



Grade: 5			
Domain	Cluster	Standard	Associated Goal Stems
(OA) Operations and Algebraic Thinking  Grade 5, Standard 1	Write and interpret numerical expressions.	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	<b><u>5.OA.1 Parentheses, Brackets, Braces in Numerical Expressions</u></b>  <STUDENT> will use parentheses, brackets, and/or braces in <#> numerical expressions, and evaluate these expressions <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(OA) Operations and Algebraic Thinking  Grade 5, Standard 2	Write and interpret numerical expressions.	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 $3 \times (18932 + 921)$ is three times as large as $18932 + 921$ , without having to calculate the indicated sum or product.	<b><u>5.OA.2 Write Simple Expressions, Interpret</u></b>  <STUDENT> will write <#> simple expressions that record calculations with numbers and interpret the numerical expressions without evaluating them <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(OA) Operations and Algebraic Thinking  Grade 5, Standard 3	Analyze patterns and relationships.	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.	<b><u>5.OA.3 Generate Two Numerical Patterns- Identify Relationships</u></b>  <STUDENT> will generate two numerical patterns by identifying apparent relationships between corresponding terms <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			<b><u>5.OA.3 Form Ordered Pairs, Graph</u></b>  <STUDENT> will generate two numerical patterns by forming ordered pairs consisting of corresponding terms, and then graph the ordered pairs on a coordinate plane <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(NBT) Number and Operations in Base Ten  Grade 5, Standard 1	Understand the place value system.	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.	<b><u>5.NBT.1 Place Value System in Multidigit Numbers</u></b>  <STUDENT> will demonstrate understanding 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 <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.



Grade: 5			
Domain	Cluster	Standard	Associated Goal Stems
(NBT) Number and Operations in Base Ten  Grade 5, Standard 2	Understand the place value system.	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.	<b>5.NBT.2 Explain Patterns When Multiplying a Number by Powers of Ten</b>  <STUDENT> will explain patterns in the number of zeros of the product and/or the placement of the decimal point when multiplying a number by powers of 10 <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			<b>5.NBT.2 Use Whole Number Exponents</b>  <STUDENT> will use whole-number exponent to denote powers of 10 <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(NBT) Number and Operations in Base Ten  Grade 5, Standard 3	Understand the place value system.	Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$ . b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	<b>5.NBT.3 Read, Write, Compare Decimals to the Thousandths</b>  <STUDENT> will read, write, and/or compare <#> decimals to the thousandths using base-ten numerals, number names, and expanded form <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			<b>5.NBT.3 Compare Decimals and Record the Comparisons</b>  <STUDENT> will compare two decimals to thousandths based on the meanings of the digits in each place, and record the results of the comparisons using greater than, less than, and equals symbols <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.



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Domain	Cluster	Standard	Associated Goal Stems
(NBT) Number and Operations in Base Ten  Grade 5, Standard 4	Understand the place value system.	Use place value understanding to round decimals to any place.	<b>5.NBT.4 Round Numbers Using Place Value</b>  <STUDENT> will round numbers to the <place> using place value <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(NBT) Number and Operations in Base Ten  Grade 5, Standard 5	Perform operations with multi-digit whole numbers and with decimals to hundredths.	Fluently multiply multi-digit whole numbers using the standard algorithm.	<b>5.NBT.5 Fluently Multiply Multidigit Numbers</b>  <STUDENT> will fluently multiply <#> multi-digit whole numbers using the standard algorithm <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(NBT) Number and Operations in Base Ten  Grade 5, Standard 6	Perform operations with multi-digit whole numbers and with decimals to hundredths.	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.	<b>5.NBT.6 Find Whole Number Quotients</b>  <STUDENT> will find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using one or combination of the following strategies: place value, properties of operations, and/or the relationship between multiplication and division <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(NBT) Number and Operations in Base Ten  Grade 5, Standard 7	Perform operations with multi-digit whole numbers and with decimals to hundredths.	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.	<b>5.NBT.7 Add, Subtract, Multiply, Divide Decimals to Hundredths Place</b>  <STUDENT> will add, subtract, multiply, and/or divide <#> decimals to the hundredths place, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.



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Domain	Cluster	Standard	Associated Goal Stems
(NF) Number and Operations – Fractions  Grade 5, Standard 1	Use equivalent fractions as a strategy to add and subtract fractions.	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, $a/b + c/d = (ad + bc)/bd$ .)	<b>5.NF.1 Add Fractions with Unlike Denominators</b>  <STUDENT> will add <#> fractions and mixed numbers with unlike denominators by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			<b>5.NF.1 Subtract Fractions with Unlike Denominators</b>  <STUDENT> will subtract <#> fractions and mixed numbers with unlike denominators by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(NF) Number and Operations – Fractions  Grade 5, Standard 2	Use equivalent fractions as a strategy to add and subtract fractions.	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. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $2/5 + 1/2 = 3/7$ , by observing that $3/7 < 1/2$	<b>5.NF.2 Solve Addition Word Problems with Fractions</b>  <STUDENT> will solve <#> word problems involving addition of fractions referring to the same whole, including cases of unlike denominators, <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
			<b>5.NF.2 Solve Subtraction Word Problems with Fractions</b>  <STUDENT> will solve <#> word problems involving subtraction of fractions referring to the same whole, including cases of unlike denominators, <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.



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Domain	Cluster	Standard	Associated Goal Stems
<p>(NF) Number and Operations – Fractions</p> <p>Grade 5, Standard 3</p>	<p>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</p>	<p>Interpret a fraction as division of the numerator by the denominator (<math>a/b = a \div b</math>). 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. For example, interpret <math>3/4</math> as the result of dividing 3 by 4, noting that <math>3/4</math> multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size <math>3/4</math>. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</p>	<p><b>5.NF.3 Solve Word Problems Involving Division of Whole Numbers</b></p> <p>&lt;STUDENT&gt; will demonstrate understanding that fraction is the division of the numerator by the denominator by solving word problems involving division of whole numbers (<math>a/b = a \div b</math>) &lt;UNDER_WHAT_CONDITION&gt; as measured &lt;MEASURE&gt; in &lt;NUMBER1&gt; out of &lt;NUMBER2&gt; trials with &lt;PERCENT&gt;% accuracy.</p>
			<p>(NF) Number and Operations – Fractions</p> <p>Grade 5, Standard 4</p>



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Domain	Cluster	Standard	Associated Goal Stems
(NF) Number and Operations – Fractions  Grade 5, Standard 5	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Interpret multiplication as scaling (resizing), by: a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying $a/b$ by 1.	<b>5.NF.5 Explain Multiplication as Scaling</b>  <STUDENT> will explain multiplication as scaling (resizing) by comparing the size of a product to the size of one factor on the basis of the size of the other factor, and/or by explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(NF) Number and Operations – Fractions  Grade 5, Standard 6	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.	<b>5.NF.6 Multiplying Fractions- Solve Real Words Problems</b>  <STUDENT> will solve <#> real world problems involving multiplication of fractions e.g., by using visual fraction models or equations to represent the problem <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(NF) Number and Operations – Fractions  Grade 5, Standard 7	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. a. 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	<b>5.NF.7 Compute Quotients- Division of Unit Fractions</b>  <STUDENT> will demonstrate the division of a unit fraction by a non-zero whole number, and compute such quotients <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.



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<p><i>continued from previous page</i></p> <p>Grade 5, Standard 7</p>		<p>the relationship between multiplication and division to explain that <math>(1/3) \div 4 = 1/12</math> because <math>(1/12) \times 4 = 1/3</math>.</p> <p>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.</p> <p>For example, how much chocolate will each person get if 3 people share <math>1/2</math> lb of chocolate equally? How many <math>1/3</math>-cup servings are in 2 cups of raisins?</p>	<p><b><u>5.NF.7 Solve Problems- Division of Unit Fractions</u></b></p> <p>&lt;STUDENT&gt; will solve &lt;#&gt; real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions &lt;UNDER_WHAT_CONDITION&gt; as measured &lt;MEASURE&gt; in &lt;NUMBER1&gt; out of &lt;NUMBER2&gt; trials with &lt;PERCENT&gt;% accuracy.</p>
<p>(MD) Measurement and Data</p> <p>Grade 5, Standard 1</p>	<p>Convert like measurement units within a given measurement system.</p>	<p>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 multi-step, real world problems.</p>	<p><b><u>5.MD.1 Convert Like Measurement Units</u></b></p> <p>&lt;STUDENT&gt; will convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m) &lt;UNDER_WHAT_CONDITION&gt; as measured &lt;MEASURE&gt; in &lt;NUMBER1&gt; out of &lt;NUMBER2&gt; trials with &lt;PERCENT&gt;% accuracy.</p>
			<p><b><u>5.MD.1 Multistep Problems- Converting Like Measurement Units</u></b></p> <p>&lt;STUDENT&gt; will 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 multi-step, real world problems &lt;UNDER_WHAT_CONDITION&gt; as measured &lt;MEASURE&gt; in &lt;NUMBER1&gt; out of &lt;NUMBER2&gt; trials with &lt;PERCENT&gt;% accuracy.</p>
<p>(MD) Measurement and Data</p> <p>Grade 5, Standard 2</p>	<p>Represent and interpret data.</p>	<p>Make a line plot to display a data set of measurements in fractions of a unit (<math>1/2, 1/4, 1/8</math>). Use operations on fractions for this grade to solve problems involving information presented in line plots.</p> <p>For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</p>	<p><b><u>5.MD.2 Make a Line Plot to Display Measurements</u></b></p> <p>&lt;STUDENT&gt; will make a line plot to display a data set of measurements in fractions of a unit (<math>1/2, 1/4, 1/8</math>) and will use operations on fractions for this grade to solve problems involving information presented in line plots &lt;UNDER_WHAT_CONDITION&gt; as measured &lt;MEASURE&gt; in &lt;NUMBER1&gt; out of &lt;NUMBER2&gt; trials with &lt;PERCENT&gt;% accuracy.</p>



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Domain	Cluster	Standard	Associated Goal Stems
(MD) Measurement and Data  Grade 5, Standard 3	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	Recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.	<b><u>5.MD.3 Recognize Volume</u></b>  <STUDENT> will recognize volume as an attribute of solid figures and describe concepts of volume measurement (a solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units) <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(MD) Measurement and Data  Grade 5, Standard 4	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.	<b><u>5.MD.4 Measure Volume</u></b>  <STUDENT> will measure volumes by counting unit cubes <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(G) Geometry  Grade 5, Standard 1	Graph points on the coordinate plane to solve real-world and mathematical problems.	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. 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., x-axis and x-coordinate, y-axis and y-coordinate).	<b><u>5.G.1 Define a Coordinate System</u></b>  <STUDENT> will use a pair of perpendicular number lines (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 (coordinates) <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.
(G) Geometry  Grade 5, Standard 2	Graph points on the coordinate plane to solve real-world and mathematical problems.	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.	<b><u>5.G.2 Graph Points in a Quadrant System</u></b>  <STUDENT> will represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane <UNDER_WHAT_CONDITION> as measured <MEASURE> in <NUMBER1> out of <NUMBER2> trials with <PERCENT>% accuracy.