Nebraska State Accountability-Mathematics (NeSA-M) Performance Level Descriptor
Grade 3

Below the Standards

Overall student performance in mathematics reflects *unsatisfactory* performance on the standards and *insufficient* understanding of the content at third grade. A student scoring at the Below the Standards level *inconsistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***inconsistently***:
- Demonstrates equivalent representations of numbers up to 10,000.
- Compares and orders whole numbers through the thousands.
- Identifies fractions (fourths, thirds, halves) as parts of a whole and/or parts of a set.
- Rounds numbers to the hundreds.
- Recognizes multiplication as repeated addition and an array.
- Identifies the attributes of two-dimensional shapes (e.g., sides, angles, vertices).
- Identifies congruent two-dimensional figures.
- Determines the distance between two points on a number line.
- Identifies appropriate customary measurement units (length).
- Compares and orders metric length (meters).
- Identifies and extends numeric patterns.
- Identifies models that represent situations involving addition and subtraction.
- Solves one-step equations involving addition and subtraction.
- Interprets data using pictographs and bar graphs.

Meets the Standards

Overall student performance in mathematics reflects *satisfactory* performance on the standards and *sufficient* understanding of the content at third grade. A student scoring at the Meets the Standards level *generally* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***generally***:
- Demonstrates equivalent representations of numbers up to 10,000.
- Compares and orders whole numbers through the thousands.
- Identifies fractions (fourths, thirds, halves) as parts of a whole and/or parts of a set.
- Rounds numbers to the thousands.
- Recognizes multiplication as repeated addition and an array.
- Identifies the attributes of two-dimensional shapes (e.g., sides, angles, vertices).
- Identifies congruent two-dimensional figures.
- Determines the distance between two points on a number line.
- Identifies appropriate customary measurement units (length, weight, capacity/volume).
- Compares and orders metric length (centimeters, meters).
- Identifies, describes, and extends numeric patterns.
- Identifies models that represent situations involving addition and subtraction.
- Solves one-step equations involving addition and subtraction.
- Interprets data using bar graphs.

Exceeds the Standards

Overall student performance in mathematics reflects *high academic* performance on the standards and a *thorough* understanding of the content at or above third grade. A student scoring at the Exceeds the Standards level *consistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***consistently***:
- Demonstrates equivalent representations of numbers up to 10,000.
- Compares and orders whole numbers through the thousands.
- Identifies fractions as parts of a whole and/or parts of a set.
- Rounds numbers to the thousands.
- Recognizes multiplication as repeated addition and an array.
- Identifies the attributes of two-dimensional shapes (e.g., sides, angles, vertices).
- Identifies congruent two-dimensional figures.
- Determines the distance between two points on a number line.
- Identifies appropriate customary measurement units (length, weight, capacity/volume).
- Compares and orders metric length.
- Identifies, describes, and extends numeric patterns.
- Identifies models that represent situations involving addition and subtraction.
- Solves one-step equations involving addition and subtraction.
- Interprets data using double bar graphs.

Nebraska State Accountability-Mathematics (NeSA-M) Performance Level Descriptor
Grade 4

Below the Standards

Overall student performance in mathematics reflects *unsatisfactory* performance on the standards and *insufficient* understanding of the content at fourth grade. A student scoring at the Below the Standards level *inconsistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level *inconsistently*:
- Demonstrates equivalent representations of decimals through the hundredths place.
- Compares and orders whole numbers and decimals through the hundredths place.
- Identifies fractions as parts of a whole and/or parts of a set.
- Identifies equivalent forms of fractions using models.
- Locates fractions on a number line.
- Recognizes division as repeated subtraction or equal sharing.
- Adds and subtracts decimals to the hundredths place.
- Multiplies two-digit whole number by a whole number.
- Solves multiplication and division problems involving powers of ten.
- Selects appropriate methods of computation when problem solving.
- Identifies the attributes of two-dimensional shapes and three-dimensional objects (e.g., sides: perpendicular, parallel, intersecting; angles: acute, obtuse, right).
- Identifies the location of an ordered pair in the first quadrant.
- Solves problems involving elapsed time to the hour.
- Identifies appropriate metric measurement unit (length, weight, capacity/volume).
- Computes simple unit conversions for length.
- Selects appropriate symbolic notations including > and <.
- Identifies symbolic representations of the commutative property.
- Solves simple one-step whole number equations.
- Compares the same set of data in different formats (tables, pictographs, bar graphs, line graphs).
- Interprets dot/line plots.

Meets the Standards

Overall student performance in mathematics reflects *satisfactory* performance on the standards and *sufficient* understanding of the content at fourth grade. A student scoring at the Meets the Standards level *generally* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level *generally*:
- Demonstrates equivalent representations of decimals through the hundredths place.
- Compares and orders whole numbers and decimals through the hundredths place.
- Identifies fractions as parts of a whole and/or parts of a set.
- Identifies equivalent forms of fractions.
- Locates fractions on a number line.
- Recognizes division as repeated subtraction or equal sharing.
- Adds and subtracts decimals to the hundredths place.
- Multiplies two-digit whole numbers.
- Solves multiplication and division problems involving powers of ten.
- Selects and applies appropriate methods of computation when problem solving.
- Identifies the attributes of two-dimensional shapes and three-dimensional objects (e.g., sides: perpendicular, parallel, intersecting; angles: acute, obtuse, right).
- Identifies the location of an ordered pair in the first quadrant.
- Solves problems involving elapsed time.
- Identifies appropriate metric measurement unit (length, weight, capacity/volume).
- Computes simple unit conversions for length.
- Selects appropriate symbolic notations including > and <.
- Identifies symbolic representations of the commutative property.
- Solves simple one-step whole number equations.
- Compares and makes predictions from the same set of data in different formats (tables, pictographs, bar graphs, line graphs).
- Interprets dot/line plots.

Exceeds the Standards

Overall student performance in mathematics reflects *high academic* performance on the standards and a *thorough* understanding of the content at or above fourth grade. A student scoring at the Exceeds the Standards level *consistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level *consistently*:
- Demonstrates equivalent representations of decimals through the hundredths place.
- Compares and orders whole numbers and decimals through the hundredths place.
- Identifies fractions as parts of a whole and/or parts of a set.
- Identifies equivalent forms of fractions.
- Locates fractions on a number line.
- Recognizes division as repeated subtraction or equal sharing.
- Adds and subtracts decimals to the hundredths place.
- Multiplies two-digit whole numbers.
- Solves multiplication and division problems involving powers of ten.
- Selects and applies appropriate methods of computation when solving multiple-step problems.
- Identifies the attributes of two-dimensional shapes and three-dimensional objects (e.g., sides: perpendicular, parallel, intersecting; angles: acute, obtuse, right).
- Identifies the location of an ordered pair in the first quadrant.
- Solves problems involving elapsed time between AM and PM.
- Identifies appropriate metric measurement unit (length, weight, capacity/volume).
- Computes unit conversions for length.
- Selects appropriate symbolic notations including > and <.
- Identifies symbolic representations of the commutative property.
- Solves one-step whole number equations.
- Compares and makes predictions from the same set of data in different formats (tables, pictographs, bar graphs, line graphs).
- Interprets dot/line plots.

Nebraska State Accountability-Mathematics (NeSA-M) Performance Level Descriptor
Grade 5

Below the Standards

Overall student performance in mathematics reflects *unsatisfactory* performance on the standards and *insufficient* understanding of the content at fifth grade. A student scoring at the Below the Standards level *inconsistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level *inconsistently*:
- Demonstrates equivalent representations of decimals through the thousandths place.
- Compares and orders fractions with like denominators.
- Compares and orders decimals through the thousandths place.
- Identifies fractions in simplest form.
- Finds common denominators.
- Identifies equivalent forms of common fractions, decimals, and percents.
- Identifies prime and composite numbers.
- Identifies factors and multiples of a whole number.
- Identifies the distributive property of multiplication.
- Adds and subtracts positive rational numbers (e.g., decimals).
- Selects appropriate methods of computation when solving multiple-step problems.
- Multiplies decimals.
- Divides a decimal by a whole number.
- Estimates the sums and differences of whole numbers.
- Identifies the attributes of triangular and rectangular prisms (e.g., edges, faces, vertices).
- Identifies the degrees on a circle.
- Plots the location of an ordered pair in the first quadrant.
- Identifies correct unit (customary or metric) to the measurement situation.
- Determines the area of rectangles and squares.
- Identifies models that represent addition, subtraction, and multiplication (e.g., words, graphs, tables).
- Identifies symbolic representations of the associative property.
- Evaluates numerical expressions using order of operations.
- Evaluates simple algebraic expressions (addition, subtraction).
- Solves one-step addition and subtraction equations.
- Draws conclusions on the same set of data in different formats (tables, pictographs, bar graphs, line graphs).
- Identifies a list of possible outcomes for a simple event.
- Describes the likelihood of a possible event.

Meets the Standards

Overall student performance in mathematics reflects *satisfactory* performance on the standards and *sufficient* understanding of the content at fifth grade. A student scoring at the Meets the Standards level *generally* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level *generally*:
- Demonstrates equivalent representations of decimals through the thousandths place.
- Compares and orders fractions.
- Compares and orders decimals through the thousandths place.
- Identifies fractions in simplest form.
- Finds common denominators.
- Identifies equivalent forms of common fractions, decimals, and percents.
- Identifies prime and composite numbers.
- Identifies factors and multiples of a whole number.
- Identifies the distributive property of multiplication.
- Adds and subtracts positive rational numbers (e.g., fractions, decimals).
- Selects and applies appropriate methods of computation when solving multiple-step problems.
- Multiplies decimals.
- Divides a decimal by a whole number.
- Estimates the sums and differences of positive rational numbers.
- Identifies the attributes of triangular and rectangular prisms (e.g., edges, faces, vertices).
- Identifies the degrees on a circle.
- Plots the location of an ordered pair in the first quadrant.
- Identifies correct unit (customary or metric) to the measurement situation.
- Determines the area of rectangles and squares.
- Identifies models that represent addition, subtraction, and multiplication (e.g., words, graphs, tables).
- Identifies symbolic representations of the associative property.
- Evaluates numerical expressions using order of operations.
- Evaluates simple algebraic expressions (addition, subtraction).
- Solves one-step addition and subtraction equations.
- Draws conclusions on the same set of data in different formats (tables, pictographs, bar graphs, line graphs).
- Identifies a list of possible outcomes for a simple event.
- Describes the likelihood of a possible event.

Exceeds the Standards

Overall student performance in mathematics reflects *high academic* performance on the standards and a *thorough* understanding of the content at or above fifth grade. A student scoring at the Exceeds the Standards level *consistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level *consistently*:
- Demonstrates equivalent representations of decimals through the thousandths place.
- Compares and orders fractions.
- Compares and orders decimals through the thousandths place.
- Identifies fractions and mixed numbers in simplest form.
- Finds common denominators.
- Identifies equivalent forms of fractions, decimals, and percents (e.g., mixed numbers).
- Identifies prime and composite numbers.
- Identifies factors and multiples of a whole number.
- Identifies the distributive property of multiplication.
- Adds and subtracts positive rational numbers (e.g., fractions, decimals).
- Selects and applies appropriate methods of computation when solving multiple-step problems.
- Multiplies and divides decimals.
- Estimates the sums and differences of positive rational numbers and analyzes the reasonableness.
- Identifies the attributes of triangular and rectangular prisms (e.g., edges, faces, vertices).
- Identifies the degrees on a circle.
- Plots the location of an ordered pair in the first quadrant.
- Identifies correct unit (customary or metric) to the measurement situation.
- Determines the area of complex shapes composed of rectangles and squares (e.g., area of a room and closet).
- Identifies models that represent two operations (e.g., words, graphs, tables).
- Identifies symbolic representations of the associative property.
- Evaluates numerical expressions using order of operations.
- Evaluates simple algebraic expressions (addition, subtraction, multiplication).
- Solves one-step multiplication equations.
- Draws conclusions on the same set of data in different formats (tables, pictographs, bar graphs, line graphs).
- Identifies a list of possible outcomes for a simple event.
- Describes the likelihood of a possible event.

Nebraska State Accountability-Mathematics (NeSA-M) Performance Level Descriptor
Grade 6

Below the Standards	**Meets the Standards**	**Exceeds the Standards**
Overall student performance in mathematics reflects *unsatisfactory* performance on the standards and *insufficient* understanding of the content at sixth grade. A student scoring at the Below the Standards level *inconsistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.	Overall student performance in mathematics reflects *satisfactory* performance on the standards and *sufficient* understanding of the content at sixth grade. A student scoring at the Meets the Standards level *generally* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.	Overall student performance in mathematics reflects *high academic* performance on the standards and a *thorough* understanding of the content at or above sixth grade. A student scoring at the Exceeds the Standards level *consistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.
A student at this level ***inconsistently***: • Compares integers. • Represents numbers using limited notation (factor trees, expanded form with exponents). • Identifies representations of addition and subtraction of fractions and decimals (e.g., word, symbols). • Multiplies and divides positive rational numbers. • Selects appropriate computation when problem solving. • Estimates problems involving whole numbers. • Determines area of parallelograms. • Identifies two-dimensional drawings of three-dimensional objects (e.g., prism, cone, sphere). • Identifies transformed shapes (e.g., translation). • Describes situations using algebraic expressions and equations (e.g., words). • Evaluates numerical expressions using order of operations with two operations. • Evaluates simple algebraic expressions (e.g., multiplication, division). • Solves one-step equations with addition and subtraction. • Compares and interprets data sets (frequency distribution). • Finds and compares measures of central tendency from two data sets (e.g., mean, median). • Computes theoretical probabilities for independent events. • Finds experimental probabilities for independent events.	A student at this level ***generally***: • Compares and orders integers. • Represents numbers using a variety of notations (e.g., exponential, prime factorization). • Identifies representations of addition and subtraction of fractions and decimals (e.g., word, symbols). • Multiplies and divides positive rational numbers. • Selects and applies appropriate computation when problem solving. • Estimates problems involving positive rational numbers. • Determines area of parallelograms and triangles. • Identifies two-dimensional drawings of three-dimensional objects. • Identifies transformed shapes (e.g., translation). • Describes situations using algebraic expressions and equations (e.g., words). • Evaluates numerical expressions using order of operations. • Evaluates simple algebraic expressions (e.g., multiplication, division). • Solves one-step equations. • Compares and interprets data sets (e.g., stem and leaf plots, frequency distribution). • Finds and compares measures of central tendency from two data sets (e.g., mean, median). • Computes theoretical probabilities for independent events. • Finds experimental probabilities for independent events.	A student at this level ***consistently***: • Compares and orders integers. • Represents numbers as prime factorization with exponents. • Identifies representations for addition and subtraction of fractions and decimals (e.g., pictures). • Multiplies and divides positive rational numbers (e.g., mixed numbers). • Selects and applies appropriate computation when solving multiple-step problems. • Estimates problems involving positive rational numbers and analyzes the reasonableness. • Determines area of special parallelograms and triangles (e.g., rhombus, right triangles, obtuse triangles). • Identifies two-dimensional drawings of three-dimensional objects (e.g., nets). • Identifies transformed shapes (e.g., reflection, rotation). • Describes situations using algebraic expressions and equations (e.g., tables). • Evaluates numerical expressions using order of operations (e.g., exponents, parentheses). • Evaluates simple algebraic expressions involving multiple operations. • Identifies steps in solving one-step equations. • Compares and interprets data sets (e.g., stem and leaf plots). • Determines appropriate measure of central tendency when comparing two data sets. • Compares theoretical and experimental probabilities for independent events.

Nebraska State Accountability-Mathematics (NeSA-M) Performance Level Descriptor
Grade 7

Below the Standards	Meets the Standards	Exceeds the Standards
Overall student performance in mathematics reflects *unsatisfactory* performance on the standards and *insufficient* understanding of the content at seventh grade. A student scoring at the Below the Standards level *inconsistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.	Overall student performance in mathematics reflects *satisfactory* performance on the standards and *sufficient* understanding of the content at seventh grade. A student scoring at the Meets the Standards level *generally* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.	Overall student performance in mathematics reflects *high academic* performance on the standards and a *thorough* understanding of the content at or above seventh grade. A student scoring at the Exceeds the Standards level *consistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.
A student at this level *inconsistently*: • Compares and orders rational numbers (decimals). • Represents large numbers using scientific notation. • Computes with integers (single operation). • Selects and applies appropriate methods of computation when problem solving (integers). • Estimates solutions to problems involving integers. • Finds horizontal and vertical distances between ordered pairs given a graph. • Identifies positions and orientations of transformed shapes (e.g., translation). • Determines the area and circumference of circles. • Describes situations using algebraic expressions and equations (e.g., words). • Uses a variable to describe a situation with an inequality. • Models contextualized problems using expressions. • Evaluates algebraic expressions with two operations. • Solves two-step equations involving integers. • Solves one-step inequalities using whole numbers. • Analyzes data sets and interprets their graphical representations. • Finds and interprets measures of central tendency from two data sets (e.g., mean, median). • Finds the probability of independent compound events. • Compares and contrasts theoretical and experimental probabilities.	A student at this level *generally*: • Compares and orders rational numbers (e.g., fractions, decimals, percents). • Represents large numbers using scientific notation. • Computes with integers (single operation). • Selects and applies appropriate methods of computation when problem solving (e.g., integers and positive rational numbers). • Estimates solutions to problems involving integers and positive rational numbers. • Finds horizontal and vertical distances between ordered pairs given a graph. • Identifies positions and orientations of transformed shapes (e.g., translation). • Determines the area of trapezoids and circles and circumference of circles. • Describes situations using algebraic expressions and equations (e.g., words). • Uses a variable to describe a situation with an inequality. • Models contextualized problems using expressions and equations. • Evaluates algebraic expressions using the order of operations, given a value for a variable. • Solves two-step equations involving integers and positive rational numbers. • Solves one step inequalities using positive rational numbers. • Analyzes data sets and interprets their graphical representations. • Finds and interprets measures of central tendency from two data sets (e.g., mean, median). • Finds the probability of independent compound events. • Compares and contrasts theoretical and experimental probabilities.	A student at this level *consistently*: • Compares and orders rational numbers with combinations of fractions, decimals and percents. • Represents large numbers using scientific notation. • Computes with integers (multiple operations). • Selects and applies appropriate methods of computation when solving multi-step problems (e.g., integers and positive rational numbers). • Estimates solutions to problems involving integers and positive rational numbers and analyzes the reasonableness. • Finds horizontal and vertical distances between ordered pairs given the ordered pairs. • Identifies positions and orientations of transformed shapes (e.g., reflection, rotation). • Determines the area of trapezoids and circles and circumference of circles. • Describes situations using algebraic expressions and equations (e.g., tables, graphs). • Uses a variable to describe a situation with an inequality (e.g., using "at least", "at most"). • Models contextualized problems using expressions and equations. • Evaluates algebraic expressions using the order of operations (e.g., exponents and parentheses), given a value for a variable. • Solves two-step equations involving integers and positive rational numbers. • Solves one-step inequalities using positive rational numbers. • Analyzes data sets and interprets their graphical representations. • Determines appropriate measures of central tendency when comparing two data sets. • Finds the probability of independent compound events. • Compares and contrasts theoretical and experimental probabilities.

Nebraska State Accountability-Mathematics (NeSA-M) Performance Level Descriptor
Grade 8

Below the Standards

Overall student performance in mathematics reflects *unsatisfactory* performance on the standards and *insufficient* understanding of the content at eighth grade. A student scoring at the Below the Standards level *inconsistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***inconsistently***:
- Compares and orders rational numbers (decimals).
- Represents large numbers using scientific notation.
- Computes with integers (single operation).
- Selects and applies appropriate methods of computation when problem solving (integers).
- Estimates solutions to problems involving integers.
- Finds horizontal and vertical distances between ordered pairs given a graph.
- Identifies positions and orientations of transformed shapes (e.g., translation).
- Determines the area and circumference of circles.
- Describes situations using algebraic expressions and equations (e.g., words).
- Uses a variable to describe a situation with an inequality.
- Models contextualized problems using expressions.
- Evaluates algebraic expressions with two operations.
- Solves two-step equations involving integers.
- Solves one-step inequalities using whole numbers.
- Analyzes data sets and interprets their graphical representations.
- Finds and interprets measures of central tendency from two data sets (e.g., mean, median).
- Finds the probability of independent compound events.
- Compares and contrasts theoretical and experimental probabilities.

Meets the Standards

Overall student performance in mathematics reflects *satisfactory* performance on the standards and *sufficient* understanding of the content at eighth grade. A student scoring at the Meets the Standards level *generally* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***generally***:
- Compares and orders real numbers.
- Classifies real numbers as natural, whole, integer, rational, irrational.
- Represents small numbers using scientific notation.
- Computes with rational numbers (single operation).
- Evaluates expressions involving absolute value of integers (single operation).
- Selects the method of computation when problem solving using rational numbers.
- Solves problems involving ratios and proportions.
- Estimates solutions to problems involving rational numbers.
- Represents and examines properties of rectangles and squares using coordinate geometry.
- Identifies properties of parallel lines cut by a transversal (e.g., angle relationships).
- Identifies pairs of angles (e.g., vertical, supplementary, adjacent, complementary).
- Determines missing angle measures within triangles.
- Finds missing lengths in right triangles using the Pythagorean Theorem.
- Finds missing lengths in similar shapes.
- Describes situations using algebraic expressions, equations, and inequalities.
- Models contextualized problems using equations and inequalities.
- Evaluates numerical expressions containing whole number exponents.
- Solves multi-step equations involving rational numbers.
- Solves two-step inequalities involving rational numbers.
- Compares data characteristics (mean, median, mode, range).
- Selects the most appropriate measure of central tendency.
- Identifies misrepresentation of circle graphs and box plots.
- Finds the probability of complementary events.
- Computes probabilities for independent compound events.

Exceeds the Standards

Overall student performance in mathematics reflects *high academic* performance on the standards and a *thorough* understanding of the content at or above eighth grade. A student scoring at the Exceeds the Standards level *consistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***consistently***:
- Compares and orders combinations of various types of real numbers.
- Classifies real numbers as natural, whole, integer, rational, irrational.
- Represents small numbers using scientific notation.
- Computes with rational numbers (multiple operations).
- Evaluates expressions involving absolute value of integers (multiple operations).
- Selects and applies appropriate methods of computation when solving multi-step problems using rational numbers.
- Solves problems involving ratios and proportions.
- Estimates solutions to problems involving rational numbers and analyzes the reasonableness.
- Represents and examines properties of rectangles and squares using coordinate geometry.
- Identifies properties of parallel lines cut by a transversal (more than three lines).
- Identifies pairs of angles (e.g., vertical, supplementary, adjacent, complementary with three or more lines).
- Determines missing angle measures within special types of triangles.
- Finds missing lengths in right triangles using the Pythagorean Theorem.
- Finds missing lengths in similar shapes.
- Describes situations using algebraic expressions, equations, and inequalities.
- Models contextualized problems using equations and inequalities.
- Evaluates rational numerical expressions containing whole number exponents.
- Solves multi-step equations involving rational numbers.
- Solves two-step inequalities involving rational numbers.
- Analyzes data characteristics (mean, median, mode, range).
- Selects the most appropriate measure of central tendency.
- Identifies misinterpretation of circle graphs and box plots.
- Finds the probability of complementary events.
- Computes probabilities for independent compound events.

Nebraska State Accountability-Mathematics (NeSA-M) Performance Level Descriptor
Grade 11

Below the Standards

Overall student performance in mathematics reflects *unsatisfactory* performance on the standards and *insufficient* understanding of the content at eleventh grade. A student scoring at the Below the Standards level *inconsistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***inconsistently***:
- Computes rational numbers.
- Simplifies exponential expressions without denominators.
- Estimates solutions to problems involving rational numbers.
- Identifies and applies right triangle properties (e.g., Pythagorean Theorem).
- Applies the distance formula (given the graph).
- Uses coordinate geometry to analyze geometric situations.
- Proves special types of triangles and quadrilaterals (given a graph).
- Applies geometric properties and models to solve problems.
- Converts equivalent rates (single conversions).
- Identifies characteristics of linear functions.
- Converts among representations of functions (e.g., graphs, tables, equations).
- Identifies the slope and intercepts of a linear relationship from a graph.
- Identifies equivalent forms of linear equations.
- Models a situation involving a one-variable inequality.
- Simplifies algebraic expressions involving exponents.
- Adds and subtracts polynomials.
- Multiplies polynomials.
- Determines the outliers of a data set.
- Identifies independent and dependent events.
- Calculates probability of independent events.
- Uses the appropriate counting techniques to determine the probability of an event.
- Analyzes events to determine if they are mutually exclusive.

Meets the Standards

Overall student performance in mathematics reflects *satisfactory* performance on the standards and *sufficient* understanding of the content at eleventh grade. A student scoring at the Meets the Standards level *generally* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***generally***:
- Computes real numbers.
- Simplifies exponential expressions.
- Estimates solutions to problems involving real numbers.
- Identifies and applies right triangle properties (e.g., Pythagorean Theorem).
- Applies the distance formula (given the graph).
- Uses coordinate geometry to analyze geometric situations.
- Proves special types of triangles and quadrilaterals (given a graph).
- Applies geometric properties and models to solve problems.
- Converts equivalent rates (single conversions).
- Identifies characteristics of linear and non-linear functions.
- Converts among representations of functions (e.g., graphs, tables, equations).
- Identifies the slope (rate of change) and intercepts of a linear relationship from a graph.
- Identifies equivalent forms of linear equations.
- Models a situation involving a one-variable inequality.
- Simplifies algebraic expressions involving exponents.
- Adds and subtracts polynomials.
- Multiplies and divides polynomials (dividing by monomials).
- Determines the spread (variance, standard deviation) and outliers of a data set.
- Identifies independent and dependent events.
- Calculates probability of independent events.
- Uses the appropriate counting techniques to determine the probability of an event.
- Analyzes events to determine if they are mutually exclusive.

Exceeds the Standards

Overall student performance in mathematics reflects *high academic* performance on the standards and a *thorough* understanding of the content at or above eleventh grade. A student scoring at the Exceeds the Standards level *consistently* draws on a broad range of mathematical knowledge and utilizes a variety of mathematics skills and strategies to solve real-world mathematical problems.

A student at this level ***consistently***:
- Computes real numbers.
- Simplifies exponential expressions.
- Estimates solutions to problems involving real numbers and analyzes the reasonableness.
- Identifies and applies right triangle properties (e.g., sine, cosine, tangent).
- Applies the distance formula (given ordered pairs).
- Uses coordinate geometry to analyze geometric situations.
- Proves special types of triangles and quadrilaterals (given an ordered pair).
- Applies geometric properties and models to solve problems.
- Converts equivalent rates (multiple conversions).
- Identifies characteristics of linear and non-linear functions.
- Converts among representations of functions (e.g., graphs, tables, equations).
- Identifies the slope (rate of change) and intercepts of a linear relationship from an equation, ordered pairs, or tables.
- Identifies equivalent forms of linear equations.
- Models a situation involving a one-variable inequality (e.g., $x > -5$ and $x < 1$).
- Simplifies algebraic expressions involving exponents.
- Adds and subtracts polynomials.
- Multiplies and divides polynomials (dividing by binomial).
- Determines the shape (normal/skewness) of a data set.
- Identifies independent and dependent events.
- Calculates probability of dependent events.
- Uses the appropriate counting techniques to determine the probability of an event.
- Analyzes events to determine if they are mutually exclusive.