NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Summative Assessment
Mathematics Grade 8 Range Achievement Level Descriptors

What are Range Achievement Level Descriptors?

Range Achievement Level Descriptors (ALDs) demonstrate how skills described in the Nebraska College and Career Ready (CCR) Standards likely change and become more sophisticated as ability and performance increases. The ALDs also describe the evidence needed to help infer where a student is along the range. This range is defined by Nebraska using three levels:

- Developing – not yet demonstrating proficiency
- On Track – demonstrating proficiency
- College and Career Benchmark – demonstrating advanced proficiency

The ALDs help show the within-standard reasoning complexity that increases in sophistication as the achievement levels increase. Such skill advancement is often related to increases in content difficulty, increases in reasoning complexity, and a reduction in the supports required for students to demonstrate what they know within a task or item.

The Range ALDs provide a way to communicate a progression that is visible and usable to all stakeholders, while also providing a foundation for a robust bank of assessment items that meets the needs of all Nebraska students.

How were Nebraska's Mathematics ALDs created?

The ALDs were developed in an iterative manner, centered around multiple teacher reviews and evidence of student learning from the NSCAS assessment.

After the 2017 Content/Bias Review of new development to the NE CCR Mathematics Standards, a draft of the ALDs was created based on the feedback from Nebraska educators on the items and standards. NDE reviewed the draft and provided initial feedback which was then incorporated. A committee of Nebraska educators reviewed the ALDs with NDE's feedback implemented. The educator feedback was used to update the ALDs.

The updated ALDs were taken to the 2018 Item Writing Workshop where they were used to help facilitate item writing. Feedback was again gathered from Nebraska educators based on their use of the ALDs for writing items. The ALDs were also used at the 2018 Content/Bias review to help review the items. Additional educator feedback was documented at each grade.

Feedback from both item writing and committee reviews was then used to update the ALDs prior to taking the ALDs to the 2018 Standard Setting meeting and presenting them to the committee, which was comprised of Nebraska educators.

The ALDs were then updated based on the final cut scores from the assessment and a comparison of a representative sample of items in the NSCAS item bank to the ALDs. The updated ALDs were shared with NDE to obtain their final recommendations.

Notes about interpreting the final ALDs can be found at the bottom of each page.

Indicator	Developing learners <u>do not yet demonstrate proficiency</u> in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. A developing learner…	On Track learners <u>demonstrate proficiency</u> in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. An on-track learner…	CCR Benchmark learners <u>demonstrate advanced proficiency</u> in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. A college-and-career-ready learner…
MA 8.1 NUMBER: Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.			
MA.8.1.1 Numeric Relationships: Students will demonstrate, represent, and show relationships among real numbers within the base-ten number system.			
MA 8.1.1.a Determine subsets of numbers as natural, whole, integer, rational, irrational, or real, based on the definitions of these sets of numbers.	Classifies real numbers as rational or irrational.	Classifies real numbers into subsets of rational numbers (e.g., classifies -40/10 as an integer).	Analyzes the classification of real numbers (e.g., explains why a number classified as a natural number is also an integer). Classifies multiple numbers into subsets of the number system. May include a reference to imaginary/not real numbers. Does not require knowledge of the sqrt(-1) as i.
MA 8.1.1.b Represent numbers with positive and negative exponents and in scientific notation.	Uses positive exponents to represent a positive fraction or decimal (e.g., 1/4 = (1/2)^2). Determines the number represented by scientific notation with positive or negative exponents. Determines scientific notation for a number.	Uses positive exponents to represent a negative rational number (e.g., -8 = (-2)^3). Uses negative exponents to represent a rational number (e.g., -1/9 = -3^-2 or -(3^-2)).	Analyzes the representation of numbers written in exponential form or scientific notation (e.g., explains why the scientific notation for values between 0 and 1 use negative exponents).
MA 8.1.1.c Describe the difference between a rational and irrational number	Assessed at the local level		
MA 8.1.1.d Approximate, compare, and order real numbers (both rational and irrational) and order real numbers both off and on the number line.	Orders any number of rational numbers on or off a number line. The rational numbers must include two of the following: negative integer, decimal, absolute value (e.g., includes at least one negative integer and one decimal or at least one decimal and one absolute value) Compares any rational numbers using symbols (e.g., < or >). The rationale numbers must include two of the following: negative integer, decimal, absolute value. Approximates the value of an irrational square root of a number less than 100 by placing it on a number line or between given rational numbers. (Refer to *MA 6.1.1.c* for comparing and ordering only rational numbers and refer to *MA 6.1.1.h* for comparing and ordering only integers and absolute value.)	Orders three or more real numbers on or off a number line. The real numbers must include at least one irrational square root or all are negative fractions and/or negative decimals. Compares two real numbers using comparison symbols (e.g., < or >). The real numbers must include at least one irrational square root. Approximates the value of an irrational square root of a number greater than 100 by placing it on a number line or between given rational numbers. Approximates the value of an irrational cube root of a number less than 125 by placing it on a number line or between given rational numbers.	Approximates the value of an irrational cube root of a number greater than 125 by placing it on a number line or between given rational numbers. Orders a set of three or more real numbers on or off a number line. The real numbers must include at least one irrational cube root of a number less than 125. Analyzes comparisons or ordering of real numbers. The real numbers must include an irrational square root or cube root. Ex: Given the placement of values on a number line, justify their placement or explain a better placement for the given values.
MA 8.1.2 Operations: Students will compute with exponents and roots.			

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MA 8.1.2.a Evaluate the square roots of perfect squares less than or equal to 400 and cube roots of perfect cubes less than or equal to 125.	Evaluates square roots of perfect squares at or below 144. Evaluates the square and cube roots of 0 and 1. Evaluates the cube root of 8.	Evaluates the square roots of perfect squares with values from 169 to 400. Evaluates the cube roots of 27, 64, and 125.	Evaluates the cube root of -1, -8, -27, -64, and -125. Analyzes the evaluation of perfect squares less than or equal to 400 and cube roots of perfect cubes from -125 to 125 (e.g., explains why it is not possible to take square roots of negative numbers but it is possible to take cube roots of negative numbers).
MA 8.1.2.b Simplify numerical expressions involving exponents and roots (e.g., 4^(-2) is the same as 1/16).	Simplifies and evaluates numerical expressions involving integers and positive integer exponents (e.g., (-3)^3 = -27). Simplifies and evaluates numerical expressions involving non-negative fractions or decimals containing positive integer exponents (e.g., (1/3^2)=1/9). (Refer to *MA 6.1.1.b* for evaluating a numerical expression with an exponent that represents a non-negative whole number.)	Simplifies and evaluates numerical expressions involving negative rational numbers and positive integer exponents (e.g., (-1/3)^2 = 1/9). Simplifies and evaluates numerical expressions involving rational numbers containing negative integer exponents (e.g., (-1/3)^-3 = -27). Simplifies and evaluates numerical expressions involving fractions or decimals with square or cube roots. May include also evaluating positive or negative integer exponents. Square and cube roots limited to those in 8.1.2.a (e.g., (1/sqrt9)^-3 = (1/3)^-3 = 27). Simplifies and evaluates numerical expressions involving a combination of square or cube roots and integer exponents. Square and cube roots limited to those in 8.1.2.a (e.g., sqrt(5^2 - 4^2)).	Simplifies and evaluates numerical expressions involving exponents of 1/2 or 1/3 for perfect squares or cubes respectively. Limited to those in 8.1.2.a. Analyzes the simplification of numerical expressions involving exponents and roots (e.g., explains why (1/3)^-3 does not equal -27.)
MA 8.1.2.c Simplify numerical expressions involving absolute value.	Simplifies two-step or multi-step numerical expressions involving absolute value of a positive number (e.g., |17-5|+3). Simplifies two-step numerical expressions involving rational numbers and the absolute value of a negative number. Evaluating absolute value of a number is considered a step (no exponents). (Refer to *MA 6.2.2.c* for evaluating numerical expressions involving absolute value and whole number exponents.)	Simplifies multi-step numerical expressions with absolute values, at least one being the absolute value of a negative number. Includes operations with rational numbers or positive integer exponents. These expressions are more than two-step and evaluating absolute value of a number is considered a step.	Analyzes the simplification of numerical expressions involving absolute value. Ex: Given an expression, determine what changes could be made so that it is equivalent to another expression.
MA 8.1.2.d Multiply and divide numbers using scientific notation.	Assessed at the local level		

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MA 8.1.2.e Estimate and check reasonableness of answers using appropriate strategies and tools.	Determines whether proposed estimates or proposed process for estimating addition, subtraction, multiplication, and division of rational numbers, the use of positive integer exponents, or the use of square roots or cube roots are reasonable using appropriate strategies and tools (may include context). Provides the best estimate using appropriate strategies and tools for a given problem involving rational numbers and the four operations and positive integer exponents (may include context). Provides the best estimate using appropriate strategies and tools for a given problem involving square or cube roots (may include context). Ex: Which value is the best estimate for sqrt(26)?	Determines whether proposed estimates or proposed process for estimating for addition, subtraction, multiplication, and division of rational numbers and use of exponents and roots are reasonable using appropriate strategies and tools (may include context). Must include at least one square or cube root. Ex: Which value is the best estimate for 4xsqrt(26)+5.02? Provides the best estimate using appropriate strategies and tools for a given problem involving rational numbers, the four operations, exponents, and square or cube roots (may include context). Must involve at least one square or cube root in addition to another operation. Ex: Which value is the best estimate for...? Determines whether proposed estimates for solving problems involving two-step equations in Grade 8 are reasonable using appropriate strategies and tools.	Explains whether proposed rational number estimates for addition, subtraction, multiplication, and division of rational numbers and use of exponents and roots in Grade 8 are reasonable using appropriate strategies and tools (may include context). Ex: Why is … the best estimate for …?
MA 8.2 ALGEBRA: Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.			
MA 8.2.1 Algebraic Relationships: Students will demonstrate, represent, and show relationships with expressions, equations, and inequalities.			
MA 8.2.1.a Create algebraic expressions, equations, and inequalities (e.g., two-step, one variable) from word phrases, tables, and pictures.	Determines one-variable two-step algebraic expressions or equations from word phrases, tables when given the initial value (e.g., x=0), and pictures (may include context). Determines, describes, or creates one-variable one-step inequalities from tables.	Creates one-variable two-step algebraic expressions or equations from tables when not given the initial value. Determines, describes, or creates one-variable two-step inequalities from word phrases, tables, or pictures (may include context).	Explains or justifies the creation of a one-variable two-step expression, equation, or inequality from a word phrase, table, or picture (may include context).

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MA 8.2.1.b Determine and describe the rate of change for given situations through the use of tables and graphs.	Determines if rates are constant or non-constant from graphs (may include context).	Determines or describes constant rates of change from tables when the rate of change is a value other than 1, the independent variable in the table has intervals other than 1, or both (may include context). Determines or describes rates of change from graphs (may include context). Determines if rates are constant or non-constant from tables (may include context). Compares rates of change given in tables and/or graphs (may include context).	Justifies why situations would or would not have constant rates of change. Determines or describes non-constant rates of change from tables or graphs (may include context).
MA 8.2.1.c Describe equations and linear graphs as having one solution, no solution, or infinitely many solutions.	Determines the number of solutions for one-variable equations in the form ax + b = c where a, b, and c are rational numbers. Determines the number of solutions for one-variable equations in the form ax + b = ax + c or ax + b = cx + d where a, b, c, and d are rational numbers.	Determines the number of solutions for one-variable equations involving rational numbers when the form is beyond ax+b= c, ax+b=ax+c, or ax+b=cx+d.	Determines or creates one-variable equations with a given number of solutions. Explains or justifies the number of solutions for an equation in one variable.
MA 8.2.1.d Graph proportional relationships and interpret the slope.	Determines if relationships are or are not proportional from graphs.	Determines, describes, or creates graphs from proportional relationships (may include context). Interprets the meaning of the slope of proportional relationships from graphs (may include context).	Explains or justifies the determination, description, creation or interpretation of proportional relationships from graphs (may include context).
MA 8.2.2 Algebraic Processes: Students will apply the operational properties when evaluating expressions and solving expressions, equations, and inequalities.			
MA 8.2.2.a Solve multi-step equations involving rational numbers with the same variable appearing on both sides of the equal sign.	Solves two-step equations involving rational numbers with the same variable appearing on both sides of the equal sign and each side of the equal sign already simplified (e.g., 3x+2 = 5x). Determines or shows steps for solving two-step equations involving rational numbers with the same variable appearing on both sides of the equal sign.	Solves multi-step equations involving rational numbers with the same variable appearing on both sides of the equal sign (e.g., 3x+2 = 5x-12).	Explains or justifies solutions to multi-step equations (using three or more steps) involving rational numbers with the same variable appearing on both sides of the equal sign.

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MA 8.2.2.b Solve two-step inequalities involving rational numbers and represent solutions on a number line	Solves two-step inequalities involving whole numbers. Solutions should not involve negative numbers either.	Solves two-step inequalities involving rational numbers. Solves two-step inequalities involving rational numbers and represent the solutions on a number line. Determines or creates two-step inequalities involving rational numbers from representations of the solutions on a number line.	Compares the solutions of two-step inequalities involving rational numbers. Explains or justifies solutions to two-step inequalities involving rational numbers.
MA 8.2.3 Applications: Students will solve real-world problems involving multi-step equations and multistep inequalities.			
MA 8.2.3.a Describe and write equations from words, patterns, and tables.	Determines linear equations from words or tables (may include context).	Determines linear equations from patterns (may include context).	Determines non-linear equations from words, patterns, and tables. Compares equations from descriptions, patterns, and/or tables (may include context).
MA 8.2.3.b Write a multi-step equation to represent real-world problems using rational numbers in any form.	Determines what the unknown variable represents in a given multi-step equation based on the context of a real-world problem involving rational numbers in any form. May include two variables.	Determines multi-step equations to represent real-world problems involving rational numbers in any form when simplifying the equation is not required. May include two variables.	Determines multi-step equations to represent real-world problems involving rational numbers in any form when simplifying the equation is required. May include two variables. Ex: Writes $x + (2x + 4) = 20$ (three-step equation) to represent the problem and simplifies to $3x + 4 = 20$. Justifies or explains whether a given multi-step equation models a real-world problem. Justifies or explains the equation used to model a real-world situation.
MA 8.2.3.c Solve real-world multi-step problems involving rational numbers in any form.	Solves multi-step real-world problems with rational numbers when the unknown would be isolated on one side of the equation or inequality when written.	Solves multi-step real-world problems with rational numbers when the unknown would likely not be isolated on one side of the equation or inequality. Solves real-world problems that can be solved with equations or inequalities requiring two steps involving rational numbers in any form when at least one of the steps involves a square root (for perfect squares 1-400), a cube root (for perfect cubes 1-125), an absolute value, or a number being raised to a power.	Justifies or explains the solutions to multi-step real-world problems involving rational numbers.
MA 8.3 GEOMETRY: Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.			

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MA 8.3.1 Characteristics: Students will identify and describe geometric characteristics of two-dimensional shapes.			
MA 8.3.1.a Determine and use the relationships of the interior angles of a triangle to solve for missing measures.	Determines a single missing angle measure in a triangle when the other interior angle measurements are given numerically or as a right angle, with a diagram.	Determines a single missing angle measure in a triangle when the other interior angle measurements are given numerically or as a right angle, without a diagram. Determines the missing angle measures of a triangle when the angle measurements are given as algebraic expressions. Determines the value of one or more variables when the interior angle measurements of a triangle are given as algebraic expressions.	Determines the missing angle measure of a triangle when given angle characteristics of the triangle (e.g., determine the missing angles in an isosceles triangle when given the non-congruent angle).
MA 8.3.1.b Identify and apply geometric properties of parallel lines cut by a transversal and the resulting corresponding, alternate interior, and alternate exterior angles to find missing measures.	Identifies corresponding, alternate interior, and alternate exterior angles based on a diagram without angle measures given. Determines missing angle measures from two parallel lines cut by a single transversal when angle measurements are given numerically.	Determines missing angle measures from parallel lines cut by a transversal when three or more parallel lines and/or two or more transversals are involved. Determines missing angle measures from parallel lines cut by a transversal when angle measurements are given as algebraic expressions.	Explains or justifies the relationships of angles formed by parallel lines cut by a transversal. Determines missing interior or exterior angles of figures with at least one pair of parallel sides by applying geometric properties of parallel lines cut by a transversal (e.g., Use properties of parallel lines to determine the missing interior base angle of a trapezoid when given the corresponding angle.).
MA 8.3.2 Coordinate Geometry: Students will determine location, orientation, and relationships on the coordinate plane.			

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MA 8.3.2.a Perform and describe positions and orientation of shapes under single transformations including rotations (in multiples of 90 degrees about the origin), translations, reflections, and dilations on and off the coordinate plane.	Determines the general type of transformation performed based on the image and pre-image (e.g., The shape was translated to the left. The shape was rotated. The shape was reflected.). Determines the general location and/or image after a transformation with or without a visual (e.g., The image is in quadrant 3.).	Determines the degree of clockwise or counter-clockwise rotations about the origin in 90 degree increments given an image and pre-image. Determines the specific transformation performed based on the image and pre-image (e.g., 4 units left, 3 units up). Determines the coordinates of a shape translated in vertical and/or horizontal directions on the coordinate plane with or without a visual. Determines the coordinates of a shape reflected across the x-axis or y-axis with or without a visual. Determines the coordinates of a shape dilated about the origin on the coordinate plane with or without a visual. Creates a dilated image on a coordinate plane when given the original image or coordinates.	Determines changes to position or orientation of objects as they undergo transformations with or without a visual (e.g., translated four units to the right, then translated four units to the left changes position but preserves orientation). Determines the coordinates of shapes rotated clockwise or counter-clockwise in 90 degree increments about the origin with or without a visual.
MA 8.3.2.b Find congruent two-dimensional figures and define congruence in terms of a series of transformations	Determines congruency among multiple figures with all side measures shown on the figures. Names which types of transformations preserve congruence.	Determines if the image and pre-image are congruent when given a series of transformations. Determines the series of transformations that maps one shape onto the other when given a congruent image and pre-image. Determines the coordinates for the image when given a pre-image and a series of transformations that preserve congruence. Determines the coordinates for the pre-image when given an image and a series of transformations that preserve congruence.	Determines possible coordinates for the image when given a pre-image and general descriptions of a series of transformations that preserve congruence. Ex: When given the location of the pre-image and that the pre-image underwent a translation and a reflection over the y-axis that preserved congruence, determine possible coordinates for the image. Determines possible coordinates for the pre-image when given an image and general descriptions of a series of transformations that preserve congruence. Ex: When given the location of the image and that the pre-image underwent a translation and a reflection over the y-axis that preserved congruence, determine possible coordinates for the pre-image. Explains or justifies why a series of transformations does or does not preserve congruence. Ex: Explain why two different sets of transformations on the same pre-image results in different images.

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MA 8.3.2.c Find similar two-dimensional figures and define similarity in terms of a series of transformations.	Determines similarity of two figures on or off the coordinate plane with required side measures labeled. Names which types of transformations exhibit similarity.	Determines similarity of two or more figures on or off the coordinate plane when shown multiple figures with required side measures labeled. Determines if the image and pre-image are similar when given a series of transformations. Determines the series of transformations that maps one shape onto the other when given a similar image and pre-image. Determines the coordinates for the image when given a pre-image and a series of transformations that exhibit similarity. Determines the coordinates for the pre-image when given an image and a series of transformations that exhibit similarity.	Determines similarity of two or more figures on or off the coordinate plan when shown multiple figures and not all required side lengths are labeled. Side lengths can be determined based on information given or from the diagram. Determines possible coordinates for the image when given a pre-image and general descriptions of a series of transformations that exhibit similarity. Ex: When given the location of the pre-image and that the pre-image underwent a translation and a dilation centered at the origin that exhibited similarity, determine possible coordinates for the image. Determines possible coordinates for the pre-image when given an image and general descriptions of a series of transformations that exhibit similarity. Ex: When given the location of the image and that the pre-image underwent a translation and a dilation centered at the origin that exhibited similarity, determine possible coordinates for the pre-image. Explains or justifies why a series of transformations does or does not exhibit similarity. Ex: Explain why two different sets of transformations on the same pre-image results in different images.
MA 8.3.3 Measurement: Students will perform and compare measurements and apply formulas.			
MA 8.3.3.a Explain a model of the Pythagorean Theorem.	Assessed at the local level		

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Indicator	Developing learners do not yet demonstrate proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. A developing learner…	On Track learners demonstrate proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. An on-track learner…	CCR Benchmark learners demonstrate advanced proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. A college-and-career-ready learner…
MA 8.3.3.b Apply the Pythagorean Theorem to find side lengths of triangles and to solve real-world problems.	Determines the length of one side of a right triangle when given the lengths of the other two sides with a diagram and all sides lengths are rational numbers.	Determines the length of one side of a right triangle when given the lengths of the other two sides with a diagram and the missing side length is an irrational number. Determines the length of one side of a right triangle when given the lengths of the other two sides without a diagram. Determines whether three lengths represent a right triangle. Solves real-world problems that require application of the Pythagorean Theorem when two of the three lengths of a right triangle are directly given, with or without a diagram.	Solves real-world problems that require application of the Pythagorean Theorem when at most one side length is directly given. Other side lengths can be extrapolated from given information to then apply the Pythagorean Theorem.
MA 8.3.3.c Find the distance between any two points on the coordinate plane using the Pythagorean Theorem.	Uses the Pythagorean Theorem to determine the shortest distance between the vertices on the hypotenuse when the right triangle used for determining the distance is provided on the coordinate plane (may include context).	Determines the shortest distance between any two given ordered pairs using the Pythagorean Theorem on or off the coordinate plane (may include context).	Uses the Pythagorean Theorem to determine a point that is a specified distance at a diagonal to a given point (may include context). Ex: When given the point (1,2) and a distance of 5 units, determine the point (4, 6) or any other diagonal point 5 units from (1,2). Compares distances among multiple points, on or off the coordinate plane.

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MA 8.3.3.d Determine the volume of cones, cylinders, and spheres, and solve real-world problems using volumes.	Determines the volume of cones, cylinders, and spheres when given the radius and height or diameter and height.	Determines an unknown dimension of a cone or cylinder when given the volume and another dimension (may include context). Determines the radius or diameter of a sphere when given the volume (may include context). Determines the volume of cones, cylinders, and spheres when one or more steps are required to determine one or more of the dimensions (may include context). Calculating the radius from the diameter does not count toward the number of steps. Determines which dimensions result in the desired volume when given the volume of a cone, cylinder, or sphere (may include context). Compares the volumes of cones, cylinders, and spheres when given the dimensions of the shapes (may include context). Solves real-world problems using volumes of cones, cylinders, or spheres.	Explains or justifies how a real-world problem corresponds to the volume of a given object, including modeling a shape with a geometric object. Explains or justifies reasoning about a method for solving a real-world problem using volumes. Determines the volumes of composite figures involving cones, cylinders, and/or spheres (may include context). Solves real-world problems using volumes of composite figures involving cones, cylinders, and/or spheres.
MA 8.4 DATA: Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.			
MA 8.4.1 Representations: Students will create displays that represent data.			
MA 8.4.1.a Represent bivariate data (i.e. ordered pairs) using scatter plots.	Identifies the scatter plot that represents specific data (may include context). Identifies the scatter plot that follows a stated trend (may include context). Ex: Which scatter plot shows the y-values increasing as the x-values also increase?	Creates a scatter plot of given data, including determining the appropriate scale, labels, and which information belongs on the x- or y-axis when appropriate (may include context).	Explains why a scatter plot fits a given real-world scenario or description of data (or trend). The scenario does not include providing ordered pairs in any format. Ex: Given a real-world scenario, identify the scatter plot that is appropriate.
MA 8.4.2 Analysis & Applications: Students will analyze data to address the situation.			

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MA 8.4.2.a Solve problems and make predictions using an approximate line of best fit.	Makes a prediction for a given value given a scatter plot and an equation for a line of best fit. Makes a prediction for a given value when given the graph of the line of best fit and its equation. Solves problems about what the slope or intercept means as part of the line of best fit when given the graph of the line of best fit and its equation.	Makes a prediction for a given x-value (or corresponding value based on the context) with: the line of best fit graphed but an equation of the line not given or the equation of the line of best fit given but the line is not graphed. Solves problems about what the slope or intercept would mean as part of the line of best fit with: the line of best fit graphed but an equation not given or the equation of the line of best fit given but the line is not graphed.	Makes a prediction for a given y-value (or corresponding value based on the context) with: the line of best fit graphed but an equation of the line not given or the equation of the line of best fit given but the line is not graphed. Evaluates or critiques predictions that are based on the trend of the data in a scatter plot.
MA 8.4.3 Probability: Students will interpret and apply concepts of probability.			
No additional indicator(s) at this level. Mastery is expected at previous grade levels.			

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