |
| (C) locate, compare, and order integers and rational numbers using a number line; | **Chapter 9: 9-6**<br>• 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) |
| (D) order a set of rational numbers arising from mathematical and real-world contexts; and | |
| (E) extend representations for division to include fraction notation such as $a/b$ represents the same number as $a \div b$ where $b \neq 0$. | **Chapter 3: 3-1, 3-8 & 3-9**<br>• 3-1 Divide Whole Numbers—pp. 42–43 (Divide multi-digit whole numbers; TE Develop Concepts: Modeling Multidigit Division)<br>• 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)<br>• 3-9 Evaluate Division Expressions—pp. 60–61 (Write and evaluate division expressions; TE Develop Concepts: Speaking Math: Match situations to expressions) |
| **(3) Number and operations. The student applies mathematical process standards to represent addition, subtraction, multiplication, and division while solving problems and justifying solutions. The student is expected to:** | |
| (A) recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values; | **Chapter 8: 8-2**<br>• 8-2 Properties of Multiplication—pp. 166–167 (Use properties of multiplication to multiply fractions and write equivalent expressions; TE Develop Concepts: Illustrated Glossary)<br>• 8-3 Meaning of Division by a Fraction—pp. 168–169 (Interpret the meaning of division by a fraction; TE Develop Concepts: Understand the Meaning of Division)<br>• 8-4 Model Dividing Fractions by Fractions—pp. 170–171 (Use models to show dividing fractions; TE Develop Concepts: Division MATHO)<br>*continued* |

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| | • 8-5 Divide Fractions by Fractions—pp. 172–173 (Divide fractions and solve word problems that require division of fractions; TE Develop Concepts: Explore Division with Fraction Strips) |
| (B) determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one; | **Chapter 8: 8-1**<br>• 8-1 Multiply Fractions—pp. 164–165 (Multiply fractions; TE Develop Concepts: Model Fraction Multiplication) |
| (C) represent integer operations with concrete models and connect the actions with the models to standardized algorithms; | No operations with integers at this level. |
| (D) add, subtract, multiply, and divide integers fluently; and | |
| (E) multiply and divide positive rational numbers fluently. | **Chapter 2: 2-1 through 2-3**<br>• 2-1 Multiply Decimals by 0.1, 0.01, and 0.001—pp. 22–23<br>• 2-2 Estimate Decimal Products—pp. 24–25<br>• 2-3 Multiply with Decimals—pp. 26–27<br>**Chapter 3: 3-1 through 3-4**<br>• 3-1 Divide Whole Numbers—pp. 42–43<br>• 3-2 Divide Decimals by 10, 100, and 1000—pp. 44–45<br>• 3-3 Divide Decimals by Whole Numbers—pp. 46–47<br>• 3-4 Divide Decimals by 0.1, 0.01, and 0.001—pp. 50–51<br>**Chapter 8: 8-1 through 8-7**<br>• 8-1 Multiply Fractions—pp. 164–165<br>• 8-2 Properties of Multiplication—pp. 166–167<br>• 8-3 Meaning of Division by a Fraction—pp. 168–169<br>• 8-4 Model Dividing Fractions by Fractions—pp. 170–171<br>• 8-5 Divide Fractions by Fractions—pp. 172–173<br>• 8-6 Estimate Quotients of Fractions and Mixed Numbers—pp. 174–175<br>• 8-7 Divide with Whole and Mixed Numbers—pp. 176–177 |

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| **(4) Proportionality. The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations. The student is expected to:** | |
| (A) compare two rules verbally, numerically, graphically, and symbolically in the form of $y = ax$ or $y = x + a$ in order to differentiate between additive and multiplicative relationships; | **Chapter 10: 10-1 through 10-4, 10-8 & 10-9**<br>• 10-1 Ratios—pp. 226–227 (Use ratio concepts and language to describe relationships between quantities; TE Develop Concepts: Comparing Quantities)<br>• 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)<br>• 10-3 Tape Diagrams—pp. 230–231 (Use tape diagrams and ratio reasoning to solve real-world and mathematical problems; TE Develop Concepts: Tape Diagrams)<br>• 10-4 Double Number Lines—pp. 232–233 (Use double number line diagrams and ratio reasoning to solve real-world and mathematical problems; TE Develop Concepts: Double Number Lines)<br>• 10-8 Equations for Proportional Relationships—pp. 242–243 (Use ratios and rates to write equations and solve problems; TE Develop Concepts: Proportions)<br>• 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)<br>*No comparison of proportional and non-proportional relationships at this level. |
| (B) apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates; | **Chapter 10: 10-5 through 10-10**<br>• 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; Workbook Problem Solving: predict)<br>• 10-6 Rates and Unit Rates—pp. 238–239 (Understand, describe, and calculate rates and unit rates; TE Develop Concepts: Ratio Language)<br>• 10-7 Compare Prices—pp. 240–241 (Use rate reasoning to solve problems involving unit pricing; TE Develop Concepts: A Better Buy)<br>• 10-8 Equations for Proportional Relationships—pp. 242–243 (Use ratios and rates to write equations and solve problems; TE Develop Concepts: Proportions)<br>• 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)<br>• 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; Workbook: predict) |
| (C) give examples of ratios as multiplicative comparisons of two quantities describing the same attribute; | **Chapter 10: 10-1 through 10-4**<br>• 10-1 Ratios—pp. 226–227 (Use ratio concepts and language to describe relationships between quantities; TE Develop Concepts: Comparing Quantities)<br>• 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)<br>*continued* |

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| | • 10-3 Tape Diagrams—pp. 230–231 (Use tape diagrams and ratio reasoning to solve real-world and mathematical problems; TE Develop Concepts: Tape Diagrams)<br>• 10-4 Double Number Lines—pp. 232–233 (Use double number line diagrams and ratio reasoning to solve real-world and mathematical problems; TE Develop Concepts: Double Number Lines) |
| (D) give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients; | **Chapter 10: 10-6 through 10-9**<br>• 10-6 Rates and Unit Rates—pp. 238–239 (Understand, describe, and calculate rates and unit rates; TE Develop Concepts: Ratio Language)<br>• 10-7 Compare Prices—pp. 240–241 (Use rate reasoning to solve problems involving unit pricing; TE Develop Concepts: A Better Buy)<br>• 10-8 Equations for Proportional Relationships—pp. 242–243 (Use ratios and rates to write equations and solve problems; TE Develop Concepts: Proportions)<br>• 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) |
| (E) represent ratios and percents with concrete models, fractions, and decimals; | **Chapter 10: 10-1 through 10-4**<br>• 10-1 Ratios—pp. 226–227 (Use ratio concepts and language to describe relationships between quantities; TE Develop Concepts: Comparing Quantities using concrete models)<br>• 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)<br>• 10-3 Tape Diagrams—pp. 230–231 (Use tape diagrams and ratio reasoning to solve real-world and mathematical problems; TE Develop Concepts: Tape Diagrams)<br>• 10-4 Double Number Lines—pp. 232–233 (Use double number line diagrams and ratio reasoning to solve real-world and mathematical problems; TE Develop Concepts: Double Number Lines)<br>**Chapter 11: 11-1 through 11-6**<br>• 11-1 Percent—pp. 254–255 (Use models, fractions, and decimals to express percents; benchmarks fractions and percents; TE Develop Concepts: Translating Between Fractions and Decimals)<br>• 11-2 Relate Percents to Fractions—pp. 256–257 (Rename percents and fractions; TE Develop Concepts: Race to Equate)<br>• 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)<br>• 11-4 Relate Decimals, Fractions, and Percents—pp. 260–261 (Connect decimals, fractions, and percents; TE Develop Concepts: Repeat or Terminate?)<br>• 11-5 Percents Greater Than 100%—pp. 262–263 (Rename percents greater than 100%; TE Develop Concepts: Equivalent Numbers, Different Ways (improper fractions))<br>• 11-6 Percents Less Than 1%—pp. 264–265 (Rename percents less than 1%; TE Develop Concepts: Patterns in Division) |

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| (F) represent benchmark fractions and percents such as 1%, 10%, 25%, 33 1/3%, and multiples of these values using 10 by 10 grids, strip diagrams, number lines, and numbers; | **Chapter 11: 11-1 through 11-4**<br>• 11-1 Percent—pp. 254–255 (10 by 10 grids; benchmark fractions and percents)<br>• 11-2 Relate Percents to Fractions—pp. 256–257 (10 by 10 grids; benchmark fractions and percents;TE Develop Concepts: Race to Equate)<br>• 11-3 Relate Percents to Decimals—pp. 258–259 (TE Develop Concepts: Marking Benchmarks, strip diagrams, number lines)<br>• 11-4 Relate Decimals, Fractions, and Percents—pp. 260–261 (Connect decimals, fractions, and percents; number lines) |
| (G) generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money; and | **Chapter 11: 11-2 through 11-6**<br>• 11-2 Relate Percents to Fractions—pp. 256–257 (Rename percents and fractions; TE Develop Concepts: Race to Equate)<br>• 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)<br>• 11-4 Relate Decimals, Fractions, and Percents—pp. 260–261 (Connect decimals, fractions, and percents; TE Develop Concepts: Repeat or Terminate?)<br>• 11-5 Percents Greater Than 100%—pp. 262–263 (Rename percents greater than 100%; problems involving money; TE Develop Concepts: Equivalent Numbers, Different Ways (improper fractions))<br>• 11-6 Percents Less Than 1%—pp. 264–265 (Rename percents less than 1%; TE Develop Concepts: Patterns in Division) |
| (H) convert units within a measurement system, including the use of proportions and unit rates. | **Chapter 12: 12-1 through 12-4**<br>• 12-1 Convert Customary Units—pp. 282–283 (Use ratio reasoning to convert customary units; TE Develop Concepts: Comparing Units of Measure)<br>• 12-2 Convert Metric Units—pp. 284–285 (Use ratio reasoning to convert between metric units; TE Develop Concepts: Comparing Metric Measures)<br>• 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)<br>• 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)) |
| **(5) Proportionality. The student applies mathematical process standards to solve problems involving proportional relationships. The student is expected to:** | |
| (A) represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions; | **Chapter 11: 11-7 through 11-10**<br>• 11-7 Find the Part—pp. 268–269 (Multiply a whole by a percent to find the part; TE Develop Concepts: What Are the Parts?)<br>• 11-8 Find the Percent—pp. 270–271 (Divide a part by a whole to find a percent; TE Develop Concepts: Tic-Tac-Go! (equivalent decimals, percents, fractions))<br>• 11-9 Find the Whole—pp. 272–273 (Use a formula to find a whole given the part and percent; TE Develop Concepts: Decimal Division Challenge)<br>• 11-10 Problem Solving: Act it Out—pp. 274–275 (Act it out to solve problems; TE Develop Concepts: Play the Part) |

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| (B) solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models; and | **Chapter 11: 11-7 through 11-10**<br>• 11-7 Find the Part—pp. 268–269 (Multiply a whole by a percent to find the part; TE Develop Concepts: What Are the Parts?)<br>• 11-8 Find the Percent—pp. 270–271 (Divide a part by a whole to find a percent; TE Develop Concepts: Tic-Tac-Go! (equivalent decimals, percents, fractions))<br>• 11-9 Find the Whole—pp. 272–273 (Use a formula to find a whole given the part and percent; TE Develop Concepts: Decimal Division Challenge)<br>• 11-10 Problem Solving: Act it Out—pp. 274–275 (Act it out to solve problems; TE Develop Concepts: Play the Part) |
| (C) use equivalent fractions, decimals, and percents to show equal parts of the same whole. | **Chapter 11: 11-5 & 11-8**<br>• 11-5 Percents Greater Than 100%—pp. 262–263 (Rename percents greater than 100%; TE Develop Concepts: Equivalent Numbers, Different Ways (improper fractions))<br>• 11-8 Find the Percent—pp. 270–271 (Divide a part by a whole to find a percent; TE Develop Concepts: Tic-Tac-Go! (equivalent decimals, percents, fractions)) |
| **(6) Expressions, equations, and relationships. The student applies mathematical process standards to use multiple representations to describe algebraic relationships. The student is expected to:** | |
| (A) identify independent and dependent quantities from tables and graphs; | **Chapter 13: 13-1 through 13-5**<br>• 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)<br>• 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)<br>• 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))<br>• 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)<br>• 13-5 Problem Solving: Guess and Test—pp. 308–309 (Use a table or graph to guess and test to solve problems; TE Develop Concepts: Mathematical Riddles) |
| (B) write an equation that represents the relationship between independent and dependent quantities from a table; and | **Chapter 13: 13-3 & 13-4**<br>• 13-3 Relationships in Equations and Graphs—pp. 302–303 (Use graphs and equations to describe relationships between dependent and independent variables; quantities from a table; TE Develop Concepts: Concentrate on Relationships (between two variables))<br>• 13-4 Multiple Representations of a Relationship—pp. 306–307 (Use tables, equations, and graphs to represent the relationship between independent and dependent variables; write an equation; TE Develop Concepts: Make More Equal Parts) |

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| (C) represent a given situation using verbal descriptions, tables, graphs, and equations in the form $y = kx$ or $y = x + b$. | **Chapter 13: 13-1 through 13-5**<br>• 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)<br>• 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)<br>• 13-3 Relationships in Equations and Graphs—pp. 302–303 (Use graphs and equations to describe relationships between dependent and independent variables; multiplicative pattern: $y = kx$; Practice: additive pattern: $y = x + b$; TE Develop Concepts: Concentrate on Relationships (between two variables))<br>• 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)<br>• 13-5 Problem Solving: Guess and Test—pp. 308–309 (Use a table or graph to guess and test to solve problems; TE Develop Concepts: Mathematical Riddles) |
| **(7) Expressions, equations, and relationships. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to:** | |
| (A) generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization; | **Chapter 4: 4-1 through 4-7**<br>• 4-1 Exponents—pp. 70–71 (Write and evaluate expressions with exponents; TE Develop Concepts: Powers of 10)<br>• 4-2 Order of Operations—pp. 72–73 (Use the order of operations to simplify expressions; TE Develop Concepts: Recognize the Need for Order)<br>• 4-3 Parts of Expressions—pp. 74–75 (Identify parts of an expression; TE Develop Concepts: Identify Parts of Expressions)<br>• 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)<br>• 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)<br>• 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)<br>• 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)<br>**Chapter 6: 6-1**<br>• 6-1 Prime Factorization—pp. 124–125 (Use prime factorization to solve problems; TE Develop Concepts: Picturing Factors) |

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| (B) distinguish between expressions and equations verbally, numerically, and algebraically; | **Chapter 1: 1-2 & 1-4**<br>• 1-2 Add Decimals—pp. 4–5 (Definition of numerical expression)<br>• 1-4 Write Addition and Subtraction Expressions—pp. 10–11 (Definition of algebraic expression; TE Develop Concepts: Write Numerical Expressions in Symbols and Words)<br>**Chapter 4: 4-3 & 4-4**<br>• 4-3 Parts of Expressions—pp. 74–75 (Identify parts of an expression; TE Develop Concepts: Identify Parts of Expressions)<br>• 4-4 Translate Expressions—pp. 76–77 (Use numbers and variables to translate word phrases to expressions; numerical expressions, algebraic expressions; TE Develop Concepts: Analyze and Compare Numerical Expressions)<br>**Chapter 5: 5-1**<br>• 5-1 Solutions of Equations—pp. 98–99 (Use substitution to determine whether a value is a solution of an equation; definition of equation; TE Develop Concepts: Evaluate Expressions) |
| (C) determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations; and | **Chapter 4: 4-8**<br>• 4-8 Identify Equivalent Expressions—pp. 86–87 (Identify equivalent expressions; TE Develop Concepts: Explore Identity Properties) |
| (D) generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties. | **Chapter 4: 4-7 & 4-8**<br>• 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)<br>• 4-8 Identify Equivalent Expressions—pp. 86–87 (Identify equivalent expressions; TE Develop Concepts: Explore Identity Properties) |
| **(8) Expressions, equations, and relationships. The student applies mathematical process standards to use geometry to represent relationships and solve problems. The student is expected to:** | |
| (A) extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle, and determining when three lengths form a triangle; | See Grade 5<br>**Chapter 15: 15-1 & 15-2**<br>• 15-1 Polygons—pp. 342–343 (Understand and use attributes of polygons; a triangle has three sides; TE Develop Concepts: Geometric Definitions)<br>• 15-2 Triangles—pp. 344–345 (Understand and use attributes of triangles; TE Develop Concepts: Classifying Angles) |

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| (B) model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes; | **Chapter 14: 14-1 through 14-3**<br>• 14-1 Areas of Parallelograms and Rhombuses—pp. 316–317 (Find the areas of parallelograms; TE Develop Concepts: Name Banners)<br>• 14-2 Areas of Triangles—pp. 318–319 (Use a formula to find the area of triangles; decompose a parallelogram; TE Develop Concepts: Areas of Complex Figures)<br>• 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) |
| (C) write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers; and | **Chapter 14: 14-1 through 14-3**<br>• 14-1 Areas of Parallelograms and Rhombuses—pp. 316–317 (Find the areas of parallelograms; TE Develop Concepts: Name Banners)<br>• 14-2 Areas of Triangles—pp. 318–319 (Use a formula to find the area of triangles; TE Develop Concepts: Areas of Complex Figures)<br>• 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)<br>**Chapter 15: 15-4 & 15-5**<br>• 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)<br>• 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) |
| (D) determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers. | |
| **(9) Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to represent situations. The student is expected to:** | |
| (A) write one-variable, one-step equations and inequalities to represent constraints or conditions within problems; | **Chapter 5: 5-2 through 5-4, 5-7**<br>• 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)<br>• 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)<br>• 5-4 Write and Solve Equations—pp. 104–105 (Solve problems by writing and solving equations; TE Develop Concepts: Translating Words into Mathematics)<br>• 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)) |

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| (B) represent solutions for one-variable, one-step equations and inequalities on number lines; and | **Chapter 5: 5-1 through 5-3, 5-6**<br>• 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)<br>• 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)<br>• 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)<br>• 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)<br>• 5-8 Solve Inequalities—pp. 114–115 (Solve one-step inequalities; TE Develop Concepts: Equation Stations (equivalent equations))<br>• 5-9 Problem Solving: Write and Solve an Equation—pp. 116–117 (Use the problem-solving strategy write and solve an equation; TE Develop Concepts: Analyze Sale Prices (write equations, discounts/ sales tax, best-value deal)) |
| (C) write corresponding real-world problems given one-variable, one-step equations or inequalities. | **Chapter 5: 5-6, 5-7 & 5-9**<br>• 5-6 Solutions of Inequalities—pp. 110–111 (TE Early Finishers: describe real-world situation that could be modeled by the graph)<br>• 5-7 Write Inequalities—pp. 112–113 (Problem Solving: Write a problem scenario that represents the inequality; Workbook: Write a real-world situation that represents each inequality)<br>• 5-9 Problem Solving: Write and Solve an Equation—pp. 116–117 (TE Early Finishers: prepare list of office supplies then analyze prices, including discounts and coupons, to find the lowest cost) |
| **(10) Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to solve problems. The student is expected to:** | |
| (A) model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts; and | **Chapter 5: 5-4, 5-7 & 5-8**<br>• 5-4 Write and Solve Equations—pp. 104–105 (Solve problems by writing and solving equations; TE Develop Concepts: Translating Words into Mathematics)<br>• 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))<br>• 5-8 Solve Inequalities—pp. 114–115 (Solve one-step inequalities; TE Develop Concepts: Equation Stations (equivalent equations)) |

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| (B) determine if the given value(s) make(s) one-variable, one-step equations or inequalities true. | **Chapter 5: 5-1 through 5-3**<br>• 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)<br>• 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)<br>• 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) |
| **(11) Measurement and data. The student applies mathematical process standards to use coordinate geometry to identify locations on a plane. The student is expected to graph points in all four quadrants using ordered pairs of rational numbers.** | |
| | **Chapter 9: 9-1 through 9-11**<br>• 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)<br>• 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)<br>• 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)<br>• 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)<br>• 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) |
| **(12) Measurement and data. The student applies mathematical process standards to use numerical or graphical representations to analyze problems. The student is expected to:** | |
| (A) represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots; | **Chapter 17: 17-1 through 17-3**<br>• 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)<br>• 17-2 Box Plots—pp. 380–381 (Make and read box plots; TE Develop Concepts: Visualizing Data)<br>• 17-3 Histograms—pp. 382–383 (Make and read frequency tables and histograms; TE Develop Concepts: Frequency Tables)<br>*No stem-and-leaf plots at this level. |

## Chapter 111. Subchapter B. Elementary, §111.26, Grade 6, Adopted 2012.

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| (B) use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution; | **Chapter 16: 16-2 through 16-5**<br>• 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)<br>• 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)<br>• 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 (Determine mean absolute deviation; TE Develop Concepts: Making Line Plots with People)<br>• 16-5 Analyze Data—pp. 368–369 (Identify clusters, gaps, and outliers and use them to analyze data; TE Develop Concepts: Analyze Statistical Pictures)<br>**Chapter 17: 17-4**<br>• 17-4 Data Distributions—pp. 386–387 (Use data displays to describe data; measure of variation; TE Develop Concepts: Describe Data) |
| (C) summarize numeric data with numerical summaries, including the mean and median (measures of center) and the range and interquartile range (IQR) (measures of spread), and use these summaries to describe the center, spread, and shape of the data distribution; and | **Chapter 16: 16-2 through 16-6**<br>• 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)<br>• 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)<br>• 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 (Determine mean absolute deviation; TE Develop Concepts: Making Line Plots with People)<br>• 16-5 Analyze Data—pp. 368–369 (Identify clusters, gaps, and outliers and use them to analyze data; TE Develop Concepts: Analyze Statistical Pictures)<br>• 16-6 Problem Solving: Work Backward—pp. 370–371 (Work backward to solve problems; TE Develop Concepts: Make More Equal Parts)<br>**Chapter 17: 17-4**<br>• 17-4 Data Distributions—pp. 386–387 (Use data displays to describe data; measure of variation; TE Develop Concepts: Describe Data) |
| (D) summarize categorical data with numerical and graphical summaries, including the mode, the percent of values in each category (relative frequency table), and the percent bar graph, and use these summaries to describe the data distribution. | **Chapter 17: 17-1 through 17-6**<br>• 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)<br>• 17-2 Box Plots—pp. 380–381 (Make and read box plots; TE Develop Concepts: Visualizing Data)<br>• 17-3 Histograms—pp. 382–383 (Make and read frequency tables and histograms; TE Develop Concepts: Frequency Tables)<br>• 17-4 Data Distributions—pp. 386–387 (Use data displays to describe data; TE Develop Concepts: Describe Data)<br>• 17-5 Interpret Circle Graphs—pp. 388–389 (Interpret circle graphs; Write About It: percent circle graph; TE Develop Concepts: Fraction Circles)<br>• 17-6 Problem Solving: Compare Models—pp. 390–391 (Compare models to solve problems; dot plot, box plot, histogram; TE Develop Concepts: Different Displays for Data) |

## Chapter 111. Subchapter B. Elementary, §111.26, Grade 6, Adopted 2012.

| Grade 6 Content Standards | *Sadlier Math*, Grade 6 |
|---|---|
| **(13) Measurement and data. The student applies mathematical process standards to use numerical or graphical representations to solve problems. The student is expected to:** | |
| (A) interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms, and box plots; and | **Chapter 17: 17-1 through 17-4, 17-6**<br>• 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)<br>• 17-2 Box Plots—pp. 380–381 (Make and read box plots; TE Develop Concepts: Visualizing Data)<br>• 17-3 Histograms—pp. 382–383 (Make and read frequency tables and histograms; TE Develop Concepts: Frequency Tables)<br>• 17-4 Data Distributions—pp. 386–387 (Use data displays to describe data; TE Develop Concepts: Describe Data)<br>• 17-6 Problem Solving: Compare Models—pp. 390–391 (Compare models to solve problems; dot plot, box plot, histogram; TE Develop Concepts: Different Displays for Data)<br>*No stem-and-leaf plots at this level. |
| (B) distinguish between situations that yield data with and without variability. | **Chapter 16: 16-3 & 16-4**<br>• 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)<br>• 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 (Determine mean absolute deviation; TE Develop Concepts: Making Line Plots with People)<br>**Chapter 17: 17-4**<br>• 17-4 Data Distributions—pp. 386–387 (Use data displays to describe data; measure of variation; TE Develop Concepts: Describe Data) |
| **(14) Personal financial literacy. The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor. The student is expected to:** | |
| | N/A |