

Grade 6 Math: Content (Sub-Claim A)			
The student solves problems involving the Major Content for grade/course with connections to the Standards for Mathematical Practice.			
Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Multiplying and Dividing with Fractions: 6.NS.1-2			
Solves word problems involving division of fractions by fractions.	Divides fractions with unlike denominators and solves word problems with prompting embedded within the problem.	Divides fractions with common denominators and solves word problems with prompting embedded within the problem.	Divides fractions with common denominators.
Ratios: 6.RP.1, 6.RP.2, 6.RP.3a, 6.RP.3b, 6.RP.3c-1, 6.RP.3c-2, 6.RP.3d			
Uses ratio and rate reasoning to solve real-world and mathematical problems, including ratio, unit rate, percent and unit conversion problems.	Uses ratio and rate reasoning to solve real-world and mathematical problems, including ratio, unit rate, percent and unit conversion problems using a limited variety of representations and strategies.	Uses ratio and rate reasoning to solve mathematical problems, including ratio, unit rate, percent and unit conversion problems using a limited variety of representations and strategies.	Solves problems including ratio, unit rate, percent and unit conversion problems using a limited variety of representations and strategies.
Uses and connects a variety of representations and strategies to solve these problems.			
Finds missing values in tables and plots values on the coordinate plane.	Finds missing values in tables and locates and plots values on the coordinate plane.	Finds missing values in tables and locates or plots values on the coordinate plane.	
Rational Numbers: 6.NS.5, 6.NS.6a, 6.NS.6b-1, 6.NS.6b-2, 6.NS.6c-1, 6.NS.6c-2, 6.NS.7a, 6.NS.7b, 6.NS.7c-1, 6.NS.7c-2, 6.NS.7d, 6.NS.8			
Understands that positive and negative numbers describe mathematical or real-world quantities which have opposite values or directions and can be represented on a number line and compared with or without the use of a number line.	Understands that positive and negative numbers describe mathematical or real-world quantities which have opposite values or directions and can be represented on a number line and compared with or without the use of a number line.	Understands that positive and negative numbers describe mathematical or real-world quantities which have opposite values or directions and can be represented on a number line.	Understands that positive and negative numbers describe mathematical or real-world quantities which have opposite values or directions and can be represented on a number line.
Understands and interprets the absolute value of a rational number.	Understands the absolute value of a rational number.	Determines the absolute value of a rational number.	Determines the absolute value of a rational number.

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Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Plots ordered pairs on a coordinate plane to solve real- world and mathematical problems.	Plots ordered pairs on a coordinate plane to solve real-world and mathematical problems.	Locates or plots ordered pairs on a coordinate plane to solve mathematical problems.	
Understands (or recognizes) that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.			
Distinguishes comparisons of absolute value from statements about order.			
Expressions and Inequalities: 6.EE.1-1, 6.EE.1-2, 6.EE.2a, 6.EE.2b, 6.EE.2c-1, 6.EE.2c-2, 6.EE.4			
Writes, reads and evaluates numerical and algebraic expressions, including those that contain whole number exponents.	Reads and evaluates numerical and algebraic expressions, including those that contain whole number exponents.	Reads numerical and algebraic expressions including those that contain whole number exponents.	
	Writes numerical expressions and some algebraic expressions, including those that contain whole number exponents.		
Identifies parts of algebraic and numerical expressions using mathematical terms and views one or more parts of an expression as a single entity.	Identifies parts of algebraic and numerical expressions using mathematical terms.	Identifies parts of algebraic and numerical expressions using mathematical terms.	Identifies parts of an algebraic or numerical expression using mathematical terms.
Identifies equivalent expressions using properties of operations.	Identifies equivalent expressions using properties of operations.		

Grade 6 Math: Content (Sub-Claim A)

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Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Equations and Inequalities: 6.EE.5-1, 6.EE.5-2, 6.EE.6, 6.EE.7, 6.EE.8, 6.EE.9			
Uses variables to represent numbers and writes expressions and single-step equations to solve real-world and mathematical problems and understand their solutions.	Uses variables to represent numbers and writes expressions and single-step equations to solve real-world or mathematical problems.	Uses variables to represent numbers and writes expressions without exponents, and single- step equations to solve mathematical problems.	Uses variables to represent numbers and writes expressions without exponents, and single- step equations to solve mathematical problems
Expresses a relationship between dependent and independent variables and relates tables and graphs to equations.	Relates tables and graphs to the equations.	Relates tables and graphs to the equations.	
Writes and graphs inequalities to represent a constraint or condition in a real-world or mathematical problem.	Writes and graphs inequalities to represent a constraint or condition in a real-world or mathematical problem.	Graphs inequalities to represent a constraint or condition in a mathematical problem.	
Understands that there are an infinite number of solutions for an inequality.			

Grade 6 Math: Content (Sub-Claim B)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Factors and Multiples: 6.NS.4-1, 6.NS.4-2			
Finds greatest common factors and least common multiples..	Finds greatest common factors and least common multiples.	Identifies greatest common factors and least common multiples.	Identifies greatest common factors or least common multiples.
Uses 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	Uses the distributive property to rewrite 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.		
Geometry: 6.G.1, 6.G.2-1, 6.G.2-2, 6.G.3, 6.G.4			
Solves real-world and mathematical problems involving area of polygons by composing into rectangles or decomposing into triangles and other shapes.	Solves real-world and mathematical problems involving area of polygons by either composing into rectangles or decomposing into triangles and other shapes.	Solves mathematical problems involving area of polygons by either composing into rectangles or decomposing into triangles and other shapes.	Solves mathematical problems involving area of polygons by composing into rectangles.
Determines measurements of polygons in the coordinate plane.	Determines measurements of polygons in the coordinate plane.	Determines measurements of polygons in the coordinate plane.	
Determines and uses nets of three-dimensional figures to find surface area.	Determines and uses nets of three-dimensional figures to find surface area.	Uses nets of three-dimensional figures to find surface area.	
Determines volume of right rectangular prisms with fractional edge lengths by packing them with unit cubes and using formulas.	Determines volume of right rectangular prisms with fractional edge lengths by packing them with unit cubes and using formulas.	Determines volume of right rectangular prisms with fractional edge lengths by packing them with unit cubes and using formulas.	
Uses volume formulas to find unknown measurements.			

Grade 6 Math: Content (Sub-Claim B)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Understands the concepts of area and volume to solve unscaffolded problems.			
Statistics and Probability: 6.SP.1, 6.SP.2, 6.SP.3, 6.SP.4, 6.SP.5			
Recognizes a statistical question and understands that a set of collected data has a distribution which can be described by its center, spread and overall shape.	Recognizes a statistical question and understands that a set of collected data has a distribution which can be described by its center, spread and overall shape.	Recognizes a statistical question and understands that a set of collected data has a distribution which can be described by its center, spread and overall shape.	Understands that a set of collected data has a distribution which can be described by its center, spread and overall shape.
Understands the purpose of center and variability and that it can be summarized with a single number.	Understands the purpose of center and that it can be summarized with a single number.	Understands the purpose of center and that it can be summarized with a single number.	Understands that the center of a set of data can be summarized with a single number.
Displays numerical data in plots on a number line, including dot plots, histograms and box plots, and determines which display is the most appropriate.	Displays numerical data in plots on a number line, including dot plots, histograms and box plots.	Displays numerical data on a number line including dot plots and histograms.	Displays numerical data on a number line including dot plots.
Summarizes numerical data sets in relation to their context, such as by reporting the number of observations, describing the nature of the attributes under investigation and using measures of center and variability.	Summarizes numerical data sets in relation to their context, such as by reporting the number of observations, describing the nature of the attributes under investigation and using measures of center and variability.	Summarizes numerical data sets in relation to their context, such as by reporting the number of observations and describing and using measures of center and using the interquartile range as a measure of variability.	
Determines which measures of center and variability are the most appropriate for a set of data.			

Grade 6 Math: Content (Sub-Claim B)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Operations with Multi-Digit Numbers: 6.NS.2, 6.NS.3-1, 6.NS.3-2, 6.NS.3-3, 6.NS.3-4, 6.Int.1			
Solves two-step word problems and other problems by dividing multi-digit numbers and adding, subtracting, multiplying and dividing multi-digit decimals and assesses reasonableness of the result using different methods.	Solves one-step word problems and other problems with some level of accuracy by dividing multi-digit numbers and adding, subtracting, multiplying and dividing multi-digit decimals.	Solves one-step problems by dividing multi-digit numbers and adding, subtracting, multiplying and dividing multi-digit decimals.	Solves one-step problems with limited accuracy by dividing multi-digit numbers and adding, subtracting, multiplying and dividing multi-digit decimals.

Grade 6: Reasoning (Sub-Claim C)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Properties of Operations: 6.C.1.1, 6.C.2			
<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student clearly constructs and communicates a complete response based on the properties of operations and the relationship between addition and subtraction or between multiplication and division, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical and complete progression of steps • precision of calculation • correct use of grade-level vocabulary, symbols and labels • complete justification of a conclusion • generalization of an argument or conclusion • evaluating, interpreting, and critiquing the validity and efficiency of other's responses, approaches and reasoning, and providing counter-examples where applicable 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student clearly constructs and communicates a complete response based on the properties of operations and the relationship between addition and subtraction or between multiplication and division, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical and complete progression of steps • precision of calculation • correct use of grade-level vocabulary, symbols and labels • complete justification of a conclusion • evaluating, interpreting and critiquing the validity of • other's responses, approaches and reasoning 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student constructs and communicates a complete response based on the properties of operations and the relationship between addition and subtraction or between multiplication and division, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical, but incomplete, progression of steps • minor calculation errors • some use of grade-level vocabulary, symbols and labels • partial justification of a conclusion • evaluating the validity of other's approaches and conclusions 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student constructs and communicates an incomplete response based on the properties of operations and the relationship between addition and subtraction or between multiplication and division, which may include:</p> <ul style="list-style-type: none"> • a faulty approach based on a conjecture and/or stated assumptions • an incomplete or illogical progression of steps • major calculation errors • limited use of grade-level vocabulary, symbols and labels • partial justification of a conclusion

Grade 6: Reasoning (Sub-Claim C)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Concrete Referents and Diagrams: 6.C.3, 6.C.4, 6.C.5			
<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student clearly constructs and communicates a complete 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, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical and complete progression of steps • precision of calculation • correct use of grade-level vocabulary, symbols and labels • complete justification of a conclusion • generalization of an argument or conclusion • evaluating, interpreting and critiquing the validity and efficiency of other’s responses, approaches and reasoning, and 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student clearly constructs and communicates a complete 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, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical and complete progression of steps • precision of calculation • correct use of grade-level vocabulary, symbols and labels • complete justification of a conclusion • evaluating, interpreting and critiquing the validity of other’s responses, approaches and reasoning. 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student constructs and communicates a complete response based on concrete referents provided in the prompt or in simple cases, constructed by the student such as: diagrams that are connected to a written (symbolic) method, number line diagrams or coordinate plane diagrams, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical, but incomplete, progression of steps • minor calculation errors • some use of grade-level vocabulary, symbols and labels • partial justification of a conclusion • evaluating the validity of other’s approaches and conclusions 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student constructs and communicates an incomplete response based on concrete referents provided in the prompt such as: diagrams, number line diagrams or coordinate plane diagrams, which may include:</p> <ul style="list-style-type: none"> • a faulty approach based on a conjecture and/or stated or faulty assumptions • an incomplete or illogical progression of steps • major calculation errors • limited use of grade-level vocabulary, symbols and labels • partial justification of a conclusion

Grade 6: Reasoning (Sub-Claim C)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
provides a counter-example where applicable			
Distinguish Correct Explanation/ Reasoning from that which is Flawed: 6.C.6, 6.C.7, 6.C.8.1, 6.C.8.2, 6.C.9			
<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student clearly constructs and communicates a complete response to a given equation, multi-step problem, proposition or conjecture, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical and complete progression of steps • precision of calculation • correct use of grade-level vocabulary, symbols and labels • complete justification of a conclusion • generalization of an argument or conclusion • evaluating, interpreting and critiquing the validity and efficiency of other’s responses, approaches and reasoning, and providing a counter-example where applicable. 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student clearly constructs and communicates a complete response to a given equation, multi-step problem, proposition or conjecture, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical and complete progression of steps • precision of calculation • correct use of grade-level vocabulary, symbols and labels • complete justification of a conclusion • evaluating, interpreting and critiquing the validity of other’s responses, approaches and reasoning. • identifying and describing error in solutions and presents correct solutions. 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student constructs and communicates a complete response to a given equation, multi-step problem, proposition or conjecture, including:</p> <ul style="list-style-type: none"> • a logical approach based on a conjecture and/or stated assumptions • a logical, but incomplete, progression of steps • minor calculation errors • some use of grade-level vocabulary, symbols and labels • partial justification of a conclusion • evaluating the validity of other’s approaches and conclusion. • identifying and describing errors in solutions. 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student constructs and communicates an incomplete response to a given equation, multi-step problem, proposition or conjecture, including:</p> <ul style="list-style-type: none"> • an approach based on a conjecture and/or stated or faulty assumptions • an incomplete or illogical progression of steps • major calculation errors • limited use of grade-level vocabulary, symbols and labels • partial justification of a conclusion.

Grade 6: Reasoning (Sub-Claim C)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
<ul style="list-style-type: none"> identifying and describing errors in solutions and presents correct solutions. distinguishing correct explanation/reasoning from that which is flawed. If there is a flaw, presents correct reasoning. 			

Grade 6: Modeling (Sub-Claim D)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
Modeling: 6.D.1, 6.D.2, 6.D.3			
<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student devises a plan to apply mathematics in solving problems arising in everyday life, society and the workplace by:</p> <ul style="list-style-type: none"> • using stated assumptions and making assumptions and approximations to simplify a real-world situation • mapping relationships between important quantities by selecting appropriate tools to create models • analyzing relationships mathematically between important quantities to draw conclusions • writing a complete, clear and correct algebraic expression or equation to describe a situation • applying proportional reasoning 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student devises a plan to apply mathematics in solving problems arising in everyday life, society and the workplace by:</p> <ul style="list-style-type: none"> • using stated assumptions and making assumptions and approximations to simplify a real-world situation • mapping relationships between important quantities by selecting appropriate tools to create models • analyzing relationships mathematically between important quantities to draw conclusions • writing a complete, clear, and correct algebraic expression or equation to describe a situation • applying proportional reasoning 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student devises a plan to apply mathematics in solving problems arising in everyday life, society and the workplace by:</p> <ul style="list-style-type: none"> • using stated assumptions and approximations to simplify a real-world situation • illustrating relationships between important quantities by using provided tools to create models • analyzing relationships mathematically between important quantities to draw conclusions • writing an incomplete algebraic expression or equation to describe a situation • applying proportional reasoning • writing/using functions to describe how one quantity of interest depends on another 	<p>In connection with the content knowledge, skills, and abilities described in Sub-claim A, the student devises a plan to apply mathematics in solving problems arising in everyday life, society and the workplace by:</p> <ul style="list-style-type: none"> • using stated assumptions and approximations to simplify a real-world situation • identifying important quantities by using provided tools to create models • analyzing relationships mathematically to draw conclusions • writing an incomplete algebraic expression or equation to describe a situation • applying proportional reasoning • using functions to describe how one quantity of interest depends on another • using unreasonable estimates of known quantities in a chain of

Grade 6: Modeling (Sub-Claim D)

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

Exceeds Expectations	Meets Expectations	Approaches Expectations	Partially or Does Not Yet Meet Expectations
<ul style="list-style-type: none"> • writing/using functions to describe how one quantity of interest depends on another • using reasonable estimates of known quantities in a chain of reasoning that yields an estimate of an unknown quantity • reflecting on whether the results make sense • improving the model if it has not served its purpose • interpreting mathematical results in the context of the situation • analyzing and/or creating limitations, relationships and interpreting goals within the model • analyzing, justifying and defending models which lead to a conclusion 	<ul style="list-style-type: none"> • writing/using functions to describe how one quantity of interest depends on another • using reasonable estimates of known quantities in a chain of reasoning that yields an estimate of an unknown quantity • reflecting on whether the results make sense • improving the model if it has not served its purpose • interpreting mathematical results in the context of the situation 	<ul style="list-style-type: none"> • using reasonable estimates of known quantities in a chain of reasoning that yields an estimate of an unknown quantity • reflecting on whether the results make sense • modifying the model if it has not served its purpose • interpreting mathematical results in a simplified context 	<p>reasoning that yields an estimate of an unknown quantity</p>