



MAJOR CONTENT

The student solves problems involving the Major Content for the course with connections to the Standards for Mathematical Practice.

| | Major Content | | | | |
|--------------|--------------------------------|--------------------------------------|------------------------------|----------------------------|--|
| Content | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic | |
| Multiply and | Divides fractions with unlike | Divides fractions with unlike | Divides fractions with | Divides fractions with | |
| Divide | denominators and solves | denominators and solves word | common denominators and | common denominators. | |
| Fractions | word problems. | problems with scaffolding. | solves word problems with | | |
| 6.NS.A.1 | | | scaffolding. | | |
| Ratio and | Uses ratio and rate reasoning | Uses ratio and rate reasoning | Uses ratio and rate | Solves problems including | |
| Rate | to solve real-world and | to solve real-world and | reasoning to solve | ratio, unit rate, percent, | |
| 6.RP.A.1 | mathematical problems, | mathematical problems, | mathematical problems, | and unit conversion | |
| 6.RP.A.2 | including ratio, unit rate, | including ratio, unit rate, | including ratio, unit rate, | problems using a limited | |
| 6.RP.A.3 | percent, and unit conversion | percent, and unit conversion | percent, and unit conversion | variety of representations | |
| | problems, using and | problems using a limited | problems using a limited | and strategies. | |
| | connecting a variety of | variety of representations and | variety of representations | | |
| | representations and | strategies. | and strategies. | | |
| | strategies. | | | | |
| | Finds missing values in tables | Finds missing values in tables | Finds missing values in | | |
| | and plots values on the | and locates and plots values on | tables and locates and plots | | |
| | coordinate plane. | the coordinate plane. | values on the coordinate | | |
| | | | plane. | | |
| Rational | Understands that positive and | Understands that positive and | Understands that positive | Understands that positive | |
| Numbers | negative numbers describe | negative numbers describe | and negative numbers | and negative numbers | |
| 6.NS.C.5 | mathematical or real-world | mathematical or real-world | describe mathematical or | describe mathematical or | |
| 6.NS.C.6 | quantities which have | quantities which have opposite | real-world quantities which | real-world quantities | |
| 6.NS.C.7 | opposite values or directions | values or directions and can be | have opposite values or | which have opposite | |
| 6.NS.C.8 | and can be represented on a | represented on a number line | directions and can be | values or directions and | |
| | number line and compared | and compared with or without | represented on a number | can be represented on a | |
| | with or without the use of a | the use of a number line. | line. | number line. | |
| | number line. | | | | |





| Major Content | | | | |
|---------------|------------------------------------|-----------------------------------|-------------------------------|-----------------------------|
| Content | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic |
| | Understands the concept of | Understands the concept of | Determines the absolute | Determines the absolute |
| | and interprets the absolute | absolute value of a rational | value of a rational number. | value of a rational number. |
| | value of a rational number. | number. | | |
| | Plots ordered pairs on a | Plots ordered pairs on a | Locates or plots ordered | |
| | coordinate plane to solve real- | coordinate plane to solve real- | pairs on a coordinate plane | |
| | world and mathematical | world and mathematical | to solve mathematical | |
| | problems. | problems. | problems. | |
| | Recognizes the locations of | | | |
| | points are related by | | | |
| | reflections across one or both | | | |
| | axes when two ordered pairs | | | |
| | differ only by signs. | | | |
| | Distinguishes comparisons of | | | |
| | absolute value from | | | |
| | statements about order. | | | |
| Expressions, | Writes, reads, and evaluates | Writes, reads, and evaluates | Reads numerical and | |
| Inequalities, | numerical and algebraic | numerical and algebraic | algebraic expressions | |
| and Equations | expressions, including those | expressions, including those | including those that contain | |
| 6.EE.A.1 | that contain whole number | that contain whole number | whole number exponents. | |
| 6.EE.A.2 | exponents. | exponents. | | |
| 6.EE.A.4 | Identifies parts of algebraic | Identifies parts of algebraic and | Identifies parts of algebraic | Identifies parts of |
| 6.EE.B.5 | and numerical expressions | numerical expressions using | and numerical expressions | algebraic or numerical |
| 6.EE.B.6 | using mathematical terms and | mathematical terms. | using mathematical terms. | expressions using |
| 6.EE.B.7 | views one or more parts of an | | | mathematical terms. |
| 6.EE.B.8 | expression as a single entity. | | | |
| 6.EE.C.9 | Identifies equivalent | Identifies equivalent | | |
| | expressions using properties | expressions using properties of | | |
| | of operations. | operations. | | |





| Major Content | | | | | |
|---------------|--------------------------------|-------------------------------------|------------------------------|------------------------------|--|
| Content | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic | |
| | Uses variables to represent | Uses variables to represent | Uses variables to represent | Uses variables to | |
| | numbers and writes | numbers and writes | numbers and writes | represent numbers and | |
| | expressions and single-step | expressions and single-step | expressions (without | writes expressions | |
| | equations to solve real-world | equations to solve real-world | exponents) and single-step | (without exponents) and | |
| | and mathematical problems | or mathematical problems. | equations to solve | single-step equations to | |
| | and understands their | | mathematical problems. | solve mathematical | |
| | solutions. | | | problems. | |
| | Expresses a relationship | Relates tables and graphs to | Relates tables and graphs | | |
| | between dependent and | equations. | to equations. | | |
| | independent variables and | | | | |
| | relates tables and graphs to | | | | |
| | equations. | | | | |
| | Writes and graphs inequalities | Writes and graphs inequalities | Writes and graphs | Writes and graphs | |
| | to represent a constraint or | to represent a constraint or | inequalities to represent a | inequalities to represent a | |
| | condition in a real-world or | condition in a real-world or | constraint or condition in a | constraint or condition in a | |
| | mathematical problem. | mathematical problem. | mathematical problem. | mathematical problem. | |
| | Understands that there are | | | | |
| | an infinite number of | | | | |
| | solutions for an inequality. | | | | |





ADDITIONAL & SUPPORTING CONTENT

The student solves problems involving the Additional & Supporting Content for the course with connections to the Standards for Mathematical Practice.

| Additional & Supporting Content | | | | |
|---------------------------------|----------------------------------|--------------------------------|----------------------------|----------------------------|
| Content | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic |
| Factors and | Determines greatest common | Determines greatest common | Identifies greatest | Identifies greatest common |
| Multiples | factors and least common | factors and least common | common factors and least | factors and least common |
| 6.NS.B.4 | multiples. | multiples. | common multiples. | multiples. |
| | Uses the distributive property | Uses the distributive property | | |
| | to rewrite a sum of two whole | to rewrite a sum of two | | |
| | numbers 1-100 with a common | whole numbers 1-100 with a | | |
| | factor as a multiple of a sum of | common factor as a multiple | | |
| | two whole numbers with no | of a sum of two whole | | |
| | common factor. | numbers with no common | | |
| | | factor. | | |
| Solve Area, | Solves real-world and | Solves real-world and | Solves mathematical | Solves mathematical |
| Surface Area, | mathematical problems | mathematical problems | problems involving area of | problems involving area of |
| and Volume | involving area of polygons by | involving area of polygons by | polygons by either | polygons by composing |
| Problems | composing into rectangles or | either composing into | composing into rectangles | into rectangles. |
| 6.G.A.1 | decomposing into triangles and | rectangles or decomposing | or decomposing into | |
| 6.G.A.2 | other shapes. | into triangles and other | triangles and other | |
| 6.G.A.3 | | shapes. | shapes. | |
| 6.G.A.4 | Determines measurements of | Determines measurements of | Determines | |
| | polygons in the coordinate | polygons in the coordinate | measurements of | |
| | plane. | plane. | polygons in the | |
| | | | coordinate plane. | |
| | Identifies and uses nets of | Identifies and uses nets of | Uses nets of three- | |
| | three-dimensional figures to | three-dimensional figures to | dimensional figures to | |
| | find surface area. | find surface area. | find surface area. | |





| Additional & Supporting Content | | | | |
|---------------------------------|----------------------------------|--------------------------------|---------------------------------|-----------------------------|
| Content | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic |
| | Determines volume of right | Determines volume of right | Determines volume of | |
| | rectangular prisms with | rectangular prisms with | right rectangular prisms | |
| | fractional edge lengths by | fractional edge lengths by | with fractional edge | |
| | packing them with unit cubes | packing them with unit cubes | lengths by packing them | |
| | and using formulas. | and using formulas. | with unit cubes. | |
| | Uses volume formulas to find | Uses volume formulas to find | | |
| | unknown measurements. | unknown measurements. | | |
| | Applies concepts of area and | Applies concepts of area and | | |
| | volume to solve problems | volume to solve problems | | |
| | without scaffolding. | with scaffolding. | | |
| Statistical | Recognizes a statistical | Recognizes a statistical | Recognizes a statistical | Understands a set of |
| Variability and | question and understands a set | question and understands a | question and understands | collected data has a |
| Data | of collected data has a | set of collected data has a | a set of collected data has | distribution which can be |
| Distributions | distribution which can be | distribution which can be | a distribution which can | described by its center, |
| 6.SP.A.1 | described by its center, spread, | described by its center, | be described by its center, | spread, and overall shape. |
| 6.SP.A.2 | and overall shape. | spread, and overall shape. | spread, and overall shape. | |
| 6.SP.A.3 | Understands the purpose of | Understands the purpose of | Understands the purpose | Understands the center of |
| 6.SP.B.4 | center and variability and the | center and the center of a set | of center and the center | a set of data can be |
| 6.SP.B.5 | center of a set of data can be | of data can be summarized | of a set of data can be | summarized with a single |
| | summarized with a single | with a single number. | summarized with a single | number. |
| | number. | | number. | |
| | Displays numerical data in plots | Displays numerical data in | Displays numerical data | Displays numerical data on |
| | on a number line, including dot | plots on a number line, | on a number line including | a number line including dot |
| | plots, histograms, and box | including dot plots, | dot plots and histograms. | plots. |
| | plots. | histograms, and box plots. | | |





| | Additional & Supporting Content | | | | |
|-------------|-----------------------------------|----------------------------------|---------------------------------|-----------------------------|--|
| Content | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic | |
| | Summarizes numerical data | Summarizes numerical data | Summarizes numerical | | |
| | sets in relation to a context, | sets in relation to a context, | data sets in relation to a | | |
| | such as reporting the number | such as reporting the number | context, such as reporting | | |
| | of observations, describing the | of observations, describing | the number of | | |
| | nature of the attributes under | the nature of the attributes | observations, describing | | |
| | investigation, and using | under investigation, and | and using measures of | | |
| | measures of center and | using measures of center and | center, and using the | | |
| | variability. | variability. | interquartile range as a | | |
| | | | measure of variability. | | |
| | Determines which measures of | | | | |
| | center and variability are the | | | | |
| | most appropriate for a set of | | | | |
| | data. | | | | |
| Operations | Fluently divide multi-digit | Fluently divide multi-digit | Divide multi-digit numbers | Divide multi-digit numbers | |
| with | numbers using the standard | numbers using the standard | with limited accuracy. | with limited accuracy. | |
| Multi-Digit | algorithm. | algorithm. | | | |
| Numbers | Fluently add, subtract, multiply, | Fluently add, subtract, | Add, subtract, multiply, | Add and subtract multi- | |
| 6.NS.B.2 | and divide multi-digit decimals | multiply, and divide multi-digit | and divide multi-digit | digit decimals with limited | |
| 6.NS.B.3 | using the standard algorithm | decimals using the standard | decimals using the | accuracy. | |
| | for each operation. | algorithm for each operation. | standard algorithm for | | |
| | | | each operation with | | |
| | | | limited accuracy. | | |





EXPRESSING MATHEMATICAL REASONING

In connection with course content, the student expresses course-level appropriate mathematical reasoning by constructing viable arguments, critiquing the reasoning of others and/or attending to precision when making mathematical statements.

| | Expressing Mathematical Reasoning | | | | |
|---|---|--|---|---|--|
| Content | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic | |
| | In connection with the content knowledge and skills described in Major Content, the student clearly constructs and communicates a complete | | In connection with the content knowledge and skills described in Major Content, the student constructs and communicates a | | |
| LEAP.II.6.1 LEAP.II.6.2 | written response based on properties of operations; and the relationships between addition and subtraction and between multiplication and division | | | | |
| LEAP.II.6.3 LEAP.II.6.4 | response based on concrete referents provided in the prompt or constructed by the student such as: diagrams that are connected to a written (symbolic) method, number line diagrams, or coordinate plane diagrams | | | | |
| LEAP.II.6.5 | response to a given equation, multi-step problem, proposition or conjecture | | | | |
| LEAP.II.6.6 | I.6.6 Responses may include: | | | | |
| LEAP.II.6.7 LEAP.II.6.8 LEAP.II.6.9 | a logical approach based on a conjecture and/or stated assumptions | a logical approach based on a conjecture and/or stated assumptions | a logical approach based on a conjecture and/or stated assumptions | a faulty approach based on a conjecture and/or stated assumptions | |
| | a logical and complete progression of steps | a logical and complete progression of steps | a logical , but incomplete, progression of steps | an incomplete or illogical progression of steps | |
| | precise of calculation | precise calculation | minor calculation errors | major calculation errors | |
| | fluent use of grade-level vocabulary, symbols, and labels | fluent use of grade-level vocabulary, symbols, and labels | limited use of grade-level vocabulary, symbols, and labels | limited use of grade-level vocabulary, symbols, and labels | |
| | complete justification of a conclusion | complete justification of a conclusion | partial justification of a conclusion | partial justification of a conclusion | |
| | generalization of an argument or conclusion | | | | |



Louisiana Believes



| Expressing Mathematical Reasoning | | | | | |
|-----------------------------------|------------------------------|-------------------------------|-----------------------------------|----------------------------|--|
| Content | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic | |
| | evaluating, interpreting and | evaluating, interpreting, and | evaluating the validity of | | |
| | critiquing the validity and | critiquing the validity of | approaches and conclusions | | |
| | efficiency of responses, | responses, reasoning, | | | |
| | reasoning, approaches, and | approaches, and conclusions | | | |
| | conclusions, using | | | | |
| | mathematical connections | | | | |
| | and providing counter- | | | | |
| | examples where applicable | | | | |
| | identifying and describing | identifying and describing | identifying and describing errors | | |
| | errors in solutions and | errors in solutions and | in solutions | | |
| | presenting correct solutions | presenting correct solutions | | | |
| | distinguishing correct | identifying and describing | | | |
| | reasoning from flawed and | flaws in reasoning and | | | |
| | correcting flawed reasoning | presenting correct reasoning | | | |





MODELING & APPLICATION

In connection with content, the student solves real-world problems with a degree of difficulty appropriate to the grade/course by applying knowledge and skills articulated in the standards for the current grade/course (or for more complex problems, knowledge and skills articulated in the standards for previous grades/courses), engaging particularly in the Modeling practice, and where helpful making sense of problems and persevering to solve them, reasoning abstractly, and quantitatively, using appropriate tools strategically, looking for the making use of structure and/or looking for and expressing regularity in repeated reasoning.

| Modeling & Application | | | | | | |
|------------------------|---|---------------------------------------|----------------------------------|------------------------------|--|--|
| | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic | | |
| Content | In connection with the content k | nowledge, skills, and abilities desci | ribed in Major Content, the stud | lent devises a plan to apply | | |
| | mathematics in solving problems arising in everyday life, society and the workplace by: | | | | | |
| LEAP.III.6.1 | using stated assumptions and | using stated assumptions and | using stated assumptions | using stated assumptions | | |
| LEAP.III.6.2 | making assumptions and | making assumptions and | and approximations to | and approximations to | | |
| LEAP.III.6.3 | approximations to simplify a | approximations to simplify a | simplify a real-world | simplify a real-world | | |
| | real-world situation | real-world situation | situation | situation | | |
| | analyzing and/or creating | creating limitations and goals | | | | |
| | limitations, relationships, and | within a model | | | | |
| | interpreting goals within a | | | | | |
| | model | | | | | |
| | analyzing, justifying and | using models which lead to a | | | | |
| | defending models which lead | conclusion | | | | |
| | to a conclusion | | | | | |
| | mapping relationships between | mapping relationships | illustrating relationships | identifying quantities by | | |
| | quantities by selecting | between quantities by | between quantities by using | using provided tools to | | |
| | appropriate tools to create | selecting appropriate tools to | provided tools to create | create models | | |
| | models | create models | models | | | |
| | analyzing relationships | analyzing relationships | analyzing relationships | analyzing relationships | | |
| | mathematically between | mathematically between | mathematically between | mathematically to draw | | |
| | quantities to draw conclusions | quantities to draw conclusions | quantities to draw | conclusions | | |
| | | | conclusions | | | |
| | applying proportional | applying proportional | applying proportional | applying proportional | | |
| | reasoning | reasoning | reasoning | reasoning | | |





| | Modeling & Application | | | | |
|---------|----------------------------------|--|-----------------------------------|------------------------------|--|
| | Level 5: Advanced | Level 4: Mastery | Level 3: Basic | Level 2: Approaching Basic | |
| Content | In connection with the content k | nowledge, skills, and abilities desci | ribed in Major Content, the stud | lent devises a plan to apply | |
| | mathematics in solving problems | arising in everyday life, society an | d the workplace by: | | |
| | writing/using equations to | writing/using equations to | writing/using equations to | using equations to describe | |
| | describe how one quantity of | describe how one quantity of | describe how one quantity | how one quantity of interest | |
| | interest depends on another | interest depends on another | of interest depends on | depends on another | |
| | | | another | | |
| | using reasonable estimates of | using reasonable estimates of | using reasonable estimates | using unreasonable | |
| | known quantities in a chain of | known quantities in a chain of | of known quantities in a | estimates of known | |
| | reasoning that yields an | reasoning that yields an | chain of reasoning that | quantities in a chain of | |
| | estimate of an unknown | estimate of an unknown | yields an estimate of an | reasoning that yields an | |
| | quantity | quantity | unknown quantity | estimate of an unknown | |
| | | | | quantity | |
| | interpreting mathematical | interpreting mathematical | interpreting mathematical | | |
| | results in an applied context | results in an applied context | results in a simplified | | |
| | | | context | | |
| | determining whether results | determining whether results | determining whether | | |
| | make sense | make sense | results make sense | | |
| | improving a model if it has not | improving a model if it has not | altering a model if it has not | | |
| | served its purpose | served its purpose | served its purpose | | |
| | | | | · · · · · · | |
| | writing a complete, clear, and | writing a complete, clear, and | writing an incomplete | writing an incomplete | |
| | correct algebraic expression or | correct algebraic expression or | algebraic expression or | algebraic expression or | |
| | equation to describe a situation | equation to describe a situation | equation to describe a | equation to describe a | |
| | | | situation | situation | |