

Standard	Original Description	Changed Description
7.SP.1	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.	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 is more likely to produce representative samples and support valid inferences.
7.SP.3	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.	Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, estimating 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, approximately twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.
8: Overview	Expressions and Equations <ul style="list-style-type: none"> • Work with radicals and integer exponents. • Understand the connections between proportional relationships, lines, and linear equations. 	Expressions and Equations <ul style="list-style-type: none"> • Work with radicals and integer exponents. • Understand the connections between proportional relationships, lines, and linear equations. • Analyze and solve linear equations, linear inequalities, and pairs of simultaneous linear equations.
8: Overview	<ul style="list-style-type: none"> • Understand and apply the Pythagorean Theorem. 	<ul style="list-style-type: none"> • Understand and apply the Pythagorean Theorem and its converse.

8.NS.3	did not exist	Added: 8.NS.3 - Understand how to perform operations and simplify radicals with emphasis on square roots.
8.EE	Analyze and solve linear equations and pairs of simultaneous linear equations.	Analyze and solve linear equations, linear inequalities , and pairs of simultaneous linear equations.
8.EE.7	Solve linear equations in one variable.	Solve linear equations and inequalities in one variable.
8.EE.7b	Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.	Solve single variable linear equations and inequalities with rational number coefficients, including equations and inequalities whose solutions require expanding expressions using the distributive property and collecting like terms.
8.EE.7c	did not exist	Added: 8.EE.7c - Solve single variable absolute value equations.
8.EE.8b	Solve systems of two linear equations in two variables algebraically , and estimate solutions by graphing the equations. Solve simple cases by inspection. <i>For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.</i>	Solve systems of two linear equations in two variables graphically , approximating when solutions are not integers. Solve simple cases by inspection. <i>For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.</i>
8.EE.8c	Solve real-world and mathematical problems leading to two linear equations in two variables. <i>For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.</i>	Solve real-world and mathematical problems leading to two linear equations in two variables graphically. <i>For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.</i>
8.G	Understand and apply the Pythagorean Theorem.	Understand and apply the Pythagorean Theorem and its converse .

8.G.6	Explain a proof of the Pythagorean Theorem and its converse.	Explore and explain proofs of the Pythagorean Theorem and its converse.
Secondary Math I		
A.REI.3	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Solve equations and inequalities in one variable. a. Solve one variable equations, including those with coefficients represented by letters. b. Solve compound inequalities in one variable, including absolute value inequalities. c. Solve simple exponential equations that rely only on application of the laws of exponents, <i>such as $5^x = 125$ or $2^x = 1/16$</i>
A.REI.3 (Note)	Solve equations and inequalities in one variable. Extend earlier work with solving linear equations to solving linear inequalities in one variable and to solving literal equations that are linear in the variable being solved for. Include simple exponential equations that rely only on application of the laws of exponents, such as $5^x = 125$ or $2^x = 1/16$	Solve equations and inequalities in one variable. Extend earlier work with solving linear equations to solving linear inequalities in one variable and to solving literal equations that are linear in the variable being solved for.
S.ID.3	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers). Calculate the weighted average of a distribution and interpret it as a measure of center.

S.ID.5	Summarize, represent and interpret data on two categorical and quantitative variables. 5. Summarize categorical data for two categories (including joint marginal, and conditional relative frequencies). Recognize possible associations and trend the data.	Moved to Secondary Math II (with other categorical data).
S.ID.7	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	Interpret the slope (rate of change) and the intercept (constant term) of a linear model, of a line of best fit, in the context of the data.
S.ID.8	Compute (using technology) and interpret the correlation coefficient of a linear fit.	Compute (using technology) and interpret the correlation coefficient as a measure of the strength of a linear fit.
Secondary Math II	**Consider moving standards in Secondary II to other courses.	
F.IF.7b	Graph square root, cube root, and piecewise defined functions, including step functions and absolute value functions.	Graph piecewise-defined functions and absolute value functions.
F.IF Instructional Note Analyze functions using different representations	For F.IF.7b, compare and contrast absolute value, step and piecewise- defined functions with linear, quadratic, and exponential functions. Highlight issues of domain, range and usefulness when examining piecewise-defined functions. Note that this unit, and in particular in F.IF.8b, extends the work begun in Secondary Mathematics I on exponential functions with integer exponents. For F.IF.9, focus on expanding the types of functions considered to include, linear, exponential, and quadratic.	For F.IF.7b, compare and contrast absolute value and piecewise- defined functions with linear, quadratic, and exponential functions. Highlight issues of domain, range and usefulness when examining piecewise defined functions. Note that this unit, and in particular in F.IF.8b, extends the work begun in Secondary Mathematics I on exponential functions with integer exponents. For F.IF.9, focus on expanding the types of functions considered to include, linear, exponential, and quadratic.

<p>F.BF Instructional Note Build new functions from existing functions</p>	<p>For F.BF.3, focus on quadratic functions and consider including absolute value functions. For F.BF.4a, focus on linear functions but consider simple situations where the domain of the function must be restricted in order for the inverse to exist, such as $f(x) = x^2, x > 0$.</p>	<p>For F.BF.3, focus on quadratic functions and consider including absolute value functions.</p>
<p>F.BF.4</p>	<p>Solve an equation of the form $f(x) = c$ for a simple function f that has an inverse and write an expression for the inverse. For example, $f(x) = 2x^3$ or $f(x) = (x+1)/(x-1)$ for $x \neq 1$.</p>	<p>Removed—standard already exists in Secondary Math III.</p>
<p>S.ID (Cluster Title on left hand side)</p>	<p>Summarize, represent and interpret data on two categorical and quantitative variables.</p>	
<p>S.ID.5</p>	<p>Moved from Secondary Math I</p>	<p>Added: S.ID.5 - 5. Summarize categorical data for two categories (including joint marginal, and conditional relative frequencies). Recognize possible associations and trend the data.</p>
<p>S.CP.2</p>	<p>Understand that two events A and B are independent if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent.</p>	<p>Moved to Secondary Math II Honors.</p>

S.CP.3	Understand the conditional probability of A given B as $P(A \text{ and } B)/P(B)$, and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B.	Moved to Secondary Math II Honors.
S.CP.4	Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. <i>For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.</i>	Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to approximate conditional probabilities. <i>For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.</i>
S.CP.5	Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. <i>For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.</i>	Recognize and explain the concepts of conditional probability in everyday language and everyday situations. <i>For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.</i>
S.CP.7	Apply the Addition Rule, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$, and interpret the answer in terms of the model.	Removed completely.

S.CP.8	Apply the general Multiplication Rule in a uniform probability model, $P(A \text{ and } B) = P(A)P(B A) = P(B)P(A B)$, and interpret the answer in terms of the model.	Removed completely.
S.CP.9	Use permutations and combinations to compute probabilities of compound events and solve problems.	Moved to Secondary Math III Honors.
S.MD.1	Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).	Removed completely.
S.MD.2	Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).	Removed completely.
G.GPE.2	Derive the equation of a parabola given a focus and directrix.	Moved to Secondary Math II Honors.
Secondary Math III		
S.IC.2	Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?	Removed completely, including Cluster Note on left-hand side. Topic covered in Statistics course.
S.IC.5	Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.	Removed completely. Topic covered in Statistics course.

A.SSE.4	Derive the formula for the sum of a geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments	Understand the formula for the sum of a series and use the formula to solve problems. a. Derive the formula for the sum of an arithmetic series. b. Derive the formula for the sum of a geometric series (when the common ratio is not 1). <i>For example, calculate mortgage payments.</i>
F.TF.7	did not exist	Added: F.TF.7 Clusters with Instructional Notes: (on left-hand side) Limit solutions to a given interval. Use inverse functions to solve trigonometric equations that arise in modeling context; evaluate the solutions using technology and interpret them in terms of context.
F.IF.7b	did not exist	Cluster Description Note (on the left-hand side): Compare and contrast square root, cubed root, and step functions with all other functions. Highlight issues of domain, range, and usefulness when examining piece-wise defined functions.
F.BF.4 (Cluster note on left hand side)	Extend F.BF.4a to simple rational, simple radical, and simple exponential functions, connect F.BF.4a to F.LE.4	Connect F.BF.4a to logarithmic, square root, and cube root functions.

F.LE (block 1, left hand cluster note)	<p>Construct and compare linear, quadratic, and exponential models and solve problems.</p> <p>Consider extending this unit to include the relationship between properties of logarithms and properties of exponents, such as the connection between the properties of exponents and the basic logarithm property that $\log xy = \log x + \log y$.</p>	<p>Construct and compare linear, quadratic, and exponential models and solve problems.</p> <p>Include the relationship between properties of logarithms and properties of exponents, such as the connection between the properties of exponents and the basic logarithm property that $\log xy = \log x + \log y$.</p>
F.LE.3	<p>did not exist in Secondary III</p>	<p>Added: F.LE.3 - Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.</p>
Clusters with Instructional Notes	<p>Added (Block 2) - Interpret expressions for functions in terms of the situation it models.</p> <p>Introduce $f(x) = e^x$ as a model for continuous growth.</p>	<p>Added (Block 2) - Interpret expressions for functions in terms of the situation it models.</p> <p>Introduce $f(x) = e^x$ as a model for continuous growth.</p>
F.LE.5	<p>did not exist in Secondary III</p>	<p>Added F.LE.5 - Interpret the parameters in a linear, quadratic, and exponential functions in terms of a context.</p>