



**CORRELATION
SUNSHINE STATE STANDARDS**

SUBJECT: Algebra II

SUBMISSION TITLE: Algebra 2 © 2003

PUBLISHER: Glencoe/McGraw-Hill

GRADE: Grades 9 to 12 and Adult

STRAND:

STANDARD 1. Demonstrate understanding of the different ways numbers are represented and used in the real world.

BENCHMARK	PAGES(S) OR LOCATIONS(S), WHERE TAUGHT	I/M*
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.	SE: 11–18, 32, 270–275 TWE: 11–18, 32, 270–275	I
MA.A.1.4.2 understand the relative size of integers, rational numbers, irrational numbers, and real numbers.	SE: 11, 32, 48, 814 TWE: 11, 32, 48, 814	I
MA.A.1.4.3 understand concrete and symbolic representations of real and complex numbers in real-world situations.	This objective is addressed throughout. See, for example: SE: 9, 51, 98, 125, 140, 173, 226, 272–275, 356, 388–389, 415, 426, 511, 529, 550, 556–567, 591, 675 TWE: 9, 51, 98, 125, 140, 173, 226, 272–275, 356, 388–389, 415, 426, 511, 529, 550, 556–567, 591, 675	I
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.	SE: 28–32, 39, 49, 222, 225–227, 257, 279, 532, 535–536, 536, 555, 568, 838, 849 TWE: 28–32, 39, 49, 222, 225–227, 257, 279, 532, 535–536, 555, 568, 838, 849	I

STANDARD 2. Demonstrate understanding of number systems.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.A.2.4.1 understand <i>and use</i> the basic concepts of limits and infinity.	SE: 593, 599–605, 624–625, 745, 852	I
MA.A.2.4.2 understand and use the real number system.	TWE: 593, 599–605, 624–625, 745, 852	
	This objective is addressed throughout. See, for example:	I
	SE: 11–18, 32, 51, 98, 125, 140, 173, 226, 270–275, 356, 388–389, 415, 426, 511, 529, 550, 556–567, 591, 675	
	TWE: 11–18, 32, 51, 98, 125, 140, 173, 226, 270–275, 356, 388–389, 415, 426, 511, 529, 550, 556–567, 591, 675	
MA.A.2.4.3 understand the structure of the complex number system.	SE: 270–275, 280, 370	I
	TWE: 270–275, 280, 370	

STANDARD 3. Demonstrate understanding of the effects of operations on numbers and the relationships among these operations, select appropriate operations, and compute for problem solving.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
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.	This objective is addressed throughout. See, for example:	I
	SE: 245–249, 250–251, 257–262, 278, 306, 310, 313, 361–362, 390–394, 397–399, 404–405, 530, 560–565, 650, 790, 844	
	TWE: 245–249, 250–251, 257–262, 278, 306, 310, 313, 361–362, 390–394, 397–399, 404–405, 530, 560–565, 650, 790, 844	
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.	SE: 12–15, 17, 25, 32, 162, 166, 171, 199, 533, 828	I
	TWE: 12–15, 17, 25, 32, 162, 166, 171, 199, 533, 828	

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
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.	This objective is addressed throughout. See, for example: SE: 7, 205, 245–249, 250–251, 257–262, 278, 306, 310, 313, 361–362, 390–394, 397–399, 404–405, 530, 552–553, 560–565, 650, 790, 844 TWE: 7, 205, 245–249, 250–251, 257–262, 278, 306, 310, 313, 361–362, 390–394, 397–399, 404–405, 530, 552–553, 560–565, 650, 790, 844	I

STANDARD 4. Use estimation in problem solving and computation.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.A.4.4.1 use estimation strategies in complex situations to predict results and to check the reasonableness of results.	SE: 81–84, 87–88, 95, 99, 225, 296, 539–540, 598 TWE: 81–84, 87–88, 95, 99, 225, 296, 539–540, 598	I

STANDARD 5. Demonstrate understanding and apply theories related to numbers.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.A.5.4.1 apply special number relationships such as sequences and series to real-world problems.	SE: 578–582, 583–584, 586, 591–592, 594–598, 599–605, 606, 610, 624–625, 851, 872 TWE: 578–582, 583–584, 586, 591–592, 594–598, 599–605, 606, 610, 624–625, 851, 872	I

STANDARD 6. Measure quantities in the real world and use the measures to solve problems.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.B.1.4.2 use concrete and graphic models to derive formulas for finding rate, distance, time, angle measures, and arc length.	SE: 69, 413–414, 415–418, 425, 441, 461–462, 467, 507, 560, 562, 714, 786–790, 807 TWE: 69, 413–414, 415–418, 425, 441, 461–462, 467, 507, 560, 562, 714, 786–790, 807	I

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.B.1.4.3 relate the concepts of measurement to similarity and proportionality in real-world situations.	SE: 181, 471, 490, 817–819 TWE: 181, 471, 490, 817–819	I

STANDARD 7. Compare, contrast, and convert within systems of measurement (both standard/nonstandard and metric/customary).

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.B.2.4.1 select and use direct (measured) and indirect (not measured) methods of measurement as appropriate.	SE: 181, 471, 490, 702–703, 709, 711–713, 720, 745, 748, 753, 761, 766, 777, 817–819 TWE: 181, 471, 490, 702–703, 709, 711–713, 720, 745, 748, 753, 761, 766, 777, 817–819	I
MA.B.2.4.2 solve real-world problems involving rated measures (miles per hour, feet per second).	SE: 507, 560, 562 TWE: 507, 560, 562	I

STANDARD 8. Visualize and illustrate ways in which shapes can be combined, subdivided, and changed.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
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.	SE: 175–181, 211, 288, 611, 772, 783, 817 TWE: 175–181, 211, 288, 611, 772, 783, 817	I
MA.C.2.4.2 analyze and apply geometric relationships involving planar cross-sections (the intersection of a plane and a three-dimensional figure).	The opportunity to address this objective is available. See the following: SE: 193, 438, 446, 497, 503, 749 TWE: 193, 438, 446, 497, 503, 749	M

STANDARD 9. Use coordinate geometry to locate objects in two and three dimensions and to describe objects algebraically.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
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.	SE: 181, 471, 490, 588, 589, 603, 701, 703, 705, 708 TWE: 181, 471, 490, 588, 589, 603, 701, 703, 705, 708	I
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.	SE: 68–74, 75–78, 82, 101–102, 201, 413–418, 425, 441, 461–462, 467, 643, 830–831 TWE: 68–74, 75–78, 82, 101–102, 201, 413–418, 425, 441, 461–462, 467, 643, 830–831	I

STANDARD 10. Describe, analyze, and generalize a wide variety of patterns, relations, and functions.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.D.1.4.1 describe, analyze, and generalize relationships, patterns, and functions using words, symbols, variables, tables, and graphs.	This objective is addressed throughout. See, for example: SE: 57, 58–62, 91, 101–102, 115, 286, 288, 290–291, 299, 352, 356, 364, 499–504, 515, 577, 768, 839, 863 TWE: 57, 58–62, 91, 101–102, 115, 286, 288, 290–291, 299, 352, 356, 364, 499–504, 515, 577, 768, 839, 863	I
MA.D.1.4.2 determine the impact when changing parameters of given functions.	SE: 9, 74, 320–321, 499–504, 515, 530, 769 TWE: 9, 74, 320–321, 499–504, 515, 530, 769	I

STANDARD 11. Use expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.D.2.4.1 represent real-world problem situations using finite graphs, matrices, sequences, series and recursive relations.	SE: 152–158, 160–166, 167–169, 171–174, 175, 180, 578–582, 583–584, 586, 591–592, 594–598, 599–605, 606, 610, 624–625, 851, 872 TWE: 152–158, 160–166, 167–169, 171–174, 175, 180, 578–582, 583–584, 586, 591–592, 594–598, 599–605, 606, 610, 624–625, 851, 872	I

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.D.2.4.2 use systems of equations and inequalities to solve real-world problems graphically, algebraically, and with matrices.	SE: 110, 123–127, 128, 135, 144, 147, 158, 166, 188, 203, 205, 457, 484, 833, 847 TWE: 110, 123–127, 128, 135, 144, 147, 158, 166, 188, 203, 205, 457, 484, 833, 847	I

STANDARD 12. Demonstrate understanding and use the tools of data analysis for managing information.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.E.1.4.1 interpret data that has been collected, organized, and displayed in charts, tables, and plots.	SE: 81–86, 87, 95, 99, 103, 359, 522, 598, 631, 667, 672, 681, 716, 825–827 TWE: 81–86, 87, 95, 99, 103, 359, 522, 598, 631, 667, 672, 681, 716, 825–827	I
MA.E.1.4.2 calculate measures of central tendency (mean, median, and mode) and dispersion (range, <i>standard deviation</i> , and <i>variance</i>) for complex sets of data and determine the most meaningful measure to describe the data.	SE: 663–664, 665–667, 668, 675, 685, 690, 822–823, 855 TWE: 663–664, 665–667, 668, 675, 685, 690, 822–823, 855	I
MA.E.1.4.3 analyze real-world data and make predictions of larger populations by <i>applying formulas to calculate measures of central tendency and dispersion</i> using the sample population data and using appropriate technology, including calculators and computers.	SE: 300, 359, 539–540, 632, 664, 680–685, 822–823, 856 TWE: 300, 359, 539–540, 632, 664, 680–685, 822–823, 856	I

STANDARD 13. Identify patterns and make predictions from an orderly display of data using concepts of probability and statistics.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.E.2.4.1 determine probabilities using counting procedures, tables, tree diagrams and formulas for permutations and combinations.	SE: 633, 638–643, 644, 645, 649, 650, 688, 715 TWE: 633, 638–643, 644, 645, 649, 650, 688, 715	I
MA.E.2.4.2 determine the probability for simple and compound events as well as independent and dependent events.	SE: 631, 632–634, 653–655, 658–659, 661, 670, 687, 689, 690, 854–855 TWE: 631, 632–634, 653–655, 658–659, 661, 670, 687, 689, 690, 854–855	I

*Indepth/Mentioned