

GLENCOE CORRELATION
ALGEBRA 1: INTERGRATION • APPLICATIONS • CONNECTIONS
VOLUME 1 and VOLUME 2
NEVADA
Mathematics Content Standards
Grade Twelve

| CONTENT STANDARDS | PAGE REFERENCES | |
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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| Numbers, Number Sense, and Computation | | |
| Content Standard 1.0: To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate, use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions. | | |
| <i>By the end of Grade 12, students know and are able to do everything required in the previous grades and:</i> | | |
| 1.12.1 I/S Calculate and estimate sums, differences, products, quotients, powers , and roots using mental math, formulas , and algorithms . S 23.12.3; C 4.12.1 | SE: 19-24, 85-91, 106-110, 118-125 TWE: 5MC 25, 112 ICE 20-21, 86-88, 107-108, 120-121 | SE: 496-500, 501-505, 506-511 TWE: 5MC 501 ICE 497-498, 503-504, 507-508 |
| 1.12.2 W/L Apply the laws of exponents to perform operations on expressions with integral exponents and expressions in scientific notation. S 1.12.2 | SE: 7-10 TWE: 5MC 12 ICE 8 | SE: 497-500, 501-505, 506-511 TWE: 5MC 501, 506 E 504, 511 ICE 497-498, 502-503, 507-508 |
| 1.12.3 I/S Apply the properties and theories of the real number system to everyday situations. S 1.12.2; H 3.12.4 | SE: 85-91, 93-98, 195-199, 222-227, 233-238 <i>Long-Term Project</i> 190-191 TWE: ICE 95, 196-198, 233, 234-235 | SE: 420-425, 464-468, 508-511, 611-616, 643-648, 713-718 TWE: ICE 422, 464, 644-645 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 1.12.5 Perform simple operations on matrices . W/L | SE: 88-91, 103, 108-110 TWE: ICE 88, 108 | |
| Patterns, Functions, and Algebra | | |
| Content Standard 2.0: To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations. | | |
| 2.12.2 Represent and solve problems using discrete structures including graphs and matrices, with and without technology. Ec 3.12.2; H 4.12.1; H 5.12.1 E/L | SE: 88-91, 103, 108-110, 288-293, 295-301, 356-361 TWE: ICE 88, 108, 290 | SE: B42, B44, B46, 454-460, 462-468, 482-486 <i>Graphing Technology</i> 452-453 TWE: 5MC 462 ICE 455-457, 483 |
| 2.12.3 Create and use different forms of a variety of equations, proportions, and/or formulas (e.g., $I=PRT$ or $R=I/PT$), solving for the needed variable as necessary in given situations. H 3.12.4; H 4.12.1; S 1.12.2; S 1.12.4; S 20.12.1; S 23.12.2 E/S | SE: A18-A19, 173-176, 195-199, 215-220 TWE: 5MC 178, 195, 222 ICE 174, 196-198, 217 | SE: B29, B32, B33, B35, B36, 462, 468, 594-600, 713-718 TWE: ICE 470, 595 |
| 2.12.4 Add, subtract, multiply, and factor (1^{st} and 2^{nd} degree) polynomials , describing each step in the process and the connection between the algebraic process and the arithmetic process; use simple quadratic equations with integer roots to solve practical and mathematical problems. H 3.12.4; H 4.12.1; S 23.12.2 I/S | SE: 46-50 TWE: ICE 48 | SE: 514-518, 522-526, 529-533, 536-540, 565-571, 574-580, 594-600 TWE: ICE 515, 523-524, 530-531 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 2.12.5 Model practical problems from everyday situations with a variety of models that includes matrices, translating among tabular, symbolic and graphical representations of functions, with and without technology. Ec 3.12.2; Ec3.12.3; Ec 3.12.4; Ec 6.12.6; G 1.12.3; H 3.12.4; H 4.12.1; S 1.12.2 | E/S SE: 88-91, 108-110, 262-269, 271-277, 280-285, 295-301, 356-361 TWE: ICE 108, 263-264, 281-282 | SE: B42, B44, B45, B53, 454-460, 464-468, 611-616, 620-626, 635-642 TWE: ICE 464-465 |
| 2.12.6 Determine the domain and range of linear relations given a graph or a set of ordered pairs ; explain their importance in problem solving situations. H 5.12.1 | W/L SE: 262-269, 271-277, 280-285 TWE: 5MC 271 ICE 263, 272-273 | SE: B42, B43 |
| 2.12.7 Solve systems of two linear equations, both algebraically and graphically; use graphing calculators as a primary tool in solving these problems and to verify solutions found by other methods. | W/L | SE: 454-460, 462-468, 469-474, 475-481 <i>Graphing Technology</i> 452-453 TWE: 5MC 462 ICE 455-457, 463-465, 470-471, 476-477 |
| Measurement | | |
| Content Standard 3.0: To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements. | | |
| 3.12.1 Convert between customary and metric systems; convert among monetary systems. | I/L SE: A16-A17 | |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 3.12.2 Select and use measurement tools, techniques, and formulas to calculate and compare rates, cost, distances, interest, temperatures, and weight/mass. S 2.12.1 | I/S SE: 95-97, 201-205, 208-213, 217-219, 233-238, 242-244 TWE: E 205 ICE 95, 202, 217 | SE: B33, B34, B38, 713-718, 737-740 TWE: 5MC 719, 743 ICE 714, 738 R 738 |
| 3.12.3 Distinguish and differentiate among the structures, language and uses of systems of measures (e.g., linear, square units, cubic units); justify and communicate the differences between accuracy, precision, error, and tolerance in measurement; describe how each of these can affect solutions found in problem situations. S 23.12.8 | I/S SE: A22-A23, A24-A25, A26-A27, 197-202, 209-213 TWE: 5MC 206 E 205 ICE 197, 209 | SE: 530-533, 538-540 TWE: ICE 530, 538 |
| 3.12.4 Use and interpret consumer data (e.g., amortization tables , tax tables, and compound interest charts) to make informed financial decisions related to practical applications such as budget. E 4.12.3; Ec 2.12.4; Ec 2.12.5; Ec 2.12.8; Ec 2.12.12 | I/L SE: 95-98, 386-387 TWE: ICE 95, 386 | SE: 648 #17, 654 #52, 670 #39 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 3.12.5 Use relationships (e.g., proportions) and formulas (indirect measurement) to determine the measurement of unknown dimensions, angles, areas, and volumes to solve problems. S 2.12.1; S 23.12.4 | I/S SE: 195-199, 201-205, 206-213 <i>Modeling Mathematics</i> 194 TWE: 5MC 206 E 205 ICE 196-198, 202, 207-209 R 203 | SE: B32, B33, B34 |
| <i>Spatial Relationships and Geometry</i> | | |
| <i>Content Standard 4.0: To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will identify, represent, explain, verify, and apply spatial relationships and geometric properties.</i> | | |
| 4.12.1 Identify and use the properties of polygons (including interior and exterior angles) and elements of circles (e.g., angles, arcs, chords , secants and tangents) to solve practical problems. H 3.12.4 | I/S SE: 162-167, 201-205, 207-213 TWE: 5MC 206 E 205 ICE 163-164, 202, 207-209 R 203 | SE: B27, B33, 713-718 TWE: 5MC 719 ICE 714 |
| 4.12.5 Use coordinate geometry to graph linear equations, determine slopes of lines, identify parallel and perpendicular lines and find possible solutions to sets of equations; use algebraic techniques to solve problems determined by geometric relationships. H 5.12.1 | I/S SE: 325-331, 332-337, 339-345, 356-361, 362-368, 369-373 TWE: 5MC 362 ICE 357-358, 363-365, 370-371 | SE: B49, B50, B51, B53, B54, B55 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 4.12.6 Use complementary and supplementary angles, congruent angles, vertical angles, angles formed when parallel lines are cut by a transversal, and angles in polygons to solve practical problems. H 3.12.4 | W/S SE: A20-A21, 162-167 TWE: 5MC 168 ICE 163-165 | SE: B27 |
| 4.12.7 Apply the Pythagorean Theorem, its converse , properties of special right triangles, and right triangle trigonometry to solve practical problems. H 3.12.4 | I/S SE: A26-A27, 206-213 TWE: ICE 207-209 ML 207 | SE: B34, 583, 713-718, 737 <i>Modeling Mathematics</i> 712 TWE: 5MC 719 ICE 583, 714 |
| 4.12.8 Use tools, technology, and models to sketch, draw, and construct geometric figures in order to solve problems and to demonstrate the properties of geometric figures. | W/L SE: A24-25, 208-213 <i>Modeling Mathematics</i> 128, 164, 165, 324, 365, 370, 371 TWE: ICE 208-209 | SE: 737-740 <i>Modeling Mathematics</i> 612, 614, 712, 715 |
| 4.12.9 Construct, justify and defend mathematical conclusions using logical, sequential, deductive reasoning supported by established mathematical principles. E 10.12.4 | E/S SE: 14-18, 39-43 TWE: ICE 40 | SE: B5, B9 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| Data Analysis | | |
| Content Standard 5.0: To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections. | | |
| 5.12.1 Use calculators and computers to create and manipulate tables, graphs, and matrices to communicate statistical information; use the shape of graphs of normal distributions to compare and analyze information. G 3.12.4; G 4.12.1; G 7.12.3; H 2.12.2; H 2.12.3; S 22.12.2 | I/L SE: 310 #21, 344 #24 <i>Exploration</i> 342 <i>Graphing Technology</i> 303-304, 433-434 | SE: <i>Graphing Technology</i> 433-434 |
| 5.12.2 Design, conduct, analyze, and communicate the results of multi-stage probability experiments. H 5.12.1 | I/L SE: A28-A29, 228-232, 413-418 TWE: 5MC 233, 420 E 232 ICE 229-230, 414-415 | SE: B37, 413-418 TWE: 5MC 420 ICE 414-415 |
| 5.12.3 Distinguish between and apply permutations and combinations using a variety of methods, including The Fundamental Counting Principle. H 5.12.1 | W/L SE: A28-A29 | |
| 5.12.4 Select and use the measures of central tendency such as mean, median, mode and variability including range, distribution and possible outliers that are appropriate for given situations. G 7.12.4; S 20.12.4 | E/S SE: 178-183, 305-312 <i>Graphing Technology</i> 303-304 TWE: E 183 ICE 179-180, 307-308 ML 306 R 181 | SE: B30, B47 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| <p style="text-align: right;">E/S</p> 5.12.5 Analyze the validity of statistical conclusions noting various sources of bias, misuse, and abuse of data caused by a wide variety of factors including choices of scale, probability versus odds, inappropriate uses of measures of central tendency, inaccurate curve fitting and inappropriate uses of controls or sample groups. S 19.12.1; S 21.12.2; S 21.12.3; S 23.12.6 | SE: 25, 228-232 TWE: ICE 230 | SE: B37 |
| <p style="text-align: right;">I/L</p> 5.12.6 Design, construct, analyze, and select an appropriate type of graph to represent data to communicate the results of statistical experiments (e.g., write a survey question and analyze and communicate the findings). S 22.12.2 | SE: A6-A7, 25-31, 78-83, 339-345, 427-432, 433-434 <i>Investigation</i> 69-70, 190-191, 320-321, 448-449 | SE: B7, B15, B51, 427-432 <i>Graphing Technology</i> 433-434 |
| <p><i>Problem Solving</i></p> <p><i>Process Standard 6.0: Students will develop their ability to solve problems by engaging in developmentally appropriate problem solving opportunities in which there is a need to use various approaches to investigate and understand mathematical concepts in order to: formulate their own problems; find solutions to problems from everyday situations; develop and apply strategies to solve a wide variety of problems; and integrate mathematical reasoning, communication and connections.</i></p> | | |
| <p style="text-align: right;">E/S</p> 6.1 Select, modify, develop, and apply strategies to solve a variety of mathematical and practical problems and to investigate and understand mathematical concepts. S 1.2.3; S 1.5.1; S 1.8.1; S 1.8.4; S 1.12.2; S 1.12.4; S 2.12.1; S 3.2.3; S 10.5.2; S 14.8.6; S 19.12.2; S 21.3.1 | SE: 168-172, 222-227, 233-238, 399-404, 420-425 TWE: ICE 169-170, 233, 234-235, 400-401, 421-422 | SE: 462-468, 475-481, 594-600, 643-649, 696-702 TWE: ICE 463-465, 476-477, 595-597, 644-646, 697-699 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 6.2 Apply previous experience and knowledge to new problem-solving situations. E/S | SE: 156-161, 201-205, 222-227, 239-244, 405-411, 420-425 TWE: ICE 157-159, 202, 223, 240-241 | SE: 454-460, 475-481, 506-511, 536-541, 581-585, 594-600, 620-626 TWE: ICE 455-457, 476-477, 507-508 |
| 6.5 Verify, interpret, and evaluate results with respect to the original problem situation, determining an efficient strategy for the given situation. S 21.5.3; S 21.12.3 E/S | SE: 126-132, 156-161, 209-213, 217-220, 233-238, 349-352 TWE: ICE 127-128, 157-159, 209 ML 127 | SE: B22, B26, 392-397, 407-411, 475-481, 594-600, 620-626, 643-649 TWE: ICE 477, 596 |
| 6.7 Apply multi-step, integrated, mathematical problem-solving strategies, persisting until a solution is found or until it is clear that no solution exists. S 19.12.2 E/S | SE: 168-172, 201-205, 222-227, 233-238, 239-244 TWE: ICE 167-170, 202, 223, 234-235, 240- 242 | SE: 405-411, 420-425, 462-468, 594-600, 643-649 TWE: ICE 406-409, 421-422, 463-465, 595- 597, 644-645 |
| 6.9 Generalize solutions and strategies from earlier problems to new problem situations. E/L | SE: 156-161, 201-205, 222-227, 239-244, 405-411, 420-425 TWE: ICE 157-159, 202, 223, 240-241 | SE: 454-460, 475-481, 506-511, 536-541, 581-585, 594-600, 620-626 TWE: ICE 455-457, 476-477, 507-508 |
| 6.10 Interpret and solve a variety of mathematical problems by paraphrasing, identifying necessary and extraneous information, selecting and justifying efficient methods and/or strategies, and ensuring the answer is reasonable. E/S | SE: 156-161, 222-227, 233-238, 239-244, 405-411, 420-425 TWE: ICE 157-159, 223, 234-235, 422 | SE: 405-411, 420-425, 462-468, 475-481, 643-649 TWE: ICE 422, 464-465, 477, 644-645 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 6.11 Apply combinations of proven strategies and previous knowledge to solve non-routine problems. E/L | SE: <i>Cooperative Learning Project</i> 67, 137, 319, 379 <i>Investigation</i> 68-69, 190-191, 320-321 | SE: <i>Cooperative Learning Project</i> 491, 553, 655, 707 <i>Investigation</i> 448-449 |
| 6.13 Use technology, including calculators, to solve problems and verify solutions. S 24.5.5; S 24.8.5 E/L | SE: <i>Exploration</i> 157, 273, 297, 327, 342 <i>Graphing Technology</i> 260-261, 270, 278-279 | SE: <i>Exploration</i> 471, 484, 507, 578, 622, 662, 733 <i>Graphing Technology</i> 452-453, 666, 726 |
| 6.14 Use technology, including calculators, to investigate, define, and describe quantitative relationships such as patterns and functions. G 7.12.3; S 1.5.1; S 1.12.2; S 1.12.4; S 14.8.6; S 24.5.5; S 24.8.5 E/L | SE: <i>Exploration</i> 224, 297, 327, 342 <i>Graphing Technology</i> 270, 278-279, 303-304, 354-355, 433-434 | SE: <i>Exploration</i> 502, 646, 678 <i>Graphing Technology</i> 433-434, 452-453, 610, 618-619, 634 |
| Mathematical Communication | | |
| Process Standard 7.0: Students will develop their ability to communicate mathematically by solving problems in which there is a need to obtain information from the real world through reading, listening, and observing in order to: translate this information into a mathematical language and symbols; process this information mathematically; and present results in written, oral and visual formats. | | |
| 7.1 Discuss and exchange ideas about mathematics as a part of learning. E 10.2.3; E 10.3.3; E 10.5.3; E 10.3.1; E 10.5.1; E 10.12.1; S 23.5.2 E/L | SE: <i>Cooperative Learning Project</i> 67, 137, 319, 379 <i>Investigation</i> 190-191 | SE: <i>Cooperative Learning Project</i> 553, 605, 655, 707 <i>Investigation</i> 448-449 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| <p>7.2 E/L Use inquiry techniques (e.g., discussion, questioning, research, data gathering) to solve mathematical problems. E 4.2.3; E 10.2.2; E 10.3.2; E 10.5.2; E 10.8.2; E 11.2.1; E 11.3.1; E 11.5.1; E 11.8.1; E 11.12.1; E 11.2.2; S 1.5.1; S 1.8.1; S 1.8.4; S 1.12.4; S 10.5.2; S 14.8.6; S 21.3.1</p> | <p>SE: <i>Cooperative Learning Project</i> 67, 137 <i>Investigation</i> 68-69, 190-191, 320-321</p> | <p>SE: <i>Investigation</i> 448-449</p> |
| <p>7.3 I/L Read expository text to learn about mathematics. E 1.8.3; E 1.12.3; E 2.12.3; E 4.8.1; E 4.8.2; E 4.8.3</p> | <p>SE: 85, 112, 195-197, 215-217, 325, 392-393, 405-409, 413-415, 420-423, 436-438</p> | <p>SE: 454-457, 496-498, 514-516, 558-560, 594-597, 611-614, 635-639, 660-663, 685-687, 696-699</p> |
| <p>7.6 E/S Interpret and solve word problems without the necessity of key words or phrases.</p> | <p>SE: 197-199, 208-213, 217-220 TWE: ICE 196-197, 208-209, 217</p> | <p>SE: 464-468, 477-481, 596-600, 643-649 TWE: ICE 464-465, 477, 596, 644-645</p> |
| <p>7.9 E/S Model and explain mathematical relationships using oral, written, graphical, and algebraic methods. E 5.8.1; E 5.8.2; E 6.8.2; E 11.8.5; E 11.12.5; S 1.12.2; S 1.12.4; S 14.8.6; S 20.12.1; S 22.8.2; S 22.12.2</p> | <p>SE: 195-199, 201-205, 356-361 <i>Modeling Mathematics</i> 118, 142-143, 370 TWE: ALS 13 ICE 196-197, 202</p> | <p>SE: 405-411, 413-418, 436-441 <i>Modeling Mathematics</i> 391 TWE: ICE 406-409</p> |
| <p>7.10 I/L Evaluate the effectiveness of written and oral presentations of mathematics. S 21.5.3; S 23.5.2</p> | <p>SE: <i>Check for Understanding</i> 115, 122, 159, 218, 274</p> | <p>SE: <i>Check for Understanding</i> 402, 472, 478, 584, 614, 723</p> |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 7.11 Make conjectures and present arguments in discussions of mathematical ideas. S 21.5.3; S 23.5.3 | E/L SE: 12-18 <i>Modeling Mathematics</i> 370, 391 TWE: ICE 14 | SE: <i>Modeling Mathematics</i> 391, 545, 581, 676 |
| 7.14 Explain and evaluate thinking about mathematical ideas and solutions based on the role of definitions, properties, common rules, and symbols in solving problems. | I SE: <i>Check for Understanding</i> 48, 53, 89, 96, 242, 298, 328, 349-350, 359, 387 | SE: <i>Check for Understanding</i> 387-388, 402, 423, 439, 458, 472, 484, 524, 584, 614 |
| 7.15 Use everyday language to explain thinking about strategies and solutions to mathematical problems. S 21.5.3; S 23.5.3 | E/L SE: <i>Check for Understanding</i> 89, 170, 198, 224, 242, 298, 328, 349-350, 359, 387 | SE: <i>Check for Understanding</i> 402, 423, 439, 458, 472, 484, 499, 524, 584, 734 |
| 7.16 Express mathematical ideas and use them to define, compare, and solve problems orally and in writing. | E/S SE: <i>Check for Understanding</i> 48, 53, 89, 96, 242, 298, 328, 349-350, 359, 387 | SE: <i>Check for Understanding</i> 387-388, 402, 423, 439, 458, 472, 484, 524, 584, 614 |
| 7.17 Use mathematical notation to communicate and explain mathematical situations. S 21.2.1 | E/L SE: 1, 85-92, 93-98, 119-124, 195-199, 206-213, 215-220 TWE: ICE 86-88, 94-96, 120-122 | SE: 384-390, 420-425, 436-441, 475-481, 496-500, 506-511, 565-571 TWE: 5MC 392 ICE 385-387, 421-422 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| Mathematical Reasoning | | |
| Process Standard 8.0: Students will develop their ability to reason mathematically by solving problems in which there is a need to investigate significant mathematical ideas and construct their own learning in all content areas in order to justify their thinking; reinforce and extend their logical reasoning abilities; reflect on and clarify their own thinking; and ask questions to extend their thinking. | | |
| 8.3 Construct, justify, and defend mathematical conclusions using logical arguments, in situations related to mathematics, science, and technology. E 10.12.4; G 7.12.4; S 1.8.1; S 1.8.4; S 1.12.4; S 14.8.6 | I/L SE: 12-18, 32-36, 37-43 TWE: ICE 14, 33 R 22 | SE: B5, B9 |
| 8.4 Use patterns and relationships to analyze mathematical situations; draw logical conclusions about mathematical problems. Ec 3.8.2; Ec 3.8.3; Ec 9.8.4; Ec 3.12.1; Ec 3.12.2; Ec 3.12.3; Ec 3.12.4; Ec 6.12.6; G 7.12.4; S 17.3.2 | E/S SE: 12-18, 295-301 TWE: 5MC 19 ALS 13 E 301 ICE 13-14, 296, 298 | SE: B5, B46 <i>Graphing Technology</i> 618-619 |
| 8.5 Follow a logical argument and judge its validity. E 4.8.4; E 4.12.4 | E/L SE: <i>You Decide</i> 15, 96, 115, 170, 298, 350, 395, 423 | SE: <i>Analyze</i> 672 <i>You Decide</i> 395, 423, 472, 484, 499, 584, 591, 642, 668 |
| 8.7 Recognize and apply deductive and inductive reasoning in both concrete and abstract contexts. | E/S SE: 12-18 TWE: 5MC 19 ICE 13-14 | SE: B5 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 8.8 Ask questions to reflect on, clarify, and extend thinking. | E/L SE: Investigation 68-69, 190-191, 320-321 | SE: Investigation 448-449, 554-555, 656-657 |
| 8.9 Review and refine the assumptions and steps used to derive conclusions in mathematical arguments. | I/L SE: 144-149, 156-161, 201-205, 222-227, 239-244 Graphing Technology 354-355 | SE: 392-397, 405-411, 475-481, 501-505, 529-533, 542-547, 558-563, 587-593 |
| 8.10 Construct valid arguments; make and test conjectures about algebraic and geometric properties based on mathematical principles. E 10.12.4 | I/L SE: 19-24, 33-36, 37-43 Modeling Mathematics 44, 155, 370, 391 TWE: ICE 33, 40 | SE: Modeling Mathematics 370, 391, 545, 581, 676 |
| 8.11 Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems. | E/S SE: 156-160, 195-199, 233-238 TWE: ICE 157, 196-197, 234-235 | SE: 406-411, 464-468, 643-649 TWE: ICE 406-407, 464-465, 644-645 |
| Mathematical Connections | | |
| Process Standard 9.0: Students will develop the ability to make mathematical connections by solving problems in which there is a need to view mathematics as an integrated whole, identifying relationships between context strands, and integrating mathematics with other disciplines, allowing the flexibility to approach problems in a variety of ways within and beyond the field of mathematics. | | |
| 9.1 Link new concepts to prior knowledge. | E/L SE: 156-161, 201-205, 222-227, 239-244, 405-411, 420-425 TWE: ICE 157-159, 202, 223, 240-241 | SE: 454-460, 475-481, 506-511, 536-541, 581-585, 594-600, 620-626 TWE: ICE 455-457, 476-477, 507-508 |
| 9.2 Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics. | E/S SE: 162-167, 178-183, 201-205, 206-213, 228-232, 362-368, 369-374 | SE: B27, B30, B33, B34, B37, B47, B55, 713-718, 737-740 |

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| | ALGEBRA 1 IAC VOLUME 1 | ALGEBRA 1 IAC VOLUME 2 |
| 9.3 Use models to explain the relationship of concepts to procedures. S 1.5.1; S 1.8.1; S 1.12.2; S 1.8.4; S 1.12.4; S 10.5.2; S 14.8.6; S 20.5.1 | E/S SE: <i>Modeling Mathematics</i> 44, 84, 105, 118, 142-143, 155, 164, 324, 365, 370 | SE: <i>Modeling Mathematics</i> 391, 464, 513, 520-521, 528, 534-535, 545, 564, 572-573, 581 |
| 9.4 Use the connections among mathematical topics to develop multiple approaches to problems. S 20.8.1 | I/L SE: 197-199, 215-220, 222-227, 334-337, 358-361, 363-368, 394-397 | SE: 394-397, 475-481, 502-505, 523-526, 530-533, 543-547 |
| 9.6 Use and analyze the connections between Mathematics and other disciplines. Ec 2.8.2; Ec 2.12.4; Ec 2.12.8; H 2.8.3; H 2.12.3; S 2.12.1; S 14.12.5 | I/L SE: 217-220, 241-244 TWE: ICE 217 | SE: 508-511, 643-649, 698-702 TWE: ICE 644-645, 698-699 |
| 9.7 Apply mathematical thinking and modeling to solve problems that arise in other disciplines (e.g., rhythm in music and motion in science). S 1.5.1; S 1.8.1; S 1.12.2; S 1.8.4; S 1.12.4; S 10.5.2; S 14.8.6; S 19.12.2 | E/L SE: 217-220, 241-244 TWE: ICE 217 | SE: 508-511, 643-649, 698-702 TWE: ICE 644-645, 698-699 |
| 9.8 Identify, explain, and use mathematics in everyday life. Ec 2.3.2; Ec 2.12.12; Ec 5.2.1; Ec 5.3.1; S 24.12.2 | I/S SE: 88-91, 95-97, 196-199, 222-227, 233-238 TWE: ICE 95, 197, 223, 234-235 R 224 | SE: 464-468, 643-649 TWE: ICE 464-465 |

Codes Used for TWE Codes

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| 5MC | 5-Minute Check |
| ALS | Alternative Learning Styles |
| E | Extension |
| ICE | In-Class Examples |
| ML | Motivating the Lesson |
| R | Reteaching |