



**CORRELATION
SUNSHINE STATE STANDARDS**

SUBJECT: Pre-Algebra

SUBMISSION TITLE: Pre-Algebra © 2004

PUBLISHER: Glencoe

GRADE: 9-12

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, <i>and complex numbers</i> .	SE: 205–209, 441–445, 451, 484, 487 TWE: 205–209, 441–445, 451, 484, 487	I
MA.A.1.4.2 understand the relative size of integers, rational numbers, irrational numbers, and real numbers.	SE: 56–59, 60, 68, 113, 441, 740, 745 TWE: 56–59, 60, 68, 113, 441, 740, 745	I
MA.A.1.4.3 understand concrete and symbolic representations of real <i>and complex</i> numbers in real-world situations.	This objective is addressed throughout the text. See, for example: SE: 67, 74, 123, 1129, 141, 179, 229, 240, 251, 279–280, 300–301, 358, 385, 581, 637, 760, 762, 766, 767 TWE: 67, 74, 123, 1129, 141, 179, 229, 240, 251, 279–280, 300–301, 358, 385, 581, 637, 760, 762, 766, 767	I

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
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 <i>logarithms</i> .	SE: 58–59, 61, 63–66, 97, 153–157, 181–185, 186–190, 194, 195, 204, 205–206, 268, 436–437, 733 TWE: 58–59, 61, 63–66, 97, 153–157, 181–185, 186–190, 194, 195, 204, 205–206, 268, 436–437, 733	I

STANDARD 2. Demonstrate understanding of number systems.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.A.2.4.2 understand and use the real number system.	This objective is addressed throughout the text. See, for example: SE: 67, 58–59, 74, 123, 129, 141, 179, 205–206, 229, 240, 251, 279–280, 300–301, 358, 385, 581, 637, 760, 762, 766, 767 TWE: 67, 58–59, 74, 123, 129, 141, 179, 205–206, 229, 240, 251, 279–280, 300–301, 358, 385, 581, 637, 760, 762, 766, 767	I

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 the text. See, for example: SE: 25–26, 29–31, 33, 51, 66, 74, 102, 104, 127, 160, 201, 300–301, 437–440, 478–480, 525, 534, 561, 628, 745, 766–767 TWE: 25–26, 29–31, 33, 51, 66, 74, 102, 104, 127, 160, 201, 300–301, 437–440, 478–480, 525, 534, 561, 628, 745, 766–767	I

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p>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.</p>	<p>SE: 18, 23–25, 29–32, 49, 51, 63, 76, 78, 98–102, 114, 163–166, 333–334, 483, 522, 667, 686, 725, 728</p> <p>TWE: 18, 23–25, 29–32, 49, 51, 63, 76, 78, 98–102, 114, 163–166, 333–334, 483, 522, 667, 686, 725, 728</p>	I
<p>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.</p>	<p>This objective is addressed throughout the text. See, for example:</p> <p>SE: 25–26, 29–31, 33, 51, 66, 74, 102, 104, 127, 160, 201, 437–440, 478–480, 525, 534, 561, 628, 745</p> <p>TWE: 25–26, 29–31, 33, 51, 66, 74, 102, 104, 127, 160, 201, 437–440, 478–480, 525, 534, 561, 628, 745</p>	I

STANDARD 4. Use estimation in problem solving and computation.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p>MA.A.4.4.1 use estimation strategies in complex situations to predict results and to check the reasonableness of results.</p>	<p>SE: 5, 9, 209, 230, 294–298, 308, 321, 437–439, 445, 564, 567, 586, 712, 716–717, 745</p> <p>TWE: 5, 9, 209, 230, 294–298, 308, 321, 437–439, 445, 564, 567, 586, 712, 716–717, 745</p>	I

STANDARD 5. Demonstrate understanding and application of theories related to numbers.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p>MA.A.5.4.1 apply special number relationships such as sequences and series to real-world problems.</p>	<p>SE: 249–252, 258–259, 268, 344, 736</p> <p>TWE: 249–252, 258–259, 268, 344, 736</p>	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.1.4.1 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.	SE: 132–135, 137, 140–141, 518–520, 522–523, 533–538, 539–543, 547 TWE: 132–135, 137, 140–141, 518–520, 522–523, 533–538, 539–543, 547	I
MA.B.1.4.2 use concrete and graphic models to derive formulas for finding rate, distance, time, angle measures, and arc lengths.	SE: 264–268, 316, 448, 454, 466–470, 485–486 TWE: 264–268, 316, 448, 454, 466–470, 485–486	I
MA.B.1.4.3 relate the concepts of measurement to similarity and proportionality in real-world situations.	SE: 271–272, 471–475, 486, 599, 737 TWE: 271–272, 471–475, 486, 599, 737	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.2.4.2 solve real-world problems involving rated measures (miles per hour, feet per second).	SE: 264–268, 280, 316 TWE: 264–268, 280, 316	I

STANDARD 8. Estimate measurements in real-world problem situations.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
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.	SE: 5, 9, 209, 230, 294–298, 308, 321, 437–439, 445, 564, 567, 586, 712, 716–717, 745 TWE: 5, 9, 209, 230, 294–298, 308, 321, 437–439, 445, 564, 567, 586, 712, 716–717, 745	I

STANDARD 9. 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, <i>tangency</i> , congruency, similarity, <i>reflections</i> , <i>symmetry</i> , and <i>transformations</i> including <i>flips</i> , <i>slides</i> , <i>turns</i> , <i>enlargements</i> , and <i>rotations</i> .	SE: 271–272, 471–475, 486, 505, 506–511, 545–546, 599, 737 TWE: 271–272, 471–475, 486, 505, 506–511, 545–546, 599, 737	I

STANDARD 10. Use coordinate geometry to locate objects in two-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 <i>properties of right triangle trigonometry</i> .	SE: 264–268, 273, 316, 321, 359, 386, 445, 454, 477–481, 645, 736 TWE: 264–268, 273, 316, 321, 359, 386, 445, 454, 477–481, 645, 736	I
MA.C.3.4.2 using a rectangular coordinate system (graph), apply and algebraically verify properties of two- and three-dimensional figures, including <i>distance</i> , <i>midpoint</i> , slope, <i>parallelism</i> , and <i>perpendicularity</i> .	SE: 387–391, 395, 397–398, 400–401, 404, 408, 412–413, 426–427, 466–470, 492–497, 544, 560, 639, 742, 743 TWE: 387–391, 395, 397–398, 400–401, 404, 408, 412–413, 426–427, 466–470, 492–497, 544, 560, 639, 742, 743	I

STANDARD 11. 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.	SE: 35–37, 41–43, 50, 51, 68, 367, 369–370, 688 TWE: 35–37, 41–43, 50, 51, 68, 367, 369–370, 688	I
MA.D.1.4.2 determine the impact when changing parameters of given functions.	SE: 374, 379, 380, 402–403 TWE: 374, 379, 380, 402–403	I

STANDARD 12. 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, <i>matrices, sequences, series, and recursive relations</i> .	SE: 249–252, 258–259, 268, 344, 736 TWE: 249–252, 258–259, 268, 344, 736	I
MA.D.2.4.2 use systems of equations and inequalities to solve real-world problems graphically, <i>algebraically, and with matrices</i> .	SE: 346, 348, 414–418, 422, 428, 440, 582 TWE: 346, 348, 414–418, 422, 428, 440, 582	I

STANDARD 13. Demonstrate understanding and use the tools of data analysis for managing information.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
<p>MA.E.1.4.1 interpret data that has been collected, organized, and displayed in charts, tables, and plots.</p>	<p>This objective is addressed throughout the text. See, for example:</p> <p>SE: 39–42, 45–46, 107, 180, 237, 240, 253, 275, 386, 392, 410–412, 427, 562, 583, 606–611, 627, 640, 658, 752</p> <p>TWE: 39–42, 45–46, 107, 180, 237, 240, 253, 275, 386, 392, 410–412, 427, 562, 583, 606–611, 627, 640, 658, 752</p>	I
<p>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 <i>complex</i> sets of data and determine the most meaningful measure to describe the data.</p>	<p>SE: 238–239, 240, 242, 243, 248, 252, 258, 605, 611, 615, 618, 735</p> <p>TWE: 238–239, 240, 242, 243, 248, 252, 258, 605, 611, 615, 618, 735</p>	I
<p>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.</p>	<p>SE: 243, 735</p> <p>TWE: 243, 735</p>	I

STANDARD 14. 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 <i>and formulas for permutations and combinations.</i>	SE: 310–314, 604–605, 636–637, 641–645, 650–655, 739, 754–755 TWE: 310–314, 604–605, 636–637, 641–645, 650–655, 739, 754–755	I
MA.E.2.4.2 determine the probability for simple and compound events as well as independent and dependent events.	SE: 310–314, 320, 333, 604–605, 636–637, 641–645, 650–655, 677, 739, 754–755 TWE: 310–314, 320, 333, 604–605, 636–637, 641–645, 650–655, 677, 739, 754–755	I

STANDARD 15. Use statistical methods to make inferences and valid arguments about real-world situations.

BENCHMARK	PAGES(S) OR LOCATIONS(S) WHERE TAUGHT	I/M*
MA.E.3.4.2 explain the limitations of using statistical techniques and data in making inferences and valid arguments.	SE: 630–633, 634, 661 TWE: 630–633, 634, 661	I

*Indepth/Mentioned