



**CORRELATION  
SUNSHINE STATE STANDARDS**

**SUBJECT: Algebra I**

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**SUBMISSION TITLE: Algebra 1 © 2004**

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**PUBLISHER: Glencoe**

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**GRADE: Algebra 1**

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**STRAND:**

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

| BENCHMARK  | PAGES(S) OR LOCATIONS(S)<br>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: 68–72, 104, 135–140, 474–479, 825<br>TWE: 68–72, 104, 135–140, 474–479, 825  | <b>I</b> |
| MA.A.1.4.2 understand the relative size of integers, rational numbers, irrational numbers, and real numbers.   | SE: 68–72, 73–74, 104, 110, 319, 337, 736, 738, 823, 833<br>TWE: 68–72, 73–74, 104, 110, 319, 337, 736, 738, 823, 833  | <b>I</b> |
| 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:<br>SE: 72, 87, 121, 123, 141, 142–144, 145, 151, 157, 167, 354, 513, 618, 658, 676, 853–865<br>TWE: 72, 87, 121, 123, 141, 142–144, 145, 151, 157, 167, 354, 513, 618, 658, 676, 853–865 | <b>I</b> |

| BENCHMARK  | PAGES(S) OR LOCATIONS(S)<br>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, <i>and logarithms</i> . | <p>This objective is addressed throughout. See, for example:</p> <p>SE: 5, 29, 255, 409, 415, 419–420, 421, 425–430, 436, 465–466, 469, 802–805, 837</p> <p>TWE: 5, 29, 255, 409, 415, 419–420, 421, 425–430, 436, 465–466, 469, 802–805, 837</p> | <b>I</b> |

**STANDARD 2. Demonstrate understanding of number systems.**

| BENCHMARK   | PAGES(S) OR LOCATIONS(S)<br>WHERE TAUGHT  | I/M*     |
|---|---|----------|
| MA.A.2.4.1 understand <i>and use</i> the basic concepts of limits and infinity. | <p>SE: 68, 572</p> <p>TWE: 68, 572</p>  | <b>I</b> |
| MA.A.2.4.2 understand and use the real number system.                           | <p>This objective is addressed throughout. See, for example:</p> <p>SE: 43, 49, 86, 124, 157, 161, 176, 196, 284, 297, 330, 336, 386, 442, 602, 618–619, 682, 685, 687–688, 741, 782</p> <p>TWE: 43, 49, 86, 124, 157, 161, 176, 196, 284, 297, 330, 336, 386, 442, 602, 618–619, 682, 685, 687–688, 741, 782</p> | <b>I</b> |

**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)<br>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.  | SE: 43, 49, 86, 124, 157, 161, 176, 196, 284, 297, 330, 336, 386, 410, 418–421, 442, 586–590, 600, 602, 618–619, 682, 685, 687–688, 741, 782<br><br>TWE: 43, 49, 86, 124, 157, 161, 176, 196, 284, 297, 330, 336, 386, 410, 418–421, 442, 586–590, 600, 602, 618–619, 682, 685, 687–688, 741, 782 | 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. | SE: 21–23, 25, 26–31, 32, 33, 59, 60, 140, 166, 181, 291, 332, 334, 360, 443, 451, 454, 467, 468, 473, 478, 641, 821<br><br>TWE: 21–23, 25, 26–31, 32, 33, 59, 60, 140, 166, 181, 291, 332, 334, 360, 443, 451, 454, 467, 468, 473, 478, 641, 821   | I    |
| 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.   | SE: 43, 49, 86, 124, 157, 161, 176, 196, 284, 297, 330, 336, 386, 410, 418–421, 442, 586–590, 600, 602, 618–619, 682, 685, 687–688, 741, 782<br><br>TWE: 43, 49, 86, 124, 157, 161, 176, 196, 284, 297, 330, 336, 386, 410, 418–421, 442, 586–590, 600, 602, 618–619, 682, 685, 687–688, 741, 782 | I    |

**STANDARD 4. Use estimation in problem solving and computation.**

| BENCHMARK   | PAGES(S) OR LOCATIONS(S)<br>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: 18, 50, 52, 54, 142, 147, 535, 614, 754, 767, 769–776, 790–791, 824, 851<br><br>TWE: 18, 50, 52, 54, 142, 147, 535, 614, 754, 767, 769–776, 790–791, 824, 851 | <b>I</b> |

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

| BENCHMARK   | PAGES(S) OR LOCATIONS(S)<br>WHERE TAUGHT  | I/M*     |
|---|---|----------|
| MA.A.5.4.1 apply special number relationships such as sequences <i>and series</i> to real-world problems. | SE: 232, 233–235, 236, 238, 241, 245, 249–250, 251, 523, 565, 567–572, 578–579, 592, 653, 721, 830, 843<br><br>TWE: 232, 233–235, 236, 238, 241, 245, 249–250, 251, 523, 565, 567–572, 578–579, 592, 653, 721, 830, 843 | <b>I</b> |

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

| BENCHMARK  | PAGES(S) OR LOCATIONS(S)<br>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: 34, 122, 125, 134, 167, 169, 373, 409, 415, 420, 454, 455, 477, 512, 513, 590–591, 594, 610, 670, 817, 860<br><br>TWE: 34, 122, 125, 134, 167, 169, 373, 409, 415, 420, 454, 455, 477, 512, 513, 590–591, 594, 610, 670, 817, 860 | <b>I</b> |
| MA.B.1.4.2 use concrete and graphic models to derive formulas for finding rate, distance, time, angle measures, <i>and arc lengths</i> .   | SE: 611–615, 635, 692<br><br>TWE: 611–615, 635, 692   | <b>I</b> |

| <b>BENCHMARK</b>  | <b>PAGES(S) OR LOCATIONS(S)<br/>WHERE TAUGHT</b> | <b>I/M*</b> |
|---|--|-------------|
| MA.B.1.4.3 relate the concepts of measurement to similarity and proportionality in real-world situations. | SE: 155–157<br>TWE: 155–157                      | <b>I</b>    |

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

| <b>BENCHMARK</b>  | <b>PAGES(S) OR LOCATIONS(S)<br/>WHERE TAUGHT</b>   | <b>I/M*</b> |
|---|--|-------------|
| MA.B.2.4.1 select and use direct (measured) and indirect (not measured) methods of measurement as appropriate | This objective is addressed throughout. See, for example:<br>SE: 157, 159, 169, 209, 330, 350, 423, 505, 519, 529, 611–615, 635, 652, 685, 688, 853, 864<br>TWE: 157, 159, 169, 209, 330, 350, 423, 505, 519, 529, 611–615, 635, 652, 685, 688, 853, 864 | <b>I</b>    |
| MA.B.2.4.2 solve real-world problems involving rated measures (miles per hour, feet per second).              | SE: 132, 176, 211, 221, 231, 429, 692, 729–730<br>TWE: 132, 176, 211, 221, 231, 429, 692, 729–730  | <b>I</b>    |

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

| <b>BENCHMARK</b>  | <b>PAGES(S) OR LOCATIONS(S)<br/>WHERE TAUGHT</b>                                  | <b>I/M*</b> |
|---|---|-------------|
| 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: 18, 50, 52, 54, 142, 147, 535, 614<br>TWE: 18, 50, 52, 54, 142, 147, 535, 614 | <b>I</b>    |

**STANDARD 9. Visualize and illustrate ways in which shapes can be combined, subdivided, and changed.**

| BENCHMARK  | PAGES(S) OR LOCATIONS(S)<br>WHERE TAUGHT  | I/M*     |
|--|---|----------|
| MA.C.2.4.1 understand geometric concepts such as perpendicularity, parallelism, <i>tangency</i> , congruency, similarity, reflections, symmetry, <i>and transformations including flips, slides, turns, enlargements, rotations, and fractals.</i> | SE: 155–157, 182, 197–201, 203, 211, 217, 247, 415, 585, 615, 641, 643, 802–803, 827, 828<br><br>TWE: 155–157, 182, 197–201, 203, 211, 217, 247, 415, 585, 615, 641, 643, 802–803, 827, 828 | <b>I</b> |

**STANDARD 10. Use coordinate geometry to locate objects in two dimensions and to describe objects algebraically.**

| BENCHMARK  | PAGES(S) OR LOCATIONS(S)<br>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, <i>and properties of right triangle trigonometry.</i>                     | SE: 155–157, 217, 567, 569, 578, 622, 623–630, 802–803<br><br>TWE: 155–157, 217, 567, 569, 578, 622, 623–630, 802–803   | <b>I</b> |
| MA.C.3.4.2 using a rectangular coordinate system (graph), apply and algebraically verify properties of two- <i>and three-</i> dimensional figures, including distance, midpoint, slope, parallelism, and perpendicularity. | SE: 197–200, 256–263, 292–293, 294–295, 308, 311–312, 423, 530, 611–615, 635<br><br>TWE: 197–200, 256–263, 292–293, 294–295, 308, 311–312, 423, 530, 611–615, 635 | <b>I</b> |

**STANDARD 11. Describe, analyze, and generalize a wide variety of patterns, relations, and functions.**

| BENCHMARK  | PAGES(S) OR LOCATIONS(S)<br>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: 102, 205–206, 208–209, 223, 226–227, 229–231, 523, 841, 856<br><br>TWE: 102, 205–206, 208–209, 223, 226–227, 229–231, 523, 841, 856 | <b>I</b> |

| BENCHMARK  | PAGES(S) OR LOCATIONS(S)<br>WHERE TAUGHT | I/M* |
|--|--|------|
| MA.D.1.4.2 determine the impact when changing parameters of given functions. | SE: 278, 531–532<br>TWE: 278, 531–532    | I    |

**STANDARD 12. Use expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.**

| BENCHMARK   | PAGES(S) OR LOCATIONS(S)<br>WHERE TAUGHT  | I/M* |
|---|---|------|
| MA.D.2.4.1 represent real-world problem situations using finite graphs, matrices, sequences, <i>series</i> , and <i>recursive relations</i> . | SE: 232, 233–235, 236, 238, 241, 245, 249–250, 251, 523, 565, 567–572, 578–579, 592, 653, 721, 830, 843<br>TWE: 232, 233–235, 236, 238, 241, 245, 249–250, 251, 523, 565, 567–572, 578–579, 592, 653, 721, 830, 843 | I    |
| MA.D.2.4.2 use systems of equations and inequalities to solve real-world problems graphically, algebraically, and with <i>matrices</i> .      | SE: 394–398, 399, 402, 403, 552, 647, 859<br>TWE: 394–398, 399, 402, 403, 552, 647, 859   | I    |

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

| BENCHMARK   | PAGES(S) OR LOCATIONS(S)<br>WHERE TAUGHT  | I/M* |
|---|---|------|
| MA.E.1.4.1 interpret data that has been collected, organized, and displayed in charts, tables, and plots. | SE: 21, 25, 88–94, 102, 112–113, 128, 134, 347, 416, 573, 622, 715, 720, 737–742, 743–744, 748–749, 758–759, 783, 850<br>TWE: 21, 25, 88–94, 102, 112–113, 128, 134, 347, 416, 573, 622, 715, 720, 737–742, 743–744, 748–749, 758–759, 783, 850 | I    |

| BENCHMARK  | PAGES(S) OR LOCATIONS(S)<br>WHERE TAUGHT  | I/M* |
|--|---|------|
| MA.E.1.4.2 calculate measures of central tendency (mean, median, and mode) and dispersion (range, <i>standard deviation and variance</i> ) for complex sets of data and determine the most meaningful measure to describe the data.  | SE: 67, 87, 90–92, 113, 307, 707, 731, 725–728, 734, 736, 818–819, 850<br>TWE: 67, 87, 90–92, 113, 307, 707, 731, 725–728, 734, 736, 818–819, 850   | 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. | The opportunity to address this objective is available. See the following:<br>SE: 67, 87, 90–92, 113, 307, 707, 731, 725–728, 734, 736, 818–819, 850<br>TWE: 67, 87, 90–92, 113, 307, 707, 731, 725–728, 734, 736, 818–819, 850 | M    |

**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)<br>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: 126, 422, 436, 597, 752–759, 760–769, 771–772, 773–776, 777–781, 782–784, 785–795<br>TWE: 126, 422, 436, 597, 752–759, 760–769, 771–772, 773–776, 777–781, 782–784, 785–795 | I    |
| MA.E.2.4.2 determine the probability for simple and compound events as well as independent and dependent events.                            | SE: 769–776, 790–791<br>TWE: 769–776, 790–791   | I    |

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

| <b>BENCHMARK</b>  | <b>PAGES(S) OR LOCATIONS(S)<br/>WHERE TAUGHT</b>  | <b>I/M*</b> |
|---|---|-------------|
| MA.E.3.4.1 design and perform real-world statistical experiments that involve more than one variable, then analyze results and report findings. | The opportunity to address this objective is available. See the following:<br><br>SE: 102, 347, 416, 573, 622, 743, 759, 783<br><br>TWE: 102, 347, 416, 573, 622, 743, 759, 783                 | <b>M</b>    |
| MA.E.3.4.2 explain the limitations of using statistical techniques and data in making inferences and valid arguments.                           | The opportunity to address this objective is available. See the following:<br><br>SE: 49, 102, 347, 416, 573, 622, 743–744, 759, 783<br><br>TWE: 49, 102, 347, 416, 573, 622, 743–744, 759, 783 | <b>M</b>    |

\*Indepth/Mentioned