



Lesson	Domain	Cluster	Standard	Math Practice
Lesson 1: Using Parentheses, Brackets, and Braces	Operations & Algebraic Thinking	Write and interpret numerical expressions.	<b>5.OA.A.1</b> —Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	<ul><li> Reason abstractly and quantitatively.</li><li> Attend to precision.</li><li> Look for and make use of structure.</li></ul>
Lesson 2: Working with Expressions	Operations & Algebraic Thinking	Write and interpret numerical expressions.	<b>5.OA.A.2</b> —Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as $2 \times (8 + 7)$ . 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.	<ul> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> <li>Look for and make use of structure.</li> </ul>
Lesson 3: Understanding Place Value Relationships	Number & Operations in Base Ten	Understand the place value system.	<b>5.NBT.A.1</b> —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 1/10 of what it represents in the place to its left.	<ul><li>Model with mathematics.</li><li>Attend to precision.</li><li>Look for and make use of structure.</li></ul>
Lesson 4: Multiplying and Dividing by Powers of 10	Number & Operations in Base Ten	Understand the place value system.	<b>5.NBT.A.2</b> —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. Use whole-number exponents to denote powers of 10.	<ul> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 5: Comparing Decimals to the Thousandths	Number & Operations in Base Ten	Understand the place value system.	<b>5.NBT.A.3.b</b> —Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	<ul><li>Model with mathematics.</li><li>Attend to precision.</li><li>Look for and make use of structure.</li></ul>
Lesson 6: Rounding Decimals	Number & Operations in Base Ten	Understand the place value system.	<b>5.NBT.A.4</b> —Use place value understanding to round decimals to any place.	<ul><li>Model with mathematics.</li><li>Attend to precision.</li><li>Look for and make use of structure.</li></ul>
Lesson 7: Multiplying Using the Standard Algorithm	Number & Operations in Base Ten	Perform operations with multi-digit whole numbers and with decimals to hundredths.	<b>5.NBT.B.5</b> —Fluently multiply multi-digit whole numbers using the standard algorithm.	<ul><li>Make sense of problems and persevere in solving them.</li><li>Attend to precision.</li><li>Look for and make use of structure.</li></ul>
Lesson 8: Dividing Multi-Digit Numbers	Number & Operations in Base Ten	Perform operations with multi-digit whole numbers and with decimals to hundredths.	<b>5.NBT.B.6</b> —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.	<ul><li>Make sense of problems and persevere in solving them.</li><li>Attend to precision.</li><li>Look for and make use of structure.</li></ul>

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Lesson	Domain	Cluster	Standard	Math Practice
Lesson 9: Adding and Subtracting Decimals	Number & Operations in Base Ten	Perform operations with multi-digit whole numbers and with decimals to hundredths.	<b>5.NBT.B.7</b> — Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	<ul><li>Model with mathematics.</li><li>Attend to precision.</li><li>Look for and make use of structure.</li></ul>
Lesson 10: Multiplying Decimals	Number & Operations in Base Ten	Perform operations with multi-digit whole numbers and with decimals to hundredths.	<b>5.NBT.B.7</b> — Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	<ul> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 11: Dividing Decimals	Number & Operations in Base Ten	Perform operations with multi-digit whole numbers and with decimals to hundredths.	<b>5.NBT.B.7</b> — Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	<ul> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 12: Solving Decimal Word Problems	Number & Operations in Base Ten	Perform operations with multi-digit whole numbers and with decimals to hundredths.	<b>5.NBT.B.7</b> — Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	<ul><li>Model with mathematics.</li><li>Attend to precision.</li><li>Look for and make use of structure.</li></ul>
Lesson 13: Adding Fractions (Unlike Denominators)	Number & Operations— Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	<b>5.NF.A.1</b> —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. For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$ . (In general, $a/b + c/d = (ad + bc)/bd$ .)	<ul> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 14: Subtracting Fractions (Unlike Denominators)	Number & Operations— Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	<b>5.NF.A.1</b> —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. For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$ . (In general, $a/b + c/d = (ad + bc)/bd$ .)	<ul> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>

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Lesson	Domain	Cluster	Standard	Math Practice
Lesson 15: Adding and Subtracting Fractions (Unlike Denominators)	Number & Operations— Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	<b>5.NF.A.1</b> —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. For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$ . (In general, $a/b + c/d = (ad + bc)/bd$ .)	<ul> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 16: Adding Mixed Numbers	Number & Operations— Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	<b>5.NF.A.1</b> —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. For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$ . (In general, $a/b + c/d = (ad + bc)/bd$ .)	<ul> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 17: Subtracting Mixed Numbers	Number & Operations— Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	<b>5.NF.A.1</b> —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. For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$ . (In general, $a/b + c/d = (ad + bc)/bd$ .)	<ul> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 18: Solving Word Problems by Adding/Subtracting Fractions	Number & Operations— Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	<b>5.NF.A.2</b> —Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators; e.g., by using visual fraction models or equations to represent the problem.	<ul> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Attend to precision.</li> </ul>
Lesson 19: Interpreting Fractions as Division	Number & Operations— Fractions	Use equivalent fractions as a strategy to add and subtract fractions.	<b>5.NF.B.3</b> —Interpret a fraction as division of the numerator by the denominator $(a/b = a \div b)$ . Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers; e.g., by using visual fraction models or equations to represent the problem.	<ul> <li>Make sense of problems and persevere in solving them.</li> <li>Model with mathematics.</li> <li>Attend to precision.</li> </ul>
Lesson 20: Multiplying Fractions	Number & Operations— Fractions	Apply and extend previous understandings of multiplication and division.	<b>5.NF.B.4.a</b> —Interpret the product $(a/b) \times q$ as a parts of a partition of $q$ into $b$ equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$ . For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$ , and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$ . (In general, $(a/b) \times (c/d) = ac/bd$ .)	<ul> <li>Model with mathematics.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>

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Lesson	Domain	Cluster	Standard	Math Practice
Lesson 21: Multiplying Mixed Numbers Using Area Models	Number & Operations— Fractions	Apply and extend previous understandings of multiplication and division.	<b>5.NF.B.4.b</b> —Find the area of a rectangle with fractional side lengths by tiling it with unit squares 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.	<ul> <li>Model with mathematics.</li> <li>Use appropriate tools strategically.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 22: Solving Word Problems by Multiplying Fractions	Number & Operations— Fractions	Apply and extend previous understandings of multiplication and division.	<b>5.NF.B.6</b> —Solve real-world problems involving multiplication of fractions and mixed numbers; e.g., by using visual fraction models or equations to represent the problem.	<ul> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> </ul>
Lesson 23: Dividing Fractions, Part I	Number & Operations— Fractions	Apply and extend previous understandings of multiplication and division.	<b>5.NF.B.7.b</b> —Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$ , and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$ .	<ul> <li>Model with mathematics.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 24: Dividing Fractions, Part II	Number & Operations— Fractions	Apply and extend previous understandings of multiplication and division.	<b>5.NF.B.7.a</b> —Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$ , and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$ .	<ul> <li>Model with mathematics.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>
Lesson 25: Solving Word Problems by Dividing Fractions	Number & Operations— Fractions	Apply and extend previous understandings of multiplication and division.	<b>5.NF.B.7.c</b> —Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions; e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share 1/2 lb. of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?	<ul> <li>Make sense of problems and persevere in solving them.</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the reasoning of others.</li> </ul>
Lesson 26: Converting Measurement Units	Measurement & Data	Convert like measurement units within a given measurement system.	<b>5.MD.A.1</b> —Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multistep, real-world problems.	<ul> <li>Reason abstractly and quantitatively.</li> <li>Attend to precision.</li> <li>Look for and express regularity in repeated reasoning.</li> </ul>

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Lesson	Domain	Cluster	Standard	Math Practice
Lesson 27: Finding Volume	Measurement & Data	Geometric measurement: Understand concepts of volume.	<b>5.MD.C.5.a</b> —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. Represent threefold whole-number products as volumes; e.g., to represent the Associative Property of Multiplication.	<ul> <li>Reason abstractly and quantitatively.</li> <li>Model with mathematics.</li> <li>Look for and make use of structure.</li> <li>Attend to precision.</li> <li>Use appropriate tools strategically.</li> </ul>
Lesson 28: Finding the Volume of Solid Figures Using a Formula	Measurement & Data	Geometric measurement: Understand concepts of volume.	<b>5.MD.C.5.b</b> —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. <b>5.MD.C.5.c</b> —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.	<ul> <li>Make sense of problems and persevere in solving them.</li> <li>Model with mathematics.</li> <li>Use appropriate tools strategically.</li> </ul>
Lesson 29: Locating and Plotting on a Coordinate Plane	Geometry	Graph points on the coordinate plane to solve real-world and mathematical problems.	<b>5.G.A.1</b> —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 <i>coordinates</i> . 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 (e.g., <i>x</i> -axis and <i>x</i> -coordinate, <i>y</i> -axis and <i>y</i> -coordinate).	<ul> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> </ul>
Lesson 30: Problem Solving with Coordinate Planes	Geometry	Graph points on the coordinate plane to solve real-world and mathematical problems.	<b>5.G.A.2</b> —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.	<ul> <li>Make sense of problems and persevere in solving them.</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> </ul>

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