Florida Algebra 1a with CORD Algebra 1 2nd Edition

CORRELATION
SUNSHINE STATE STANDARDS
& GRADE LEVEL EXPECTATIONS

SUBJECT: Algebra 1a

SUBMISSION TITLE: Algebra 1 *Mathematics in Context*, Second Edition

PUBLISHER: CORD Communications , Inc.

GRADE:

STRAND:

STANDARD:

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
1. Demonstrate understanding of the different ways numbers are represented and used in the real world.		
MA.A.1.4.1 associate verbal names, written word names, and standard numerals with integers, rational numbers, irrational numbers, real numbers, *and complex numbers*.	4-8, 18-25, 26-31, 105, 505, TE 528, 565, 567, 571, 572, 576, 578, 581-585, 694-698	**I**
MA.A.1.4.2 understand the relative size of integers, rational numbers, irrational numbers, and real numbers.	7, 8, 13, 64-66, 76, 102, 537-538	**I**
MA.A.1.4.3 understand concrete and symbolic representations of real *and complex* numbers in real-world situations.	See features "Four Step Plan" pages 29, 90, 158, 245, 317, 346, 423, 460, 534, 579, 642, 720; "Workplace Communication" pages 111, 172, 216, 302, 353, 401, 473, 509, 605, 705; "Practice and Problem Solving" exercises at end of each lesson; "Math Applications" exercises at end of each chapter	**I**

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MA.A.1.4.4	understand that numbers can be represented in a variety of equivalent forms, including integers, fractions, decimals, percents, scientific notation, exponents, radicals, absolute value, *and logarithms.*	4-8, 13-17, 18-25, 26-31, 32-36, 37-43, 44-48, 49-53, 59-77, 93-96, 137, 155-160, 174, 180-184, 190-192, 564-569, 570-574, 575-580, 581-585, 694-698, 699-708, 709-716, 717-721, See features "Practice and Problem Solving" and "Mixed Review" exercises at end of each lesson; "Math Applications" exercises at end of each chapter	**I**
2. Demonstrate understanding of number systems.			
MA.A.2.4.2	understand and use the real number system.	4-8, 13-17, 18-25, 26-31, 13, 32-36, 37-43, 44-48, 49-53, 59-77, 93-96, 102, 105, 137, 155-160, 174, 180-184, 190-192, 505, TE 528, 537-538, 564-569, 570-574, 575-580, 581-585, 694-698, 699-708, 709-716, 717-721, See features "Four Step Plan" pages 29, 90, 158, 245, 317, 346, 423, 460, 534, 579, 642, 720; "Workplace Communication" pages 111, 172, 216, 302, 353, 401, 473, 509, 605, 705; "Practice and Problem Solving" " and "Mixed Review" exercises at end of each lesson; "Math Applications" exercises at end of each chapter	**I**
3. Demonstrate understanding of the effects of operations on numbers and the relationships among these operations, select appropriate operations, and compute for problem solving.			
MA.A.3.4.1	understand and explain the effects of addition, subtraction, multiplication, and division on real numbers, including square roots, exponents, and appropriate inverse relationships.	18-25, 26-31, 32-36, 37-43, 80-84, 146-154, 155-160, 161-168, 180-184, 304-312, 564-569, 570-574, 575-580, 649-656, 694-698, 717-721	**I**
MA.A.3.4.2	select and justify alternative strategies, such as using properties of numbers, including inverse, identity, distributive, associative, and transitive, that allow operational shortcuts for computational procedures in real-world or mathematical problems.	85-86, TE 86, 146-1554, 161-168, 169-174, 463-465, 557, 575-580,	**I**

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MA.A.3.4.3	add, subtract, multiply, and divide real numbers, including square roots and exponents, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.	4-8, 13-17, 18-25, 26-31, 13, 32-36, 37-43, 44-48, 49-53, 59-77, 93-96, 102, 105, 137, 155-160, 174, 180-184, 190-192, 505, TE 528, 537-538, 564-569, 570-574, 575-580, 581-585, 694-698, 699-708, 709-716, 717-721, Workplace Communication" pages 111, 172, 216, 302, 353, 401, 473, 509, 605, 705; "Practice and Problem Solving" " and "Mixed Review" exercises at end of each lesson; "Math Applications" exercises at end of each chapter	**I**
4. Use estimation in problem solving and computation.			
MA.A.4.4.1	use estimation strategies in complex situations to predict results and to check the reasonableness of results.	61, 125-127, 143, 304-312, 313, 323-324, 420-425, 620, 694-698, 709-716, See features "Four Step Plan" pages 29, 90, 158, 245, 317, 346, 423, 460, 534, 579, 642, 720;	**I**
5. Measure quantities in the real world and use the measures to solve problems.			
MA.B.1.4.1	use concrete and graphic models to derive formulas for finding perimeter, area, surface area, circumference, and volume of two- and three-dimensional shapes, including rectangular solids, cylinders, cones, and pyramids	87, 97-102, 103-106, 107-113	**I**
MA.B.1.4.2	use concrete and graphic models to derive formulas for finding rate, distance, time, angle measures, *and arc lengths.*	89, 122, 125-127, 709-716	**M**
MA.B.1.4.3	relate the concepts of measurement to similarity and proportionality in real-world situations.	44-48, 49-53, 125-127, 143, 155-156, 158, 654, 680-687, 699-708, 709-716, 722-725, 728-741	**I**

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6.	**Compare, contrast, and convert within systems of measurement (both standard/nonstandard and metric/customary).**		
MA.B.2.4.1	select and use direct (measured) and indirect (not measured) methods of measurement as appropriate.	44-47, 49-53, 54-55, 55-56, 97-102, 103-106, 107-113, 114-117, 118-121, 122, 123-125, 125-127, 128-143, 185-186, 186-188, 262-263, 263-264, 308, 311, 322, 324, 479-480, 537-538, 538-540, 540-543, 657-660, 660-662, 662-663, 682, 707, 714, 716, 772-725, 725-726, 726-727, 728-730, 741	**I**
MA.B.2.4.2	solve real-world problems involving rated measures (miles per hour, feet per second).	49-53, 54-55, 60, 89, 92, 122, 141-143, 193, 200, 203, 224, 233, 301, 324, 475, 481, 485, 528	**M**
7.	**Estimate measurements in real-world problem situations.**		
MA.B.3.4.1	solve real-world and mathematical problems involving estimates of measurements, including length, time, weight/mass, temperature, money, perimeter, area, and volume and estimate the effects of measurement errors on calculations.	44-48, 49-53, 60, 77, 85-92, 93-96, 97-102, 103-106, 107-113, 114-117, 118-121, 128-143, 154, 160, 174, 240, 277, 290, 304, 306, 308, 310, 311, 319, 320, 323, 324, 339, 414, 422, 455, 458-459, 469, 500, 522, 563, 578-580, 586-589, 600, 614-617, 632, 642, 644, 646, 655, 664-665, 669-672, 674-677, 680-687, 688-693, 694-698, 699-708, 709-716, 720, 728-741	**I**
8.	**Visualize and illustrate ways in which shapes can be combined, subdivided, and changed.**		
MA.C.2.4.1	understand geometric concepts such as perpendicularity, parallelism, *tangency,* congruency, similarity, reflections, symmetry, *and transformations including flips, slides, turns, enlargements, rotations, and fractals.*	TE 100, 130, 249-254, 269, 273, 296-304, 321-322, 414, 449, 451, 452, 455, 462, 531, 580, 606, 625, 631, 643, 676, 680-687, 740	**I**
9.	**Use coordinate geometry to locate objects in two dimensions and to describe objects algebraically.**		
MA.C.3.4.1	represent and apply geometric properties and relationships to solve real-world and mathematical problems including ratio, proportion, *and properties of right triangle trigonometry.*	155, 156, 158, 159, 213, 654, 680-687, 699-708, 709-716, 728-741	**I**

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MA.C.3.4.2 using a rectangular coordinate system (graph), apply and algebraically verify properties of two- *and three*-dimensional figures, including distance, midpoint, slope, parallelism, and perpendicularity.	213, 217, 254, 276,	**M**
10. Describe, analyze, and generalize a wide variety of patterns, relations, and functions.		
MA.D.1.4.1 describe, analyze, and generalize relationships, patterns, and functions using words, symbols, variables, tables, and graphs.	9-12, 27, 59, 62, 76, 85, 241-248, 256-259, 280-286, 287-289, 291-295, 296-303, 304-311, 312-319, 320-322, 323-339, 348, 367, 373, 410, 442, 448, 469, 500, 511, 611, 620-625, 626-632, 637, 640-642, 651, 662-663, 664-678	**I**
MA.D.1.4.2 determine the impact when changing parameters of given functions.	256-259, 274, 296-303, 318, 348, 620-625, 698	**I**
11. Use expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.		
MA.D.2.4.1 represent real-world problem situations using finite graphs, *matrices, sequences, series, and recursive relations.*	9-12, 32-36, 59, 62, 63, 280-286, 312, 317, 397-403, 404-410, 411-414, 415-419, 420-425, 426-429, 430-439, 518, 538-540, 611, 656	**I**
MA.D.2.4.2 use *systems* of equations and inequalities to solve real-world problems graphically, algebraically, *and with matrices.*	442-448, 449-455, 456-462, 463-469, 470-475, 476-480, 481-493, 518, 531, 532-536, 548, 554, 569, 580, 585, 592, 600, 606, 625, 632, 644, 708, 716, 721	**I**
12. Demonstrate understanding and use the tools of data analysis for managing information.		
MA.E.1.4.1 interpret data that has been collected, organized, and displayed in charts, tables, and plots.	32-36, 63, 390-396, 397-403, 404-410, 411-414, 415-419, 420-425, 426-429, 430-439, 448, 505, 518, 538-540, 611, 656	**I**
MA.E.1.4.2 calculate measures of central tendency (mean, median, and mode) and dispersion (range, *standard deviation and variance*) for complex sets of data and determine the most meaningful measure to describe the data.	390-396, 399, 402, 403, 419, 421, 430, 432, 436-438, 448, 505, 518, 538-540, 656	**I**

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13. Use statistical methods to make inferences and valid arguments about real-world situations.		
MA.E.3.4.1 design and perform real-world statistical experiments *that involve more than one variable*, then analyze results and report findings.	349-355, 375-376	**I**

*Indepth/Mentioned