Sadlier Math™
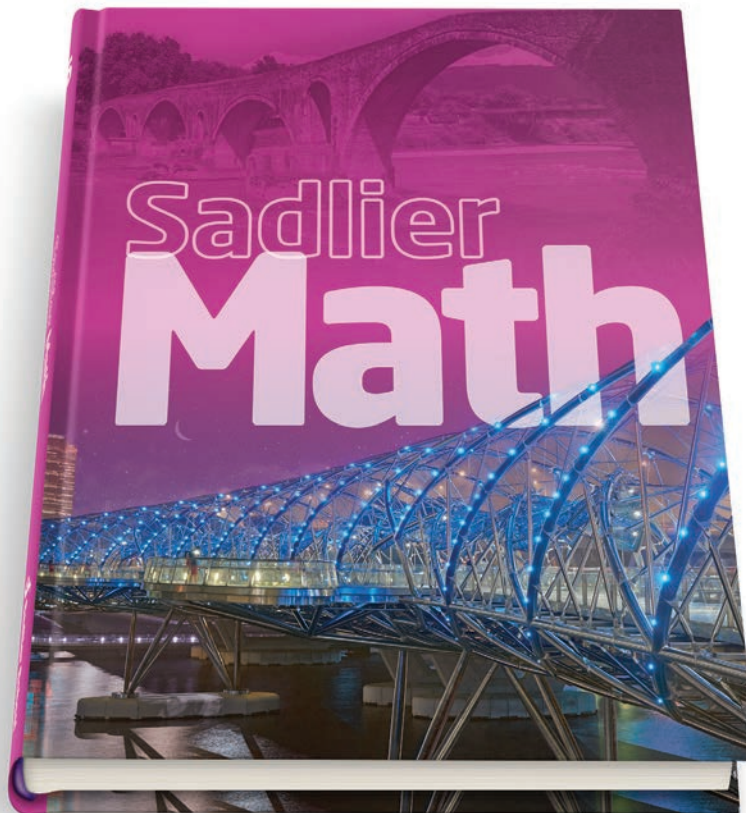
Correlation to the Archdiocese of Louisville
Mathematics Standards 2019

Grade 6

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Sadlier® School

RATIOS AND PROPORTIONAL RELATIONSHIPS (RP)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.1 Understand ratio concepts and use ratio reasoning to solve problems.	
*OCS.Math.6.1a Describe a ratio relationship between two quantities using ratio language (for every, per time, as many)	**Chapter 10 Ratios and Proportional Relationships** • 10-1 Ratios—pp. 226–227
OCS.Math.6.1b Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0	**Chapter 10 Ratios and Proportional Relationships** • 10-6 Rates and Unit Rates—pp. 238–239
*OCS.Math.6.1c Use rate language in the context of a ratio relationship	**Relationships** • 10-6 Rates and Unit Rates—pp. 238–239 • 10-7 Compare Prices—pp. 240–241
OCS.Math.6.1d Use ratio and rate reasoning to solve real world problems problems including those involving unit pricing and constant	**Chapter 10 Ratios and Proportional Relationships** • 10-1 Ratios—pp. 226–227 • 10-2 Tables of Equivalent Ratios—pp. 228–229 • 10-3 Tape Diagrams—pp. 230–231 • 10-4 Double Number Lines—pp. 232–233 • 10-7 Compare Prices—pp. 240–241
*OCS.Math.6.1e Compare equivalent ratios	**Chapter 10 Ratios and Proportional Relationships** • 10-5 Compare Ratios—pp. 236–237
*OCS.Math.6.1f Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables	**Chapter 10 Ratios and Proportional Relationships** • 10-2 Tables of Equivalent Ratios—pp. 228–229 • 10-5 Compare Ratios—pp. 236–237 • 10-7 Compare Prices—pp. 240–241 • 10-9 Graphs of Proportional Relationships—pp. 244–245 • 10-10 Problem Solving: Make a Table—pp. 246–247
*OCS.Math.6.1g Use tables to compare ratios	**Chapter 10 Ratios and Proportional Relationships** • 10-2 Tables of Equivalent Ratios—pp. 228–229 • 10-5 Compare Ratios—pp. 236–237 • 10-10 Problem Solving: Make a Table—pp. 246–247
OCS.Math.6.1h Find a percent of a quantity as a rate per 100	**Chapter 11 Percent** • 11-1 Percent—pp. 254–255 • 11-2 Relate Percents to Fractions—pp. 256–257 • 11-3 Relate Percents to Decimals—pp. 258–259 • 11-4 Relate Decimals, Fractions, and Percents—pp. 260–261 • 11-5 Percents Greater Than 100%—pp. 262–263 • 11-6 Percents Less Than 1%—pp. 2
OCS.Math.6.1i Solve problems by finding the whole, given a part and a percent	**Chapter 11 Percent** • 11-7 Find the Part—pp. 268–269 • 11-8 Find the Percent—pp. 270–271 • 11-9 Find the Whole—pp. 272–273 • 11-10 Problem Solving: Act it Out—pp. 274–275

RATIOS AND PROPORTIONAL RELATIONSHIPS (RP)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
*OCS.Math.6.1j Convert measurement units using ratio reasoning	**Chapter 12 Measurement** • 12-1 Convert Customary Units—pp. 282–283 • 12-2 Convert Metric Units—pp. 284–285 • 12-3 Convert Between Customary and Metric Units—pp. 288–289 • 12-4 Problem Solving: Choose a Strategy—pp. 290–291

OCS.Math.6.1k Distiguish porportional relationships from additive relationships	**Chapter 10 Ratios and Proportional Relationships**
	• 10-8 Equations for Proportional Relationships—pp. 242–243
	• 10-9 Graphs of Proportional Relationships—pp. 244–245
	See also Grade 4 related content
	    Chapter 5 Multiply by One-Digit Numbers
	    • 5-5 Multiplicative and Additive Comparisons—pp. 98–99

THE NUMBER SYSTEM (NS)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.2 Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	

*OCS.Math.6.2a Interpret and compute products of fractions and mixed numbers	**Chapter 8 Multiply and Divide Fractions**
	• 8-1 Multiply Fractions—pp. 164–165
	• 8-2 Properties of Multiplication—pp. 166–167
	• 8-10 Multiplication and Division Expressions with Fractions—pp. 184–185
	• 8-11 Multiplication and Division Equations with Fractions—pp. 186–187
	See also
	    Grade 6 Skills Update and Practice
	    • Model Multiplying Fractions—online

*OCS.Math.6.2b Interpret and compute quotients of fractions and mixed numbers	**Chapter 8 Multiply and Divide Fractions**
	• 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
	See also
	    Grade 6 Skills Update and Practice
	    • Interpret a Fraction as Division—online
	    • Divide Unit Fractions and Whole Numbers—online

THE NUMBER SYSTEM (NS)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
*OCS.Math.6.2c Solve word problems involving multiplication and division of fractions including improper fractions using visual models	**Chapter 8 Multiply and Divide Fractions** • 8-1 Multiply Fractions—pp. 164–165 • 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

OCS.Math.6.3 Multiply and divide multi-digit numbers and find common factors and multiples.

*OCS.Math.6.3a Fluently divide multi-digit numbers using an algorithm	**Chapter 3 Division Operations and Expressions** • 3-1 Divide Whole Numbers—pp. 42–43
*OCS.Math.6.3b Convert a rational number to a decimal using long division	**Chapter 7 Fractions and Decimals** • 7-3 Rename Fractions as Decimals—pp. 146–147
OCS.Math.6.3c Explain that the decimal form of a rational number terminates in zeros or eventually repeats	**Chapter 7 Fractions and Decimals** • 7-3 Rename Fractions as Decimals—pp. 146–147

*OCS.Math.6.3d Fluently add, subtract, multiply, and divide multi-digit decimals using an algorithm for each operation	**Chapter 1 Addition and Subtraction Operations and Expressions**
	• 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 Multiplication Operations and Expressions
	• 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
	
	Chapter 3 Division Operations and Expressions
	• 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
	
	See also
	  Grade 6 Skills Update and Practice
	  • Add Decimals—online
	  • Subtract Decimals—online
	
	continued

THE NUMBER SYSTEM (NS)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
	• Multiply Decimals—online • Divide Decimals—online
OCS.Math.6.3e Use the distributive property to find equivalent expressions	**Chapter 6 Factors and Multiples** • 6-3 The Distributive Property and Common Factors—pp. 128–129
***OCS.Math.6.3f** Using prime factorization, find the greatest common factor and least common multiple of two or more whole numbers	**Chapter 6 Factors and Multiples** • 6-1 Prime Factorization—pp. 124–125 • 6-2 Greatest Common Factor—pp. 126–127 • 6-4 Least Common Multiple—pp. 132–133

OCS.Math.6.4 Apply and extend previous understandings of numbers to the system of rational numbers.

***OCS.Math.6.4a** Show that positive and negative numbers are used together to describe quantities having opposite directions or values	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-2 Integers in the Real World—pp. 198–199
***OCS.Math.6.4b** Use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-2 Integers in the Real World—pp. 198–199
***OCS.Math.6.4c** Extend number line diagrams and coordinate axes to include negative numbers and coordinates	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-1 Integers on the Number Line—pp. 196–197
***OCS.Math.6.4d** Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-1 Integers on the Number Line—pp. 196–197
OCS.Math.6.4e Recognize 0 is its own opposite, the opposite of a negative number is a positive and the opposite of a positive number is a negative	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-1 Integers on the Number Line—pp. 196–197
***OCS.Math.6.4f** Find and position integers and other rational numbers on a horizontal or vertical number line diagram	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-1 Integers on the Number Line—pp. 196–197 • 9-2 Integers in the Real World—pp. 198–199 • 9-5 Rational Numbers—pp. 204–205
OCS.Math.6.4g Find and position pairs of integers and other rational numbers on a coordinate plane	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-7 Plot Points in the Coordinate Plane—pp. 210–211 *See also* **Grade 6 Skills Update and Practice** • The Coordinate Plane—online

THE NUMBER SYSTEM (NS)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.4h Use the signs of numbers in ordered pairs to locate points in all quadrants of the coordinate plane	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-7 Plot Points in the Coordinate Plane—pp. 210–211 *See also* **Grade 6 Skills Update and Practice** • The Coordinate Plane—online
***OCS.Math.6.4i** Interpret the absolute value of a rational number as its distance from 0 on the number line	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-3 Compare and Order Integers (interpret absolute value)—pp. 200–201 • 9-4 Absolute Value as Magnitude—pp. 202–203
***OCS.Math.6.4j** Compare and order values (integers, rational numbers, and absolute value) on an number line	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-3 Compare and Order Integers—pp. 200–201 • 9-6 Compare and Order Rational Numbers—pp. 206–207
OCS.Math.6.4k Order, interpret and explain rational numbers in real-world contexts	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-3 Compare and Order Integers—pp. 200–201 • 9-6 Compare and Order Rational Numbers—pp. 206–207
OCS.Math.6.4l Interpret absolute value in real-world situations	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-3 Compare and Order Integers (absolute value)—pp. 200–201 • 9-4 Absolute Value as Magnitude—pp. 202–203
OCS.Math.6.4m Distiguish comparisons of absolute value from statements about order	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-3 Compare and Order Integers (absolute value)—pp. 200–201 • 9-4 Absolute Value as Magnitude—pp. 202–203

OCS.Math.6.4n Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane	**Chapter 9 Rational Numbers and the Coordinate Plane**
	• 9-7 Plot Points in the Coordinate Plane—pp. 210–211
	• 9-8 Reflections of Points—pp. 212–213
	• 9-9 Distance on the Coordinate Plane—pp. 214–215
	• 9-10 Plot Polygons—pp. 216–217
	• 9-11 Problem Solving: Draw a Picture—pp. 218–219
	See also
	 Grade 6 Skills Update and Practice
	  • The Coordinate Plane—online
	  • Use Coordinate Graphs—online

OCS.Math.6.4o Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate	**Chapter 9 Rational Numbers and the Coordinate Plane** • 9-4 Absolute Value as Magnitude—pp. 202–203 • 9-9 Distance on the Coordinate Plane—pp. 214–215
OCS.Math.6.4p Add, subtract, multiply and divide integers	N/A

EXPRESSIONS AND EQUATIONS (EE)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.5 Apply and extend previous understandings of arithmetic to algebraic expressions.	
***OCS.Math.6.5a** Write numerical expressions involving whole-number exponents	**Chapter 4 Numerical and Algebraic Expressions** • 4-1 Exponents—pp. 70–71
***OCS.Math.6.5b** Evaluate numerical expressions involving whole-number exponents	**Chapter 4 Numerical and Algebraic Expressions** • 4-1 Exponents—pp. 70–71 • 4-2 Order of Operations—pp. 72–73
OCS.Math.6.5c Write expressions that record operations with numbers and with letters standing for numbers (variables)	**Chapter 1 Addition and Subtraction Operations and Expressions** • 1-4 Write Addition and Subtraction Expressions—pp. 10–11 **Chapter 2 Multiplication Operations and Expressions** • 2-4 Write Multiplication Expressions—pp. 30–31 **Chapter 3 Division Operations and Expressions** • 3-8 Write Division Expressions—pp. 58–59
***OCS.Math.6.5d** Apply order of operations to evaluate an expression involving positive whole numbers	**Chapter 4 Numerical and Algebraic Expressions** • 4-1 Exponents—pp. 70–71 • 4-2 Order of Operations—pp. 72–73
OCS.Math.6.5e Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient)	**Chapter 1 Addition and Subtraction Operations and Expressions** • 1-4 Write Addition and Subtraction Expressions—pp. 10–11 **Chapter 2 Multiplication Operations and Expressions** • 2-1 Multiply Decimals by 0.1, 0.01, and 0.001—pp. 22–23 • 2-4 Write Multiplication Expressions—pp. 30–31 **Chapter 3 Division Operations and Expressions** • 3-8 Write Division Expressions—pp. 58–59 **Chapter 4 Numerical and Algebraic Expressions** • 4-3 Parts of Expressions—pp. 74–75
OCS.Math.6.5f Apply the properties of operations (associative, commutative, and distributive) to generate equivalent expressions	**Chapter 4 Numerical and Algebraic Expressions** • 4-7 Apply Properties to Write Equivalent Expressions—pp. 84–85
OCS.Math.6.5g Determine the equivalency of two expressions	**Chapter 4 Numerical and Algebraic Expressions** • 4-8 Identify Equivalent Expressions—pp. 86–87
OCS.Math.6.6 Reason about and solve one-variable equations and inequalities.	
OCS.Math.6.6a Determine the set of values that make an equation or inequality true	**Chapter 5 One-Variable Equations and Inequalities** • 5-1 Solutions of Equations—pp. 98–99 • 5-6 Solutions of Inequalities—pp. 110–111

EXPRESSIONS AND EQUATIONS (EE)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.6b Use substitution to determine whether a given number in a specified set makes an equation or inequality true	**Chapter 5 One-Variable Equations and Inequalities** • 5-1 Solutions of Equations—pp. 98–99 • 5-6 Solutions of Inequalities—pp. 110–111

OCS.Math.6.6c Solve real-world or mathematical problems by writing expressions with variables representing numbers	**Chapter 1 Addition and Subtraction Operations and Expressions**
	• 1-5 Evaluate Addition and Subtraction Expressions—pp. 12–13
	
	Chapter 2 Multiplication Operations and Expressions
	• 2-5 Evaluate Multiplication Expressions—pp. 32–33
	
	Chapter 3 Division Operations and Expressions
	• 3-9 Evaluate Division Expressions—pp. 60–61
	
	Chapter 4 Numerical and Algebraic Expressions
	• 4-2 Order of Operations—pp. 72–73
	• 4-6 Use the Distributive Property and Evaluate Algebraic Expressions—pp. 82–83
	• 4-8 Identify Equivalent Expressions—pp. 86–87
	• 4-9 Use Formulas—pp. 88–89
	
	Chapter 7 Fractions and Decimals
	• 7-5 Addition and Subtraction Expressions with Fractions—pp. 152–153
	
	Chapter 8 Multiply and Divide Fractions
	• 8-10 Multiplication and Division Expressions with Fractions—pp. 184–185
	
	See also
	  Grade 6 Skills Update and Practice
	    • Expressions—online

OCS.Math.6.6d Solve real-world and mathematical problems by writing and solving addition and multiplication equations	**Chapter 4 Numerical and Algebraic Expressions** • 4-9 Use Formulas—pp. 88–89 **Chapter 5 One-Variable Equations and Inequalities** • 5-2 Addition and Subtraction Equations—pp. 100–101 • 5-3 Multiplication and Division Equations—pp. 102–103 • 5-4 Write and Solve Equations—pp. 104–105 • 5-9 Problem Solving: Write and Solve an Equation—pp. 116–117 **Chapter 7 Fractions and Decimals** • 7-6 Addition and Subtraction Equations with Fractions—pp. 154–155 **Chapter 8 Multiply and Divide Fractions** • 8-11 Multiplication and Division Equations with Fractions—pp. 186–187

EXPRESSIONS AND EQUATIONS (EE)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.6e Write an inequality of the form $x > c$, $x < c$, $x \geq c$, and $x \leq c$ to represent a constraint or condition in a real-world or mathematical problem	**Chapter 5 One-Variable Equations and Inequalities** • 5-5 Inequalities—pp. 108–109 • 5-7 Write Inequalities—pp. 112–113
OCS.Math.6.6f Show that inequalities of these forms $x > c$, $x < c$, $x \geq c$, and $x \leq c$ have infinitely many solutions	**Chapter 5 One-Variable Equations and Inequalities** • 5-6 Solutions of Inequalities—pp. 110–111
OCS.Math.6.6g Represent solutions of inequalities $x > c$, $x < c$, $x \geq c$, and $x \leq c$ on number line diagrams	**Chapter 5 One-Variable Equations and Inequalities** • 5-6 Solutions of Inequalities—pp. 110–111 • 5-7 Write Inequalities—pp. 112–113

OCS.Math.6.7 Represent and analyze quantitative relationships between dependent and independent variables.

OCS.Math.6.7a Solve real-world problems that use variables to represent two quantities that change in relationship to one another	**Chapter 13 Two-Variable Relationships** • 13-1 Related Quantities—pp. 298–299 • 13-2 Relationships in Words and Tables—pp. 300–301 • 13-3 Relationships in Equations and Graphs—pp. 302–303 • 13-4 Multiple Representations of a Relationship—pp. 306–307 • 13-5 Problem Solving: Guess and Test—pp. 308–309
OCS.Math.6.7b Write an equation that expresses one quantity as the independent variable and the second quantity as the dependent variable	**Chapter 13 Two-Variable Relationships** • 13-2 Relationships in Words and Tables—pp. 300–301 • 13-3 Relationships in Equations and Graphs—pp. 302–303 • 13-4 Multiple Representations of a Relationship—pp. 306–307 • 13-5 Problem Solving: Guess and Test—pp. 308–309
OCS.Math.6.7c Analyze the relationship between the dependent and independent variables using graphs and tables	**Chapter 13 Two-Variable Relationships** • 13-2 Relationships in Words and Tables—pp. 300–301 • 13-3 Relationships in Equations and Graphs—pp. 302–303 • 13-4 Multiple Representations of a Relationship—pp. 306–307 • 13-5 Problem Solving: Guess and Test—pp. 308–309
OCS.Math.6.7d Relate graphs and tables to a written equation that expresses one quantity as the independent variable and the second quantity as the dependent variable	**Chapter 13 Two-Variable Relationships** • 13-2 Relationships in Words and Tables—pp. 300–301 • 13-3 Relationships in Equations and Graphs—pp. 302–303 • 13-4 Multiple Representations of a Relationship—pp. 306–307 • 13-5 Problem Solving: Guess and Test—pp. 308–309

GEOMETRY (G)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.8 Solve real-world and mathematical problems involving area, surface area, and volume.	
*OCS.Math.6.8a Find the area of right triangles and other triangles by composing into rectangles	**Chapter 14 Geometry: Area** • 14-2 Areas of Triangles—pp. 318–319
OCS.Math.6.8b Find the area of special quadrilaterals and polygons by composing into rectangles or decomposing into triangles and quadrilaterals	**Chapter 14 Geometry: Area** • 14-1 Areas of Parallelograms and Rhombuses—pp. 316–317 • 14-3 Areas of Trapezoids—pp. 320–321 • 14-5 Areas of Regular Polygons—pp. 326–327 • 14-6 Areas of Composite Figures—pp. 328–329
*OCS.Math.6.8c Solve real world problems by finding the area of right triangles and other triangles	**Chapter 14 Geometry: Area** • 14-2 Areas of Triangles—pp. 318–319
OCS.Math.6.8d Solve real world problems by finding the area of special quadrilaterals and polygons by composing into rectangles or decomposing into triangles and quadrilaterals	**Chapter 14 Geometry: Area** • 14-1 Areas of Parallelograms and Rhombuses—pp. 316–317 • 14-2 Areas of Triangles—pp. 318–319 • 14-3 Areas of Trapezoids—pp. 320–321 • 14-5 Areas of Regular Polygons—pp. 326–327 • 14-6 Areas of Composite Figures—pp. 328–329

*OCS.Math.6.8e Find the volume of a right rectangular prism with rational number edge lengths	**Chapter 15 Geometry: Surface Area and Volume**
	• 15-4 Use Cubes to Find Volumes—pp. 346–347
	• 15-5 Volumes of Right Rectangular Prisms—pp. 348–349
	• 15-6 Problem Solving: More Than One Way—pp. 350–351
	See also
	   Grade 6 Skills Update and Practice
	    • Volume Formulas—online
	    • Volume: Right Rectangular Prism—online

*OCS.Math.6.8f Solve real world and mathematical problems by applying the formulas $V=lwh$ and $V=bh$ to find volumes of right rectangular prisms with rational number edge lengths	**Chapter 15 Geometry: Surface Area and Volume** • 15-5 Volumes of Right Rectangular Prisms—pp. 348–349 • 15-6 Problem Solving: More Than One Way—pp. 350–351

*OCS.Math.6.8g Draw polygons in the coordinate plane given coordinates for the vertices	**Chapter 9 Rational Numbers and the Coordinate Plane**
	• 9-10 Plot Polygons—pp. 216–217
	• 9-11 Problem Solving: Draw a Picture—pp. 218–219
	See also readiness
	   Chapter 9 Rational Numbers and the Coordinate Plane
	    • 9-7 Plot Points in the Coordinate Plane—pp. 210–211
	See also
	   Grade 6 Skills Update and Practice
	    • The Coordinate Plane—online
	    • Use Coordinate Graphs—online

GEOMETRY (G)

Grade 6 Content Standards	*Sadlier Math*, Grade 6

OCS.Math.6.8h Use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate	**Chapter 9 Rational Numbers and the Coordinate Plane**
	• 9-10 Plot Polygons—pp. 216–217
	• 9-11 Problem Solving: Draw a Picture—pp. 218–219
	See also readiness
	   Chapter 9 Rational Numbers and the Coordinate Plane
	   • 9-9 Distance on the Coordinate Plane—pp. 214–215

OCS.Math.6.8i Solve real-world problems by drawing polygons in the coordinate plane and finding the length of a side joining points with the same first or same second coordinate	**Chapter 9 Rational Numbers and the Coordinate Plane**
	• 9-10 Plot Polygons—pp. 216–217
	• 9-11 Problem Solving: Draw a Picture—pp. 218–219
	See also readiness
	   Chapter 9 Rational Numbers and the Coordinate Plane
	   • 9-9 Distance on the Coordinate Plane—pp. 214–215

STATISTICS AND PROBABILITY (SP)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.9 Develop understanding of statistical reasoning and variability.	
OCS.Math.6.9a Recognize a statistical question as one that anticipates variability in the date related to the question and accounts for it in the answers	**Chapter 16 Measures of Center and Variation** • 16-1 Statistical Questions—pp. 358–359
OCS.Math.6.9b Understand that a set of numerical data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape	**Chapter 16 Measures of Center and Variation** • 16-2 Measures of Center—pp. 360–361 • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 • 16-5 Analyze Data—pp. 368–369 **Chapter 17 Data Displays** • 17-2 Box Plots—pp. 380–381 • 17-4 Data Distributions—pp. 386–387
OCS.Math.6.9c Locate a measure of center for a numerical data set	**Chapter 16 Measures of Center and Variation** • 16-2 Measures of Center—pp. 360–361
OCS.Math.6.9d Locate a measure of variation for a numerical data set	**Chapter 16 Measures of Center and Variation** • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367

STATISTICS AND PROBABILITY (SP)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.9e Recognize that a measure of center for a numberical 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 16 Measures of Center and Variation** • 16-2 Measures of Center—pp. 360–361 • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367

OCS.Math.6.10 Summarize and describe distributions.

OCS.Math.6.10a Display the distribution of numerical data in plots on a number line, including dot plots, histograms, and box plots	**Chapter 17 Data Displays** • 17-1 Dot Plots—pp. 378–379 • 17-2 Box Plots—pp. 380–381 • 17-3 Histograms—pp. 382–383
OCS.Math.6.10b Summarize numerical data sets in relation to their context by reporting the number of observations	**Chapter 16 Measures of Center and Variation** • 16-2 Measures of Center—pp. 360–361 • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 • 16-5 Analyze Data—pp. 368–369 **Chapter 17 Data Displays** • 17-1 Dot Plots—pp. 378–379 • 17-2 Box Plots—pp. 380–381 • 17-3 Histograms—pp. 382–383 • 17-4 Data Distributions—pp. 386–387
OCS.Math.6.10c Summarize numerical data sets in relation to their context by describing how it was measured and its units of measurement	**Chapter 16 Measures of Center and Variation** • 16-2 Measures of Center—pp. 360–361 • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 • 16-5 Analyze Data—pp. 368–369 **Chapter 17 Data Displays** • 17-1 Dot Plots—pp. 378–379 • 17-2 Box Plots—pp. 380–381 • 17-3 Histograms—pp. 382–383 • 17-4 Data Distributions—pp. 386–387
OCS.Math.6.10d Summarize numerical data sets in relation to their context by using quantitative measures of central tendency	**Chapter 16 Measures of Center and Variation** • 16-2 Measures of Center—pp. 360–361

STATISTICS AND PROBABILITY (SP)

Grade 6 Content Standards	*Sadlier Math*, Grade 6
OCS.Math.6.10e Summarize numerical data sets in relation to their context by using quantitative measures of variability	**Chapter 16 Measures of Center and Variation** • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367
OCS.Math.6.10f Summarize numerical data sets in relation to their context by describing overall patterns and deviations from the overall patterns with reference to the context in which the data were gathered	**Chapter 16 Measures of Center and Variation** • 16-2 Measures of Center—pp. 360–361 • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 • 16-5 Analyze Data—pp. 368–369 **Chapter 17 Data Displays** • 17-1 Dot Plots—pp. 378–379 • 17-2 Box Plots—pp. 380–381 • 17-3 Histograms—pp. 382–383 • 17-4 Data Distributions—pp. 386–387
OCS.Math.6.10g Summarize numerical data sets in relation to their context by relating measures of central tendency and variability to the shape of the data distribution in the context in which the data were gathered	**Chapter 16 Measures of Center and Variation** • 16-2 Measures of Center—pp. 360–361 • 16-3 Measures of Variation: Range and Interquartile Range—pp. 362–363 • 16-4 Measure of Variation: Mean Absolute Deviation—pp. 366–367 • 16-5 Analyze Data—pp. 368–369 **Chapter 17 Data Displays** • 17-1 Dot Plots—pp. 378–379 • 17-2 Box Plots—pp. 380–381 • 17-3 Histograms—pp. 382–383 • 17-4 Data Distributions—pp. 386–387

OCS.Math.6.11 Determine the theoretical probability of an outcome in a probability experiment

OCS.Math.6.11a Express theoretical probability as a ratio of the number of favorable outcomes to the total number of possible outcomes	**Chapter 18 Sampling and Probability** • 18-4 Theoretical Probability—online
OCS.Math.6.11b Represent the probability of an event using a value from the range of 0 (never happens or impossible) to 1 (always happens or certain)	**Chapter 18 Sampling and Probability** • 18-3 Probability and Likelihood—online
OCS.Math.6.11c Predict the frequency of an outcome of a simple probability experiment or game, by calculating and using the theoretical probability of that outcome	**Chapter 18 Sampling and Probability** • 18-3 Probability and Likelihood—online • 18-4 Theoretical Probability—online • 18-8 Problem Solving: Make an Organized List—online