Grade 5 Montana Standards	Novice **A student who performed at this level did not meet grade-level expectations in this subject and needs considerable support to develop the required knowledge, skills, and practices necessary for future coursework in this content area.** **A student at this level:**	Partially Proficient **A student who performed at this level partially met grade-level expectations in this subject and needs support to develop the required knowledge, skills, and practices necessary for future coursework in this content area.** **A student at this level:**	Proficient **A student who performed at this level met grade-level expectations in this subject. The student has demonstrated the required knowledge, skills, and practices necessary for future coursework in this content area.** **A student at this level:**	Advanced **A student who performed at this level exceeded grade-level expectations. The student has demonstrated mastery of the required knowledge, skills, and practices necessary for future coursework in this content area.** **A student at this level:**
Operations and Algebraic Thinking (OA)				
5.OA.A Write and interpret numerical expressions.				
5.OA.A.1 Use parentheses, brackets, or braces in numerical expressions and evaluate expressions with these symbols.	Evaluates two-step numerical expressions with grouping symbols that use only addition and subtraction. Evaluates two-step numerical expressions with grouping symbols that use only multiplication and division. Identifies two-step numerical expressions with grouping symbols that use only addition and subtraction that represent a given value (e.g., given 10 identifies (50 – 45) + 5). Identifies two-step numerical expressions with grouping symbols that use only multiplication and division that represent a given value [e.g., given 4 identifies 24 ÷ (2 × 3)].	Evaluates two-step numerical expressions with grouping symbols that use addition or subtraction and multiplication or division (e.g., evaluates 20 + (6 ÷ 2)). Identifies two-step numerical expressions with grouping symbols that use addition or subtraction and multiplication or division that represent a given value (e.g., given 20 identifies (2 × 5) + 10). Evaluates two or more two-step numerical expressions with grouping symbols that use addition or subtraction and multiplication or division to compare the value (e.g., evaluates (2 × 5) + 10 and identifies a numerical expression with the same value).	Evaluates multi-step numerical expressions with grouping symbols that use at least three different operations. Identifies multi-step numerical expressions with grouping symbols that use at least three different operations that represent a given value [e.g., given 30 identifies 40 ÷ 2 + (2 × 5)]. Evaluates two or more multi-step numerical expressions with grouping symbols that use at least three different operations to compare the values (e.g., evaluates 40 ÷ 2 + (2 × 5) and identifies a numerical expression with the same value). Expressions do not exceed one level of grouping which can be represented by parentheses, braces, or brackets.	Analyzes evaluations of numerical expressions (e.g., determines and explains an error in evaluating a numerical expression). Inserts grouping into a numerical expression to create a true expression. Expressions do not exceed one level of grouping which can be represented by parentheses, braces, or brackets.
5.OA.A.2 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 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.	Determines the word form of a one-step numerical expression given in numeric form and vice versa (e.g., determines 2 × 5 is represented by the calculation "the product of 2 and 5"). See 4.OA.A.1 for determining expressions to represent multiplicative comparisons. See 4.OA.A.2 and 4.OA.A.3 for determining expressions to represent word problems.	Determines the word form of a numerical expression using two different operations with or without grouping symbols given in numeric form and vice versa (e.g., determines 8 + (2 × 5) is represented by the calculation "8 more than the product of 2 and 5"). Expressions do not exceed one level of grouping which can be represented by parentheses.	Generates true statements about numerical expression using two or more different operations with grouping symbols given in numeric form that do not require evaluating the expression (e.g., recognizes 5 × (1,000 + 500) is five times as large as 1,000 + 500). Expressions do not exceed one level of grouping which can be represented by parentheses.	Determines the word form of a numerical expression using two different operations with or without grouping symbols given in numeric form in more than one way. Expressions do not exceed one level of grouping which can be represented by parentheses.
5.OA.B Analyze patterns and relationships.				
5.OA.B.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns and graph the ordered pairs on a coordinate plane. 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.	Uses one rule to generate two numerical patterns given two different starting numbers. Limited to whole numbers. See 4.OA.B.5 for generating one pattern from one rule.	Determines ordered pairs consisting of corresponding terms of two given numerical patterns. Limited to whole numbers.	Uses two rules to generate two different numerical patterns. Patterns may be generated as function tables, input/output tables, or as a graph of points plotted in the first quadrant. Identifies relationships between corresponding terms of two given numerical patterns. Patterns may be presented as function tables, input/output tables, or as a graph of points plotted in the first quadrant. Determines and then graphs corresponding terms of two given numerical patterns. Limited to whole numbers. Limited to the first quadrant.	Explains the relationship between corresponding terms of two given numerical patterns. Patterns may be presented as function tables, input/output tables, or as a graph of points plotted in the first quadrant. Limited to whole numbers. Limited to the first quadrant.
Number and Operations in Base Ten (NBT)				
5.NBT.A Understand the place value system.				

5.NBT.A.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	Recognizes that in multi-digit decimal numbers a digit in one place represents 10 times as much as it represents in the place to its right given visual supports. Context may include determining equivalent measurements within the metric system of measurement. See 4.NBT.A.1 for 10 times its place to the right in whole numbers.	Recognizes that in multi-digit decimal numbers a digit in one place represents 10 times as much as it represents in the place to its right without visual supports. Recognizes that in multi-digit whole and decimal numbers a digit in one place represents 1/10 of what it represents in the place to its left given visual supports. Context may include determining equivalent measurements within the metric system of measurement.	Recognizes that in multi-digit whole and decimal numbers a digit in one place represents 1/10 of what it represents in the place to its left without visual supports. Context may include determining equivalent measurements within the metric system of measurement.	Generates a multi-digit whole or decimal number up to 1,000,000 where the digit in one place represents 1/10 of what it represents in the place to its left. Explains why in a multi-digit whole or decimal number up to 1,000,000 the digit in one place represents 1/10 of what it represents in the place to its left. Context may include determining equivalent measurements within the metric system of measurement.
5.NBT.A.2 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.	Continues a given pattern involving multiplying whole numbers by 10. Determines equivalent expressions for 10, 100, and 1,000 using exponents. Context may include determining equivalent measurements within the metric system of measurement.	Continues a given pattern involving dividing whole numbers by 10, up to the thousandths place. Determines equivalent expressions for 10,000, 100,000 and 1,000,000 using exponents. Context may include determining equivalent measurements within the metric system of measurement.	Uses exponents to denote powers of 10 when writing an equivalent form of a multiple of a power of 10 (e.g., $5{,}000 = 5 \times 10^3$). Explain patterns in the number of zeros or the placement of the decimal point when multiplying a number by powers of 10. Exponents are limited to whole numbers less than or equal to 6. Context may include determining equivalent measurements within the metric system of measurement.	Uses exponents to denote powers of 10 when writing an equivalent form of a number divided by a power of 10 (e.g., $0.005 = 5 \div 10^3$). Explain patterns in the number of zeros or the placement of the decimal point when dividing a number by powers of 10. Exponents are limited to whole numbers less than or equal to 6. Context may include determining equivalent measurements within the metric system of measurement.
5.NBT.A.3 Read, write, and compare decimals to thousandths.	See 5.NBT.A.3a - 5.NBT.A.3b	See 5.NBT.A.3a - 5.NBT.A.3b	See 5.NBT.A.3a - 5.NBT.A.3b	See 5.NBT.A.3a - 5.NBT.A.3b
5.NBT.A.3a Read and write decimals to thousandths using base ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.	Determines the numeric form of a decimal number to the tenths, hundredths, or thousandths place given the word form or expanded form. Determines the meaning of a digit in the tenths, hundredths, or thousandths place (e.g., the 5 in 0.245 represents 5×0.001 or 0.005). Numbers are within 1,000,000. See 4.NBT.A.2 for reading and writing multi-digit whole numbers. See 4.NF.C.6 for writing fractions with denominators of 10 or 100 as decimals.	Determines the word form or expanded form for a decimal number to the tenths, hundredths, or thousandths given the numeric form. Determines the word form for a decimal number to the tenths, hundredths, or thousandths given the expanded form. Numbers are within 1,000,000.	Determines the expanded form for a decimal number to the tenths, hundredths, or thousandths given its word form. Determines the numeric form or expanded form for a decimal number to the tenths, hundredths, or thousandths given its expanded notation (e.g., given $3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$, writes 347.392 or $300 + 40 + 7 + 0.3 + 0.09 + 0.002$). Determines the expanded notation for a decimal number to the tenths, hundredths, or thousandths given its expanded form or numeric form. Numbers are within 1,000,000.	Determines the expanded notation for a decimal number to the tenths, hundredths, or thousandths given its word form (e.g., given "three hundred forty seven and three hundred ninety two thousandths", writes $3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$). Numbers are within 1,000,000.
5.NBT.A.3b Compare two decimals to thousandths based on meanings of the digits in each place using >, =, and < symbols to record the results of comparisons.	Uses symbols to compare to decimals up to the tenths place. At least one number must be to the tenths place. Orders three or four numbers when at least one number is a decimal up to the tenths place. Ordering numbers includes using "least" and "greatest" terminology and may or may not include symbols. Numbers are within 1,000,000. See 4.NF.C.7 for comparing decimals to the tenths and hundredths place.	Uses symbols to compare to decimals up to the hundredths place. At least one number must be to the hundredths place. Orders three or four numbers when at least one number is a decimal up to the hundredths place. Ordering numbers includes using "least" and "greatest" terminology and may or may not include symbols. Numbers are within 1,000,000.	Uses symbols to compare two decimals when one number is a decimal number to the thousandths place and the other is a decimal to the tenths or hundredths place. Orders three or four numbers when at least one number is a decimal to the thousandths place and another number is a decimal to the tenths or hundredths place. Ordering numbers includes using "least" and "greatest" terminology and may or may not include symbols. Numbers are within 1,000,000.	Analyzes comparisons between two numbers up to 1,000,000 where at least one value is a decimal. Numbers are within 1,000,000.
5.NBT.A.4 Use place value understandings to round decimals to any place.	Rounds decimals to the nearest whole number. Numbers are between 0.01 and 1,000,000.	Rounds decimals to the nearest tenth. Numbers are between 0.01 and 1,000,000.	Rounds decimals to the nearest hundredth. Numbers are between 0.01 and 1,000,000.	Justifies the rounding of decimal to the nearest whole number, tenth, or hundredth. Numbers are between 0.001 and 1,000,000.
5NBT.B Perform operations with multi-digit whole numbers and with decimals to hundredths.				

5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.	Multiplies five-digit numbers by one-digit numbers using the standard algorithm. May include a context of determining equivalent measurements within a system of measurement. See 4.NBT.B.5 for multiplying two-, three-, or four-digit numbers by a one-digit number and for multiplying two two-digit numbers.	Multiplies three- or four-digit numbers by two-digit numbers using the standard algorithm. May include a context of determining equivalent measurements within a system of measurement.	Multiplies three-digit numbers by three-digit numbers using the standard algorithm. May include a context of determining equivalent measurements within a system of measurement.	Explains/analyzes use of the standard algorithm when used to multiply three- or four-digit numbers by a two-digit numbers. Explains/analyzes use of the standard algorithm when used to multiply three-digit numbers by three-digit numbers.
5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Divides a two-digit whole number by a two-digit whole number. Identifies a model that represents the whole number quotient of a whole number up to four-digits and a two-digit divisor. May include a context of determining equivalent measurements within a system of measurement. See 4.NBT.B.6 for single-digit divisors. See 6.NS.B.2 for the standard algorithm.	Represents the whole number quotient of a whole number up to four-digits and a two-digit divisor with a model. May include a context of determining equivalent measurements within a system of measurement.	Divides a three- or four-digit whole number by a two-digit whole number. Explains/analyzes strategies based on models used to find the whole number quotient of a whole number up to four-digits and a two-digit divisor. May include a context of determining equivalent measurements within a system of measurement.	Explains/analyzes strategies based on place value, the properties of operations, and the relationship between multiplication and division used to find the whole number quotient of a whole number up to four-digits and a two-digit divisor. May include a context of determining equivalent measurements within a system of measurement.
5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths using concrete models or drawings within cultural contexts, including those of Montana American Indians, 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.	Adds or subtracts decimals up to the hundredths when given a visual model. Multiplies or divides decimals to the tenths when given a visual model. Factors are limited to a total of six digits, not including a zero in the ones place of a decimal less than 1. Dividends are limited to four digits and divisors are limited to two digits.	Adds or subtracts decimals up to the hundredths without a visual model. Multiplies or divides decimals up to the hundredths by a multiple of 10 in the range of 10 to 90. Solves one-step word problems including those with Montana American Indian cultural context involving adding and subtracting decimals up to the hundredths. Solves one-step word problems including those with Montana American Indian cultural context involving multiplying or dividing decimals up to the hundredths by a multiple of 10 in the range of 10 to 90. Factors are limited to a total of six digits, not including a zero in the ones place of a decimal less than 1. Dividends are limited to four digits and divisors are limited to two digits. Context may include determining equivalent measurements within a system of measurement.	Multiplies or divides two decimals up to the hundredths using strategies based on place value, properties of operations, or relationships between operations. Multiplies or divides a decimal up to the hundredths by a whole number other than a multiple of 10. Solves one-step word problems including those with Montana American Indian cultural context involving multiplying or dividing two decimals to the tenths. Solves one-step word problems including those with Montana American Indian cultural context involving multiplying or dividing a decimal up to the hundredths by whole number other than a multiple of 10. Factors are limited to a total of six digits, not including a zero in the ones place of a decimal less than 1. Dividends are limited to four digits and divisors are limited to two digits. Context may include determining equivalent measurements within a system of measurement.	Adds, subtracts, multiplies, and divides decimals up to the hundredths where two operations are required. Knowledge of order of operations among addition, subtraction, multiplication, and division is not required. Solves two-step word problems including those with Montana American Indian cultural context involving adding, subtracting, multiplying, or dividing a decimals up to the hundredths. Knowledge of order of operations among addition, subtraction, multiplication, and division is not required. Analyzes/explains addition, subtraction, multiplication, or division of decimals up to the hundredths using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. The standard algorithm is not required. Factors are limited to a total of six digits, not including a zero in the ones place of a decimal less than 1. Dividends are limited to four digits and divisors are limited to two digits. Context may include determining equivalent measurements within a system of measurement.
Number and Operations - Fractions (NF)				
5.NF.A Use equivalent fractions as a strategy to add and subtract fractions.				
5.NF.A.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, $a/b + c/d = (ad + bc)/bd$.)	Adds and subtracts fractions (including mixed numbers) with unlike denominators where one denominator is a multiple of the other denominator without regrouping. See. 4.NF.B.3c for adding and subtracting fractions with like denominators.	Adds and subtracts fractions (including mixed numbers) with unlike denominators where one denominator is a multiple of the other denominator with regrouping.	Adds and subtracts fractions (including mixed numbers) with unlike denominators where one denominator is not a multiple of the other denominator with or without regrouping.	Analyzes addition and subtraction of fractions (including mixed numbers) with unlike denominators (e.g., determines and explains errors in the subtraction of a fraction from a mixed number).

5.NF.A.2 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.	Identifies an expression, equation, or model that represents a one-step word problem involving the addition or subtraction of fractions with unlike denominators. See. 4.NF.B.3d for solving addition and subtraction word problems involving fractions with like denominators.	Solves one-or two-step word problems involving addition and subtraction of fractions with unlike denominators with or without regrouping given a model.	Solves one-or two-step word problems involving addition and subtraction of fractions with unlike denominators with or without regrouping without a model.	Analyzes strategies used to solve one- or two- step word problems involving addition and subtraction of fractions with unlike denominators with or without regrouping. Includes evaluating the reasonableness of a solution to the problem.
5.NF.B Apply and extend previous understandings of multiplication and division to multiply and divide fractions.				
5.NF.B.3 Interpret a fraction as division of the numerator by the denominator (*a* /*b* = *a* ÷ *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. For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3 and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. 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?	Recognizes a fraction *a* /*b* can be represented as *a* ÷ *b*.	Solves word problems involving the division of whole numbers with answers in the form of a fraction less than 1 given a model.	Solves word problems involving the division of whole numbers with answers in the form of a fraction less than 1 without a model.	Solves word problems involving the division of whole numbers with answers in the form of an improper fraction or mixed number without a model.
5.NF.B.4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.	See 5.NF.B.4a - 5.NF.B.4b.	See 5.NF.B.4a - 5.NF.B.4b.	See 5.NF.B.4a - 5.NF.B.4b.	See 5.NF.B.4a - 5.NF.B.4b.
5.NF.B.4a Interpret the product (*a* /*b*) × *q* as parts of a partition of *q* into *b* equal parts; equivalently, as the result of a sequence of operations *a* × *q* ÷ *b* . For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation within cultural contexts, including those of Montana American Indians. Do the same with (2/3) × (4/5) = 8/15. (In general, (*a* /*b*) × (*c* /*d*) = *ac* /*bd* .)	Determines the model that represents a product in the form (*a* /*b*) × *q* as a parts of a partition of *q* into *b* equal parts (e.g., identifies 9 squares each 1/3 shaded represent 1/3 × 9).	Determines equivalent expressions for multiplying a fraction by a whole number or by another fraction (e.g., given 2/3 x 4, identifies 2/3 x 4/1 and (2 x 4)/(3 x 1) as equivalent products).	Multiplies a fraction by a fraction. Determines an expression or equation in the form (*a* /*b*) × *q* or *a* × *q* ÷ *b* that represents a given a real-world context including those with Montana American Indian cultural context.	Creates real-world context including those with Montana American Indian cultural context that represent a product in the form (*a* /*b*) × *q* as parts of a partition of *q* into *b* equal parts.
5.NF.B.4b 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.	None.	Determines the tiled rectangle that represents given fractional dimensions of a rectangle (e.g., given a rectangular sticker has a length of 3/4 in and a width of 2/4 in, determine the shaded area on a 4 by 4 grid that represents the sticker).	Determines the area of a rectangle by multiplying fractional side lengths with a tiled rectangle given.	Determines the area of a rectangle by multiplying fractional side lengths without a given tiled rectangle.
5.NF.B.5 Interpret multiplication as scaling (resizing), by:	Compares the size of a product to the size of one factor on the basis of the size of the other factor, when one factor is a whole number and one factor is a mixed number (e.g., determines the product of 2 3/4 and 5 is less than 2 3/4).	Compares the size of a product to the size of one factor on the basis of the size of the other factor, when one factor is a whole number and one factor is a fraction between 0 and 1 (e.g., determines the product of 3/4 and 5 is less than 5). Orders products based on interpreting multiplication as scaling when one factor is a whole number and one factor is a fraction between 0 and 1 (e.g., orders the expressions 5 × 2/5, 5 × 3/4 and 5 × 1/2 from least to greatest value).	Compares the size of a product to the size of one factor on the basis of the size of the other factor, when both factors are fractions (e.g., determines 3/4 × 7/2 > 3/4 is true). Orders products based on interpreting multiplication as scaling when both factors are fractions (e.g., orders the expressions 1/2 × 2/5, 1/2 × 3/4 and 1/2 × 1/2 from least to greatest value). Explains/recognizes why multiplying a given number by a fraction greater than 1 results in a product greater than the given number. Explains/recognizes why multiplying a given number by a fraction less than 1 results in a product less than the given number.	Explains/relates the principle of fraction equivalence *a* /*b* = (*n* × *a*)/(*n* × *b*) to the effect of multiplying *a* /*b* by 1 (e.g., explains 1/3 is equivalent to 3/9 because 1/3 × 3/3 = 3/9.

5.NF.B.5a Compare the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.	See 5.NF.B.5.	See 5.NF.B.5.	See 5.NF.B.5.	See 5.NF.B.5.
5.NF.B.5b Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (by recognizing multiplication by whole numbers greater than 1 as a familiar case); explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.	See 5.NF.B.5.	See 5.NF.B.5.	See 5.NF.B.5.	See 5.NF.B.5.
5.NF.B.6 Solves real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem within cultural contexts, including those of Montana American Indians.	Solves one-step real-world problems including those with Montana American Indian cultural context involving multiplying a whole number by a mixed number given a visual fraction model.	Solves one- or two-step real-world problems including those with Montana American Indian cultural context involving multiplying a whole number by a mixed number without a fraction model. Solves one- or two-step real-world problems including those with Montana American Indian cultural context involving multiplying fractions and mixed numbers given a visual fraction model. Represents one-or two-step real-world problems including those with Montana American Indian cultural context involving multiplying fractions and mixed numbers using a visual fraction model or equation.	Solves one- or two-step real-world problems including those with Montana American Indian cultural context involving multiplying fractions and mixed numbers without a model.	Analyzes strategies used to solve one- or two- step word problems including those with Montana American Indian cultural context involving multiplying fractions and mixed numbers. Includes evaluating the reasonableness of a solution to the problem.
5.NF.B.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.	See 5.NF.B.7a - 5.NF.7c.	See 5.NF.B.7a - 5.NF.7c.	See 5.NF.B.7a - 5.NF.7c.	See 5.NF.B.7a - 5.NF.7c.
5.NF.B.7a Interpret division of a unit fraction by a non-zero whole number and compute such quotients. For example, create a story context within cultural contexts, including those of Montana American Indians, for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.	Divides a unit fraction by a whole number given a fraction model. Divides a unit fraction by a whole number given the corresponding multiplication fact.	Identifies real-world situations including those with Montana American Indian cultural context that can be related to dividing a unit fraction by a whole number. Determines a fraction model for dividing a unit fraction by a whole number.	Divides a unit fraction by a whole number without a fraction model or corresponding multiplication fact.	Creates real-world contexts including those with Montana American Indian cultural context based on dividing a unit fraction by a whole number.
5.NF.B.7b Interpret division of a whole number by a unit fraction and compute such quotients. For example, create a story context within cultural contexts, including those of Montana American Indians, for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.	Divides a whole number by a unit fraction given a fraction model. Divides a whole number by a unit fraction given the corresponding multiplication fact.	Identifies real-world situations including those with Montana American Indian cultural context that can be related to dividing a whole number by a unit fraction. Determines a fraction model for dividing a whole number by a unit fraction.	Divides a whole number by a unit fraction without a fraction model or corresponding multiplication fact.	Creates real-world contexts including those with Montana American Indian cultural context based on dividing a whole number by a unit fraction.
5.NF.B.7c 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?	Solves one-step real-world problems involving division of a unit fraction by a non-zero whole number given a fraction model. Solves one-step real-world problems involving division of a non-zero whole number by a unit fraction given a fraction model.	Represents one-or two-step real-world problems including those with Montana American Indian cultural context involving division of a unit fraction by a non-zero whole number using a visual fraction model or equation. Represents one-or two-step real-world problems including those with Montana American Indian cultural context involving division of a non-zero whole number by a unit fraction using a visual fraction model or equation.	Solves one- and two-step real-world problems involving division of a unit fraction by a non-zero whole number without a fraction model. Solves one- and two-step real-world problems involving division of a non-zero whole number by a unit fraction without a fraction model.	Analyzes strategies used to solve one- or two- step word problems including those with Montana American Indian cultural context involving division of a unit fraction by a non-zero whole number or involving division of a non-zero whole number by a unit fraction. Includes evaluating the reasonableness of a solution to the problem.
Measurement and Data (MD)				
5.MD.A Convert like measurement units within a given measurement system.				

5.MD.A.1 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 within a cultural context, including those of Montana American Indians.	Determines equivalent measurements from a smaller to larger unit within a system of measurement using one step or one degree of change (e.g., feet to yards). May not include context. 5.MD.A.1 is assessed in isolation and as part of the domain Number and Operations in Base Ten. See 5.NBT.A.1, 5.NBT.A.2, and 5.NBT.B.5 - 5.NBT.B.7.	Determines equivalent measurements from a smaller to larger unit within a system of measurement using two steps or two degrees of change (e.g., inches to yards). May not include context. Solves two-step real-world problems including those with Montana American Indian cultural context involving distances, intervals of time, liquid volumes, masses of objects, and money, involving fractions with common denominators. Must include expressing a smaller unit in terms of a larger unit with one degree of change as one step in the process.	Solves three- or more-step real-world problems including those with Montana American Indian cultural context involving distances, intervals of time, liquid volumes, masses of objects, and money, involving decimals to the hundredths. Must include expressing a smaller unit in terms of a larger unit with one degree of change as one step in the process.	Solves three or more-step real-world problems including those with Montana American Indian cultural context involving distances, intervals of time, liquid volumes, masses of objects, and money, involving decimals to the hundredths and/or fractions with common denominators. Must include expressing a smaller unit in terms of a larger unit with two degrees of change as one step in the process.
5.MD.B Represent and interpret data.				
5.MD.B.2 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. 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.	None. See 4.MD.B.4 for creating line plots using halves, fourths and eighths.	Uses data to identify or create line plots with denominators of 2, 4, or 8. Fractions may include mixed numbers. Line plot may not be labeled with common denominators.	Uses data from line plots to solve one-or two-step problems involving addition, subtraction, multiplication and division of fractions with unlike denominators of 2, 4, or 8. Multiplication is limited to multiplying whole numbers and whole numbers by fractions. Division is limited to dividing whole numbers and dividing whole numbers by unit fractions or vice versa. Fractions may include mixed numbers. Line plot may not be labeled with common denominators.	Analyze the creation of line plots. Analyze the solution to one- or two-step problems involving line plots. Fractions may include mixed numbers. Line plot may not be labeled with common denominators.
5.MD.C Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.				
5.MD.C.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.	Identifies unit cubes. Identifies the volume of a unit cube is one cubic unit. Identifies the face of a unit cube as having an area of one square unit. No calculations.	Identifies real-world measurements that are volume measurement and can be measured in cubic units. Packs unit cubes with whole-number side lengths without gaps or overlaps to model the volume of a rectangular prims (e.g., show the volume of the figure by placing cubes in the box). No calculations.	Packs unit cubes with whole-number side lengths without gaps or overlaps to model the volume of composite prisms made up of rectangular prisms. No calculations.	Explains/analyzes the whole-number volume of a rectangular prism by packing it with unit cubes without gaps or overlaps (e.g., explain why the volume of the figure is 4 unit cubes). No calculations.
5.MD.C.3a 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.	See 5.MD.C.3.	See 5.MD.C.3.	See 5.MD.C.3.	See 5.MD.C.3.
5.MD.C.3b 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.	See 5.MD.C.3.	See 5.MD.C.3.	See 5.MD.C.3.	See 5.MD.C.3.
5.MD.C.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.	None.	Measures the volume of a right rectangular prism with whole-number edge lengths by counting unit cubes when all unit cubes are visible. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	Measures the volume of a right rectangular prism with whole-number edge lengths by counting unit cubes when not all unit cubes are visible. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	Measures the volume of composite rectilinear prisms with whole-number edge lengths by counting unit cubes when not all unit cubes are visible. Measures and then compares the volume of two different right rectangular prisms with whole-number edge lengths by counting unit cubes when not all unit cubes are visible. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.
5.MD.C.5 Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume within cultural contexts, including those of Montana American Indians.	See 5.MD.C.5a - 5.MD.C.5c.	See 5.MD.C.5a - 5.MD.C.5c.	See 5.MD.C.5a - 5.MD.C.5c.	See 5.MD.C.5a - 5.MD.C.5c.

5.MD.C.5a Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.	Represents the volume of a right rectangular prism with whole number edge lengths as length × width × height given a diagram of a prism packed with unit cubes. Units are limited to cubic cm, cubic in, cubic ft, and improvised units. See 5.MD.C.3 for finding volume by packing and counting unit cubes.	Represents the volume of a right rectangular prism with whole number edge lengths as area of the base × height given a diagram of a prism packed with unit cubes. Represents the volume of a right rectangular prism with whole number edge lengths as length × width × height given a diagram of a prism showing only the bottom layer packed with unit cubes with the height is given. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	Represents the volume of a right rectangular prism with whole number edge lengths as area of the base × height given a diagram of a prism showing only the bottom layer packed with unit cubes with the height is given. Determines right rectangular prisms that have the same volume based on the associative property of multiplication (e.g., identifies (5 cm × 4 cm) × 3 cm as having the same volume as 4 cm × (5 cm × 3 cm)). Can be represented in a diagram or with multiplication. Does not need to know the term associative property of multiplication. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	None.
5.MD.C.5b Apply the formulas V = l × w × h and V = b × 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.	None.	Determines the volume of a right rectangular prism with whole-number edge lengths in real-world and mathematical problems when given the length, width, and height with or without a diagram. Determines the volume of a right rectangular prism with whole-number edge lengths in real-world and mathematical problems when given the area of the base and height with or without a diagram. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	Determines a missing edge length of a right rectangular prism with whole-number edge lengths in real-world and mathematical problems when given the volume and the other two edge lengths or the area of a base with or without a diagram. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	Compares the volumes of right rectangular prisms with whole-number edge lengths in real-world and mathematical problems (e.g., the volume of the second prism is 10 times the volume of the first prism). Analyzes how changing one or more dimensions affects the volume of right rectangular prisms with whole-number edge lengths in real-world and mathematical problems. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.
5.MD.C.5c Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems.	Represents the volume of composite figures made up of right rectangular prisms with whole-number edge lengths as the sum of the volumes of its non-overlapping prisms without using specific measurements (e.g., given that the volume of one prism is 25 cubic units and the volume of another non-overlapping prism is 30 cubic units, determine that the composite volume is represented by 25 + 30). Represents the volume of a non-overlapping right rectangular prisms with whole-number edge lengths as the difference of the volume of the composite figure and the volume of other non-overlapping right rectangular prisms without using specific measurements (e.g., given that the volume of a composite rectilinear prism made of prisms A and B has a total volume of 100 cubic units, and prism A has a volume of 25 cubic units, the volume of prism B is represented by 100 – 25). Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	Solves mathematical and real-world problems involving volumes of composite figures made up of non-overlapping right rectangular prisms with whole-number edge lengths that can be solved with addition and subtraction given a diagram. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	Solves mathematical and real-world problems involving volumes of composite figures made up of non-overlapping right rectangular prisms with whole-number edge lengths that can be solved with given a diagram. Must include multiplication. Units are limited to cubic cm, cubic in, cubic ft, and improvised units.	Creates a composite rectilinear prism given criteria such as the volume and edge lengths.
Geometry (G)				
5.GA.A Graph points on the coordinate plane to solve real-world and mathematics problems.				
5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. 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).	Determines the origin, *x* -axis, and *y* -axis of the coordinate plane. Determines the *x* -coordinate, and/or *y* -coordinate within an ordered pair of the coordinate plane. Limited to whole numbers. Limited to the first quadrant.	Recognizes that in an ordered pair the first number indicates the horizontal distance traveled along the *x* -axis from the origin and the second number indicates the vertical distance traveled along the *y* -axis from the origin. Limited to whole numbers. Limited to the first quadrant.	Graphs points on the coordinate plane given the coordinates. Determines the coordinates of points plotted on the coordinate plane. Limited to whole numbers. Limited to the first quadrant.	Graphs a point using a description of its location relative to another point shown on the coordinate plane (e.g., graphs Point S at (8, 5) given point R shown at (6, 5) on a graph and that point S is located 2 units to the right of Point R). Determines the coordinate of a point using a description of its location relative to another point (e.g., determines the coordinates of Point S are (8, 5) given point R is located at (6, 5) and that point S is located 2 units to the right of Point R). Limited to whole numbers. Limited to the first quadrant.

5.G.A.2 Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation, including those found in Montana American Indian designs.	None. See 5.G.A.1 for plotting points within a mathematical problem. See 6.NS.C.8 for determining horizontal or vertical distances between points.	Determines a coordinate plane that can be used to represent a real-world problem including those with Montana American Indian cultural context by identifying appropriate axis labels and scale(s) for the context. Limited to whole numbers. Limited to the first quadrant.	Represents and solves mathematical problems by plotting points on the coordinate plane with no scale breaks. Represents and solves real-world problems including those with Montana American Indian cultural context by plotting points on a coordinate plane with no scale breaks. Determines points on a coordinate plane with no scale breaks that represent a given real-world context including those of Montana American Indians. Limited to whole numbers. Limited to the first quadrant.	Represents and solves mathematical problems by plotting points on the coordinate plane with a scale break on at least one axis. Represents and solves real-world problems including those with Montana American Indian cultural context by plotting points on a coordinate plane with a scale break on at least one axis. Interprets points on a coordinate plane with a scale break on at least one axis in real-world problems, including those with Montana American Indian cultural context Limited to whole numbers. Limited to the first quadrant.
5.G.B Classify two-dimensional figures into				
5.G.B.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.	Determines whether a two-dimensional figure has a given property or is a member of a given category. See 3.G.A.1 for sorting quadrilaterals based on attributes that do not include parallel and perpendicular lines.	Identifies which categories of shapes are subcategories of other categories of shapes. Determines all categories of a two-dimensional shape.	Determines similarities and differences among categories and subcategories of two dimensional figures (e.g., identifies that squares and rhombuses each have four congruent sides and that all categories of triangles have three sides).	Explains or justifies the classification of a quadrilateral or set of quadrilaterals based on the properties of the shape(s) and categories. Explains or justifies the classification of a triangle or set of triangles based on the properties of the shape(s) and categories.
5.G.B.4 Classify two-dimensional figures in a hierarchy based on properties.	Classifies two-dimensional figures based on side lengths with a visual. See 4.G.A.2 for classifications based on angles, parallel lines and perpendicular lines.	Classifies two-dimensional figures based on side lengths without a visual. Uses hierarchy relationships to identify properties of quadrilaterals and identifies whether a quadrilateral in one category always, sometimes, or never belongs in another category. Arranges two-dimensional figures into a hierarchy based on geometric properties.	Classifies triangles and quadrilaterals into a specific category using multiple properties (e.g., isosceles right triangle). Classifies two-dimensional figures with five or more sides into a specific category using multiple properties (e.g., regular octagon).	Creates two-dimensional figures based on classifications of different shapes (e.g., draws a shape with the same number of sides as a rectangle but no perpendicular sides).