

SIDE BY SIDE OF OKLAHOMA PASS STRANDS AND COMMON CORE STATE STANDARDS

PASS			Strand and Standard		
Strand	Standard #	PASS		Grade	Common Core State Standard
EIGHTH GRADE					
* Legends/Abbreviations can be found in a separate table.					
A	1	Standard 1: Algebraic Reasoning: Patterns and Relationships - The student will graph and solve linear equations and inequalities in problem solving situations.			
A	1.1a	Equations: Model, write, and solve multi-step linear equations with one variable using a variety of methods to solve application problems.	EE.1	7	Use properties of operations to generate equivalent expressions. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
A	1.1a	Equations: Model, write, and solve multi-step linear equations with one variable using a variety of methods to solve application problems.	EE.2	7	Use properties of operations to generate equivalent expressions. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that “increase by 5%” is the same as “multiply by 1.05.”

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A	1.1a	Equations: Model, write, and solve multi-step linear equations with one variable using a variety of methods to solve application problems.	EE.3	7	Solve real-life and mathematical problems using numerical and algebraic expressions and equations. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations as strategies to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
A	1.1a	Equations: Model, write, and solve multi-step linear equations with one variable using a variety of methods to solve application problems.	EE.7	8	Analyze and solve linear equations and pairs of simultaneous linear equations. Solve linear equations in one variable.
A	1.1a	Equations: Model, write, and solve multi-step linear equations with one variable using a variety of methods to solve application problems.	EE.7a	8	Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
A	1.1a	Equations: Model, write, and solve multi-step linear equations with one variable using a variety of methods to solve application problems.	EE.7b	8	Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

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A	1.1a	Equations: Model, write, and solve multi-step linear equations with one variable using a variety of methods to solve application problems.	F.3	8	Define, evaluate, and compare functions. Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.
A	1.1b	Equations: Graph and interpret the solution to one- and two-step linear equations on a number line with one variable and on a coordinate plane with two variables.	EE.7a	8	Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).
A	1.1b	Equations: Graph and interpret the solution to one- and two-step linear equations on a number line with one variable and on a coordinate plane with two variables.	F.2	8	Define, evaluate, and compare functions. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.
A	1.1c	Equations: Predict the effect on the graph of a linear equation when the slope or y-intercept changes (e.g., make predictions from graphs, identify the slope or y-intercept in the equation $y = mx + b$ and relate to a graph).	EE.5	8	Understand the connections between proportional relationships, lines, and linear equations. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.
A	1.1c	Equations: Predict the effect on the graph of a linear equation when the slope or y-intercept changes (e.g., make predictions from graphs, identify the slope or y-intercept in the equation $y = mx + b$ and relate to a graph).	EE.6	8	Understand the connections between proportional relationships, lines, and linear equations. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b .

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A	1.1c	Equations: Predict the effect on the graph of a linear equation when the slope or y-intercept changes (e.g., make predictions from graphs, identify the slope or y-intercept in the equation $y = mx + b$ and relate to a graph).	F.2	8	Define, evaluate, and compare functions. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.
A	1.1c	Equations: Predict the effect on the graph of a linear equation when the slope or y-intercept changes (e.g., make predictions from graphs, identify the slope or y-intercept in the equation $y = mx + b$ and relate to a graph).	F.3	8	Define, evaluate, and compare functions. Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.
A	1.1d	Equations: Apply appropriate formulas to solve problems (e.g., $d=rt$, $I=prt$).	RP.3	7	Analyze proportional relationships and use them to solve real-world and mathematical problems. Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.
A	1.2	Inequalities: Model, write, solve, and graph one- and two-step linear inequalities with one variable.	EE.8	6	Reason about and solve one-variable equations and inequalities. Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
A	1.2	Inequalities: Model, write, solve, and graph one- and two-step linear inequalities with one variable.	EE.4b	7	Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example, As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.

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N	2	Standard 2: Number Sense and Operation - The student will use numbers and number relationships to solve a variety of problems.			
N	2.1	Number Sense: Represent and interpret large numbers and numbers less than one in exponential and scientific notation.	EE.3	8	Work with radicals and integer exponents. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9 , and determine that the world population is more than 20 times larger.
N	2.2a	Number Operations: Use the rules of exponents, including integer exponents, to solve problems (e.g., $7^2 \cdot 7^3 = 7^5$, $3^{(-10)} \cdot 3^8 = 3^{(-2)}$).	EE.1	8	Work with radicals and integer exponents. Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^2 \times 3^{(-5)} = 3^{(-3)} = 1/(3^3) = 1/27$.
N	2.2b	Number Operations: Solve problems using scientific notation.	EE.3	8	Work with radicals and integer exponents. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3×10^8 and the population of the world as 7×10^9 , and determine that the world population is more than 20 times larger.
N	2.2b	Number Operations: Solve problems using scientific notation.	EE.4	8	Work with radicals and integer exponents. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

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N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.1	7	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.1b	7	Understand $p + q$ as the number located a distance $ q $ from p , in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.1c	7	Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.1d	7	Apply properties of operations as strategies to add and subtract rational numbers.
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.2	7	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.2a	7	Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.

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N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.2b	7	Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers then $-(p/q) = (-p)/q = p/(-q)$. Interpret quotients of rational numbers by describing real-world contexts.
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.2c	7	Apply properties of operations as strategies to multiply and divide rational numbers.
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	NS.3	7	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. Solve real-world and mathematical problems involving the four operations with rational numbers. (Computations with rational numbers extend the rules for manipulating fractions to complex fractions.)
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	EE.3	7	Solve real-life and mathematical problems using numerical and algebraic expressions and equations. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations as strategies to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional $1/10$ of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

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N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	EE.4a	7	Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?
N	2.2c	Number Operations: Simplify numerical expressions with rational numbers, exponents, and parentheses using order of operations.	EE.4b	7	Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example, As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.
G	3	Standard 3: Geometry - The student will use geometric properties to solve problems in a variety of contexts.			
G	3.1	Construct models, sketch (from different perspectives), and classify solid figures such as rectangular solids, prisms, cones, cylinders, pyramids, and combined forms.	G.4	6	Solve real-world and mathematical problems involving area, surface area, and volume. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
G	3.1	Construct models, sketch (from different perspectives), and classify solid figures such as rectangular solids, prisms, cones, cylinders, pyramids, and combined forms.	G.3	7	Draw, construct, and describe geometrical figures and describe the relationships between them. Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.
G	3.2	Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.	G.7	8	Understand and apply the Pythagorean Theorem. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.

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G	3.2	Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.	G.8	8	Understand and apply the Pythagorean Theorem. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.
M	4	Standard 4: Measurement - The student will use measurement to solve problems in a variety of contexts.			
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	MD.3	5	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Recognize volume as an attribute of solid figures and understand concepts of volume measurement. -- a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. -- b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	MD.4	5	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	MD.5	5	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

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M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	MD.5a	5	Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent three-fold whole-number products as volumes, e.g., to represent the associative property of multiplication.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	MD.5b	5	Apply the formulas $V = l(w)(h)$ and $V = (b)(h)$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	MD.5c	5	Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	G.1	6	Solve real-world and mathematical problems involving area, surface area, and volume. Find area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	G.2	6	Solve real-world and mathematical problems involving area, surface area, and volume. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l w h$ and $V = b h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

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M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	G.3	6	Solve real-world and mathematical problems involving area, surface area, and volume. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	G.4	6	Solve real-world and mathematical problems involving area, surface area, and volume. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	G.4	7	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	G.5	7	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	G.6	7	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
M	4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).	G.9	8	Solve real-world and mathematical problems involving volume of cylinders, cones and spheres. Know the formulas for the volume of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

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M	4.2	Apply knowledge of ratio and proportion to solve relationships between similar geometric figures.	G.1	7	Draw, construct, and describe geometrical figures and describe the relationships between them. Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
M	4.3	Find the area of a "region of a region" for simple composite figures and the area of cross sections of regular geometric solids (e.g., area of a rectangular picture frame).	G.3	7	Draw, construct, and describe geometrical figures and describe the relationships between them. Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.
D	5	Standard 5: Data Analysis - The student will use data analysis, probability, and statistics to interpret data in a variety of contexts.			
D	5.1	Data Analysis: Select, analyze and apply data displays in appropriate formats to draw conclusions and solve problems.	SP.4	6	Summarize and describe distributions. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
D	5.1	Data Analysis: Select, analyze and apply data displays in appropriate formats to draw conclusions and solve problems.	SP.3	7	Draw informal comparative inferences about two populations. Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.

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D	5.1	Data Analysis: Select, analyze and apply data displays in appropriate formats to draw conclusions and solve problems.	SP.4	7	Draw informal comparative inferences about two populations. Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.
D	5.1	Data Analysis: Select, analyze and apply data displays in appropriate formats to draw conclusions and solve problems.	SP.1	8	Investigate patterns of association in bivariate data. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
D	5.2	*Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	SP.1	7	Use random sampling to draw inferences about a population. Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
D	5.2	*Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	SP.2	7	Use random sampling to draw inferences about a population. Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.

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D	5.2	*Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	SP.3	7	Draw informal comparative inferences about two populations. Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.
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D	5.2	*Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	SP.6	7	Investigate chance processes and develop, use, and evaluate probability models. Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.
D	5.2	*Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	SP.7	7	Investigate chance processes and develop, use, and evaluate probability models. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.

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D	5.2	*Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	SP.7a	7	Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.
D	5.2	*Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	S.IC.1	9-12	Understand and evaluate random processes underlying statistical experiments. Understand statistics as a process for making inferences about population parameters based on a random sample from that population.*
D	5.2	*Probability: Determine how samples are chosen (random, limited, biased) to draw and support conclusions about generalizing a sample to a population (e.g., is the average height of a men's college basketball team a good representative sample for height predictions?).	S.IC.3	9-12	Make inferences and justify conclusions from sample surveys, experiments, and observational studies. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.*
D	5.3	Central Tendency: Find the measures of central tendency (mean, median, mode, and range) of a set of data and understand why a specific measure provides the most useful information in a given context.	SP.3	6	Develop understanding of statistical variability. Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.

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D	5.3	Central Tendency: Find the measures of central tendency (mean, median, mode, and range) of a set of data and understand why a specific measure provides the most useful information in a given context.	SP.5	6	Summarize and describe distributions. Summarize numerical data sets in relation to their context, such as by: <ul style="list-style-type: none"> -- a. Reporting the number of observations. -- b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. -- c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data was gathered. -- d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.
D	5.3	Central Tendency: Find the measures of central tendency (mean, median, mode, and range) of a set of data and understand why a specific measure provides the most useful information in a given context.	SP.3	7	Draw informal comparative inferences about two populations. Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.
D	5.3	Central Tendency: Find the measures of central tendency (mean, median, mode, and range) of a set of data and understand why a specific measure provides the most useful information in a given context.	SP.4	7	Draw informal comparative inferences about two populations. Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.

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			SP.4	8	<p>Investigate patterns of association in bivariate data. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?</p>
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