SADLIER
Progress in Mathematics

SADLIER
Common Core Progress Mathematics

Common Core State Standards for Mathematics

Grade 6 Crosswalk

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Skills Update—Review of Grade 5 Skills

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
SU	**Whole Numbers: Place Value, Compare, and Order**—p. 1				
SU	**Round Whole Numbers**—p. 2				
SU	**Factors, Multiples, and Divisibility**—p. 3	**Lesson 14**	**Find the Greatest Common Factor and Least Common Multiple**—pp. 120–127	6.NS.4	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4 (9 + 2).*
SU	**Decimals to Hundredths**—p. 4	**Lesson 12** **Lesson 13**	**Add and Subtract Multi-digit Decimals**—pp. 104–111 **Multiply and Divide Multi-digit Decimals**—pp. 112–119	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
SU	**Add Whole Numbers and Decimals**—p. 5				
SU	**Subtract Whole Numbers and Decimals**—p. 6	**Lesson 12** **Lesson 13**	**Add and Subtract Multi-digit Decimals**—pp. 104–111 **Multiply and Divide Multi-digit Decimals**—pp. 112–119	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
SU	**Inverse Operations: Addition and Subtraction**—p. 7				
SU	**Properties of Addition and Multiplication**—p. 8	**Lesson 24**	**Generate and Identify Equivalent Expressions**—pp. 206–213	6.EE.3	Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*

Skills Update—Review of Grade 5 Skills

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SU	**Multiply 1- and 2-Digit Numbers**—p. 9				
SU	**Trial Quotients**—p. 10	**Lesson 11**	**Divide Multi-digit Numbers**—pp. 96–103	6.NS.2	Fluently divide multi-digit numbers using the standard algorithm.
SU	**Divide Whole Numbers**—p. 11				
SU	**Add and Subtract Fractions: Like Denominators**—p. 12				
SU	**Make Pictographs**—p. 13				
SU	**Make Bar Graphs**—p. 14				
SU	**Equally/Not Equally Likely Outcomes**—p. 15				
SU	**List Outcomes**—p. 16				
SU	**Geometric Figures**—p. 17				
SU	**Lines: Intersecting and Parallel**—p. 18				
SU	**Polygons**—p. 19				
SU	**Metric Units of Length**—p. 20				
SU	**Metric Units of Capacity and Mass**—p. 21				
SU	**Customary Units of Length**—p. 22				
SU	**Customary Units of Capacity and Weight**—p. 23				
SU	**Read an Inch Ruler**—p. 24				
SU	**Perimeter and Area of Rectangles**—p. 25	**Lesson 31**	**Find Areas of Parallelograms and Triangles**—pp. 268–275	6.G.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
		Lesson 32	**Find Areas of Polygons**—pp. 276–283		

Chapter 1 Number Sense, Addition, and Subtraction

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1-1 **Place Value**—pp. 34–35		
1-2 **Expanded Form**—pp. 36–37		
1-3 **Place Value and Exponents**—pp. 38–39	**Lesson 20** **Write and Evaluate Numerical Expressions with Exponents**—pp. 174–181	6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
1-4 **Compare and Order Decimals**—pp. 40–41		
1-5 **Round Whole Numbers and Decimals**—pp. 42–43		
1-6 **Estimate Decimal Sums and Differences**—pp. 44–45		
1-7 **Addition of Whole Numbers and Decimals**—pp. 46–47	**Lesson 12** **Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
1-8 **Subtraction of Whole Numbers and Decimals**—pp. 48–49	**Lesson 13** **Multiply and Divide Multi-digit Decimals**—pp. 112–119	
1-9 **Addition and Subtraction of Decimals**—pp. 50–51		
1-10 **Addition and Subtraction Expressions**—pp. 52–53	**Lesson 12** **Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
	Lesson 13 **Multiply and Divide Multi-digit Decimals**—pp. 112–119	
	Lesson 21 **Write Algebraic Expressions to Record Operations**—pp. 182–189	6.EE.2a Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.*
	Lesson 22 **Identify Parts of an Expression**—pp. 190–197	6.EE.2b Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity.

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Chapter 1 Number Sense, Addition, and Subtraction

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		– continued from previous page – *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*
	Lesson 26 **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
1-11 **Evaluate Addition and Subtraction Expressions**—pp. 54–55	**Lesson 23** **Evaluate Algebraic Expressions**—pp. 198–205	6.EE.2.c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas V = s3 and A = 6 s2 to find the volume and surface area of a cube with sides of length s = 1/2.*
	Lesson 26 **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
1-12 **Problem Solving Strategy: Write an Equation**—pp. 56–57	**Lesson 26** **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

Chapter 1 Number Sense, Addition, and Subtraction

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		Lesson 27	**Solve Equations of the Form x + p = q**—pp. 230–237	6.EE.7	Solve real-world and mathematical problems by writing and solving equations of the form *x* + *p* = *q* and *px* = *q* for cases in which *p*, *q* and *x* are all nonnegative rational numbers.
		Lesson 28	**Solve Equations of the Form px = q**—pp. 238–245		
1-13	**Problem Solving Applications: Mixed Review**—pp. 58–59	**Lesson 12**	**Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
		Lesson 13	**Multiply and Divide Multi-digit Decimals**—pp. 112–119		

Chapter 2 Multiplication: Whole Numbers and Decimals

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
2-1	**Multiplication Patterns**—pp. 66–67	**Lesson 12**	**Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
		Lesson 13	**Multiply and Divide Multi-digit Decimals**—pp. 112–119		
2-2	**Estimate Products**—pp. 68–69				
2-3	**Multiply Whole Numbers**—pp. 70–71				
2-4	**Multiply with Decimals**—pp. 72–73	**Lesson 12**	**Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
		Lesson 13	**Multiply and Divide Multi-digit Decimals**—pp. 112–119		
2-5	**Exponents**—pp. 74–75	**Lesson 20**	**Write and Evaluate Numerical Expressions with Exponents**—pp. 174–181	6.EE.1	Write and evaluate numerical expressions involving whole-number exponents.

Chapter 2 Multiplication: Whole Numbers and Decimals

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
	Lesson 23 **Evaluate Algebraic Expressions**—pp. 198–205	6.EE.2c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.*
2-6 **Scientific Notation**—pp. 76–77		
2-7 **Problem Solving Strategy: Use Simpler Numbers**—pp. 78–79		
2-8 **Problem Solving Applications: Mixed Review**—pp. 80–81	**Lesson 12** **Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
	Lesson 13 **Multiply and Divide Multi-digit Decimals**—pp. 112–119	

Chapter 3 Division: Whole Numbers and Decimals

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
3-1 **Short Division**—pp. 88–89	**Lesson 11** **Divide Multi-digit Numbers**—pp. 96–103	6.NS.2 Fluently divide multi-digit numbers using the standard algorithm.
3-2 **Estimate Quotients**—pp. 90–91		
3-3 **Divide Whole Numbers**—pp. 92–93	**Lesson 11** **Divide Multi-digit Numbers**—pp. 96–103	6.NS.2 Fluently divide multi-digit numbers using the standard algorithm.

Chapter 3 Division: Whole Numbers and Decimals

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
3-4	**Divide Decimals by 10, 100, and 1,000**—pp. 94–95	**Lesson 12**	**Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
3-5	**Divide Decimals by Whole Numbers**—pp. 96–97	**Lesson 13**	**Multiply and Divide Multi-digit Decimals**—pp. 112–119		
3-6	**Patterns with Tenths, Hundredths, and Thousandths**—pp. 98–99				
3-7	**Estimate Decimal Quotients**—pp. 100–101				
3-4	**Subtract with Regrouping**—pp. 106–107				
3-8	**Decimal Divisors**—pp. 102–103	**Lesson 12**	**Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
3-9	**Zeros in Division**—pp. 104–105	**Lesson 13**	**Multiply and Divide Multi-digit Decimals**—pp. 112–119		
3-10	**Multiplication and Division Expressions**—pp. 106–107	**Lesson 21**	**Write Algebraic Expressions to Record Operations**—pp. 182–189	6.EE.2a	Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.*
		Lesson 22	**Identify Parts of an Expression**—pp. 190–197	6.EE.2b	Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*
		Lesson 26	**Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

Chapter 3 Division: Whole Numbers and Decimals

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3-11 **Evaluate Multiplication and Division Expressions**—pp. 108–109	**Lesson 23** **Evaluate Algebraic Expressions**—pp. 198–205	6.EE.2c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.*
	Lesson 26 **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
3-12 **Round Quotients**—pp. 110–111		
3-13 **Problem Solving Strategy: Interpret the Remainder**—pp. 112–113		
3-14 **Problem Solving Applications: Mixed Review**—pp. 114–115	**Lesson 11** **Divide Multi-digit Numbers**—pp. 96–103	6.NS.2 Fluently divide multi-digit numbers using the standard algorithm.
	Lesson 12 **Add and Subtract Multi-digit Decimals**—pp. 104–111	6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation
	Lesson 13 **Multiply and Divide Multi-digit Decimals**—pp. 112–119	

Chapter 4 Expressions and Equations

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
4-1 **Order of Operations**—pp. 122–123	**Lesson 20** **Write and Evaluate Numerical Expressions with Exponents**—pp. 174–181	6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
	Lesson 23 **Evaluate Algebraic Expressions**—pp. 198–205	6.EE.2c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.*
***4-1A** **Expressions**—Online	**Lesson 22** **Identify Parts of an Expression**—pp. 190–197	6.EE.2b Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*
	Lesson 23 **Evaluate Algebraic Expressions**—pp. 198–205	6.EE.2c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.*
4-2 **Translate Expressions**—pp. 124–125	**Lesson 21** **Write Algebraic Expressions to Record Operations**—pp. 182–189	6.EE.2a Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.*

Chapter 4 Expressions and Equations

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	Lesson 22 **Identify Parts of an Expression**—pp. 190–197	6.EE.2b Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*
	Lesson 23 **Evaluate Algebraic Expressions**—pp. 198–205	6.EE.2c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.*
	Lesson 26 **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	Lesson 27 **Solve Equations of the Form x + p = q**—pp. 230–237	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
	Lesson 28 **Solve Equations of the Form px = q**—pp. 238–245	
***4-2A** **Expressions Involving Exponents**—Online	**Lesson 20** **Write and Evaluate Numerical Expressions with Exponents**—pp. 174–181	6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
4-3 **Evaluate Algebraic Expressions**—pp. 126–127	**Lesson 20** **Write and Evaluate Numerical Expressions with Exponents**—pp. 174–181	6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.

Chapter 4 Expressions and Equations

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	Lesson 24 **Generate and Identify Equivalent Expressions**—pp. 206–213	6.EE.3 Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*
	Lesson 26 **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	Lesson 27 **Solve Equations of the Form x + p = q**—pp. 230–237 **Lesson 28** **Solve Equations of the Form px = q**—pp. 238–245	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form *x + p = q* and *px = q* for cases in which *p*, *q* and *x* are all nonnegative rational numbers.
***4-3A** **Equivalent Expressions**—Online	**Lesson 24** **Generate and Identify Equivalent Expressions**—pp. 206–213	6.EE.4 Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.*
***4-3B** **Simplify Expressions**—Online	**Lesson 24** **Generate and Identify Equivalent Expressions**—pp. 206–213	6.EE.3 Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*

Chapter 4 Expressions and Equations

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4-4 **Equations and Inequalities**—pp. 128–129	**Lesson 25** **Identify Solutions to Equations and Inequalities**—pp. 214–221	6.EE.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
4-4 **Equations and Inequalities**—pp. 128–129 ***4-4A** **Inequalities**—Online	**Lesson 25** **Identify Solutions to Equations and Inequalities**—pp. 214–221	6.EE.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
	Lesson 29 **Graph Solutions to Inequalities**—pp. 246–253	6.EE.8 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
4-5 **Addition Equations**—pp. 130–131 **4-6** **Subtraction Equations**—pp. 132–133 **4-7** **Multiplication and Division Equations**—pp. 134–135	**Lesson 26** **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	Lesson 27 **Solve Equations of the Form x + p = q**—pp. 230–237 **Lesson 28** **Solve Equations of the Form px = q**—pp. 238–245	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
***4-7A** **Write an Equation**—Online	**Lesson 27** **Solve Equations of the Form x + p = q**—pp. 230–237 **Lesson 28** **Solve Equations of the Form px = q**—pp. 238–245	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.

Chapter 4 Expressions and Equations

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4-8 **Use Formulas**—pp. 136–137	**Lesson 21** **Write Algebraic Expressions to Record Operations**—pp. 182–189	6.EE.2a Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.*
4-9 **Explore Order of Operations with a Calculator**—pp. 138–139		
4-10 **Problem Solving Strategy: Use More Than One Step**—pp. 140–141	**Lesson 26** **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	Lesson 27 **Solve Equations of the Form x + p = q**—pp. 230–237	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
	Lesson 28 **Solve Equations of the Form px = q**—pp. 238–245	
4-11 **Problem Solving Applications: Mixed Review**—pp. 142–143	**Lesson 21** **Write Algebraic Expressions to Record Operations**—pp. 182–189	6.EE.2a Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.*
	Lesson 26 **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	Lesson 27 **Solve Equations of the Form x + p = q**—pp. 230–237	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.
	Lesson 28 **Solve Equations of the Form px = q**—pp. 238–245	

Chapter 5 Integers

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5-1 **Integers**—pp. 150–151	**Lesson 15** **Understand Positive and Negative Numbers and Opposites**—pp. 128–135	6.NS.5	Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
		6.NS.6.a	Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite.
	Lesson 16 **Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6.c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
	Lesson 18 **Understand Absolute Value**—pp. 152–159	6.NS.7.c	Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write $\|-30\| = 30$ to describe the size of the debt in dollars.*
	Lesson 19 **Problem Solving: The Coordinate Plane**—pp. 160–167	6.NS.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

Chapter 5 Integers

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***5-1A** **Integers in the Real World**—Online	**Lesson 15** **Understand Positive and Negative Numbers and Opposites**—pp. 128–135	6.NS.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
5-2 **Compare and Order Integers**—pp. 152–153	**Lesson 15** **Understand Positive and Negative Numbers and Opposites**—pp. 128–135	6.NS.6a Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite.
	Lesson 16 **Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
	Lesson 17 **Compare and Order Rational Numbers**—pp. 144–151	6.NS.7a Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret –3 > –7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.*
		6.NS.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3° C > –7° C to express the fact that –3° C is warmer than –7° C.*
	Lesson 18 **Understand Absolute Value**—pp. 152–159	6.NS.7.c Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation.

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Chapter 5 Integers

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		For example, for an account balance of –30 dollars, write |–30| = 30 to describe the size of the debt in dollars.
		6.NS.7d Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.*
***5-2A** **Use Reasoning to Compare and Order Rational Numbers**—Online	**Lesson 17** **Compare and Order Rational Numbers**—pp. 144–151	6.NS.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3° C > –7° C to express the fact that –3° C is warmer than –7° C.*
	Lesson 18 **Understand Absolute Value**—pp. 152–159	6.NS.7.c Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write |–30| = 30 to describe the size of the debt in dollars.*
		6.NS.7d Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.*
5-3 **Add Integers**—pp. 154–155		
5-4 **Subtract Integers**—pp. 156–157		

Chapter 5 Integers

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5-5 **Multiply Integers**—pp. 158–159	**Lesson 18** **Understand Absolute Value**—pp. 152–159	6.NS.7.c Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write |–30| = 30 to describe the size of the debt in dollars.*
5-6 **Divide Integers**—pp. 160–161		
5-7 **Integers and Order of Operations**—pp. 162–163		
5-8 **Expressions and Equations with Integers**—pp. 164–165		
5-9 **Temperature**—pp. 166–167	**Lesson 17** **Compare and Order Rational Numbers**—pp. 144–151	6.NS.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3° C > –7° C to express the fact that –3° C is warmer than –7° C.*
5-10 **Problem Solving Strategy: Make a Table**—pp. 168–169	**Lesson 18** **Understand Absolute Value**—pp. 152–159	6.NS.7.c Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write |–30| = 30 to describe the size of the debt in dollars.* 6.NS.7d Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.*

Chapter 5 Integers

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
5-11 **Problem Solving Applications: Mixed Review**—pp. 170–171		

Chapter 6 Number Theory and Fractions

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
6-1 **Divisibility**—pp. 178–179		
6-2 **Prime and Composite Numbers**—pp. 180–181		
6-3 **Prime Factorization**—pp. 182–183		
6-4 **Equivalent Fractions**—pp. 184–185		
6-5 **Greatest Common Factor**—pp. 186–187	**Lesson 14** **Find the Greatest Common Factor and Least Common Multiple**—pp. 120–127	6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4 (9 + 2).*
***6-5A** **The Distributive Property and Common Factors**—Online		
6-6 **Fractions in Simplest Form**—pp. 188–189		
6-7 **Mixed Numbers and Improper Fractions**—pp. 190–191		
6-8 **Fraction Sense**—pp. 192–193	**Lesson 16** **Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
6-9 **Least Common Multiple**—pp. 194–195	**Lesson 14** **Find the Greatest Common Factor and Least Common Multiple**—pp. 120–127	6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a

– continued on next page –

Chapter 6 Number Theory and Fractions

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
		– continued from previous page – multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4 (9 + 2).*
6-10 **Compare Fractions**—pp. 196–197 **6-11** **Order Fractions**—pp. 198–199	**Lesson 16** **Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
	Lesson 17 **Compare and Order Rational Numbers**—pp. 144–151	6.NS.7a Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret –3 > –7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.*
		6.NS.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3° C > –7° C to express the fact that –3° C is warmer than –7° C.*
6-12 **Relate Fractions to Decimals**—pp. 200–201	**Lesson 16** **Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
6-13 **Rename Fractions as Decimals**—pp. 202–203		
6-14 **Rename Decimals as Fractions**—pp. 204–205	**Lesson 16** **Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
6-15 **Terminating and Repeating Decimals**—pp. 206–207		

Chapter 6 Number Theory and Fractions

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
6-17 **Compare and Order Rational Numbers**—pp. 210–211	**Lesson 16** **Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
	Lesson 17 **Compare and Order Rational Numbers**—pp. 144–151	6.NS.7a Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret –3 > –7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.*
		6.NS.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3° C > –7° C to express the fact that –3° C is warmer than –7° C.*
6-18 **Problem Solving Strategy: Find a Pattern**—pp. 212–213		
6-19 **Problem Solving Applications: Mixed Review**—pp. 214–215		

Chapter 7 Fractions: Addition and Subtraction

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
7-1 **Addition Properties: Fractions**—pp. 222–223	**Lesson 24** **Generate and Identify Equivalent Expressions**—pp. 206–213	6.EE.3 Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*

Chapter 7 Fractions: Addition and Subtraction

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
7-2	**Estimate Sums and Differences**—pp. 224–225				
7-3	**Add Fractions**—pp. 226–227				
7-4	**Add Mixed Numbers**—pp. 228–229				
7-5	**Subtract Fractions**—pp. 230–231				
7-6	**Subtract Mixed Numbers**—pp. 232–233				
7-7	**Mental Math Addition and Subtraction**—pp. 234–235				
7-8	**Addition and Subtraction Expressions with Fractions**—pp. 236–237				
7-9	**Addition and Subtraction Equations with Fractions**—pp. 238–239	**Lesson 26**	**Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
		Lesson 27	**Solve Equations of the Form x + p = q**—pp. 230–237	6.EE.7	Solve real-world and mathematical problems by writing and solving equations of the form *x* + *p* = *q* and *px* = *q* for cases in which *p*, *q* and *x* are all nonnegative rational numbers.
		Lesson 28	**Solve Equations of the Form px = q**—pp. 238–245		
7-10	**Problem Solving Strategy: Work Backward**—pp. 240–241				
7-11	**Problem Solving Applications: Mixed Review**—pp. 242–243				

Chapter 8 Fractions: Multiplication, Division, and Probability

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
8-1	**Multiply Fractions by Fractions**—pp. 250–251				
8-2	**Multiply Fractions and Whole Numbers**—pp. 252–253				
8-3	**Properties of Multiplication**—pp. 254–255	**Lesson 24**	**Generate and Identify Equivalent Expressions**—pp. 206–213	6.EE.3	Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*
8-4	**Multiply Mixed Numbers**—pp. 256–257				
8-5	**Meaning of Division**—pp. 258–259	**Lesson 9**	**Divide a Fraction by a Fraction**—pp. 80–87	6.NS.1	Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?*
***8-5A**	**Dividing with Fractions**—Online	**Lesson 10**	**Problem Solving: Fraction Division**—pp. 88–95		
8-6	**Divide Fractions by Fractions**—pp. 260–261				
8-7	**Estimate Quotients of Fractions and Mixed Numbers**—pp. 262–263				

Chapter 8 Fractions: Multiplication, Division, and Probability

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
8-8 **Divide with Whole and Mixed Numbers**—pp. 264–265	**Lesson 9** **Divide a Fraction by a Fraction**—pp. 80–87 **Lesson 10** **Problem Solving: Fraction Division**—pp. 88–95	6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?*
8-9 **Order of Operations with Fractions**—pp. 266–267	**Lesson 9** **Divide a Fraction by a Fraction**—pp. 80–87 **Lesson 10** **Problem Solving: Fraction Division**—pp. 88–95	6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?*
	Lesson 20 **Write and Evaluate Numerical Expressions with Exponents**—pp. 174–181	6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
8-10 **Fractions and Money**—pp. 268–269		

Chapter 8 Fractions: Multiplication, Division, and Probability

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
8-11 **Multiplication and Division Expressions with Fractions**—pp. 270–271	**Lesson 26** **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
8-12 **Multiplication and Division Equations with Fractions**—pp. 272–273	**Lesson 26** **Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
	Lesson 27 **Solve Equations of the Form x + p = q**—pp. 230–237	6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form *x* + *p* = *q* and *px* = *q* for cases in which *p*, *q* and *x* are all nonnegative rational numbers.
	Lesson 28 **Solve Equations of the Form px = q**—pp. 238–245	
8-13 **Probability**—pp. 274–275		
8-14 **Compound Events**—pp. 276–277		
8-15 **Permutations and Combinations**—pp. 278–279		
8-16 **Predictions and Probability**—pp. 280–281		
8-17 **Problem Solving Strategy: Use a Diagram**—pp. 282–283		
8-18 **Problem Solving Applications: Mixed Review**—pp. 284–285	**Lesson 9** **Divide a Fraction by a Fraction**—pp. 80–87	6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.
	Lesson 10 **Problem Solving: Fraction Division**—pp. 88–95	*For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between*

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Chapter 8 Fractions: Multiplication, Division, and Probability

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
		– continued from previous page – *multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?*

Chapter 9 Data and Statistics

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
9-1 **Surveys**—pp. 292–293		
9-2 **Samples**—pp. 294–295		
9-3 **Bias in Surveys**—pp. 296–297		
***9-3A** **Summarize the Data**—Online	**Lesson 40** **Summarize Numerical Data**—pp. 346–353	6.SP.5 Summarize numerical data sets in relation to their context, such as by: 6.SP.5a Reporting the number of observations. 6.SP.5b Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
9-4 **Record and Interpret Data**—pp. 298–299	**Lesson 40** **Summarize Numerical Data**—pp. 346–353	6.SP.5 Summarize numerical data sets in relation to their context, such as by: 6.SP.5a Reporting the number of observations.
9-5 **Apply Measures of Central Tendency and Range**—pp. 300–301	**Lesson 39** **Display Numerical Data**—pp. 338–345	6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
	Lesson 40 **Summarize Numerical Data**—pp. 346–353	6.SP.5 Summarize numerical data sets in relation to their context, such as by:

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Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
		6.SP.5c Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
9-6 **Analyze Data**—pp. 302–303	**Lesson 36** **Understand Statistical Questions and Describe Data**—pp. 314–321	6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
	Lesson 37 **Find the Median and Interquartile Range**—pp. 322–329	
	Lesson 37 **Find the Median and Interquartile Range**—pp. 322–329	6.SP.3 Recognize that a measure of center for a numerical 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.
	Lesson 38 **Find the Mean and Mean Absolute Deviation**—pp. 330–337	
	Lesson 39 **Display Numerical Data**—pp. 338–345	6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
	Lesson 40 **Summarize Numerical Data**—pp. 346–353	6.SP.5 Summarize numerical data sets in relation to their context, such as by:
		6.SP.5c Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
***9-6A** **Statistical Characteristics of a Data Set**—Online	**Lesson 36** **Understand Statistical Questions and Describe Data**—pp. 314–321	6.SP.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*

Chapter 9 Data and Statistics

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
***9-6B** **Choosing the Best Measures to Describe Data**—Online	**Lesson 40** **Summarize Numerical Data**—pp. 346–353	6.SP.5 Summarize numerical data sets in relation to their context, such as by:
		6.SP.5c Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
		6.SP.5d Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.
9-7 **Box-and-Whisker Plots**—pp. 304–305	**Lesson 39** **Display Numerical Data**—pp. 338–345	6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
	Lesson 40 **Summarize Numerical Data**—pp. 346–353	6.SP.5 Summarize numerical data sets in relation to their context, such as by:
		6.SP.5c Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
***9-7A** **Describe Data**—Online	**Lesson 36** **Understand Statistical Questions and Describe Data**—pp. 314–321	6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
	Lesson 37 **Find the Median and Interquartile Range**—pp. 322–329	
	Lesson 37 **Find the Median and Interquartile Range**—pp. 322–329	6.SP.3 Recognize that a measure of center for a numerical 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.
	Lesson 38 **Find the Mean and Mean Absolute Deviation**—pp. 330–337	

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Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6	
	Lesson 39 **Display Numerical Data**—pp. 338–345	6.SP.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
	Lesson 40 **Summarize Numerical Data**—pp. 346–353	6.SP.5	Summarize numerical data sets in relation to their context, such as by:
		6.SP.5a	Reporting the number of observations.
		6.SP.5b	Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
		6.SP.5c	Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
9-8 **Stem-and-Leaf Plots**—pp. 306–307	**Lesson 36** **Understand Statistical Questions and Describe Data**—pp. 314–321	6.SP.2	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
	Lesson 37 **Find the Median and Interquartile Range**—pp. 322–329		
	Lesson 39 **Display Numerical Data**—pp. 338–345	6.SP.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
	Lesson 40 **Summarize Numerical Data**—pp. 346–353	6.SP.5	Summarize numerical data sets in relation to their context, such as by:
		6.SP.5a	Reporting the number of observations.
		6.SP.5c	Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.

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Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
9-9 **Line Graphs**—pp. 308–309		
9-10 **Double Line Graphs**—pp. 310–311		
9-11 **Double Bar Graphs**—pp. 312–313		
9-12 **Misleading Graphs and Statistics**—pp. 314–315		
9-13 **Histograms**—pp. 316–317	**Lesson 40** **Summarize Numerical Data**—pp. 346–353	6.SP.5 Summarize numerical data sets in relation to their context, such as by: 6.SP.5a Reporting the number of observations.
9-14 **Interpret Circle Graphs**—pp. 318–319		
9-15 **Problem Solving Strategy: Make an Organized List**—pp. 320–321		
9-16 **Problem Solving Applications: Mixed Review**—pp. 322–323	**Lesson 40** **Summarize Numerical Data**—pp. 346–353	6.SP.5 Summarize numerical data sets in relation to their context, such as by: 6.SP.5c Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.

Chapter 10 Geometry

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
10-1 **Measure and Draw Angles**—pp. 330–331		
10-2 **Lines and Angles**—pp. 332–333		
10-3 **Angle Pairs**—pp. 334–335		
10-4 **Angles of Parallel Lines**—pp. 336–337		
10-5 **Line Constructions**—pp. 338–339		

Chapter 10 Geometry

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
10-6	**Constructions with Angles**—pp. 340–341				
10-7	**Polygons**—pp. 342–343				
10-8	**Triangles**—pp. 344–345				
10-9	**Quadrilaterals**—pp. 346–347				
10-10	**Angles of Triangles and Quadrilaterals**—pp. 348–349				
10-11	**Angles of Polygons**—pp. 350–351				
10-12	**Circles**—pp. 352–353				
10-13	**Congruent and Similar Polygons**—pp. 354–355				
10-14	**Transformations**—pp. 356–357				
10-15	**Symmetry**—pp. 358–359				
10-16	**Tessellations**—pp. 360–361				
10-17	**Solid Figures**—pp. 362–363	**Lesson 35**	**Use Nets to Find Surface Area**—pp. 300–307	6.G.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
10-18	**Views of Solid Figures**—pp. 364–365				
10-19	**Problem Solving Strategy: Logical Reasoning**—pp. 366–367				
10-20	**Problem Solving Applications: Mixed Review**—pp. 368–369				

Chapter 11 Ratio, Proportion, and Percent

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
11-1 **Ratio**—pp. 376–377		
11-2 **Equivalent Ratios**—pp. 378–379		
***11-2A** **Ratio and Rate Tables**—Online	**Lesson 2** **Use Ratio Tables to Find Equivalent Ratios**—pp. 18–25 **Lesson 3** **Use Ratio Tables to Compare Ratios**—pp. 26–33 **Lesson 8** **Problem Solving: Ratios and Rates**—pp. 66–73	6.RP.3a Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
***11-2B** **Ratios and Unit Rates**—Online	**Lesson 1** **Understand Ratios and Unit Rates**—pp. 10–17	6.RP.2 Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."*[1] [1]Expectations for unit rates in this grade are limited to non-complex fractions.
11-3 **Rates**—pp. 380–381	**Lesson 1** **Understand Ratios and Unit Rates**—pp. 10–17	6.RP.2 Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."*[1] [1]Expectations for unit rates in this grade are limited to non-complex fractions.

Chapter 11 Ratio, Proportion, and Percent

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
	Lesson 4 **Solve Unit Rate Problems**—pp. 34–41	6.RP.3b Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
***11-3A** **Compare Ratios**—Online	**Lesson 2** **Use Ratio Tables to Find Equivalent Ratios**—pp. 18–25 **Lesson 3** **Use Ratio Tables to Compare Ratios**—pp. 26–33 **Lesson 8** **Problem Solving: Ratios and Rates**—pp. 66–73	6.RP.3a Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
11-4 **Proportions**—pp. 382–383 ***11-4A** **Model Proportions with Double Number Lines**—Online ***11-4B** **Model Proportions with Tape Diagrams**—Online **11-5** **Solve Proportions**—pp. 384–385 **11-6** **Write Proportions**—pp. 386–387 **11-7** **Proportions and Similar Figures**—pp. 388–389 **11-8** **Use Proportions**—pp. 390–391	**Lesson 4** **Solve Unit Rate Problems**—pp. 34–41	6.RP.3b Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
11-9 **Scale Drawings and Maps**—pp. 392–393 **11-10** **Relate Percents to Fractions**—pp. 394–395 **11-11** **Relate Percents to Decimals**—pp. 396–397 **11-12** **Decimals, Fractions, and Percents**—pp. 398–399 **11-13** **Percents Greater Than 100%**—pp. 400–401 **11-14** **Percents Less Than 1%**—pp. 402–403		

Chapter 11 Ratio, Proportion, and Percent

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
11-15 **Problem Solving Strategy: Combine Strategies**—pp. 404–405		
***11-3A** **Compare Ratios**—Online	**Lesson 4** **Solve Unit Rate Problems**—pp. 34–41	6.RP.3b Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*

Chapter 12 Percent Applications

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
12-1 **Mental Math: Percent**—pp. 414–415	**Lesson 5** **Calculate a Percent of a Quantity**—pp. 42–49 **Lesson 6** **Find the Whole Given a Part and the Percent**—pp. 50–57	6.RP.3c Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
12-2 **Percent Sense**—pp. 416–417		
12-3 **Percentage of a Number**—pp. 418–419 **12-4** **Find the Rate**—pp. 420–421 **12-5** **Find the Original Number**—pp. 422–423 **12-6** **Percent Problems**—pp. 424–425 **12-7** **Discount and Sale Price**—pp. 426–427 **12-8** **Sales Tax and Total Cost**—pp. 428–429	**Lesson 5** **Calculate a Percent of a Quantity**—pp. 42–49 **Lesson 6** **Find the Whole Given a Part and the Percent**—pp. 50–57	6.RP.3c Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
12-9 **Better Buy**—pp. 430–431	**Lesson 4** **Solve Unit Rate Problems**—pp. 34–41	6.RP.3b Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*

Chapter 12 Percent Applications

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
12-10	**Commission**—pp. 432–433				
12-11	**Simple Interest**—pp. 434–435				
12-12	**Make Circle Graphs**—pp. 436–437				
12-13	**Problem Solving Strategy: Write an Equation**—pp. 438–439	**Lesson 5**	**Calculate a Percent of a Quantity**—pp. 42–49	6.RP.3c	Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
		Lesson 6	**Find the Whole Given a Part and the Percent**—pp. 50–57		
		Lesson 26	**Write Algebraic Expressions to Represent Problems**—pp. 222–229	6.EE.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

Chapter 13 Measurement

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
13-1	**Measure Metric Length**—pp. 448–449	**Lesson 1**	**Understand Ratios and Unit Rates**—pp. 10–17	6.RP.1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*
13-2	**Measure Metric Capacity and Mass**—pp. 450–451				
13-3	**Measure Customary Length**—pp. 452–453				
13-4	**Measure Customary Capacity and Weight**—pp. 454–455				
13-5	**Compute Customary Units**—pp. 456–457	**Lesson 7**	**Convert Measurement Units**—pp. 58–65	6.RP.3d	Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.
13-6	**Compute with Time**—pp. 458–459				

Chapter 13 Measurement

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
13-7	**Relate Customary and Metric Units**—pp. 460–461	**Lesson 1**	**Understand Ratios and Unit Rates**—pp. 10–17	6.RP.1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*
***13-7A**	**Use Proportions to Convert Units**—Online				
		Lesson 7	**Convert Measurement Units**—pp. 58–65	6.RP.3d	Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.
13-8	**Perimeter**—pp. 462–463				
13-9	**Area of Rectangles and Squares**—pp. 464–465	**Lesson 31**	**Find Areas of Parallelograms and Triangles**—pp. 268–275	6.G.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
		Lesson 32	**Find Areas of Polygons**—pp. 276–283		
13-10	**Area of Triangles and Parallelograms**—pp. 466–467				
13-11	**Area of Trapezoids**—pp. 468–469	**Lesson 31**	**Find Areas of Parallelograms and Triangles**—pp. 268–275	6.G.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
***13-11A**	**Plane Figures and Area**—Online	**Lesson 32**	**Find Areas of Polygons**—pp. 276–283		
13-12	**Circumference**—pp. 470–471				
13-13	**Area of a Circle**—pp. 472–473				

Chapter 13 Measurement

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
*13-13A	**Use Nets to Find Surface Area**—Online	**Lesson 35**	**Use Nets to Find Surface Area**—pp. 300–307	6.G.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
13-14	**Surface Area of Cubes, Rectangular Prisms, and Cylinders**—pp. 474–475				
13-15	**Surface Area of Pyramids and Triangular Prisms**—pp. 476–477				
13-16	**Volume of Prisms**—pp. 478–479	**Lesson 33**	**Find Volumes of Rectangular Prisms**—pp. 284–291	6.G.2	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l\,w\,h$ and $V = b\,h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
*13-16A	**Use Partial Cubes to Find Volume**—Online				
*13-16B	**Volume of a Prism**—Online				
13-17	**Volume of Triangular Prisms and Cylinders**—pp. 480–481				
13-18	**Volume of Pyramids**—pp. 482–483				
13-19	**Use Formulas to Solve Problems**—pp. 484–485				
13-20	**Problem Solving Strategy: Use Drawings / Formulas**—pp. 486–487				
13-21	**Problem Solving Applications: Mixed Review**—pp. 488–489				

Chapter 14 More Concepts in Algebra

Progress in Mathematics, Grade 6		Common Core Progress Mathematics, Grade 6		Common Core State Standards for Mathematics, Grade 6	
14-1	**Two-Step Equations**—pp. 496–497				
14-2	**Addition and Subtraction Equations with Integers**—pp. 498–499				
14-3	**Multiplication and Division Equations with Integers**—pp. 500–501				
14-4	**Functions and Ordered Pairs**—pp. 502–503	**Lesson 30**	**Represent Relationships Between Variables**—pp. 254–261	6.EE.9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*
***14-4A**	**Independent and Dependent Variables**—Online				
14-5	**Graph Ordered Pairs**—pp. 504–505	**Lesson 16**	**Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6.b	Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections both axes.
				6.NS.6.c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
		Lesson 34	**Plot and Analyze Polygons in the Coordinate Plane**—pp. 292–299	6.G.3	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the

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Chapter 14 More Concepts in Algebra

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
		– continued from previous page – same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
***14-5A** **Distances and the Coordinate Plane**—Online ***14-5B** **Graphing Polygons**—Online	**Lesson 19** **Problem Solving: The Coordinate Plane**—pp. 160–167	6.NS.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
14-6 **Graph Reflections and Translations**—pp. 506–507	**Lesson 16** **Locate Points with Rational Coordinates**—pp. 136–143	6.NS.6.b Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections both axes.
	Lesson 34 **Plot and Analyze Polygons in the Coordinate Plane**—pp. 292–299	6.G.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
14-7 **Graph Rotations**—pp. 508–509	**Lesson 34** **Plot and Analyze Polygons in the Coordinate Plane**—pp. 292–299	6.G.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.

Chapter 14 More Concepts in Algebra

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
***14-7A** **Model Rates**—Online	**Lesson 2** **Use Ratio Tables to Find Equivalent Ratios**—pp. 18–25 **Lesson 3** **Use Ratio Tables to Compare Ratios**—pp. 26–33 **Lesson 8** **Problem Solving: Ratios and Rates**—pp. 66–73	6.RP.3a Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
14-8 **Graph Functions**—pp. 510–511 ***14-8A** **Related Variables**—Online **14-9** **Algebraic Patterns**—pp. 512–513	**Lesson 30** **Represent Relationships Between Variables**—pp. 254–261	6.EE.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*
14-10 **Problem Solving Strategy: Use More Than One Strategy**—pp. 514–515	**Lesson 19** **Problem Solving: The Coordinate Plane**—pp. 160–167	6.NS.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
14-11 **Problem Solving Applications: Mixed Review**—pp. 516–517	**Lesson 30** **Represent Relationships Between Variables**—pp. 254–261	6.EE.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using

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Chapter 14 More Concepts in Algebra

Progress in Mathematics, Grade 6	Common Core Progress Mathematics, Grade 6	Common Core State Standards for Mathematics, Grade 6
		– continued from previous page – graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*