SADLIER

Foundations of Algebra

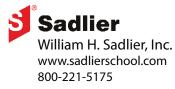Aligned to the

College & Career Ready Standards

Indiana

Academic Standards:
Mathematics

Grade 8

Sadlier *Foundations of Algebra*, Grade 8, Aligned to the
College & Career Ready Standards
Indiana Academic Standards: Mathematics: Grade 8

8

Number Sense

Indiana Academic Standards: Mathematics: Grade 8	Sadlier *Foundations of Algebra,* Grade 8
8.NS.1: Give examples of rational and irrational numbers and explain the difference between them. Understand that every number has a decimal expansion; for rational numbers, show that the decimal expansion repeats eventually, and convert a decimal expansion that repeats into a rational number.	**Instruction** 1-1 The Rational Numbers—TE pp. 2–3B; SB pp. 2–3 / PB pp. 1–2 1-2 The Rational Numbers on a Number Line—TE pp. 4–5B; SB pp. 4–5 / PB pp. 3–4 2-5 Irrational Numbers—TE pp. 44–45B; SB pp. 44–45 / PB pp. 47–48
8.NS.2: Use rational approximations of irrational numbers to compare the size of irrational numbers, plot them approximately on a number line, and estimate the value of expressions involving irrational numbers.	**Instruction** 2-4 Estimate Square Roots—TE pp. 42–43B; SB pp. 42–43 / PB pp. 45–46 2-5 Irrational Numbers—TE pp. 44–45B; SB pp. 44–45 / PB pp. 47–48
8.NS.3: Given a numeric expression with common rational number bases and integer exponents, apply the properties of exponents to generate equivalent expressions.	**Instruction** 1-12 Integral Exponents—TE pp. 24–25B; SB pp. 24–25 / PB pp. 23–24 1-13 Powers and Exponents—TE pp. 26–27B; SB pp. 26–27 / PB pp. 25–26
8.NS.4: Use square root symbols to represent solutions to equations of the form $x^2 = p$, where p is a positive rational number.	**Instruction** 2-3 Perfect Squares and Square Roots—TE pp. 40–41B; SB pp. 40–41 / PB pp. 43–44 2-4 Estimate Square Roots—TE pp. 42–43B; SB pp. 42–43 / PB pp. 45–46 *12-5A Perfect Cubes and Cube Roots—Online *12-5B Use Cube Root Symbols—Online

*Online lessons at progressinmathematics.com.

Sadlier *Foundations of Algebra*, Grade 8, Aligned to the
College & Career Ready Standards
Indiana Academic Standards: Mathematics: Grade 8

8

Computation

INDIANA ACADEMIC STANDARDS: MATHEMATICS: GRADE 8	SADLIER *FOUNDATIONS OF ALGEBRA,* GRADE 8
8.C.1: Solve real-world problems with rational numbers by using multiple operations.	**Instruction** 2-10 Special Right Triangles—TE pp. 54–55B; SB pp. 54–55 / PB pp. 57–58 3-14 Problem-Solving Strategy: Guess and Test—TE pp. 90–91B; SB pp. 90–91 / PB pp. 97–98 6-1 Relations and Functions—TE pp. 156–157B; SB pp. 156–157 / PB pp. 175–176 6-2 Graphs of Functions—TE pp. 158–159B; SB pp. 158–159 / PB pp. 177–178 6-10 Solve Systems of Equations by Graphing—TE pp. 174–175B; SB pp. 174–175 / PB pp. 193–194 6-11 Solve Systems of Equations by Substitution and Elimination—TE pp. 176–177B; SB pp. 176–177 / PB pp. 195–196 *6-11A Use Systems to Solve Problems—Online 6-14 Problem-Solving Strategy: Reason Logically—TE pp. 182–183B; SB pp. 182–183 / PB pp. 201–202 9-13 Problem-Solving Strategy: Adopt a Different Point of View—TE pp. 260–261B; SB pp. 260–261 / PB pp. 291–292 11-10 Problem-Solving Strategy: Account for All Possibilities—TE pp. 312–313B; SB pp. 312–313 / PB pp. 351–35 *12-6A Compute Missing Dimensions of Three-Dimensional Figures—Online
8.C.2: Solve real-world and other mathematical problems involving numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Interpret scientific notation that has been generated by technology, such as a scientific calculator, graphing calculator, or excel spreadsheet.	**Instruction** 2-2 Multiply and Divide in Scientific Notation—TE pp. 38–39B; SB pp. 38–39 / PB pp. 41–42

*Online lessons at progressinmathematics.com.

Sadlier *Foundations of Algebra*, Grade 8, Aligned to the
College & Career Ready Standards
Indiana Academic Standards: Mathematics: Grade 8

8

Algebra and Functions

INDIANA ACADEMIC STANDARDS: MATHEMATICS: GRADE 8	SADLIER *FOUNDATIONS OF ALGEBRA,* GRADE 8
8.AF.1: Solve linear equations with rational number coefficients fluently, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. Represent real-world problems using linear equations and inequalities in one variable and solve such problems.	**Instruction** 1-15 Problem-Solving Strategy: Make a Drawing—TE pp. 30–31B; SB pp. 30–31 / PB pp. 29–30 3-3 Equations—TE pp. 68–69B; SB pp. 68–69 / PB pp. 75–76 3-4 One-Step Addition and Subtraction Equations—TE pp. 70–71B; SB pp. 70–71 / PB pp. 77–78 3-5 One-Step Multiplication and Division Equations—TE pp. 72–73B; SB pp. 72–73 / PB pp. 79–80 *3-5A Identify Equations with One, Many, or No Solutions—Online *3-5B Solve Equations with One, Many, or No Solutions—Online 3-6 Model Two-Step Equations—TE pp. 74–75B; SB pp. 74–75 / PB pp. 81–82 3-7 Two-Step Equations—TE pp. 76–77B; SB pp. 76–77 / PB pp. 83–84 3-8 Multistep Equations with Grouping Symbols—TE pp. 78–79B; SB pp. 78–79 / PB pp. 85–86 3-9 Multistep Equations with Variables on Both Sides—TE pp. 80–81B; SB pp. 80–81 / PB pp. 87–88 3-10 Multistep Equations: Fractions and Decimals—TE pp. 82–83B; SB pp. 82–83 / PB pp. 89–90 3-14 Problem-Solving Strategy: Guess and Test—TE pp. 90–91B; SB pp. 90–91 / PB pp. 97–98 6-14 Problem-Solving Strategy: Reason Logically—TE pp. 182–183B; SB pp. 182–183 / PB pp. 201–202 7-2 Proportions—TE pp. 190–191B; SB pp. 190–191 / PB pp. 213–214 7-12 Problem-Solving Strategy: Solve a Simpler Problem—TE pp. 210–211B; SB pp. 210–211 / PB pp. 233–234 9-13 Problem-Solving Strategy: Adopt a Different Point of View—TE pp. 260–261B; SB pp. 260–261 / PB pp. 291–292 10-12 Problem-Solving Strategy: Work Backward—TE pp. 288–289B; SB pp. 288–289 / PB pp. 323–324 **Application** 12-11 Problem-Solving Strategy: Review of Strategies (Find a Pattern/Adopt a Different Point of View)—TE pp. 338–339B; SB pp. 338–339 / PB pp. 381–382
8.AF.2: Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by transforming a given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).	**Instruction** 1-15 Problem-Solving Strategy: Make a Drawing—TE pp. 30–31B; SB pp. 30–31 / PB pp. 29–30 3-3 Equations—TE pp. 68–69B; SB pp. 68–69 / PB pp. 75–76 3-4 One-Step Addition and Subtraction Equations—TE pp. 70–71B; SB pp. 70–71 / PB pp. 77–78 3-5 One-Step Multiplication and Division Equations—TE pp. 72–73B; SB pp. 72–73 / PB pp. 79–80 *3-5A Identify Equations with One, Many, or No Solutions—Online *3-5B Solve Equations with One, Many, or No Solutions—Online

*Online lessons at progressinmathematics.com.

Sadlier *Foundations of Algebra*, Grade 8, Aligned to the
College & Career Ready Standards
Indiana Academic Standards: Mathematics: Grade 8

8

Algebra and Functions

Indiana Academic Standards: Mathematics: Grade 8	Sadlier *Foundations of Algebra,* Grade 8
	3-6 Model Two-Step Equations—TE pp. 74–75B; SB pp. 74–75 / PB pp. 81–82
	3-7 Two-Step Equations—TE pp. 76–77B; SB pp. 76–77 / PB pp. 83–84
	3-8 Multistep Equations with Grouping Symbols—TE pp. 78–79B; SB pp. 78–79 / PB pp. 85–86
	3-9 Multistep Equations with Variables on Both Sides—TE pp. 80–81B; SB pp. 80–81 / PB pp. 87–88
	3-10 Multistep Equations: Fractions and Decimals—TE pp. 82–83B; SB pp. 82–83 / PB pp. 89–90
	3-14 Problem-Solving Strategy: Guess and Test—TE pp. 90–91B; SB pp. 90–91 / PB pp. 97–98
	6-14 Problem-Solving Strategy: Reason Logically—TE pp. 182–183B; SB pp. 182–183 / PB pp. 201–202
	7-2 Proportions—TE pp. 190–191B; SB pp. 190–191 / PB pp. 213–214
	7-12 Problem-Solving Strategy: Solve a Simpler Problem—TE pp. 210–211B; SB pp. 210–211 / PB pp. 233–234
	9-13 Problem-Solving Strategy: Adopt a Different Point of View—TE pp. 260–261B; SB pp. 260–261 / PB pp. 291–292
	10-12 Problem-Solving Strategy: Work Backward—TE pp. 288–289B; SB pp. 288–289 / PB pp. 323–324
	Application
	12-11 Problem-Solving Strategy: Review of Strategies (Find a Pattern/Adopt a Different Point of View)—TE pp. 338–339B; SB pp. 338–339 / PB pp. 381–382
8.AF.3: Understand that a function assigns to each *x*-value (independent variable) exactly one *y*-value (dependent variable), and that the graph of a function is the set of ordered pairs (*x,y*).	**Instruction** 6-1 Relations and Functions—TE pp. 156–157B; SB pp. 156–157 / PB pp. 175–176 6-2 Graphs of Functions—TE pp. 158–159B; SB pp. 158–159 / PB pp. 177–178 *6-2A Compare Functions—Online
8.AF.4: Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear, has a maximum or minimum value). Sketch a graph that exhibits the qualitative features of a function that has been verbally described.	**Instruction** 6-4 Slope of a Line—TE pp. 162–163B; SB pp. 162–163 / PB pp. 181–182 6-5 The *x*- and *y*-Intercepts of a Line—TE pp. 164–165B; SB pp. 164–165 / PB pp. 183–184 6-6 Linear Functions: Standard Form and Slope-Intercept Form—TE pp. 166–167B; SB pp. 166–167 / PB pp. 185–186 6-7 Linear Functions: Point-Slope Form—TE pp. 168–169B; SB pp. 168–169 / PB pp. 187–188 11-5 Find Function Values—TE pp. 302–303B; SB pp. 302–303 / PB pp. 341–342 12-11 Problem-Solving Strategy: Review of Strategies (Find a Pattern/Adopt a Different Point of View)—TE pp. 338–339B; SB pp. 338–339 / PB pp. 381–382

Sadlier *Foundations of Algebra*, Grade 8, Aligned to the
College & Career Ready Standards
Indiana Academic Standards: Mathematics: Grade 8

8

Algebra and Functions

INDIANA ACADEMIC STANDARDS: MATHEMATICS: GRADE 8	SADLIER *FOUNDATIONS OF ALGEBRA,* GRADE 8
8.AF.5: Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. Describe similarities and differences between linear and nonlinear functions from tables, graphs, verbal descriptions, and equations.	**Instruction** 6-6 Linear Functions: Standard Form and Slope-Intercept Form—TE pp. 166–167B; SB pp. 166–167 / PB pp. 185–186 11-6 Nonlinear Functions: Quadratic—TE pp. 304–305B; SB pp. 304–305 / PB pp. 343–344 11-7 Other Nonlinear Functions—TE pp. 306–307B; SB pp. 306–307 / PB pp. 345–346 11-9 Technology: Graphs of Nonlinear Functions—TE pp. 310–311B; SB pp. 310–311 / PB pp. 349–350
8.AF.6: Construct a function to model a linear relationship between two quantities given a verbal description, table of values, or graph. Recognize in $y = mx + b$ that m is the slope (rate of change) and b is the y-intercept of the graph, and describe the meaning of each in the context of a problem.	**Instruction** 6-1 Relations and Functions—TE pp. 156–157B; SB pp. 156–157 / PB pp. 175–176 6-2 Graphs of Functions—TE pp. 158–159B; SB pp. 158–159 / PB pp. 177–178 6-6 Linear Functions: Standard Form and Slope-Intercept Form—TE pp. 166–167B; SB pp. 166–167 / PB pp. 185–186 6-9 Direct Variation—TE pp. 172–173B; SB pp. 172–173 / PB pp. 191–192 7-1 Ratios, Rates, and Unit Rates—TE pp. 188–189B; SB pp. 188–189 / PB pp. 211–212 7-3 Conversion Factors and Measurement Systems—TE pp. 192–193B; SB pp. 192–193 / PB pp. 215–216 7-5 Direct Proportions—TE pp. 196–197B; SB pp. 196–197 / PB pp. 219–220 *7-5A Proportions and Unit Rates—Online 10-7 Coordinate Plane and Polygons—TE pp. 278–279B; SB pp. 278–279 / PB pp. 313–314
8.AF.7: Compare properties of two linear functions given in different forms, such as a table of values, equation, verbal description, and graph (e.g., compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed).	**Instruction** 6-1 Relations and Functions—TE pp. 156–157B; SB pp. 156–157 / PB pp. 175–176 6-2 Graphs of Functions—TE pp. 158–159B; SB pp. 158–159 / PB pp. 177–178 *6-2A Compare Functions—Online
8.AF.8: Understand that solutions to a system of two linear equations correspond to points of intersection of their graphs because points of intersection satisfy both equations simultaneously. Approximate the solution of a system of equations by graphing and interpreting the reasonableness of the approximation.	**Instruction** 3-14 Problem-Solving Strategy: Guess and Test—TE pp. 90–91B; SB pp. 90–91 / PB pp. 97–98 6-1 Relations and Functions—TE pp. 156–157B; SB pp. 156–157 / PB pp. 175–176 6-2 Graphs of Functions—TE pp. 158–159B; SB pp. 158–159 / PB pp. 177–178 6-10 Solve Systems of Equations by Graphing—TE pp. 174–175B; SB pp. 174–175 / PB pp. 193–194 6-11 Solve Systems of Equations by Substitution and Elimination—TE pp. 176–177B; SB pp. 176–177 / PB pp. 195–196 6-14 Problem-Solving Strategy: Reason Logically—TE pp. 182–183B; SB pp. 182–183 / PB pp. 201–202

Algebra and Functions

INDIANA ACADEMIC STANDARDS: MATHEMATICS: GRADE 8	SADLIER *FOUNDATIONS OF ALGEBRA,* GRADE 8
	9-13 Problem-Solving Strategy: Adopt a Different Point of View—TE pp. 260–261B; SB pp. 260–261 / PB pp. 291–292
	11-10 Problem-Solving Strategy: Account for All Possibilities—TE pp. 312–313B; SB pp. 312–313 / PB pp. 351–352

*Online lessons at progressinmathematics.com.

Sadlier *Foundations of Algebra*, Grade 8, Aligned to the
College & Career Ready Standards
Indiana Academic Standards: Mathematics: Grade 8

8

Geometry and Measurement

INDIANA ACADEMIC STANDARDS: MATHEMATICS: GRADE 8	SADLIER *FOUNDATIONS OF ALGEBRA,* GRADE 8
8.GM.1: Identify, define and describe attributes of three-dimensional geometric objects (right rectangular prisms, cylinders, cones, spheres, and pyramids). Explore the effects of slicing these objects using appropriate technology and describe the two-dimensional figure that results.	**Instruction** 12-1 Polyhedrons and Other Three-Dimensional Figures—TE pp. 318–319B; SB pp. 318–319 / PB pp. 361–362 12-2 Draw Views of Three-Dimensional Figures—TE pp. 320–321B; SB pp. 320–321 / PB pp. 363–364 12-8 Similar Three-Dimensional Figures—TE pp. 332–333B; SB pp. 332–333 / PB pp. 375–376 12-10 Explore Properties of Three-Dimensional Figures—TE pp. 336–337B; SB pp. 336–337 / PB pp. 379–380 **Enrichment** Platonic Solids—TE pp. 340–341B; SB pp. 340–341 / PB pp. 383–384
8.GM.2: Solve real-world and other mathematical problems involving volume of cones, spheres, and pyramids and surface area of spheres.	**Instruction** 12-5 Volume of Prisms and Cylinders—TE pp. 326–327B; SB pp. 326–327 / PB pp. 369–370 12-6 Volume of Pyramids and Cones—TE pp. 328–329B; SB pp. 328–329 / PB pp. 371–372 12-7 Volume of Spheres—TE pp. 330–331B; SB pp. 330–331 / PB pp. 373–374 13-12 Problem-Solving Strategy: Consider Extreme Cases—TE pp. 366–367B; SB pp. 366–367 / PB pp. 413–414
8.GM.3: Verify experimentally the properties of rotations, reflections, and translations, including: lines are mapped to lines, and line segments to line segments of the same length; angles are mapped to angles of the same measure; and parallel lines are mapped to parallel lines.	**Instruction** 10-7 Coordinate Plane and Polygons—TE pp. 278–279B; SB pp. 278–279 / PB pp. 313–314 10-8 Coordinate Plane: Reflections and Translations—TE pp. 280–281B; SB pp. 280–281 / PB pp. 315–316 10-9 Coordinate Plane: Rotations—TE pp. 282–283B; SB pp. 282–283 / PB pp. 317–318 10-10 Coordinate Plane: Dilations—TE pp. 284–285B; SB pp. 284–285 / PB pp. 319–320
8.GM.4: Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations. Describe a sequence that exhibits the congruence between two given congruent figures.	**Instruction** 9-5 Congruent Polygons—TE pp. 244–245B; SB pp. 244–245 / PB pp. 275–276 9-13 Problem-Solving Strategy: Adopt a Different Point of View—TE pp. 260–261B; SB pp. 260–261 / PB pp. 291–292 10-8 Coordinate Plane: Reflections and Translations—TE pp. 280–281B; SB pp. 280–281 / PB pp. 315–316 10-9 Coordinate Plane: Rotations—TE pp. 282–283B; SB pp. 282–283 / PB pp. 317–318 10-10 Coordinate Plane: Dilations—TE pp. 284–285B; SB pp. 284–285 / PB pp. 319–320 10-11 Combine Transformations—TE pp. 286–287B; SB pp. 286–287 / PB pp. 321–322 *10-11A Transformations and Congruence—Online

Geometry and Measurement

INDIANA ACADEMIC STANDARDS: MATHEMATICS: GRADE 8	SADLIER *FOUNDATIONS OF ALGEBRA,* GRADE 8
8.GM.5: Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations. Describe a sequence that exhibits the similarity between two given similar figures.	**Instruction** 7-9 Similarity—TE pp. 204–205B; SB pp. 204–205 / PB pp. 227–228 10-11 Combine Transformations—TE pp. 286–287B; SB pp. 286–287 / PB pp. 321–322 *10-11A Transformations and Congruence—Online *10-11B Transformations and Similarity—Online
8.GM.6: Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	**Instruction** 10-7 Coordinate Plane and Polygons—TE pp. 278–279B; SB pp. 278–279 / PB pp. 313–314 10-8 Coordinate Plane: Reflections and Translations—TE pp. 280–281B; SB pp. 280–281 / PB pp. 315–316 10-9 Coordinate Plane: Rotations—TE pp. 282–283B; SB pp. 282–283 / PB pp. 317–318 10-10 Coordinate Plane: Dilations—TE pp. 284–285B; SB pp. 284–285 / PB pp. 319–320
8.GM.7: Use inductive reasoning to explain the Pythagorean relationship.	**Instruction** 2-9 Pythagorean Theorem—TE pp. 52–53B; SB pp. 52–53 / PB pp. 55–56 *2-9A Proof of the Pythagorean Theorem—Online
8.GM.8: Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and other mathematical problems in two dimensions.	**Instruction** 2-10 Special Right Triangles—TE pp. 54–55B; SB pp. 54–55 / PB pp. 57–58 *12-6A Compute Missing Dimensions of Three-Dimensional Figures—Online
8.GM.9: Apply the Pythagorean Theorem to find the distance between two points in a coordinate plane.	**Instruction** 10-7 Coordinate Plane and Polygons—TE pp. 278–279B; SB pp. 278–279 / PB pp. 313–314 *10-7A Apply Pythagorean Theorem—Online

*Online lessons at progressinmathematics.com.

Sadlier *Foundations of Algebra*, Grade 8, Aligned to the
College & Career Ready Standards
Indiana Academic Standards: Mathematics: Grade 8

8

Data Analysis, Statistics, and Probability

INDIANA ACADEMIC STANDARDS: MATHEMATICS: GRADE 8	SADLIER *FOUNDATIONS OF ALGEBRA,* GRADE 8
8.DSP.1: Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantitative variables. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.	**Instruction** 6-3 Scatter Plots—TE pp. 160–161B; SB pp. 160–161 / PB pp. 179–180 *6-3A Analyze Outliers—Online *6-3B Clustering—Online *6-3C Analyze Scatter Plots—Online
8.DSP.2: Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and describe the model fit by judging the closeness of the data points to the line.	**Instruction** 6-3 Scatter Plots—TE pp. 160–161B; SB pp. 160–161 / PB pp. 179–180
8.DSP.3: Write and use equations that model linear relationships to make predictions, including interpolation and extrapolation, in real-world situations involving bivariate measurement data; interpret the slope and y-intercept.	**Instruction** *6-7A Analyzing Trend Lines—Online *6-7B Use Linear Models to Solve Problems—Online
8.DSP.4: Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. Understand and use appropriate terminology to describe independent, dependent, complementary, and mutually exclusive events.	**Instruction** 2-12 Problem-Solving Strategy: Organize Data—TE pp. 58–59B; SB 58–59 / PB pp. 61–62 11-10 Problem-Solving Strategy: Account for All Possibilities— TE pp. 312–313B; SB pp. 312–313 / PB pp. 351–352 *13-5A Patterns of Association in Categorical Data—Online *13-5B Examine Patterns of Association—Online
8.DSP.5: Represent sample spaces and find probabilities of compound events (independent and dependent) using methods, such as organized lists, tables, and tree diagrams.	**Instruction** 14-1 Counting Principle and Tree Diagrams—TE pp. 372–373B; SB pp. 372–373 / PB pp. 423–424 14-2 Theoretical Probability—TE pp. 374–375B; SB pp. 374–375 / PB pp. 425–426 **14-3 Experimental Probability—TE pp. 376–377B; SB pp. 376– 377 / PB pp. 427–428** 14-4 Probability and Odds—TE pp. 378–379B; SB pp. 378–379 / PB pp. 429–430 14-5 Mutually Exclusive Events—TE pp. 380–381B; SB pp. 380– 381 / PB pp. 431–432 14-6 Compound Events—TE pp. 382–383B; SB pp. 382–383 / PB pp. 433–434 14-8 Permutations (make an organized list)—TE pp. 386–387B; SB pp. 386–387 / PB pp. 437–438 14-9 Combinations (make an organized list)—TE pp. 388–389B; SB pp. 388–389 / PB pp. 439–440
8.DSP.6: For events with a large number of outcomes, understand the use of the multiplication counting principle. Develop the multiplication counting principle and apply it to situations with a large number of outcomes.	**Instruction** 14-1 Counting Principle and Tree Diagrams—TE pp. 372–373B; SB pp. 372–373 / PB pp. 423–424 14-5 Mutually Exclusive Events—TE pp. 380–381B; SB pp. 380– 381 / PB pp. 431–432 14-6 Compound Events—TE pp. 382–383B; SB pp. 382–383 / PB pp. 433–434

Sadlier *Foundations of Algebra*, Grade 8, Aligned to the
College & Career Ready Standards
Indiana Academic Standards: Mathematics: Grade 8

8

Data Analysis, Statistics, and Probability

Indiana Academic Standards: Mathematics: Grade 8	Sadlier *Foundations of Algebra,* Grade 8
	14-7 Pascal's Triangle and Probability—TE pp. 384–385B; SB pp. 384–385 / PB pp. 435–436 14-8 Permutations (use the Fundamental Counting Principle)—TE pp. 386–387B; SB pp. 386–387 / PB pp. 437–438 14-9 Combinations—TE pp. 388–389B; SB pp. 388–389 / PB pp. 439–440

*Online lessons at progressinmathematics.com.