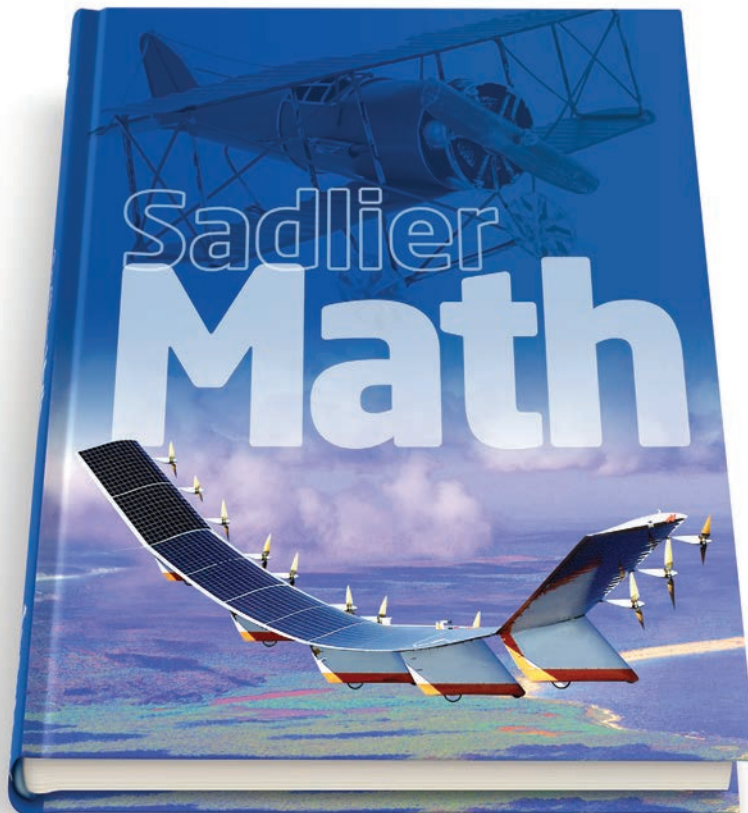


*Sadlier Math*TM

Correlation to the New York State
Next Generation Mathematics Learning Standards (2017)

Grade 5



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| NY-5.OA OPERATIONS AND ALGEBRAIC THINKING | |
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| Grade 5 Content Standards | Sadlier Math, Grade 5 |
| Write and interpret numerical expressions. | |
| <p>NY-5.OA.1 Apply the order of operations to evaluate numerical expressions.</p> <p>e.g.,</p> <ul style="list-style-type: none"> • $6 + 8 \div 2$ • $(6 + 8) \div 2$ <p>Note: Exponents and nested grouping symbols are not included.</p> | <p>Chapter 4 Division</p> <ul style="list-style-type: none"> • 4-10 Order of Operations—pp. 88-89 • 4-11 Expressions—pp. 90-91 <p>Chapter 7 Fractions: Subtraction</p> <ul style="list-style-type: none"> • 7-2 Subtract Fractions: Unlike Denominators—pp. 144-145 <p>Chapter 12 Decimals: Multiplication</p> <ul style="list-style-type: none"> • 12-7 Multiply Decimals by Decimals—pp. 276-277 • 12-8 Zeros in the Product—pp. 278-279 |
| <p>NY-5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.</p> <p>e.g., Express the calculation “add 8 and 7, then multiply by 2” as $(8 + 7) \times 2$. Recognize that $3 \times (18,932 + 921)$ is three times as large as $18,932 + 921$, without having to calculate the indicated sum or product.</p> | <p>Chapter 1 Place Value, Addition and Subtraction</p> <ul style="list-style-type: none"> • 1-5 Addition Properties and Subtraction Rules—pp. 12-13 • 1-6 Estimate Sums and Differences—pp. 14-15 • 1-7 Find Sums and Differences—pp. 16-17 <p>Chapter 3 Multiplication</p> <ul style="list-style-type: none"> • 3-2 Multiplication Patterns—pp. 46-47 • 3-3 Estimate Products—pp. 48-49 <p>Chapter 4 Division</p> <ul style="list-style-type: none"> • 4-10 Order of Operations—pp. 88-89 • 4-11 Expressions—pp. 90-91 |
| Analyze patterns and relationships. | |
| <p>NY-5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.</p> <p>e.g., Given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</p> | <p>Chapter 17 Graphs and Data</p> <ul style="list-style-type: none"> • 17-5 Write Number Patterns—pp. 390-391 • 17-6 Graph Number Patterns—pp. 392-393 • 17-7 Problem Solving: Find and Use a Pattern—pp. 394-395 |

| NY-5.NBT NUMBER AND OPERATIONS IN BASE TEN | |
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| Grade 5 Content Standards | Sadlier Math, Grade 5 |
| Understand the place value system. | |
| <p>NY-5.NBT.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left.</p> | <p>Chapter 1 Place Value, Addition and Subtraction</p> <ul style="list-style-type: none"> • 1-1 Place Value to Billions—pp. 2–3 • 1-2 Expanded Form—pp. 4–5 • 1-4 Problem Solving: The Four-Step Process—pp. 10–11 |
| <p>NY-5.NBT.2 Use whole-number exponents to denote powers of 10. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.</p> | <p>Chapter 1 Place Value, Addition and Subtraction</p> <ul style="list-style-type: none"> • 1-3 Powers of 10—pp. 8–9 • 1-4 Problem Solving: The Four-Step Process—pp. 10–11 <p>Chapter 12 Decimals: Multiplication</p> <ul style="list-style-type: none"> • 12-1 Multiply by Powers of 10—pp. 262–263 <p>Chapter 13 Decimals: Division</p> <ul style="list-style-type: none"> • 13-1 Divide by Powers of 10—pp. 288–289 |
| NY-5.NBT.3 Read, write, and compare decimals to thousandths. | |
| <p>NY-5.NBT.3a Read and write decimals to thousandths using base-ten numerals, number names, and expanded form.</p> <p>e.g.,</p> <ul style="list-style-type: none"> • $47.392 = 4 \times 10 + 7 \times 1 + 3 \times \frac{1}{10} + 9 \times \frac{1}{100} + 2 \times \frac{1}{1000}$ • $47.392 = (4 \times 10) + (7 \times 1) + (3 \times \frac{1}{10}) + (9 \times \frac{1}{100}) + (2 \times \frac{1}{1000})$ • $47.392 = (4 \times 10) + (7 \times 1) + (3 \times 0.1) + (9 \times 0.01) + (2 \times 0.001)$ | <p>Chapter 2 Place Value and Decimals</p> <ul style="list-style-type: none"> • 2-1 Thousandths—pp. 24–25 |
| <p>NY-5.NBT.3b Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> | <p>Chapter 2 Place Value and Decimals</p> <ul style="list-style-type: none"> • 2-3 Compare and Order Decimals—pp. 30–31 <p>Chapter 13 Decimals: Division</p> <ul style="list-style-type: none"> • 13-3 Estimate Decimal Quotients—pp. 292–293 • 13-4 Estimate with Money—pp. 294–295 • 13-5 Divide Decimals by Whole Numbers—pp. 296–297 |

NY-5.NBT NUMBER AND OPERATIONS IN BASE TEN

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| <p>NY-5.NBT.4 Use place value understanding to round decimals to any place.</p> | <p>Chapter 2 Place Value and Decimals</p> <ul style="list-style-type: none"> • 2-4 Round Decimals—pp. 32-33 • 2-5 Problem Solving: Use Logical Reasoning—pp. 34-35 • 2-6 Estimate with Decimals—pp. 36-37 <p>Chapter 10 Decimals: Addition</p> <ul style="list-style-type: none"> • 10-3 Estimate Decimal Sums—pp. 224-225 <p>Chapter 11 Decimals: Subtraction</p> <ul style="list-style-type: none"> • 11-2 Estimate Decimal Differences—pp. 244-245 |
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Perform operations with multi-digit whole numbers and with decimals to hundredths.

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| <p>NY-5.NBT.5 Fluently multiply multi-digit whole numbers using a standard algorithm.</p> | <p>Chapter 3 Multiplication</p> <ul style="list-style-type: none"> • 3-4 Zeros in the Multiplicand—pp. 50-51 • 3-5 Multiply by Two-Digit Numbers—pp. 54-55 • 3-6 Problem Solving: Guess and Test—pp. 56-57 • 3-7 Multiply by Three-Digit Numbers—pp. 58-59 • 3-8 Zeros in the Multiplier—pp. 60-61 |
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| <p>NY-5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Notes on and/or:</p> <ul style="list-style-type: none"> • Students should be taught to use strategies based on place value, the properties of operations, and the relationship between multiplication and division; however, when solving any problem, students can choose any strategy. • Students should be taught to use equations, rectangular arrays, and area models; however, when illustrating and explaining any calculation, students can choose any strategy. | <p>Chapter 4 Division</p> <ul style="list-style-type: none"> • 4-1 Division Patterns—pp. 68-69 • 4-2 Estimation: Compatible Numbers—pp. 70-71 • 4-3 Divide by One-Digit Numbers—pp. 72-73 • 4-4 Zeros in the Quotient—pp. 74-75 • 4-5 Divisibility and Mental Math—pp. 76-77 • 4-6 Use Arrays and Area Models to Divide—pp. 80-81 • 4-7 Use Strategies to Divide—pp. 82-83 • 4-8 Divide by Two-Digit Numbers—pp. 84-85 • 4-9 Problem Solving: Work Backward—pp. 86-87 |
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NY-5.NBT NUMBER AND OPERATIONS IN BASE TEN

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NY-5.NBT.7 Using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between operations:

- add and subtract decimals to hundredths;
- multiply and divide decimals to hundredths.

Relate the strategy to a written method and explain the reasoning used.

Notes on and/or: Students should be taught to use concrete models and drawings; as well as strategies based on place value, properties of operations, and the relationship between operations. When solving any problem, students can choose to use a concrete model or a drawing. Their strategy must be based on place value, properties of operations, or the relationship between operations.

Note: Division problems are limited to those that allow for the use of concrete models or drawings, strategies based on properties of operations, and/or the relationship between operations (e.g., $0.25 \div 0.05$). Problems should not be so complex as to require the use of an algorithm (e.g., $0.37 \div 0.05$).

Chapter 10 Decimals: Addition

- 10-1 Use Models to Add Decimals—pp. 220–221
- 10-2 Use Properties to Add Decimals—pp. 222–223
- 10-3 Estimate Decimal Sums—pp. 224–225
- 10-4 Problem Solving: Draw a Picture—pp. 228–229
- 10-5 Add Decimals: Hundredths—pp. 230–231
- 10-6 Add Decimals: Thousandths—pp. 232–233
- 10-7 Addition with Money—pp. 234–235

Chapter 11 Decimals: Subtraction

- 11-1 Use Models to Subtract Decimals—pp. 242–243
- 11-2 Estimate Decimal Differences—pp. 244–245
- 11-3 Subtract Decimals: Hundredths—pp. 248–249
- 11-4 Subtract Decimals: Thousandths—pp. 250–251
- 11-5 Subtraction with Money—pp. 252–253
- 11-6 Problem Solving: Use a Model—pp. 254–255

Chapter 12 Decimals: Multiplication

- 12-2 Use Properties to Multiply a Decimal by a Whole Number—pp. 264–265
- 12-3 Estimate Decimal Products—pp. 266–267
- 12-4 Multiply Decimals by Whole Numbers—pp. 268–269
- 12-5 Multiplication with Money—pp. 270–271
- 12-6 Model Multiplying Two Decimals—pp. 274–275
- 12-7 Multiply Decimals by Decimals—pp. 276–277
- 12-8 Zeros in the Product—pp. 278–279
- 12-9 Problem Solving: More Than One Way—pp. 280–281

Chapter 13 Decimals: Division

- 13-1 Divide by Powers of 10—pp. 288–289
- 13-2 Model Dividing a Decimal by a Whole Number—pp. 290–291
- 13-5 Divide Decimals by Whole Numbers—pp. 296–297

continued

NY-5.NBT NUMBER AND OPERATIONS IN BASE TEN

| Grade 5 Content Standards | Sadlier Math, Grade 5 |
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| | <ul style="list-style-type: none"> • 13-6 Zeros in Decimal Quotients—pp. 298–299 • 13-7 Division with Money—pp. 302–303 • 13-8 Problem Solving: Work Backward—pp. 304–305 • 13-9 Model Dividing a Decimal by a Decimal—pp. 306–307 • 13-10 Divide a Decimal by a Decimal—pp. 308–309 |

NY-5.NF NUMBER AND OPERATION—FRACTIONS

| Grade 5 Content Standards | Sadlier Math, Grade 5 |
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Use equivalent fractions as a strategy to add and subtract fractions.

NY-5.NF.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.

e.g.,

- $\frac{1}{3} + \frac{2}{9} = \frac{3}{9} + \frac{2}{9} = \frac{5}{9}$
- $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$

Chapter 6 Fractions: Addition

- 6-1 Model Addition with Unlike Denominators—pp. 122–123
- 6-2 Add Fractions: Unlike Denominators—pp. 124–125
- 6-3 Fraction Addition: Estimation and Reasonableness—pp. 126–127
- 6-4 Add Mixed Numbers—pp. 130–131
- 6-6 Rename Mixed Number Sums—pp. 134–135

Chapter 7 Fractions: Subtraction

- 7-1 Model Subtraction of Fractions with Unlike Denominators—pp. 142–143
- 7-2 Subtract Fractions: Unlike Denominators—pp. 144–145
- 7-4 Model Subtraction with Mixed Numbers—pp. 150–151
- 7-6 Subtract Fractions and Whole Numbers from Mixed Numbers—pp. 154–155
- 7-7 Subtract Mixed Numbers: Rename Fractions—pp. 156–157
- 7-8 Subtract Mixed Numbers: Rename Whole Numbers and Fractions—pp. 158–159

NY-5.NF NUMBER AND OPERATION—FRACTIONS

| Grade 5 Content Standards | Sadlier Math, Grade 5 |
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NY-5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators.

e.g., using visual fraction models or equations to represent the problem.

Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

e.g., Recognize an incorrect result $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$ by observing that $\frac{3}{7} < \frac{1}{2}$

- Chapter 6 Fractions: Addition**
- 6-1 Model Addition with Unlike Denominators—pp. 122-123
 - 6-2 Add Fractions: Unlike Denominators—pp. 124-125
 - 6-3 Fraction Addition: Estimation and Reasonableness—pp. 126-127
 - 6-4 Add Mixed Numbers—pp. 130-131
 - 6-6 Rename Mixed Number Sums—pp. 134-135
- Chapter 7 Fractions: Subtraction**
- 7-1 Model Subtraction of Fractions with Unlike Denominators—pp. 142-143
 - 7-2 Subtract Fractions: Unlike Denominators—pp. 144-145
 - 7-3 Subtract Fractions: Estimation and Reasonableness—pp. 146-147
 - 7-5 Estimate Sums and Differences of Mixed Numbers—pp. 152-153
 - 7-7 Subtract Mixed Numbers: Rename Fractions—pp. 156-157
 - 7-8 Subtract Mixed Numbers: Rename Whole Numbers and Fractions—pp. 158-159
- Chapter 8 Fractions: Multiplication**
- 8-11 Problem Solving: Use Logical Reasoning—pp. 190-191
- Chapter 9 Fractions: Division**
- 9-6 Word Problems Involving Fraction Division—pp. 210-211

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

NY-5.NF.3 Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$).

e.g., Interpret $\frac{3}{4}$ as the result of dividing 3 by 4, noting that $\frac{3}{4}$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $\frac{3}{4}$.

continued

- Chapter 5 Number Theory and Fractions**
- 5-8 Interpret a Remainder—pp. 114-115
- Chapter 8 Fractions: Multiplication**
- 8-6 Rename Mixed Numbers as Fractions—pp. 180-181
 - 8-7 Estimate Products with Mixed Numbers—pp. 182-183

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| NY-5.NF NUMBER AND OPERATION—FRACTIONS | |
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| Grade 5 Content Standards | Sadlier Math, Grade 5 |
| <p>Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.</p> <p>e.g., using visual fraction models or equations to represent the problem.</p> <p>e.g., If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</p> | |
| <p>NY-5.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> | |
| <p>NY-5.NF.4a Interpret the product $\frac{a}{b} \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$.</p> <p>e.g., Use a visual a visual fraction model to show $\frac{2}{3} \times 4 = \frac{8}{3}$, and create a story context for this equation. Do the same with $\frac{2}{3} \times \frac{4}{5} = \frac{8}{15}$.</p> | <p>Chapter 8 Fractions: Multiplication</p> <ul style="list-style-type: none"> • 8-1 Model Multiplying Fractions—pp. 168-169 • 8-2 Multiply Fractions by Fractions—pp. 170-171 • 8-3 Multiply Fractions and Whole Numbers—pp. 172-173 • 8-5 Common Factors in Products—pp. 176-177 • 8-8 Multiply Fractions and Mixed Numbers—pp. 184-185 • 8-9 Multiply Mixed Numbers—pp. 186-187 |
| <p>NY-5.NF.4b Find the area of a rectangle with fractional side lengths by tiling it with rectangles of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.</p> | <p>Chapter 8 Fractions: Multiplication</p> <ul style="list-style-type: none"> • 8-10 Find the Area of a Rectangle—pp. 188-189 |
| <p>NY-5.NF.5 Interpret multiplication as scaling (resizing).</p> | |
| <p>NY-5.NF.5a Compare the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.</p> <p>e.g., In the case of $10 \times \frac{1}{2} = 5$, 5 is half of 10 and 5 is 10 times larger than $\frac{1}{2}$.</p> | <p>Chapter 8 Fractions: Multiplication</p> <ul style="list-style-type: none"> • 8-4 Scaling Fractions—pp. 174-175 |

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| NY-5.NF NUMBER AND OPERATION—FRACTIONS | |
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| Grade 5 Content Standards | Sadlier Math, Grade 5 |
| <p>NY-5.NF.5b Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case). Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number. Relate the principle of fraction equivalence $\frac{a}{b} = \frac{a}{b} \times \frac{n}{n}$ to the effect of multiplying $\frac{a}{b}$ by 1.</p> | <p>Chapter 8 Fractions: Multiplication</p> <ul style="list-style-type: none"> 8-4 Scaling Fractions—pp. 174-175 |
| <p>NY-5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers. e.g., using visual fraction models or equations to represent the problem.</p> | <p>Chapter 8 Fractions: Multiplication</p> <ul style="list-style-type: none"> 8-2 Multiply Fractions by Fractions—pp. 170-171 8-3 Multiply Fractions and Whole Numbers—pp. 172-173 8-11 Problem Solving: Use Logical Reasoning—pp. 190-191 <p>Chapter 9 Fractions: Division</p> <ul style="list-style-type: none"> 9-6 Word Problems Involving Fraction Division—pp. 210-211 |
| <p>NY-5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p> <p>Note: Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement until grade 6 (NY-6. NS.1).</p> | |
| <p>NY-5.NF.7a Interpret division of a unit fraction by a non-zero whole number, and compute such quotients.</p> <p>e.g., Create a story context for $\frac{1}{3} \div 4$ and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $\frac{1}{3} \div 4 = \frac{1}{12}$ because $\frac{1}{12} \times 4 = \frac{1}{3}$.</p> | <p>Chapter 9 Fractions: Division</p> <ul style="list-style-type: none"> 9-5 Divide Fractions by Whole Numbers—pp. 208-209 |

NY-5.NF NUMBER AND OPERATION—FRACTIONS

| Grade 5 Content Standards | Sadlier Math, Grade 5 |
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| <p>NY-5.NF.7b Interpret division of a whole number by a unit fraction, and compute such quotients.</p> <p>e.g., Create a story context for $4 \div \frac{1}{5}$ and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div \frac{1}{5} = 20$ because $20 \times \frac{1}{5} = 4$.</p> | <p>Chapter 9 Fractions: Division</p> <ul style="list-style-type: none"> • 9-1 Divide Whole Numbers by Unit Fractions—pp. 198-199 • 9-2 Reciprocals—pp. 200-201 • 9-3 Divide Whole Numbers by Fractions—pp. 202-203 |
| <p>NY-5.NF.7c Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions.</p> <p>e.g., using visual fraction models and equations to represent the problem.</p> <p>e.g., How much chocolate will each person get if 3 people share $\frac{1}{2}$ lb. of chocolate equally? How many $\frac{1}{3}$-cup servings are in 2 cups of raisins?</p> | <p>Chapter 9 Fractions: Division</p> <ul style="list-style-type: none"> • 9-4 Divide Unit Fractions by Whole Numbers—pp. 206-207 • 9-5 Divide Fractions by Whole Numbers—pp. 208-209 • 9-6 Word Problems Involving Fraction Division—pp. 210-211 • 9-7 Problem Solving: More Than One Way—pp. 212-213 |

NY-5.MD MEASUREMENT AND DATA

| Grade 5 Content Standards | Sadlier Math, Grade 5 |
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Convert like measurement units within a given measurement system.

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| <p>NY-5.MD.1 Convert among different-sized standard measurement units within a given measurement system when the conversion factor is given. Use these conversions in solving multi-step, real world problems.</p> <p>Notes:</p> <ul style="list-style-type: none"> • All conversion factors will be given. • Grade 5 expectations for decimal operations are limited to work with decimals to hundredths. | <p>Chapter 14 Measurement</p> <ul style="list-style-type: none"> • 14-1 Relate Customary Units of Length—pp. 316-317 • 14-2 Relate Customary Units of Capacity—pp. 318-319 • 14-3 Relate Customary Units of Weight—pp. 320-321 • 14-4 Compute with Customary Units—pp. 322-323 • 14-5 Relate Metric Units of Length—pp. 326-327 • 14-6 Relate Metric Units of Capacity—pp. 328-329 • 14-7 Relate Metric Units of Mass—pp. 330-331 <p style="text-align: right;"><i>continued</i></p> |
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| NY-5.MD MEASUREMENT AND DATA | |
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| Grade 5 Content Standards | Sadlier Math, Grade 5 |
| | <ul style="list-style-type: none"> • 14-8 Compute with Metric Units—pp. 332-333 • 14-9 Problem Solving: Use a Picture—pp. 334-335 |
| Represent and interpret data. | |
| <p>NY-5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots.</p> <p>e.g., Given different measurements of liquid in identical beakers, make a line plot to display the data and find the total amount of liquid in all of the beakers.</p> | <p>Chapter 17 Graphs and Data</p> <ul style="list-style-type: none"> • 17-1 Line Plots with Whole Numbers and Decimals—pp. 380-381 • 17-2 Line Plots with Fractions and Mixed Numbers—pp. 382-383 |
| Geometric measurement: understand concepts of volume and relate volume to multiplication and addition. | |
| <p>NY-5.MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> | |
| <p>NY-5.MD.3a Recognize that a cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.</p> | <p>Chapter 16 Volume</p> <ul style="list-style-type: none"> • 16-1 Solid Figures—pp. 360-361 • 16-2 Cubic Measure—pp. 362-363 • 16-3 Volumes of Rectangular Prisms—pp. 364-365 |
| <p>NY-5.MD.3b Recognize that a solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.</p> | <p>Chapter 16 Volume</p> <ul style="list-style-type: none"> • 16-2 Cubic Measure—pp. 362-363 • 16-3 Volumes of Rectangular Prisms—pp. 364-365 |
| <p>NY-5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and improvised units.</p> | <p>Chapter 16 Volume</p> <ul style="list-style-type: none"> • 16-2 Cubic Measure—pp. 362-363 • 16-3 Volumes of Rectangular Prisms—pp. 364-365 |

NY-5.MD MEASUREMENT AND DATA

| Grade 5 Content Standards | Sadlier Math, Grade 5 |
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NY-5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

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| <p>NY-5.MD.5a Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base.</p> | <p>Chapter 16 Volume</p> <ul style="list-style-type: none"> • 16-3 Volumes of Rectangular Prisms—pp. 364–365 • 16-6 Problem Solving: Act It Out—pp. 372–373 |
| <p>NY-5.MD.5b Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.</p> | <p>Chapter 16 Volume</p> <ul style="list-style-type: none"> • 16-4 Volume Formulas—pp. 368–369 |
| <p>NY-5.MD.5c Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</p> | <p>Chapter 16 Volume</p> <ul style="list-style-type: none"> • 16-5 Volume of Composite Figures—pp. 370–371 |

NY-5.G GEOMETRY

| Grade 5 Content Standards | Sadlier Math, Grade 5 |
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Graph points on the coordinate plane to solve real-world and mathematical problems.

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| <p>NY-5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates.</p> <p style="text-align: center;"><i>continued</i></p> | <p>Chapter 17 Graphs and Data</p> <ul style="list-style-type: none"> • 17-3 The Coordinate Plane—pp. 386–387 |
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| NY-5.G GEOMETRY | |
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| Grade 5 Content Standards | Sadlier Math, Grade 5 |
| <p>Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond.</p> <p>e.g., x-axis and x-coordinate, y-axis and y-coordinate.</p> | |
| <p>NY-5.G.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p> | <p>Chapter 17 Graphs and Data</p> <ul style="list-style-type: none"> • 17-4 Using Coordinate Graphs—pp. 388–389 |
| <p>Classify two-dimensional figures into categories based on their properties.</p> | |
| <p>NY-5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.</p> <p>e.g., All rectangles have four right angles and squares are rectangles, so all squares have four right angles.</p> <p>Note: The inclusive definition of a trapezoid will be utilized, which defines a trapezoid as “A quadrilateral with at least one pair of parallel sides.”</p> | <p>Chapter 15 Geometry</p> <ul style="list-style-type: none"> • 15-1 Polygons—pp. 342–343 • 15-2 Triangles—pp. 344–345 • 15-3 Quadrilaterals—pp. 348–349 • 15-4 Classify Quadrilaterals—pp. 350–351 • 15-5 Problem Solving: Use a Model—pp. 352–353 |
| <p>NY-5.G.4 Classify two-dimensional figures in a hierarchy based on properties.</p> | <p>Chapter 15 Geometry</p> <ul style="list-style-type: none"> • 15-2 Triangles—pp. 344–345 • 15-4 Classify Quadrilaterals—pp. 350–351 • 15-5 Problem Solving: Use a Model—pp. 352–353 |