## Grade 5 Honors Yearlong Mathematics Map

| Resources: Approved from Board of Education |  |  | Assessments: District Benchmark Assessments |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Common Core State Standards - Standards for Mathematical Practice: <br> 1. Make sense of problems and persevere in solving them. <br> 3. Construct viable arguments and critique the reasoning of others. <br> 5. Use appropriate tools strategically. <br> 7. Look for and make use of structure. <br> 2. Reason abstractly and quantitatively. <br> 4. Model with mathematics. <br> 6. Attend to precision. <br> 8. Look for and express regularity in repeated reasoning. |  |  |  |  |  |
| Domain | Cluster | Common Core Standard | Content | Skills | Academic Vocabulary |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm. | Multiplication | 5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm. |  |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. | Division | 5.NBT. 6 Compute whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors by applying various strategies. |  |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. | Division | 5.NBT. 6 Illustrate the calculation by using equations, rectangular arrays, and/or area models. | Rectangular Arrays |


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| :---: | :---: | :---: | :---: | :---: | :---: |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT. 6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. | Division | 5.NBT. 6 Explain the calculation by using equations, rectangular arrays, and/or area models. | Rectangular Arrays |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT. 7 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. | Addition/Subtractio n Decimals | 5.NBT. 7 Add and subtract decimals to hundreths place with concrete models or drawings. |  |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT.7 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. | Multiply Decimals | 5.NBT. 7 Multiply decimals to hundreths place with concrete models or drawings. |  |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT.7 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. | Divide Decimals | 5.NBT. 7 Divide decimals to hundreths place with concrete models or drawings. |  |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT. 7 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. | Add/Subtract Decimals | 5.NBT.7 Solve addition and subtraction problems with decimals to the hundreths place using strategies based on place value |  |


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| :---: | :---: | :---: | :---: | :---: | :---: |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT.7 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. | Multiply Decimals | 5.NBT. 7 Solve multiplication problems with decimals to the hundreths place using strategies based on place value |  |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT. 7 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. | Divide Decimals | 5.NBT. 7 Solve division problems with decimals to the hundreths place using strategies based on place value |  |
| NBT | Perform operations with multi-digit whole numbers and with decimals to hundredths. | 5.NBT.7 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. | Decimal Operations | 5.NBT. 7 Explain reasoning when performing operations with decimals to the hundredths place. |  |
| NF | Use equivalent fractions as a strategy to add and subtract fractions. | 5.NF. 1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $2 / 3+5 / 4=8 / 12+$ $15 / 12=23 / 12$. (In general, $a / b+c / d=(a d+b c) / b d$.) | Addition/Subtractio n Fractions | 5.NF. 1 Add and subtract fractions with unlike denominators | Equivalent Fractions |
| NF | Use equivalent fractions as a strategy to add and subtract fractions. | 5.NF. 1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $2 / 3+5 / 4=8 / 12+$ $15 / 12=23 / 12$. (In general, $a / b+c / d=(a d+b c) / b d$.) | Addition/Subtractio <br> n Mixed Number | 5.NF. 1 Add and subtract mixed number with unlike denominators | Equivalent Fractions |


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| NF | Use equivalent fractions as a strategy to add and subtract fractions. | 5.NF. 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. | Add/Subtract Fractions | 5.NF. 2 Solve word problems involving addition and subtraction of fractions |  |
| NF | Use equivalent fractions as a strategy to add and subtract fractions. | 5.NF. 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. | Add/Subtract Fractions | 5.NF. 2 Estimate mentally and assess the reasonbleness of the answer | Benchmarks |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF. 3 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. 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? | Multiply/Divide Fractions | 5.NF. 3 Interpret a fraction as division of the numerator by the denominator. |  |


| Domain | Cluster | Common Core Standard | Content | Skills | Academic Vocabulary |
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| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF. 3 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. 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? <br> Between what two whole numbers does your answer lie? | Multiply/Divide Fractions | 5.NF.3 Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers using visual fraction models or equations. |  |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF. 4 Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. | Multiplication of Fractions | 5.NF. 4 |  |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.4a Interpret the product $(\mathrm{a} / \mathrm{b}) \times \mathrm{q}$ 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.) | Multiplication of Fractions | 5.NF.4a Interpret the product (a/b) $\times \mathrm{q}$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. |  |


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| :---: | :---: | :---: | :---: | :---: | :---: |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.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. | Multiplication of Fractions | 5.NF.4b Find the area of a rectangle using a model with fractional side lengths. |  |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF. 5 Interpret multiplication as scaling (resizing), by: |  | 5.NF. 5 |  |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.5a 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. | Multiplication of Fractions | 5.NF.5a 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. | Benchmarks |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.5b 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 $a / b=(n \times$ $\mathrm{a}) /(\mathrm{n} \times \mathrm{b})$ to the effect of multiplying $\mathrm{a} / \mathrm{b}$ by 1 . | Multiplication of Fractions | 5.NF.5b Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number |  |


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| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.5b 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 . | Multiplication of Fractions | 5.NF.5b 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 $\mathrm{a} / \mathrm{b}$ by 1 . |  |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. | Multiplication of Fractions | 5.NF. 6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. |  |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF. 7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. | Division of Fractions | 5.NF. 7 |  |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.7a 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 $(1 / 12) \times 4=1 / 3$. | Division of Fractions | 5.NF.7a Interpret division of a unit fraction by a nonzero whole number, and compute such quotients |  |
| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.7b 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 $20 \times(1 / 5)=4$. | Division of Fractions | 5.NF.7b Interpret division of a whole number by a unit fraction, and compute such quotients. |  |


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| NF | Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | 5.NF.7c Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, 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 $1 / 2 \mathrm{lb}$ of chocolate equally? How many $1 / 3$-cup servings are in 2 cups of raisins? | Division of Fractions | 5.NF.7c Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. |  |
| MD | Represent and interpret data. | 5.MD. 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. | Data | 5.MD. 2 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8) |  |
| MD | Represent and interpret data. | 5.MD. 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. | Data | 5.MD. 2 Perform operations on fractions for this grade to solve problems involving information presented in line plots. |  |
| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 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." | Ratio | 6.RP.1 Describe ratio relationships using ratio language | Ratio <br> "For every" |


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| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 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." | Ratio Unit Rate | 6.RP. 2 Describe a unit rate using rate language | Ratio <br> Rate <br> Unit Rate |
| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 6.RP. 3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. | Ratio <br> Rates | 6.RP. 3 Solve real world and math problems using ratio and rate | Ratio <br> Ratio Table <br> Rate <br> Unit Rate <br> Equivalent <br> Double Number Line <br> Percent <br> Tape Diagram |
| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 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. | Ratio Table | 6.RP.3a Make tables of equivalent ratios relating quantities with whole-number measurements, compare ratios, and find missing values in the tables | Equivalent Ratios Table |
| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 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. | Coordinate Graphing | 6.RP.3a Plot pairs of values on a coordinate plane | Coordinate Plane Plot <br> Axis <br> Quadrant |
| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 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? | Unit Rates | 6.RP.3b Solve unit rate problems including those involving unit pricing and constant speed | Unit Rate Unit Price Constant Speed |


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| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 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? | Unit Rates | 6.RP.3c Find a percent of a quantity as a rate per 100 | Percent Rate Ratio |
| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 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. | Percent | 6.RP.3c Solve problems involving finding the whole, given a part and the percent | Percent <br> Rate <br> Ratio |
| RP | Understand ratio concepts and use ratio reasoning to solve problems. | 6.RP.3d Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities. | Measurement | 6.RP.3d Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities | Ratio <br> Measurement Units |
| NS | Compute fluently with multi-digit numbers and find common factors and multiples. | 6.NS.2 Fluently divide multi-digit numbers using the standard algorithm. | Measurement | 6.NS. 2 Divide multi-digit numbers | Quotient <br> Divisor Dividend |
| NS | Compute fluently with multi-digit numbers and find common factors and multiples. | 6.NS. 3 Fluently add, subtract, multiply, and divide multidigit decimals using the standard algorithm for each operation. | Addition, <br> Subtraction, <br> Multiplication, and Division of Decimals | 6.NS. 3 Compute addition, subtraction, multiplication, and division with multi-digit decimals | Sum <br> Difference <br> Product <br> Divisor <br> Dividend <br> Quotient <br> Factors <br> Place value <br> Decimals |


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| NS | Compute fluently with multi-digit numbers and find common factors and multiples. | 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 $4(9+2)$. Apply and extend previous understandings of numbers to the system of rational numbers. | GCF LCM Distributive Property | 6.NS. 4 Identify GCF of two whole numbers 1-100 | GCF <br> LCM <br> Distributive Property |
| NS | Compute fluently with multi-digit numbers and find common factors and multiples. | 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 $4(9+2)$. Apply and extend previous understandings of numbers to the system of rational numbers. | GCF <br> LCM <br> Distributive Property | 6.NS.4 Identify LCM of two whole numbers 1-12 |  |
| NS | Compute fluently with multi-digit numbers and find common factors and multiples. | 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 $4(9+2)$. Apply and extend previous understandings of numbers to the system of rational numbers. | GCF <br> LCM <br> Distributive Property | 6.NS. 4 Apply the distributive property of addition of two whole numbers 1-100 |  |


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| :---: | :---: | :---: | :---: | :---: | :---: |
| EE | Reason about and solve one-variable equations and inequalities. | 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. | Equations Inequalities | 6.EE. 5 Solve 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? |  |
| EE | Reason about and solve one-variable equations and inequalities. | 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. | Equations Inequalities Substitution | 6.EE. 5 Determine whether a given number in a specified set makes an equation or inequality true with substitution |  |
| EE | Reason about and solve one-variable equations and inequalities. | 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. | Expressions | 6.EE. 6 Write variable expressions when solving a mathematical problem, recognizing that a variable can represent an unknown number or any number in a specified set |  |
| EE | Reason about and solve one-variable equations and inequalities. | 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. | Expressions | 6.EE. 6 Write variable expressions when solving a realworld problem, recognizing that a variable can represent an unknown number or any number in a specified set |  |
| EE | Reason about and solve one-variable equations and inequalities. | 6.EE. 7 Solve real-world and mathematical problems by writing and solving equations of the form $x+p=q$ and $p x$ $=q$ for cases in which $p, q$ and $x$ are all nonnegative rational numbers. | Equations | 6.EE. 7 Write and solve equations of the form $x+p=q$ and $\mathrm{px}=\mathrm{q}$ for cases in which $\mathrm{p}, \mathrm{q}$ and x are all nonnegative rational numbers |  |
| EE | Reason about and solve one-variable equations and inequalities. | 6.EE. 7 Solve real-world and mathematical problems by writing and solving equations of the form $x+p=q$ and $p x$ $=q$ for cases in which $p, q$ and $x$ are all nonnegative rational numbers. | Equations | 6.EE. 7 Write and solve real-world equations of the form $\mathrm{x}+\mathrm{p}=\mathrm{q}$ and $\mathrm{px}=\mathrm{q}$ for cases in which $\mathrm{p}, \mathrm{q}$ and x are all nonnegative rational numbers |  |


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| EE | Reason about and solve one-variable equations and inequalities. | 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. | Inequalities | 6.EE. 8 Write an inequality of the form $x>c$ or $x<c$ to represent a constraint or condition in a mathematical problem |  |
| EE | Reason about and solve one-variable equations and inequalities. | 6.EE.8 Write an inequality of the form $\mathrm{x}>\mathrm{c}$ or $\mathrm{x}<\mathrm{c}$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $\mathrm{x}>\mathrm{c}$ or x < c have infinitely many solutions; represent solutions of such inequalities on number line diagrams. | Inequalities | 6.EE.8 Write an inequality of the form $x>c$ or $x<c$ to represent a constraint or condition in a real-world problem |  |
| EE | Reason about and solve one-variable equations and inequalities. | 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. | Inequalities | 6.EE. 8 Recognize that inequalities of the form $x>c$ or $x$ < c have infinitely many solutions |  |
| EE | Reason about and solve one-variable equations and inequalities. | 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. | Inequalities Number Lines | 6.EE. 8 Represent solutions of inequalities on number line diagrams |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Area | 6.G.1 Find the area of triangles |  |


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| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Area | 6.G.1 Find the area of quadrilaterals |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Area | 6.G.1 Find the area of polygons by composing into rectangles or decomposing into triangles and other shapes |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Area | 6.G.1 Find the area of triangles, quadrilaterals, and polygons in real-world problems |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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 $\mathrm{V}=\mathrm{I} \mathrm{w}$ $h$ and $V=b h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving realworld and mathematical problems. | Volume | 6.G.2 Find the volume of a right rectangular prism with fractional edge lengths |  |


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| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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 $\mathrm{V}=\mathrm{I} \mathrm{w}$ $h$ and $V=b h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving realworld and mathematical problems. | Volume | 6.G.2 Apply the formulas $\mathrm{V}=\mathrm{I} \mathrm{w} \mathrm{h}$ and $\mathrm{V}=\mathrm{b} \mathrm{h}$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving mathematical problems |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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 $\mathrm{V}=\mathrm{I} \mathrm{w}$ $h$ and $V=b h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving realworld and mathematical problems. | Volume | 6.G.2 Apply the formulas $\mathrm{V}=\mathrm{I} \mathrm{wh}$ and $\mathrm{V}=\mathrm{b} \mathrm{h}$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world problems |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Polygons Coordinate Graphing | 6.G.3 Draw polygons in the coordinate plane given coordinates for the vertices |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Polygons Coordinate Graphing | 6.G.3 Find the length of a side joining points with the same first coordinate or the same second coordinate |  |


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| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Polygons Coordinate Graphing | 6.G.3 Find the length of a side joining points with the same first coordinate or the same second coordinate in a real-world situation |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Nets <br> Surface Area | 6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Nets <br> Surface Area | 6.G. 4 Find the surface area of three-dimensional figures using nets |  |
| G | Solve real-world and mathematical problems involving area, surface area, and volume. | 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. | Nets <br> Surface Area | 6.G.4 Solve real-world problems involving nets and surface area of three-dimensional figures |  |
| SP | Develop understanding of statistical variability. | 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. | Statistics | 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 |  |
| SP | Develop understanding of statistical variability. | 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. | Statistics | 6.SP. 2 Recognize 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 |  |


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| SP | Develop understanding of statistical variability. | 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. | Statistics | 6.SP. 3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number |  |
| SP | Develop understanding of statistical variability. | 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. | Statistics | 6.SP. 3 Recognize that a measure of variation describes how its values vary with a single number |  |
| SP | Summarize and describe distributions. | 6.SP. 4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots. | Statistics Graphing | 6.SP. 4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots |  |
| SP | Summarize and describe distributions. | 6.SP. 5 Summarize numerical data sets in relation to their context, such as by: | Statistics | 6.SP. 5 Summarize numerical data sets in relation to their context |  |
| SP | Summarize and describe distributions. | 6.SP.5a Reporting the number of observations. | Statistics | 6.SP.5a Summarize numerical data sets by reporting the number of observations |  |
| SP | Summarize and describe distributions. | 6.SP.5b Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. | Statistics | 6.SP.5b Summarize numerical data sets by describing the nature of the attribute under investigation, including how it was measured and its units of measurement |  |
| SP | Summarize and describe distributions. | 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. | Statistics | 6.SP.5c Summarize numerical data sets by giving quantitative measures of center, such as median and/or mean |  |


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| SP | Summarize and describe distributions. | 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. | Statistics | 6.SP.5c Summarize numerical data sets by giving variability, such as interquartile range and/or mean absolute deviation |  |
| SP | Summarize and describe distributions. | 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. | Statistics | 6.SP.5c Summarize numerical data sets by describing any overall pattern and any outliers from the overall pattern |  |
| SP | Summarize and describe distributions. | 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. | Statistics | 6.SP.5d Summarize numerical data sets by relating the choice of measures of center and variability to the shape of the data distribution |  |

