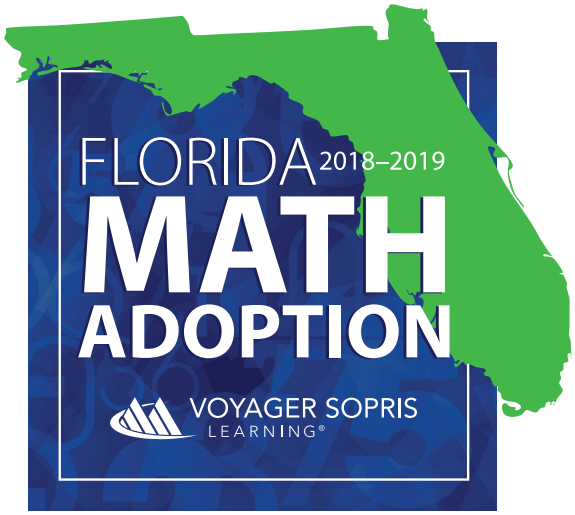

INSIDE ALGEBRA

STANDARDS

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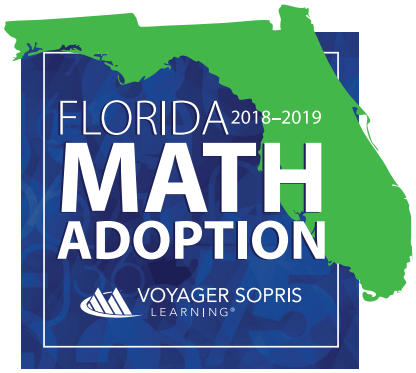

2018 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION
STANDARDS ALIGNMENT COURSE STANDARDS/BENCHMARKS (Form IM7)

BID ID:	**3470**
SUBMISSION TITLE:	**INSIDE ALGEBRA**
GRADE LEVEL:	**9–12**
COURSE TITLE:	**ALGEBRA 1–A**
COURSE CODE:	**1200370**
ISBN:	**978–1–4916–3105–8** **978–1–4916–3106–5**
PUBLISHER:	**Voyager Sopris Learning, Inc.**
PUBLISHER ID:	**84–0770709**

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.A–CED.1.1:	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational, absolute, and exponential functions.	Teacher Edition Chapter 1: Objective 3: Solve open sentences by performing arithmetic operations. CD 1: 38, CD 2: 39, CD 3: 40, PA 1: 41, PA 2: 42, PM 1: 43, PM 2: 44, PM 3: 45, PS 1: 46, PS 2: 47, OA: 49 Chapter 3: Objective 1: CD 1: Solve linear equations with addition and subtraction. 174–175, CD 2: 176–177, PA 1: 178, PA 2: 179, PA 3: 180, PM 1: 181, PM 2: 182, PS 1: 183, PS 2: 184, OA: 185 Chapter 3: Objective 3: Solve linear equations using one or more operations. CD 1: 208, CD 2: 209, CD 3: 210, PA 1: 211, PA 2: 212–213, PA 3: 215, PM 1: 216, PM 2: 217, PM3: 218, PM 4: 219, PS 1: 220, PS 2: 221, OA: 223 Chapter 3: Objective 4: Solve problems that can be represented as equations. CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237 Chapter 3: Objective 1: CD 1: Solve linear equations with addition and subtraction. 174–175, CD 2: 176–177, PA 1: 178, PA 2: 179, PA 3: 180, PM 1: 181, PM 2: 182, PS 1: 183, PS 2: 184, OA: 185 Chapter 3: Objective 2: CD 1: Solve linear equations with multiplication and division. 190, CD 2: 191–192, CD 3: 193–194, PA 1: 195, PA 2: 196–197, PM 1: 198, PM 2: 199, PS 1: 200, PS 2: 201, OA: 203 Chapter 3: Objective 3: Solve linear equations using one or more operations. (continued on next page)

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.A–CED.1.1:	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational, absolute, and exponential functions.	(continued from previous page) CD 1: 208, CD 2: 209, CD3: 210, PA 1: 211, PA 2: 212–213, PA 3: 215, PM 1: 216, PM 2: 217, PM3: 218, PM 4: 219, PS 1: 220, PS 2: 221, OA: 223 Chapter 3: Objective 4: Solve problems that can be represented as equations. CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237 Chapter 3: Objective 5: Solve proportions that have a missing part. CD 1: 242–243, CD 2: 244–245, PA 1: 246–248, PA 2: 249, PA 3: 250, PM 1: 251, PM 2: 252, PM 3: 253, PS 1: 254, OA: 255 Chapter 3: Objective 6: Use proportions to solve percent problems. CD 1: 260, CD 2: 261–262, PA 1: 263–264, PA 2: 265, PM 1: 266, PM 2: 267, PM 3: 268, PS 1: 269, OA: 270–277

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.A–CED.1.2:	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	Teacher Edition Chapter 4: Objective 3: Determine the range for a given domain of a relation. CD 1: 312, CD 2: 313, PA 1: 314, PA 2: 315, PA 3: 316, PM 1: 317, PM 2: 318, PM3: 319, PS 1: 320–321, OA: 323 Chapter 4: Objective 4: Graph linear equations. CD 1: 328–329, CD 2: 330–331, PA 1: 332, PA 2: 333, PM 1: 334, PM 2: 335, PM 3: 336, PS 1: 337, PS 2: 338–339, OA: 341 Chapter 10: Objective 1: Graph parabolas, and find the coordinates of the vertex and axis of symmetry. CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889 Chapter 10: Objective 2: Estimate the roots of a quadratic equation by graphing the associated function. CD 1: 894–895, CD 2: 896–897, PA 1: 898, PA 2: 899, PM 1: 900, PM 2: 901, PS 1: 902, OA: 903

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MAFS.912.A–CED.1.3:	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*	Teacher Edition Chapter 7: Objective 1: CD 1: 572–573, CD 2: 574, CD 3: 575–576, CD 4: 577, PA 1: 578, PA 2: 579, PM 1: 580, PM 2: 581, PS 1: 582, PS 2: 583, OA: 585; Chapter 7: Objective 2: CD 1: 590–591, CD 2: 592, CD 3: 593, CD 4: 594, PA 1: 595–596, PA 2: 597–598, PM 1: 599, PM 2: 600, PS 1: 601, PS 2: 602, OA: 603; Chapter 7: Objective 3: CD 1: 608–609, CD 2: 610, CD 3: 611, PA 1: 612–613, PA 2: 614, PA 3: 615–616, PM 1: 617, PM 2: 618, PM 3: 619, PM 4: 620, PS 1: 621, PS 2: 622, OA: 623; Chapter 7: Objective 4: CD 1: 628, CD 2: 629–630, CD 3: 631–632, PA 1: 633, PA 2: 634, PA 3: 635–636, PM 1: 637, PM 2: 638, PS 1: 639, PS 2: 640, OA: 641; Chapter 7: Objective 5: CD 1: 646, CD 2: 647, CD 3: 648–649, PA 1: 650, PA 2: 651, PM 1: 652, PM 2: 653, PM 3: 654, PS 1: 655, PS 2: 656, OA: 657–664
MAFS.912.A–CED.1.4:	Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law $V = IR$ to highlight resistance R*	Provides some opportunities: Teacher Edition Chapter 3: Objective 4: Solve problems that can be represented as equations. CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.A–REI.1.1:	Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	Teacher Edition Chapter 3: Objective 1: CD 1: Solve linear equations with addition and subtraction. 174–175, CD 2: 176–177, PA 1: 178, PA 2: 179, PA 3: 180, PM 1: 181, PM 2: 182, PS 1: 183, PS 2: 184, OA: 185 Chapter 3: Objective 2: CD 1: Solve linear equations with multiplication and division. 190, CD 2: 191–192, CD3: 193–194, PA 1: 195, PA 2: 196–197, PM 1: 198, PM 2: 199, PS 1: 200, PS 2: 201, OA: 203 Chapter 3: Objective 3: Solve linear equations using one or more operations. CD 1: 208, CD 2: 209, CD 3: 210, PA 1: 211, PA 2: 212–213, PA 3: 215, PM 1: 216, PM 2: 217, PM3: 218, PM 4: 219, PS 1: 220, PS 2: 221, OA: 223 Chapter 3: Objective 4: Solve problems that can be represented as equations. CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237

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MAFS.912.A–REI.2.3:	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Teacher Edition Chapter 1: Objective 3: Solve open sentences by performing arithmetic operations. CD 1: 38, CD 2: 39, CD 3: 40, PA 1: 41, PA 2: 42, PM 1: 43, PM 2: 44, PM 3: 45, PS 1: 46, PS 2: 47, OA: 49 Chapter 3: Objective 1: CD 1: Solve linear equations with addition and subtraction. 174–175, CD 2: 176–177, PA 1: 178, PA 2: 179, PA 3: 180, PM 1: 181, PM 2: 182, PS 1: 183, PS 2: 184, OA: 185 Chapter 3: Objective 2: CD 1: Solve linear equations with multiplication and division. 190, CD 2: 191–192, CD3: 193–194, PA 1: 195, PA 2: 196–197, PM 1: 198, PM 2: 199, PS 1: 200, PS 2: 201, OA: 203 Chapter 3: Objective 3: Solve linear equations using one or more operations. CD 1: 208, CD 2: 209, CD3: 210, PA 1: 211, PA 2: 212–213, PA 3: 215, PM 1: 216, PM 2: 217, PM3: 218, PM 4: 219, PS 1: 220, PS 2: 221, OA: 223 Chapter 3: Objective 4: Solve problems that can be represented as equations. CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237
MAFS.912.A–REI.3.5:	Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.	Teacher Edition Chapter 7: Objective 1: Solve systems of equations by graphing. CD 1: 572–573, CD 2: 574, CD 3: 575–576, CD 4: 577, PA 1: 578, PA 2: 579, PM 1: 580, PM 2: 581, PS 1: 582, PS 2: 583, OA: 585

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MAFS.912.A–REI.3.6:	Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.	Teacher Edition Chapter 7: Objective 1: Solve systems of equations by graphing. CD 1: 572–573, CD 2: 574, CD 3: 575–576, CD 4: 577, PA 1: 578, PA 2: 579, PM 1: 580, PM 2: 581, PS 1: 582, PS 2: 583, OA: 585 Chapter 7: Objective 2: Determine whether a system of equations has one solution, no solutions, or infinite solutions. CD 1: 590–591, CD 2: 592, CD 3: 593, CD 4: 594, PA 1: 595–596, PA 2: 597–598, PM 1: 599, PM 2: 600, PS 1: 601, PS 2: 602, OA: 603 Chapter 7: Objective 3: Solve systems of equations using the substitution method. CD 1: 608–609, CD 2: 610, CD 3: 611, PA 1: 612–613, PA 2: 614, PA 3: 615–616, PM 1: 617, PM 2: 618, PM 3: 619, PM 4: 620, PS 1: 621, PS 2: 622, OA: 623 Chapter 7: Objective 4: Solve systems of equations by eliminating one variable. CD 1: 628, CD 2: 629–630, CD 3: 631–632, PA 1: 633, PA 2: 634, PA 3: 635–636, PM 1: 637, PM 2: 638, PS 1: 639, PS 2: 640, OA: 641 Chapter 7: Objective 5: Solve systems of inequalities by graphing. CD 1: 646, CD 2: 647, CD 3: 648–649, PA 1: 650, PA 2: 651, PM 1: 652, PM 2: 653, PM 3: 654, PS 1: 655, PS 2: 656, OA: 657–664
MAFS.912.A–REI.4.10:	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	Teacher Edition Chapter 4: Objective 4: Graph linear equations. CD 1: 328–329, CD 2: 330–331, PA 1: 332, PA 2: 333, PM 1: 334, PM 2: 335, PM3: 336, PS 1: 337, PS 2: 338–339, OA: 341

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MAFS.912.A–REI.4.11:	Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.	Teacher Edition Chapter 7: Objective 1: Solve systems of equations by graphing. CD 1: 572–573, CD 2: 574, CD 3: 575–576, CD 4: 577, PA 1: 578, PA 2: 579, PM 1: 580, PM 2: 581, PS 1: 582, PS 2: 583, OA: 585

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MAFS.912.A–REI.4.12:	Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	Teacher Edition Chapter 6: Objective 1: Solve and graph the solution set of inequalities with addition and subtraction. CD 1: 472, CD 2: 473–474, CD 3: 475–476, CD 4: 477–478, PA 1: 479, PA 2: 480–481, PM 1: 482, PM 2: 483, PM 3: 484, PS 1: 485, OA: 487 Chapter 6: Objective 2: Solve and graph the solution set of inequalities with multiplication and division. CD 1: 492–493, CD 2: 494–495, PA 1: 496–497, PA 2: 498, PM 1: 499, PM 2: 500, PS 1: 501, OA: 503 Chapter 6: Objective 3: Solve and graph the solution set of inequalities using more than one operation. CD 1: 508, CD 2: 509–510, PA 1: 511–512, PA 2: 513–514, PM 1: 515, PM 2: 516, PM 3: 517, PS 1: 518–519, PS 2: 520, OA: 521 Chapter 6: Objective 4: Solve and graph the solution set of compound inequalities and inequalities involving absolute value. CD 1: 526–527, CD 2: 528–529, CD 3: 530–531, CD 4: 532–533, PA 1: 534, PA 2: 535, PM 1: 536, PM 2: 537, PM 3: 538, PM 4: 539, PM 5: 540, PS 1: 541, PS 2: 542, OA: 543 Chapter 6: Objective 5: Graph inequalities in the coordinate plane. CD 1: 548, CD 2: 549–550, PA 1: 551, PA 2: 552, PM 1: 553, PM 2: 554, PM 3: 555, PS 1: 556, PS 2: 557–558, OA: 559–566

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MAFS.912.A–SSE.1.1:	Interpret expressions that represent a quantity in terms of its context. a. Interpret parts of an expression, such as terms, factors, and coefficients. b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret as the product of P and a factor not depending on P.*	Teacher Edition Chapter 5: Objective 2: Write the equation of a line in standard form given two points on the line. CD 1: 390–391, CD 2: 392–393, PA 1: 394, PA 2: 395, PM 1: 396, PM 2: 397, PM 3: 398, PS 1: 399, PS 2: 400, OA: 401
MAFS.912.F–BF.1.1:	Write a function that describes a relationship between two quantities. a, Determine an explicit expression, a recursive process, or steps for calculation from a context. b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model. c.* Compose functions. *For example, if T(y) is the temperature in the atmosphere as a function of height, and h(t) is the height of a weather balloon as a function of time, then T(h(t)) is the temperature at the location of the weather balloon as a function of time.*	Teacher Edition Chapter 10: Objective 1: Graph parabolas, and find the coordinates of the vertex and axis of symmetry. CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889

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MAFS.912.F–BF.2.3:	Identify the effect on the graph of replacing f(x) by f(x) + k, k f(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. *Include recognizing even and odd functions from their graphs and algebraic expressions for them.*	Teacher Edition Chapter 10: Objective 1: Graph parabolas, and find the coordinates of the vertex and axis of symmetry. CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889
MAFS.912.F–IF.1.1:	Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x).	Teacher Edition Chapter 4: Objective 2: Identify the domain, range, and the inverse of an operation. CD 1: 298, CD 2: 299–300, PA 1: 301, PA 2: 302, PM 1: 303, PM 2: 304, PS 1: 305, PS 2: 306, OA: 307 Chapter 4: Objective 3: Determine the range for a given domain of a relation. CD 1: 312, CD 2: 313, PA 1: 314, PA 2: 315, PA 3: 316, PM 1: 317, PM 2: 318, PM3: 319, PS 1: 320–321, OA: 323 Chapter 4: Objective 4: Graph linear equations. CD 1: 328–329, CD 2: 330–331, PA 1: 332, PA 2: 333, PM 1: 334, PM 2: 335, PM3: 336, PS 1: 337, PS 2: 338–339, OA: 341 Chapter 4: Objective 5: Determine whether a relation is a function, and find a value for a given function. CD 1: 346–347, CD 2: 348–349, CD 3: 350–351, PA 1: 352, PA 2: 353, PM 1: 354, PM 2: 355, PS 1: 356, OA: 357–364

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MAFS.912.F–IF.1.2:	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	Teacher Edition Chapter 4: Objective 5: Determine whether a relation is a function, and find a value for a given function. CD 1: 346–347, CD 2: 348–349, CD 3: 350–351, PA 1: 352, PA 2: 353, PM 1: 354, PM 2: 355, PS 1: 356, OA: 357–364
MAFS.912.F–IF.1.3:	Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. *For example, the Fibonacci sequence is defined recursively by* $f(0) = f(1) = 1, f(n+1) = f(n) + f(n-1)$ *for* $n \geq 1$.	Provides opportunities: Teacher Edition Chapter 4: Objective 5: Determine whether a relation is a function, and find a value for a given function. CD 1: 346–347, CD 2: 348–349, CD 3: 350–351, PA 1: 352, PA 2: 353, PM 1: 354, PM 2: 355, PS 1: 356, OA: 357–364

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MAFS.912.F–IF.2.4:	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*	Teacher Edition Chapter 4: Objective 5: Determine whether a relation is a function, and find a value for a given function. CD 1: 346–347, CD 2: 348–349, CD 3: 350–351, PA 1: 352, PA 2: 353, PM 1: 354, PM 2: 355, PS 1: 356, OA: 357–364 Chapter 5: Objective 4: Write linear equations in slope–intercept form to find the slope , x–intercept and y–intercept and sketch the graph. CD 1: 420–421, CD 2: 422, CD 3: 423, CD 4: 424–425, CD 5: 426–427, CD 6: 428–429, PA 1: 430–432, PA 2: 433, PM 1: 434, PM 2: 435, PM 3: 436, PM 4: 437, PS 1: 438, OA: 439 Chapter 10: Objective 1: Graph parabolas, and find the coordinates of the vertex and axis of symmetry. CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD 6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889 Chapter 10: Objective 2: Estimate the roots of a quadratic equation by graphing the associated function. CD 1: 894–895, CD 2: 896–897, PA 1: 898, PA 2: 899, PM 1: 900, PM 2: 901, PS 1: 902, OA: 903

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MAFS.912.F–IF.2.5:	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble engines in a factory, then the positive integers would be an appropriate domain for the function.*	Teacher Edition Chapter 4: Objective 2: Identify the domain, range, and the inverse of an operation. CD 1: 298, CD 2: 299–300, PA 1: 301, PA 2: 302, PM 1: 303, PM 2: 304, PS 1: 305, PS 2: 306, OA: 307 Chapter 4: Objective 3: Determine the range for a given domain of a relation. CD 1: 312, CD 2: 313, PA 1: 314, PA 2: 315, PA 3: 316, PM 1: 317, PM 2: 318, PM 3: 319, PS 1: 320–321, OA: 323
MAFS.912.F–IF.2.6:	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	Teacher Edition Chapter 3: Objective 5: CD 1: 242–243, CD 2: 244–245, PA 3: 250, PS 1: 254 Chapter 3: Objective 5: PA 3: 250, PS 1: 254, OA: 255 Chapter 3: Objective 6: PA 2: 265, PS 1: 269, OA: 273–274 Chapter 10: Objective 4: CD 4: 929–930, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935

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MAFS.912.F–IF.3.7:	Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. a. Graph linear and quadratic functions and show intercepts, maxima, and minima. b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. d. Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior. e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude, and using phase shift.	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943
MAFS.912.F–IF.3.9:	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.*	Teacher Edition Chapter 10: Objective 2: Estimate the roots of a quadratic equation by graphing the associated function. CD 1: 894–895, CD 2: 896–897, PA 1: 898, PA 2: 899, PM 1: 900, PM 2: 901, PS 1: 902, OA: 903

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MAFS.912.F–LE.1.1:	Distinguish between situations that can be modeled with linear functions and with exponential functions. a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals. b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another. c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943
MAFS.912.F–LE.1.2:	Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943
MAFS.912.F–LE.1.3:	Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943

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MAFS.912.F–LE.2.5:	Interpret the parameters in a linear or exponential function in terms of a context.	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943
MAFS.912.N–Q.1.1:	Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	Teacher Edition Chapter 12: Objective 3: Use the Pythagorean theorem to solve problems. CD 1: 1080–1081, CD 2: 1082, CD 3: 1083, PA 1: 1084, PA 2: 1085, PM 1: 1086, PM 2: 1087, PS 1: 1088, PS 2: 1089, PS 3: 1090, OA: 1091
MAFS.912.N–Q.1.2:	Define appropriate quantities for the purpose of descriptive modeling.	Teacher Edition Chapter 2: Objective 3: Compare and order rational numbers. CD 1: 116–117, CD 2: 118, PA 1: 119, PA 2: 120, PA 3: 121, PM 1: 122, PM 2: 123, PM 3: 124, PS 1: 125, PS 2: 126, OA: 127
MAFS.912.N–Q.1.3:	Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	The following matches are prerequisite skills for the standard: Teacher Edition Chapter 2: Objective 5: CD 1: 148, CD 2: 149, CD 3: 150–151, PA 1: 152, PA 2: 153, PA 3: 154, PM 1: 155, PM 2: 156, PM 3: 157, PS 1: 158, PS 2: 159, OA: 161–168; (Find the principal square root of a number.)

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.N–RN.1.1:	Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define to be the cube root of 5 because we want = to hold, so must equal 5.*	Teacher Edition Chapter 2: Objective 5: CD 1: 148, CD 2: 149, CD 3: 150–151, PA 1: 152, PA 2: 153, PA 3: 154, PM 1: 155, PM 2: 156, PM 3: 157, PS 1: 158, PS 2: 159, OA: 161–168; (Find the principal square root of a number.) Chapter 8: Objective 1: Multiply and divide monomials and simplify expressions. CD 1: 670, CD 2: 671, CD 3: 672, PA 1: 673, PA 2: 674, PA 3: 675–676, PM 1: 677, PM 2: 678, PM 3: 679, PM 4: 680, PS 1: 681, PS 2: 682, OA: 683 Chapter 10: Objective 3: Solve quadratic equations by factoring or using the quadratic formula. CD 1: 908, CD 2: 909, CD 3: 910, CD 4: 911–912, PA 1: 913, PA 2: 914, PM 1: 915, PM 2: 916, PM 3: 917, PS 1: 918–919, OA: 921 Chapter 12: Objective 1: Simplify and perform operations with radical expressions. CD 1: 1040, CD 2: 1041, CD 3: 1042, CD 4: 1043, CD 5: 1044, CD 6: 1045, CD7: 1046, PA 1: 1047–1048, PA 2: 1049–1050, PA 3: 1051, PM 1: 1052, PM 2: 1053, PM 3: 1054, PM 4: 1055, PM 5: 1056, PM 6: 1057, PS 1: 1058, PS 2: 1059, OA: 1061 Chapter 12: Objective 2: Solve equations with radical expressions. CD 1: 1066, CD 2: 1067, CD 3: 1068–1069, PA 1: 1070, PA 2: 1071, PM 1: 1072, PM 2: 1073, PS 1: 1074, OA: 1075

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.N–RN.1.2:	Rewrite expressions involving radicals and rational exponents using the properties of exponents.	The following matches are prerequisite skills for the standard: Teacher Edition Chapter 2: Objective 1: Graph rational numbers on a number line. CD 1: 82–83, CD 2: 84, PA 1: 85, PM 1: 86, PM 2: 87, PM 3: 88, PS 1: 89, PS 2: 90, OA: 91 Chapter 8: Objective 1: Multiply and divide monomials and simplify expressions. CD 1: 670, CD 2: 671, CD 3: 672, PA 1: 673, PA 2: 674, PA 3: 675–676, PM 1: 677, PM 2: 678, PM 3: 679, PM 4: 680, PS 1: 681, PS 2: 682, OA: 683 Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943 Chapter 12: Objective 1: Simplify and perform operations with radical expressions. CD 1: 1040, CD 2: 1041, CD 3: 1042, CD 4: 1043, CD 5: 1044, CD 6: 1045, CD7: 1046, PA 1: 1047–1048, PA 2: 1049–1050, PA 3: 1051, PM 1: 1052, PM 2: 1053, PM 3: 1054, PM 4: 1055, PM 5: 1056, PM 6: 1057, PS 1: 1058, PS 2: 1059, OA: 1061
MAFS.K12.MP.1.1:	Make sense of problems and persevere in solving them.	Students are asked to evaluate each other's work among groups and to discuss how they disagree with a solution and to justify an answer. Students in groups critique each other's approaches and strategies for solving a problem. For example: Teacher Edition p. 142, Ch. 2 Obj. 4; p. 819, Ch. 9 Obj. 3; p. 919, Ch. 10, Obj. 3

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MAFS.K12.MP.2.1:	Reason abstractly and quantitatively.	Students examine and apply many different forms for linear equations. Students use drawings to model and analyze problem solutions. Students use an answer to construct a corresponding problem. For example: Teacher Edition p. 927, Ch. 10 Obj. 4
MAFS.K12.MP.3.1:	Construct viable arguments and critique the reasoning of others.	Students observe models and make conjectures about the process. Students discuss and comment on strategies and solutions from other students, and explain their own. Students use an equation to make predictions. For example: Teacher Edition p. 74, Ch. 1 Obj. 4
MAFS.K12.MP.4.1:	Model with mathematics.	Students use modeling with algebra tiles and other manipulatives to see patterns and to solve for values. Students use activities to develop mathematical concepts. For example: Teacher Edition p. 810, Ch. 9 Obj. 3; p. 929, Ch. 10 Obj. 4
MAFS.K12.MP.5.1:	Use appropriate tools strategically.	Students discuss and apply mathematical vocabulary to various contexts. Students use calculators, graphing tools, and graphing calculators. For example: Teacher Edition p. 574, Ch. 7 Obj. 1; p. 790, Ch. 9 Obj. 2; p. 873, Ch. 10 Obj. 1
MAFS.K12.MP.6.1:	Attend to precision.	Students explain in words, For example, what a given equation represents. For example: Teacher Edition p. 721, Ch. 8 Obj. 3

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MAFS.K12.MP.7.1:	Look for and make use of structure.	Students discuss concepts, and find and name patterns. For example: Teacher Edition p. 135, Ch. 2, Obj. 4; p. 932, Ch. 10 Obj. 4; p. 951, Ch. 11 Obj. 1; p. 1080, Ch. 12 Obj. 3
MAFS.K12.MP.8.1:	Look for and express regularity in repeated reasoning.	Students discuss concepts, and find and name patterns. For example: Teacher Edition p. 135, Ch. 2, Obj. 4; p. 932, Ch. 10 Obj. 4; p. 951, Ch. 11 Obj. 1; p. 1080, Ch. 12 Obj. 3

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
LAFS.910.RST.1.3:	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	Teacher Edition Chapter 1: Objective 3: CD 1: 34–38, CD 2: 39, CD 3: 40, PA 1: 41, PA 2: 42, PM 1: 43, PM 2: 44, PM 3: 45, PS 1: 46, PS 2: 47, OA: 49 Chapter 3: Objective 1: CD 1: 174–175, CD 2: 176–177, PA 1: 178, PA 2: 179, PA 3: 180, PM 1: 181, PM 2: 182, PS 1: 183, PS 2: 184, OA: 185 Chapter 3: Objective 2: CD 1: 190, CD 2: 191–192, CD3: 193–194, PA 1: 195, PA 2: 196–197, PM 1: 198, PM 2: 199, PS 1: 200, PS 2: 201, OA: 203 Chapter 3: Objective 3: CD 1: 208, CD 2: 209, CD3: 210, PA 1: 211, PA 2: 212–213, PA 3: 215, PM 1: 216, PM 2: 217, PM3: 218, PM 4: 219, PS 1: 220, PS 2: 221, OA: 223 Chapter 3: Objective 4: CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237 Chapter 3: Objective 5: CD 1: 242–243, CD 2: 244–245, PA 1: 246–248, PA 2: 249, PA 3: 250, PM 1: 251, PM 2: 252, PM 3: 253, PS 1: 254, OA: 255 Chapter 3: Objective 6: CD 1: 260, CD 2: 261–262, PA 1: 263–264, PA 2: 265, PM 1: 266, PM 2: 267, PM 3: 268, PS 1: 269, OA: 270–277 Chapter 7: Objective 1: CD 1: 572–573, CD 2: 574, CD 3: 575–576, CD 4: 577, PA 1: 578, PA 2: 579, PM 1: 580, PM 2: 581, PS 1: 582, PS 2: 583, OA: 585 Chapter 7: Objective 2: CD 1: 590–591, CD 2: 592, CD 3: 593, CD 4: 594, PA 1: 595–596, PA 2: 597–598, PM 1: 599, PM 2: 600, PS 1: 601, PS 2: 602, OA: 603 Chapter 7: Objective 3: CD 1: 608–609, CD 2: 610, CD 3: 611, PA 1: 612–613, PA 2: 614, PA 3: 615–616, PM 1: 617, PM 2: 618, PM 3: 619, PM 4: 620, PS 1: 621, PS 2: 622, (continued on next page)

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
LAFS.910.RST.1.3:	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	(continued from previous page) OA: 623 Chapter 7: Objective 4: CD 1: 628, CD 2: 629–630, CD 3: 631–632, PA 1: 633, PA 2: 634, PA 3: 635–636, PM 1: 637, PM 2: 638, PS 1: 639, PS 2: 640, OA: 641 Chapter 7: Objective 5: CD 1: 646, CD 2: 647, CD 3: 648–649, PA 1: 650, PA 2: 651, PM 1: 652, PM 2: 653, PM 3: 654, PS 1: 655, PS 2: 656, OA: 657–664 Chapter 9: Objective 3: CD 1: 808–809, CD 2: 810, CD 3: 811, PA 1: 812, PA 2: 813, PM 1: 814, PM 2: 815, PM 3: 816, PM 4: 817, Pm 5: 818, PS 1: 819, PS 2: 820, OA: 821 Chapter 9: Objective 4: CD 1: 826, CD 2: 827–828, CD 3: 829, CD 4: 830, CD 5: 831, PA 1: 832, PA 2: 833, PA 3: 834, PA 4: 835, PM 1: 836, PM 2: 837, PM 3: 838, PM 4: 839, PS 1: 840, PS 2: 841, OA: 843 Chapter 9: Objective 5: CD 1: 848–849, PA 1: 850, PM 1: 851, PM 2: 852, PS 1: 853, OA: 855–862 Chapter 10: Objective 1: CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889; Chapter 10: Objective 3: CD 1: 908, CD 2: 909, CD 3: 910, CD 4: 911–912, PA 1: 913, PA 2: 914, PM 1: 915, PM 2: 916, PM 3: 917, PS 1: 918–919, OA: 921 Chapter 10: Objective 4: CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943 Chapter 11: Objective 5: CD 1: 1018, CD 2: 1019–1020, PA 1: 1021, PA 2: 1022–1023, PM 1: 1024, PM 2: 1025, (continued on next page)

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
LAFS.910.RST.1.3:	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	(continued from previous page) PS 1: 1026, OA: 1027–1034 Chapter 12: Objective 2: CD 1: 1066, CD 2: 1067, CD 3: 1068–1069, PA 1: 1070, PA 2: 1071, PM 1: 1072, PM 2: 1073, PS 1: 1074, OA: 1075; Chapter 12: Objective 3: CD 1: 1080–1081, CD 2: 1082, CD 3: 1083, PA 1: 1084, PA 2: 1085, PM 1: 1086, PM 2: 1087, PS 1: 1088, PS 2: 1089, PS 3: 1090, OA: 1091 Chapter 12: Objective 5: CD 1: 1110, CD 2: 1111–1112, PA 1: 1113, PA 2: 1114, PM 1: 1115, PM 2: 1116, PM 3: 1117, PS 1: 1118, PS 2: 1119, PS 3: 1120, OA: 1121–1129
LAFS.910.RST.2.4:	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9–10 texts and topics.	Each objective requires students to learn and use the meaning of symbols, key terms, and other domain–specific words.
LAFS.910.RST.3.7:	Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	Teacher Edition Chapter 10: Objective 2: Estimate the roots of a quadratic equation by graphing the associated function. CD 1: 894–895, CD 2: 896–897, PA 1: 898, PA 2: 899, PM 1: 900, PM 2: 901, PS 1: 902, OA: 903

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
LAFS.910.SL.1.1:	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.	Students have the opportunity to participate in a range of collaborative discussions throughout the program.
LAFS.910.SL.1.2:	Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.	Multiple opportunities are found throughout. Opportunities provided in: Supplement: Objective A: Analyze and graph data using a variety of methods. Teacher Edition PA 2: 18–19
LAFS.910.SL.1.3:	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	Multiple opportunities are found throughout. Opportunities provided in: Supplement: Objective A: Analyze and graph data using a variety of methods. Teacher Edition PS 2: 25, OA: 26
LAFS.910.SL.2.4:	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	Opportunities provided in all Problem-Solving and Practice lessons.
LAFS.910.WHST.1.1:	Write arguments focused on *discipline-specific content*.	Opportunities provided in all Problem-Solving and Practice lessons.

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LAFS.910.WHST.2.4:	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	Opportunities provided in all Problem-Solving and Practice lessons.
LAFS.910.WHST.3.9:	Draw evidence from informational texts to support analysis, reflection, and research.	Opportunities provided in word problems throughout as well as the Gizmos activities. For example: Teacher Edition Ch. 2, OA: 165.
ELD.K12.ELL.MA.1:	English language learners communicate information, ideas and concepts necessary for academic success in the content area of Mathematics.	Inside Algebra provides opportunities to differentiate instruction allowing ELLs additional time to understand and communicate information, ideas, and concepts.
ELD.K12.ELL.SI.1:	English language learners communicate for social and instructional purposes within the school setting.	Students have the opportunity to communicate in whole and small group settings throughout the Inside Algebra program.

2018 STATE OF FLORIDA INSTRUCTIONAL MATERIALS ADOPTION
STANDARDS ALIGNMENT COURSE STANDARDS/BENCHMARKS (Form IM7)

SUBMISSION TITLE:	**INSIDE ALGEBRA**
GRADE LEVEL:	**9–12**
COURSE TITLE:	**ALGEBRA 1–B**
COURSE CODE:	**1200380**
PUBLISHER:	**Voyager Sopris Learning, Inc.**
PUBLISHER ID:	**84–0770709**

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.A-APR.1.1:	Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. Remarks/Examples: Algebra 1 - Fluency Recommendations Fluency in adding, subtracting, and multiplying polynomials supports students throughout their work in algebra, as well as in their symbolic work with functions. Manipulation can be more mindful when it is fluent.	Teacher Edition Chapter 8: Objective 3: Add and subtract polynomials and express the answer so the powers of the terms are in descending order. CD 1: 710–711, CD 2: 712–713, CD 3: 714–715, PA 1: 716, PA 2: 717–718, PM 1: 719, PM 2: 720, PM 3: 721, PS 1: 722, OA: 723 Chapter 8: Objective 4: Multiply a polynomial by a monomial and arrange the terms in descending order by powers. CD 1: 728, CD 2: 729–730, CD 3: 731–732, PA 1: 733, PA 2: 734, PM 1: 735, PM 2: 736, PM 3: 737, PS 1: 738, PS 2: 739, OA: 741 Chapter 8: Objective 5: CD 1: 746–747, CD 2: 748–749, CD 3: 750, CD 4: 751, PA 1: 752, PM 1: 753, PM 2: 754, PM 3: 755, PM 4: 756, PS 1: 757, OA: 759 Chapter 9: Objective 2: Use the greatest common factor and the Distributive Property to factor polynomials with the grouping technique, and use these techniques to solve equations. CD 1: 790–791, CD 2: 792, CD 3: 793–794, CD 4: 795, PA 1: 796, PA 2: 797, PA 3: 798, PM 1: 799, PM 2: 800, PM 3: 801, PS 1: 802, OA: 803 Chapter 9: Objective 3: Factor quadratic trinomials of the form ax2 + bx + c, and solve equations by factoring. CD 1: 808–809, CD 2: 810, CD 3: 811, PA 1: 812, PA 2: 813, PM 1: 814, PM 2: 815, PM 3: 816, PM 4: 817, PM 5: 818, PS 1: 819, PS 2: 820, OA: 821 Chapter 9: Objective 4: Factor quadratic polynomials that are perfect squares or differences of squares, and solve equations by factoring. (continued on next page)

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MAFS.912.A-APR.1.1:	Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. Remarks/Examples: Algebra 1 - Fluency Recommendations Fluency in adding, subtracting, and multiplying polynomials supports students throughout their work in algebra, as well as in their symbolic work with functions. Manipulation can be more mindful when it is fluent.	(continued from previous page) CD 1: 826, CD 2: 827–828, CD 3: 829, CD 4: 830, CD 5: 831, PA 1: 832, PA 2: 833, PA 3: 834, PA 4: 835, PM 1: 836, PM 2: 837, PM 3: 838, PM 4: 839, PS 1: 840, PS 2: 841, OA: 843
MAFS.912.A-APR.2.3:	Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.	Teacher Edition Chapter 10: Objective 2: Estimate the roots of a quadratic equation by graphing the associated function. CD 1: 894–895, CD 2: 896–897, PA 1: 898, PA 2: 899, PM 1: 900, PM 2: 901, PS 1: 902, OA: 903

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MAFS.912.A-CED.1.1:	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational, absolute, and exponential functions.	Teacher Edition Chapter 1: Objective 3: Solve open sentences by performing arithmetic operations. CD 1: 34–38, CD 2: 39, CD 3: 40, PA 1: 41, PA 2: 42, PM 1: 43, PM 2: 44, PM 3: 45, PS 1: 46, PS 2: 47, OA: 49 Chapter 3: Objective 1: CD 1: Solve linear equations with addition and subtraction. 174–175, CD 2: 176–177, PA 1: 178, PA 2: 179, PA 3: 180, PM 1: 181, PM 2: 182, PS 1: 183, PS 2: 184, OA: 185 Chapter 3: Objective 3: Solve linear equations using one or more operations. CD 1: 208, CD 2: 209, CD 3: 210, PA 1: 211, PA 2: 212–213, PA 3: 215, PM 1: 216, PM 2: 217, PM 3: 218, PM 4: 219, PS 1: 220, PS 2: 221, OA: 223 Chapter 3: Objective 4: Solve problems that can be represented as equations. CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237 Chapter 3: Objective 1: CD 1: Solve linear equations with addition and subtraction. 174–175, CD 2: 176–177, PA 1: 178, PA 2: 179, PA 3: 180, PM 1: 181, PM 2: 182, PS 1: 183, PS 2: 184, OA: 185 Chapter 3: Objective 2: CD 1: Solve linear equations with multiplication and division. 190, CD 2: 191–192, CD 3: 193–194, PA 1: 195, PA 2: 196–197, PM 1: 198, PM 2: 199, PS 1: 200, PS 2: 201, OA: 203 Chapter 3: Objective 3: Solve linear equations using one or more operations. CD 1: 208, CD 2: 209, CD 3: 210, PA 1: 211, PA 2: 212–213, PA 3: 215, PM 1: 216, PM 2: 217, PM 3: 218, PM 4: 219, PS 1: 220, PS 2: 221, (continued on next page)

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.A-CED.1.1:	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational, absolute, and exponential functions.	(continued from previous page) OA: 223 Chapter 3: Objective 4: Solve problems that can be represented as equations. CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237 Chapter 3: Objective 5: Solve proportions that have a missing part. CD 1: 242–243, CD 2: 244–245, PA 1: 246–248, PA 2: 249, PA 3: 250, PM 1: 251, PM 2: 252, PM 3: 253, PS 1: 254, OA: 255 Chapter 3: Objective 6: Use proportions to solve percent problems. CD 1: 260, CD 2: 261–262, PA 1: 263–264, PA 2: 265, PM 1: 266, PM 2: 267, PM 3: 268, PS 1: 269, OA: 270–277

Benchmark Code	Benchmark	Lessons Where Standard/Benchmark Is Directly Addressed In Major Tool (Most In–Depth Coverage Listed First) (All references are Teacher Edition with student edition thumbnails.)
MAFS.912.A-CED.1.2:	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	Teacher Edition Chapter 4: Objective 3: Determine the range for a given domain of a relation. CD 1: 312, CD 2: 313, PA 1: 314, PA 2: 315, PA 3: 316, PM 1: 317, PM 2: 318, PM 3: 319, PS 1: 320–321, OA: 323 Chapter 4: Objective 4: Graph linear equations. CD 1: 328–329, CD 2: 330–331, PA 1: 332, PA 2: 333, PM 1: 334, PM 2: 335, PM 3: 336, PS 1: 337, PS 2: 338–339, OA: 341 Chapter 10: Objective 1: Graph parabolas, and find the coordinates of the vertex and axis of symmetry. CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD 6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889 Chapter 10: Objective 2: Estimate the roots of a quadratic equation by graphing the associated function. CD 1: 894–895, CD 2: 896–897, PA 1: 898, PA 2: 899, PM 1: 900, PM 2: 901, PS 1: 902, OA: 903
MAFS.912.A-CED.1.4:	Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law $V = IR$ to highlight resistance R.*	Teacher Edition Chapter 1: Objective 3: Solve open sentences by performing arithmetic operations. CD 1: 34–38, CD 2: 39, CD 3: 40, PA 1: 41, PA 2: 42, PM 1: 43, PM 2: 44, PM 3: 45, PS 1: 46, PS 2: 47, OA: 49 Chapter 3: Objective 4: Solve problems that can be represented as equations. CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237

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MAFS.912.A-REI.2.4:	Solve quadratic equations in one variable. a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form. b. Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.	Teacher Edition Chapter 9: Objective 5: Solve quadratic equations by completing the square. CD 1: 848–849, PA 1: 850, PM 1: 851, PM 2: 852, PS 1: 853, OA: 855–862 Chapter 10: Objective 3: Solve quadratic equations by factoring or using the quadratic formula. CD 1: 908, CD 2: 909, CD 3: 910, CD 4: 911–912, PA 1: 913, PA 2: 914, PM 1: 915, PM 2: 916, PM 3: 917, PS 1: 918–919, OA: 921
MAFS.912.A-SSE.1.1:	Interpret expressions that represent a quantity in terms of its context. a. Interpret parts of an expression, such as terms, factors, and coefficients. b. Interpret complicated expressions by viewing one or more of their parts as a single entity. *For example, interpret as the product of P and a factor not depending on P.*	Teacher Edition Chapter 5: Objective 2: Write the equation of a line in standard form given two points on the line. CD 1: 390–391, CD 2: 392–393, PA 1: 394, PA 2: 395, PM 1: 396, PM 2: 397, PM 3: 398, PS 1: 399, PS 2: 400, OA: 401

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MAFS.912.A-SSE.1.2:	Use the structure of an expression to identify ways to rewrite it. *For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$, thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$.*	Teacher Edition Chapter 8: Objective 5: Multiply two binomials and simplify the expressions, including special products of (a + b)(a + b) and (a + b)(a – b). CD 1: 746–747, CD 2: 748–749, CD 3: 750, CD 4: 751, PA 1: 752, PM 1: 753, PM 2: 754, PM 3: 755, PM 4: 756, PS 1: 757, OA: 759 Chapter 9: Objective 4: Factor quadratic polynomials that are perfect squares or differences of squares, and solve equations by factoring. CD 1: 826, CD 2: 827–828, CD 3: 829, CD 4: 830, CD 5: 831, PA 1: 832, PA 2: 833, PA 3: 834, PA 4: 835, PM 1: 836, PM 2: 837, PM 3: 838, PM 4: 839, PS 1: 840, PS 2: 841, OA: 843
MAFS.912.A-SSE.2.3:	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. a. Factor a quadratic expression to reveal the zeros of the function it defines. b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines. c. Use the properties of exponents to transform expressions for exponential functions. *For example the expression can be rewritten as ≈ to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.*	Teacher Edition Chapter 9: Objective 4: Factor quadratic polynomials that are perfect squares or differences of squares, and solve equations by factoring. CD 1: 826, CD 2: 827–828, CD 3: 829, CD 4: 830, CD 5: 831, PA 1: 832, PA 2: 833, PA 3: 834, PA 4: 835, PM 1: 836, PM 2: 837, PM 3: 838, PM 4: 839, PS 1: 840, PS 2: 841, OA: 843 Chapter 9: Objective 5: Solve quadratic equations by completing the square. CD 1: 848–849, PA 1: 850, PM 1: 851, PM 2: 852, PS 1: 853, OA: 855–862 Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943

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MAFS.912.F-BF.1.1:	Write a function that describes a relationship between two quantities. a. Determine an explicit expression, a recursive process, or steps for calculation from a context. b. Combine standard function types using arithmetic operations. *For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.* c. Compose functions. *For example, if T(y) is the temperature in the atmosphere as a function of height, and h(t) is the height of a weather balloon as a function of time, then T(h(t)) is the temperature at the location of the weather balloon as a function of time.*	Teacher Edition Chapter 4: Objective 2: Identify the domain, range, and the inverse of an operation. CD 1: 298, CD 2: 299–300, PA 1: 301, PA 2: 302, PM 1: 303, PM 2: 304, PS 1: 305, PS 2: 306, OA: 307 Chapter 4: Objective 3: Determine the range for a given domain of a relation. CD 1: 312, CD 2: 313, PA 1: 314, PA 2: 315, PA 3: 316, PM 1: 317, PM 2: 318, PM 3: 319, PS 1: 320–321, OA: 323 Chapter 4: Objective 4: Graph linear equations. CD 1: 328–329, CD 2: 330–331, PA 1: 332, PA 2: 333, PM 1: 334, PM 2: 335, PM 3: 336, PS 1: 337, PS 2: 338–339, OA: 341 Chapter 4: Objective 5: Determine whether a relation is a function, and find a value for a given function. CD 1: 346–347, CD 2: 348–349, CD 3: 350–351, PA 1: 352, PA 2: 353, PM 1: 354, PM 2: 355, PS 1: 356, OA: 357–364
MAFS.912.F-BF.2.3:	Identify the effect on the graph of replacing f(x) by f(x) + k, k f(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.	Teacher Edition Chapter 10: Objective 1: Graph parabolas, and find the coordinates of the vertex and axis of symmetry. CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD 6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889

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MAFS.912.F-IF.2.4:	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.	Teacher Edition Chapter 4: Objective 5: Determine whether a relation is a function, and find a value for a given function. CD 1: 346–347, CD 2: 348–349, CD 3: 350–351, PA 1: 352, PA 2: 353, PM 1: 354, PM 2: 355, PS 1: 356, OA: 357–364 Chapter 5: Objective 4: Write linear equations in slope–intercept form to find the slope, x–intercept and y–intercept and sketch the graph. CD 1: 420–421, CD 2: 422, CD 3: 423, CD 4: 424–425, CD 5: 426–427, CD 6: 428–429, PA 1: 430–432, PA 2: 433, PM 1: 434, PM 2: 435, PM 3: 436, PM 4: 437, PS 1: 438, OA: 439 Chapter 10: Objective 1: Graph parabolas, and find the coordinates of the vertex and axis of symmetry. CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD 6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889 Chapter 10: Objective 2: Estimate the roots of a quadratic equation by graphing the associated function. CD 1: 894–895, CD 2: 896–897, PA 1: 898, PA 2: 899, PM 1: 900, PM 2: 901, PS 1: 902, OA: 903

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MAFS.912.F-IF.2.5:	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble engines in a factory, then the positive integers would be an appropriate domain for the function.*	Teacher Edition Chapter 4: Objective 2: Identify the domain, range, and the inverse of an operation. CD 1: 298, CD 2: 299–300, PA 1: 301, PA 2: 302, PM 1: 303, PM 2: 304, PS 1: 305, PS 2: 306, OA: 307 Chapter 4: Objective 3: Determine the range for a given domain of a relation. CD 1: 312, CD 2: 313, PA 1: 314, PA 2: 315, PA 3: 316, PM 1: 317, PM 2: 318, PM 3: 319, PS 1: 320–321, OA: 323
MAFS.912.F-IF.2.6:	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	Provides opportunities: Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943 Chapter 3: Objective 5: CD 1: 242–243, CD 2: 244–245, PA 3: 250, PS 1: 254 Chapter 3: Objective 5: PA 3: 250, PS 1: 254, OA: 255 Chapter 3: Objective 6: PA 2: 265, PS 1: 269, OA: 273–274 Chapter 10: Objective 4: CD 4: 929–930, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935

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MAFS.912.F-IF.3.7:	Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. a. Graph linear and quadratic functions and show intercepts, maxima, and minima. b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions. c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior. d. Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior. e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude, and using phase shift.	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943 Chapter 4: Objective 4: Graph linear equations. CD 1: 328–329, CD 2: 330–331, PA 1: 332, PA 2: 333, PM 1: 334, PM 2: 335, PM 3: 336, PS 1: 337, PS 2: 338–339, OA: 341 Chapter 10: Objective 1: Graph parabolas, and find the coordinates of the vertex and axis of symmetry. CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD 6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889 Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943

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MAFS.912.F-IF.3.8:	Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function. a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context. b. Use the properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in functions such as* $y = (1.20)^{t}$, $y = (0.97)^{t}$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, *and classify them as representing exponential growth or decay.*	Teacher Edition Chapter 9: Objective 1: Find the greatest common factor through prime factorization for integers and sets of monomials. CD 1: 772–773, CD 2: 774, CD 3: 775, PA 1: 776, PA 2: 777, PA 3: 778, PA 4: 779, PM 1: 780, PM 2: 781, PM 3: 782, PS 1: 783, OA: 785 Chapter 9: Objective 2: Use the greatest common factor and the Distributive Property to factor polynomials with the grouping technique; use techniques to solve operations. CD 1: 790–791, CD 2: 792, CD 3: 793–794, CD 4: 795, PA 1: 796, PA 2: 797, PA 3: 798, PM 1: 799, PM 2: 800, PM 3: 801, PS 1: 802, OA: 803 Chapter 9: Objective 3: Factor quadratic trinomials of the form ax2 + bx + c, and solve equations by factoring. CD 1: 808–809, CD 2: 810, CD 3: 811, PA 1: 812, PA 2: 813, PM 1: 814, PM 2: 815, PM 3: 816, PM 4: 817, PM 5: 818, PS 1: 819, PS 2: 820, OA: 821 Chapter 9: Objective 4: Factor quadratic polynomials that are perfect squares or differences of squares, and solve equations by factoring. CD 1: 826, CD 2: 827–828, CD 3: 829, CD 4: 830, CD 5: 831, PA 1: 832, PA 2: 833, PA 3: 834, PA 4: 835, PM 1: 836, PM 2: 837, PM 3: 838, PM 4: 839, PS 1: 840, PS 2: 841, OA: 843 Chapter 9: Objective 5: Solve quadratic equations by completing the square. CD 1: 848–849, PA 1: 850, PM 1: 851, PM 2: 852, PS 1: 853, OA: 855–862

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MAFS.912.F-IF.3.9:	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.*	Teacher Edition Chapter 4: Objective 3: Determine the range for a given domain of a relation. CD 1: 312, CD 2: 313, PA 1: 314, PA 2: 315, PA 3: 316, PM 1: 317, PM 2: 318, PM 3: 319, PS 1: 320–321, OA: 323 Chapter 10: Objective 2: Estimate the roots of a quadratic equation by graphing the associated function. CD 1: 894–895, CD 2: 896–897, PA 1: 898, PA 2: 899, PM 1: 900, PM 2: 901, PS 1: 902, OA: 903
MAFS.912.F-LE.1.3:	Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943
MAFS.912.N-RN.2.3:	Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943

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MAFS.912.S-ID.1.1:	Represent data with plots on the real number line (dot plots, histograms, and box plots). Remarks/Examples: In grades 6–8, students describe center and spread in a data distribution. Here they choose a summary statistic appropriate to the characteristics of the data distribution, such as the shape of the distribution or the existence of extreme data points.	Provides opportunities: Teacher Edition Chapter 5: Objective 3: Draw a best fit line and find the equation of the best fit line for a scatter plot. CD 1: 406–407, CD 2: 408, PA 1: 409, PM 1: 410, PM 2: 411, PM 3: 412, PS 1: 413, PS 2: 414, OA: 415 Chapter 2: Objective 1: Graph rational numbers on a number line. CD 1: 82–83, CD 2: 84, PA 1: 85, PM 1: 86, PM 2: 87, PM 3: 88, PS 1: 89, PS 2: 90, OA: 91 VPORT: Objective A: Analyze and graph data using a variety of methods. CD 1: 6–7, CD 2: 8, CD 3: 9–11, CD 4: 12–13, CD 5: 14–15, PA 1: 16–17, PA 2: 18–19, PM 1: 20, PM 2: 21, PM 3: 22, PM 4: 23, PS 1: 24, PS 2: 25, OA: 26
MAFS.912.S-ID.1.2:	Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets. Remarks/Examples: In grades 6–8, students describe center and spread in a data distribution. Here they choose a summary statistic appropriate to the characteristics of the data distribution, such as the shape of the distribution or the existence of extreme data points.	Teacher Edition Chapter 2: Objective 1: Graph rational numbers on a number line. PA 2: 85, PS 1: 89, PS 2: 90 VPORT: Objective A: Analyze and graph data using a variety of methods. CD 1: 6–7, CD 2: 8, CD 3: 9–11, CD 4: 12–13, CD 5: 14–15, PA 1: 16–17, PA 2: 18–19, PM 1: 20, PM 2: 21, PM 3: 22, PM 4: 23, PS 1: 24, PS 2: 25, OA: 26

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MAFS.912.S-ID.1.3:	Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers). Remarks/Examples: In grades 6–8, students describe center and spread in a data distribution. Here they choose a summary statistic appropriate to the characteristics of the data distribution, such as the shape of the distribution or the existence of extreme data points.	Provides opportunities: Teacher Edition Chapter 3: Objective 5: Solve proportions that have a missing part. CD 1: 242–243, CD 2: 244–245, PA 3: 250, PS 1: 254, OA: 255 Chapter 3: Objective 6: Use proportions to solve percent problems. PA 2: 265, PS 1: 269, OA: 273–274 Chapter 10: Objective 4: Graph exponential functions, and solve problems using the graphs. CD 4: 929–930, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935 VPORT: Objective A: Analyze and graph data using a variety of methods. CD 1: 6–7, CD 2: 8, CD 3: 9–11, CD 4: 12–13, CD 5: 14–15, PA 1: 16–17, PA 2: 18–19, PM 1: 20, PM 2: 21, PM 3: 22, PM 4: 23, PS 1: 24, PS 2: 25, OA: 26
MAFS.912.S-ID.1.4:	Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.	Teacher Edition Chapter 5: Objective 3: Draw a best fit line and find the equation of the best fit line for a scatter plot. CD 1: 406–407, CD 2: 408, PA 1: 409, PM 1: 410, PM 2: 411, PM 3: 412, PS 1: 413, PS 2: 414, OA: 415 VPORT: Objective A: Analyze and graph data using a variety of methods. CD 1: 6–7, CD 2: 8, CD 3: 9–11, CD 4: 12–13, CD 5: 14–15, PA 1: 16–17, PA 2: 18–19, PM 1: 20, PM 2: 21, PM 3: 22, PM 4: 23, PS 1: 24, PS 2: 25, OA: 26

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MAFS.912.S-ID.2.5:	Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.	The following matches support the standard: Teacher Edition Chapter 2: Objective 3: Compare and order rational numbers. CD 1: 116–117, CD 2: 118, PA 1: 119, PA 2: 120, PA 3: 121, PM 1: 122, PM 2: 123, PM 3: 124, PS 1: 125, PS 2: 126, OA: 127 Chapter 4: Objective 2: Identify the domain, range, and the inverse of an operation. CD 1: 298, CD 2: 299–300, PA 1: 301, PA 2: 302, PM 1: 303, PM 2: 304, PS 1: 305, PS 2: 306, OA: 307 Chapter 4: Objective 3: Determine the range for a given domain of a relation. CD 1: 312, CD 2: 313, PA 1: 314, PA 2: 315, PA 3: 316, PM 1: 317, PM 2: 318, PM 3: 319, PS 1: 320–321, OA: 323

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MAFS.912.S-ID.2.6:	Represent data on two quantitative variables on a scatter plot, and describe how the variables are related. a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, and exponential models. b. Informally assess the fit of a function by plotting and analyzing residuals. c. Fit a linear function for a scatter plot that suggests a linear association. Remarks/Examples: Students take a more sophisticated look at using a linear function to model the relationship between two numerical variables. In addition to fitting a line to data, students assess how well the model fits by analyzing residuals.	Teacher Edition Chapter 5: Objective 3: Draw a best fit line and find the equation of the best fit line for a scatter plot. CD 1: 406–407, CD 2: 408, PA 1: 409, PM 1: 410, PM 2: 411, PM 3: 412, PS 1: 413, PS 2: 414, OA: 415
MAFS.912.S-ID.3.7:	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	Teacher Edition Chapter 5: Objective 4: Write linear equations in slope–intercept form to find the slope, x–intercept and y–intercept and sketch the graph. CD 1: 420–421, CD 2: 422, CD 3: 423, CD 4: 424–425, CD 5: 426–427, CD 6: 428–429, PA 1: 430–432, PA 2: 433, PM 1: 434, PM 2: 435, PM 3: 436, PM 4: 437, PS 1: 438, OA: 439

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MAFS.912.S-ID.3.8:	Compute (using technology) and interpret the correlation coefficient of a linear fit.	The following matches are prerequisite skills for the standard: Teacher Edition Chapter 5: Objective 3: Draw a best fit line and find the equation of the best fit line for a scatter plot. CD 1: 406–407, CD 2: 408, PA 1: 409, PM 1: 410, PM 2: 411, PM 3: 412, PS 1: 413, PS 2: 414, OA: 415
MAFS.912.S-ID.3.9:	Distinguish between correlation and causation.	The following matches are prerequisite skills for the standard: VPORT: Objective A: Analyze and graph data using a variety of methods. Teacher Edition CD 1: 6–7, CD 2: 8, CD 3: 9–11, CD 4: 12–13, CD 5: 14–15, PA 1: 16–17, PA 2: 18–19, PM 1: 20, PM 2: 21, PM 3: 22, PM 4: 23, PS 1: 24, PS 2: 25, OA: 26
MAFS.K12.MP.1.1:	Make sense of problems and persevere in solving them.	Students are asked to evaluate each other's work among groups and to discuss how they disagree with a solution and to justify an answer. Students in groups critique each other's approaches and strategies for solving a problem. For example: Teacher Edition p. 142, Ch. 2 Obj. 4; p. 819, Ch. 9 Obj. 3; p. 919, Ch. 10 Obj. 3
MAFS.K12.MP.2.1:	Reason abstractly and quantitatively.	Students examine and apply many different forms for linear equations. Students use drawings to model and analyze problem solutions. Students use an answer to construct a corresponding problem. For example: Teacher Edition p. 927, Ch. 10 Obj. 4

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MAFS.K12.MP.3.1:	Construct viable arguments and critique the reasoning of others.	Students observe models and make conjectures about the process. Students discuss and comment on strategies and solutions from other students, and explain their own. Students use an equation to make predictions. For example: Teacher Edition p. 74, Ch. 1 Obj. 4
MAFS.K12.MP.4.1:	Model with mathematics.	Students use modeling with algebra tiles and other manipulatives to see patterns and to solve for values. Students use activities to develop mathematical concepts. For example: Teacher Edition p. 810, Ch. 9 Obj. 3; p. 929, Ch. 10 Obj. 4
MAFS.K12.MP.5.1:	Use appropriate tools strategically.	Students discuss and apply mathematical vocabulary to various contexts. Students use calculators, graphing tools, and graphing calculators. For example: Teacher Edition p. 574, Ch. 7 Obj. 1; p. 790, Ch. 9 Obj. 2; p. 873, Ch. 10 Obj. 1
MAFS.K12.MP.6.1:	Attend to precision.	Students explain in words. For example, what a given equation represents. For example: Teacher Edition p. 721, Ch. 8 Obj. 3
MAFS.K12.MP.7.1:	Look for and make use of structure.	Students discuss concepts, and find and name patterns. For example: Teacher Edition p. 135, Ch. 2, Obj.4; p. 932, Ch. 10 Obj. 4; p. 951, Ch. 11 Obj. 1; p. 1080, Ch. 12 Obj. 3
MAFS.K12.MP.8.1:	Look for and express regularity in repeated reasoning.	Students discuss concepts, and find and name patterns. For example: Teacher Edition p. 135, Ch. 2, Obj.4; p. 932, Ch. 10 Obj. 4; p. 951, Ch. 11 Obj. 1; p. 1080, Ch. 12 Obj. 3

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LAFS.910.RST.1.3:	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	Teacher Edition Chapter 1: Objective 3: CD 1: 34–38, CD 2: 39, CD 3: 40, PA 1: 41, PA 2: 42, PM 1: 43, PM 2: 44, PM 3: 45, PS 1: 46, PS 2: 47, OA: 49 Chapter 3: Objective 1: CD 1: 174–175, CD 2: 176–177, PA 1: 178, PA 2: 179, PA 3: 180, PM 1: 181, PM 2: 182, PS 1: 183, PS 2: 184, OA: 185 Chapter 3: Objective 2: CD 1: 190, CD 2: 191–192, CD 3: 193–194, PA 1: 195, PA 2: 196–197, PM 1: 198, PM 2: 199, PS 1: 200, PS 2: 201, OA: 203 Chapter 3: Objective 3: CD 1: 208, CD 2: 209, CD 3: 210, PA 1: 211, PA 2: 212–213, PA 3: 215, PM 1: 216, PM 2: 217, PM 3: 218, PM 4: 219, PS 1: 220, PS 2: 221, OA: 223 Chapter 3: Objective 4: CD 1: 228, CD 2: 229–230, PA 1: 231, PA 2: 232, PM 1: 233, PM 2: 234, PS 1: 235, OA: 237 Chapter 3: Objective 5: CD 1: 242–243, CD 2: 244–245, PA 1: 246–248, PA 2: 249, PA 3: 250, PM 1: 251, PM 2: 252, PM 3: 253, PS 1: 254, OA: 255 Chapter 3: Objective 6: CD 1: 260, CD 2: 261–262, PA 1: 263–264, PA 2: 265, PM 1: 266, PM 2: 267, PM 3: 268, PS 1: 269, OA: 270–277 Chapter 7: Objective 1: CD 1: 572–573, CD 2: 574, CD 3: 575–576, CD 4: 577, PA 1: 578, PA 2: 579, PM 1: 580, PM 2: 581, PS 1: 582, PS 2: 583, OA: 585 Chapter 7: Objective 2: CD 1: 590–591, CD 2: 592, CD 3: 593, CD 4: 594, PA 1: 595–596, PA 2: 597–598, PM 1: 599, PM 2: 600, PS 1: 601, PS 2: 602, OA: 603 Chapter 7: Objective 3: CD 1: 608–609, CD 2: 610, CD 3: 611, PA 1: 612–613, PA 2: 614, PA 3: 615–616, PM 1: 617, PM 2: 618, PM 3: 619, PM 4: 620, PS 1: 621, PS 2: 622, OA: 623 Chapter 7: Objective 4: CD 1: 628, (continued on next page)

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LAFS.910.RST.1.3:	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	(continued from previous page) CD 2: 629–630, CD 3: 631–632, PA 1: 633, PA 2: 634, PA 3: 635–636, PM 1: 637, PM 2: 638, PS 1: 639, PS 2: 640, OA: 641 Chapter 7: Objective 5: CD 1: 646, CD 2: 647, CD 3: 648–649, PA 1: 650, PA 2: 651, PM 1: 652, PM 2: 653, PM 3: 654, PS 1: 655, PS 2: 656, OA: 657–664 Chapter 9: Objective 3: CD 1: 808–809, CD 2: 810, CD 3: 811, PA 1: 812, PA 2: 813, PM 1: 814, PM 2: 815, PM 3: 816, PM 4: 817, PM 5: 818, PS 1: 819, PS 2: 820, OA: 821 Chapter 9: Objective 4: CD 1: 826, CD 2: 827–828, CD 3: 829, CD 4: 830, CD 5: 831, PA 1: 832, PA 2: 833, PA 3: 834, PA 4: 835, PM 1: 836, PM 2: 837, PM 3: 838, PM 4: 839, PS 1: 840, PS 2: 841, OA: 843 Chapter 9: Objective 5: CD 1: 848–849, PA 1: 850, PM 1: 851, PM 2: 852, PS 1: 853, OA: 855–862 Chapter 10: Objective 1: CD 1: 868–869, CD 2: 870–871, CD 3: 872–873, CD 4: 874–875, CD 5: 876–877, CD6: 878–879, PA 1: 880, PA 2: 881–883, PM 1: 884, PM 2: 885, PM 3: 886, PM 4: 887, PS 1: 888, OA: 889 Chapter 10: Objective 3: CD 1: 908, CD 2: 909, CD 3: 910, CD 4: 911–912, PA 1: 913, PA 2: 914, PM 1: 915, PM 2: 916, PM 3: 917, PS 1: 918–919, OA: 921 Chapter 10: Objective 4: CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943 Chapter 11: Objective 5: CD 1: 1018, CD 2: 1019–1020, PA 1: 1021, PA 2: 1022–1023, PM 1: 1024, (continued on next page)

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LAFS.910.RST.1.3:	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.	(continued from previous page) PM 2: 1025, PS 1: 1026, OA: 1027–1034 Chapter 12: Objective 2: CD 1: 1066, CD 2: 1067, CD 3: 1068–1069, PA 1: 1070, PA 2: 1071, PM 1: 1072, PM 2: 1073, PS 1: 1074, OA: 1075 Chapter 12: Objective 3: CD 1: 1080–1081, CD 2: 1082, CD 3: 1083, PA 1: 1084, PA 2: 1085, PM 1: 1086, PM 2: 1087, PS 1: 1088, PS 2: 1089
LAFS.910.RST.2.4:	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9–10 texts and topics.	Each objective requires students to learn and use the meaning of symbols, key terms, and other domain–specific words.
LAFS.910.RST.3.7:	Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	Teacher Edition Chapter 10: Objective 4: Graph exponential functions, and solve problems using graphs. CD 1: 926, CD 2: 927, CD 3: 928, CD 4: 929–930, PA 1: 931, PA 2: 932, PM 1: 933, PM 2: 934, PS 1: 935, OA: 936–943

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LAFS.910.SL.1.1:	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas. b. Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. d. Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.	Students have the opportunity to participate in a range of collaborative discussions throughout the program.

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LAFS.910.SL.1.2:	Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.	The Gizmos activities provide support for this standard.
LAFS.910.SL.1.3:	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.	The Gizmos activities provide support for this standard.
LAFS.910.SL.2.4:	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.	The Problem-Solving activities found in each Objective provide support for this standard.

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LAFS.910.WHST.1.1:	Write arguments focused on discipline-specific content. a. Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly, supplying data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form and in a manner that anticipates the audience's knowledge level and concerns. c. Use words, phrases, and clauses to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e .Provide a concluding statement or section that follows from or supports the argument presented.	The Problem-Solving activities found in each Objective provide support for this standard.
LAFS.910.WHST.2.4:	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	The Problem-Solving activities found in each Objective provide support for this standard.

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LAFS.910.WHST.3.9:	Draw evidence from informational texts to support analysis, reflection, and research.	The Problem-Solving activities found in each Objective provide support for this standard.
ELD.K12.ELL.MA.1:	English language learners communicate information, ideas and concepts necessary for academic success in the content area of Mathematics.	Inside Algebra provides opportunities to differentiate instruction allowing ELLs additional time to understand and communicate information, ideas, and concepts.
ELD.K12.ELL.SI.1:	English language learners communicate for social and instructional purposes within the school setting.	Students have the opportunity to communicate in whole and small group settings throughout the Inside Algebra program.