



Algebra 1

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STANDARDS	PAGE REFERENCES
<p>Process Standard A: Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts in order to:</p>	
<ul style="list-style-type: none"> • Formulate their own problems • Find solutions to problems from everyday situations • Develop and apply strategies to solve a variety of problems • Integrate mathematical reasoning, communication and connections 	
<ul style="list-style-type: none"> • Generalize solutions and apply previous knowledge to new problem solving situations 	<p>Student Edition: 5, 78-84, 85-90, 91, 92-97, 98-103, 105-110, 111-115, 116, 117-121, 122-128, 329-333</p> <p><i>Algebra Lab</i> 91</p> <p><i>Reading Math</i> 116</p> <p>Teacher Wraparound Edition: AE 79-81, 86-87, 93-94, 99-100; FMC 86, 87, 330; PAA 90, 94, 103</p>
<ul style="list-style-type: none"> • Determine an efficient strategy, verify, interpret, and evaluate the results with respect to the original problem 	<p>Student Edition: 91, 92-97, 98-103, 105, 116, 117-121, 122-128, 329-333, 480-485, 486-491, 493-499</p> <p><i>Algebra Lab</i> 91</p> <p><i>Reading Math</i> 116</p> <p>Teacher Wraparound Edition: AE 93-94, 99-100, 330-331, 487-488, 494-496; FMC 330; SQ 122-123, 329</p>

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<ul style="list-style-type: none"> Apply problem solving strategies until a solution is found or it is clear that no solution exists 	<p>Student Edition: 26, 70-76, 77, 91, 92-97, 98-103, 122-128, 196-202, 253-258, 260-265, 266-270, 272-277 <i>Algebra Lab</i> 72, 77, 91</p> <p>Teacher Wraparound Edition: AE 71-73, 93-94, 99-100; AL 72; FMC 94; PAA 94, 103, 304; SQ 70</p>
<ul style="list-style-type: none"> Interpret and solve a variety of mathematical problems by paraphrasing 	<p>Student Edition: 53-58, 70-76, 78-84, 85-90, 92-97, 98-103, 143-148, 149-154, 226, 329-333 <i>Reading Math</i> 226</p> <p>Teacher Wraparound Edition: AE 54-56, 71-73, 80, 87, 93-94, 330-331; FMC 330; PAA 71; SM 330; SQ 329</p>
<ul style="list-style-type: none"> Identify necessary and extraneous information 	<p>Student Edition: 541-546, 569 #24, 626-632, 636, 637, 737 #4 & #17, 741 <i>Graphing Calculator Lab</i> 543</p> <p>Teacher Wraparound Edition: A 542, 627-629; FMC 543, 629; GCL 543; SM 629</p>
<ul style="list-style-type: none"> Check the reasonableness of a solution 	<p>Student Edition: 17 Ex 4, 19 #38-#39, 107 Ex 4, 306 #46, 482-484, 495-498, 502-507 <i>Algebra Lab</i> 500-501</p> <p>Teacher Wraparound Edition: AE 17 Ex 4, 483 Ex 6, 503-505</p>
<ul style="list-style-type: none"> Apply technology as a tool in problem solving situations 	<p>Student Edition: 162-163, 197, 203, 210-211, 219, 234-235, 259, 309, 328, 340, 342, 367, 470, 482, 504, 515-516, 535, 543, 547, 576, 589</p>
<ul style="list-style-type: none"> Apply combinations of proven strategies and previous knowledge to solve non-routine problems 	<p>Student Edition: 26, 59, 70-76, 77, 91, 92-97, 98-103, 122-128, 759-760, 763-764, 767-768, 772-773 <i>Algebra Lab</i> 59, 77, 91</p> <p>Teacher Wraparound Edition: AE 93-94, 99-100; FMC 94; PAA 94, 103; PE 93</p>

STANDARDS	PAGE REFERENCES
<p>Process Standard B: Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing in order to:</p>	
<ul style="list-style-type: none"> • Translate information into mathematical language and symbols • Process information mathematically • Present results in written, oral, and visual formats • Discuss and exchange ideas about mathematics as a part of learning • Read a variety of fiction and nonfiction texts to learn about mathematics • Use mathematical notation to communicate and explain problems 	
<ul style="list-style-type: none"> • Use a variety of techniques to solve mathematical problems 	<p>Student Edition: 70-76, 77, 78-84, 85-90, 91, 92-97, 98-103, 105-110, 259, 261-265, 309, 341-345, 480-485, 486-491, 543 <i>Algebra Lab</i> 77, 91 <i>Graphing Calculator Lab</i> 259, 309, 342, 482, 543</p>
<ul style="list-style-type: none"> • Evaluate written and oral presentations in mathematics 	<p>Student Edition: 30 #45, 37 #44-#47, 75 #47, 83, 90 #55, 102 #45-#48, 195 #61-#62, 224 #50, 264 #31, 277 #30, 307 #54, 313 #51, 344 #37, 363 #60, 373 #54, 387 #36, 439 #43, 446 #42, 451 #37, 460 #46</p>
<ul style="list-style-type: none"> • Model and explain mathematical relationships using oral, written, graphic, and algebraic methods 	<p>Student Edition: 70-76, 77, 186, 187-195, 196-202, 203, 204-209, 210-211, 213-218, 219, 471-477, 478-479, 493-499 <i>Algebra Lab</i> 72, 77, 186 <i>Graphing Calculator Lab</i> 197, 203, 210-211, 219, 478-479 Teacher Wraparound Edition: AE 71-73; GCL 198</p>
<ul style="list-style-type: none"> • Communicate and evaluate mathematical thinking based on the use of definitions, properties, rules, and symbols in problem solving 	<p>Student Edition: 21-25, 26-31, 32, 33-37, 38, 45, 248 #1 <i>Algebra Lab</i> 27-28, 45 <i>Reading Math</i> 38 Teacher Wraparound Edition: AE 22-23, 27-28, 34-35; AL 27; FMC 22, 27, 34, 316; I 28, 316; PAA 25, 31, 37; SQ 26-27, 33</p>
<ul style="list-style-type: none"> • Use everyday language, both orally and in writing, communicate strategies and solutions to problems using appropriate mathematical language 	<p>Student Edition: 6-9, 14, 20, 39-44, 45, 53-58, 70-76 <i>Algebra Lab</i> 72 Teacher Wraparound Edition: AE 7, 40-41, 54-56, 71-73; AL 72; DI 7; FMC 7, 11, 41, 48; I 316; SQ 6, 10, 39</p>

STANDARDS	PAGE REFERENCES
<p>Process Standard C: Students will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas in order to:</p>	
<ul style="list-style-type: none"> • Reinforce and extend their logical reasoning abilities • Reflect on, clarify, and justify their thinking • Ask questions to extend their thinking • Use patterns and relationships to analyze mathematical situations • Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems 	
<ul style="list-style-type: none"> • Recognize and apply deductive and inductive reasoning 	<p>Student Edition: 39-44, 45, 52, 63, 171, 172-176, 195, 453, 719, 724 <i>Algebra Lab</i> 45 <i>Reading Math</i> 171, 453</p> <p>Teacher Wraparound Edition: A 171; AE 40-41, 173-174; F 171; FMC 41; PAA 176; SQ 36, 172; T 171</p>
<ul style="list-style-type: none"> • Review and refine the assumptions and steps used to derive conclusions in mathematical arguments 	<p>Student Edition: 15-20, 21-25, 26-31, 33-37, 38, 70-76, 81 Ex 5, 86 Ex 3, 92-97, 103 #49 <i>Reading Math</i> 38</p> <p>Teacher Wraparound Edition: AE 22-23, 27-28, 34-35, 71-73, 93-94; FMC 22, 94; PAA 25, 27, 37, 71, 94; PE 93</p>
<ul style="list-style-type: none"> • Make and test conjectures about algebraic and geometric properties based on mathematical principles 	<p>Student Edition: 21-25, 26-31, 32, 33-37, 38, 45, 248 #1 <i>Algebra Lab</i> 27-28, 45 <i>Reading Math</i> 38</p> <p>Teacher Wraparound Edition: AE 22-23, 27-28, 34-35; AL 27; FMC 22, 27, 34; I 28; PAA 25, 31, 37; SQ 26-27, 33</p>
<ul style="list-style-type: none"> • Justify the validity of an argument 	<p>Student Edition: 30 #45, 37 #44-#47, 75 #47, 83, 90 #55, 102 #45-#48, 115 #41, 170 #48, 171, 195 #61-#62, 202, 224 #50, 264 #31, 277 #30, 284 #20, 307 #54, 313 #51, 326 #47, 344 #37, 363 #60, 373 #54, 387 #36 <i>Reading Math</i> 171</p>

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<ul style="list-style-type: none"> Construct a valid argument 	<p>Student Edition: 30 #45, 37 #44-#47, 75 #47, 83, 90 #55, 102 #45-#48, 115 #41, 170 #48, 171, 195 #61-#62, 202, 224 #50, 264 #31, 277 #30, 284 #20, 307 #54, 313 #51, 326 #47, 344 #37, 363 #60, 373 #54, 387 #36 <i>Reading Math</i> 171</p>
<p>Process Standard D: Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole in order to:</p>	
<ul style="list-style-type: none"> Link new concepts to prior knowledge Identify relationships between content strands Integrate mathematics with other disciplines Use patterns and relationships to analyze mathematical situations Allow the flexibility to approach problems in a variety of ways within and beyond the field of mathematics 	
<ul style="list-style-type: none"> Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics 	<p>Student Edition: 43 #35-#38, 58, 66-67, 74-75, 81 #12, 84, 142, 361-362, 377-381, 389, 394 #58, 401-403, 408 #51, 467 #11, 560-565, 569-570, 571, 572-573 <i>Algebra Lab</i> 72, 142, 447 Teacher Wraparound Edition: AL 72; FCA 142</p>
<ul style="list-style-type: none"> Explain the relationship between concepts and procedures 	<p>Student Edition: 70-73, 279 <i>Reading Math</i> 279 Teacher Wraparound Edition: A 279; F 279; T 279</p>
<ul style="list-style-type: none"> Use the connections among mathematical topics to develop multiple approaches to problems 	<p>Student Edition: 26, 98, 122-128, 129, 204-209, 213-218, 220-225, 227-233, 234-235, 481-485, 486-491, 492, 493-499, 500-501, 510-514, 515-516 <i>Algebra Lab</i> 500-501 <i>Graphing Calculator Lab</i> 234-235, 515-516 <i>Spreadsheet Lab</i> 129 <i>Study Tip</i> 98 <i>Test Taking Tip</i> 100 Teacher Wraparound Edition: AE 123-124</p>

STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science 	<p>Student Edition: 88 #26, 89 #49-#51, 122-128, 129, 683, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 759-760, 763-764, 767-768, 772-773</p> <p><i>Spreadsheet Lab 129</i></p>
<ul style="list-style-type: none"> Identify, explain, and apply mathematics in everyday life 	<p>Student Edition: 374, 649, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 759-760, 763-764, 767-768, 772-773</p> <p><i>Reading Math 374, 649</i></p>
<p>Grade 12</p>	
<p>1.0 Numbers, Number Sense, and Computation</p>	
<p>Content Standard 1.0 Students will accurately calculate and use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.</p> <p>At a minimum, students will maintain previous skills and attain the following:</p>	
<p>1.12.6 Determine an approximate value of radical and exponential expressions using a variety of methods.</p>	<p>Student Edition: 6-9, 10-14, 20, 46-52, 64, 65, 76, 381 #72, 457-460, 482-485, 528-534, 549-554, 719, 737</p> <p>Teacher Wraparound Edition: AE 11, 47-50, 482 Ex 5, 529-531, 550-551; DI 49; FMC 48; PAA 52; PE 48</p>
<p>1.12.7 Solve mathematical problems involving exponents and roots.</p>	<p>Student Edition: 493-499, 500-501, 502-508, 509, 510-514, 518-520, 521, 541-546, 547, 548, 549-554, 555-559, 569-570, 571, 573, 737-738, 753</p> <p><i>Algebra Lab 500-501, 509</i> <i>Graphing Calculator Lab 543, 547</i></p>
<p>Perform addition, subtraction, and scalar multiplication on matrices.</p>	<p>See Glencoe's <i>Geometry</i> © 2008 <i>Prerequisite Skills</i> 789-799 or Glencoe's <i>Algebra 2</i> © 2008</p>
<p>1.12.8 Identify and apply real number properties to solve problems.</p>	<p>Student Edition: 21-25, 26-31, 32, 33-37, 38, 45, 248 #1</p> <p><i>Algebra Lab 27-28, 45</i> <i>Reading Math 38</i></p> <p>Teacher Wraparound Edition: AE 22-23, 27-28, 34-35; AL 27; FMC 22, 27, 34; I 28; PAA 25, 31, 37; SQ 26-27, 33</p>

STANDARDS	PAGE REFERENCES
2.0 Patterns, Functions, and Algebra	
<p>Content Standard 2.0 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 to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.</p> <p>At a minimum, students will maintain previous skills and attain the following:</p>	
<p>2.12.1 Use algebraic expressions to identify and describe the n^{th} term of a sequence.</p>	<p>Student Edition: 165-170, 172-176, 179-180, 181, 195, 202, 225 #62, 724, 746</p> <p>Teacher Wraparound Edition: AE 166-167, 173-174; FMC 167; PAA 170, 176; SQ 165-166, 172-173</p>
<p>2.12.2 Isolate any variable in given equations, inequalities, proportions, and formulas to use in mathematical and practical situations.</p>	<p>Student Edition: 105-110, 111-115, 116, 117-121, 128, 134, 135, 141, 148 #40-#41, 224 #45-#47, 241 #43, 251, 403, 722, 745 #14, 763 #8</p> <p>Teacher Wraparound Edition: AE 112-113, 118-119; FMC 119; PAA 121; PE 119</p>
<p>2.12.3 Add, subtract, multiply, and factor 1^{st} and 2^{nd} degree polynomials connecting the arithmetic and algebraic processes.</p>	<p>Student Edition: 358-363, 382-383, 384-389, 390-395, 396-397, 398-403, 404-409, 412, 413-414, 415, 424, 431, 432-433, 434-439, 447-452, 454-460, 477, 731, 732</p> <p><i>Algebra Lab</i> 382-383, 396-397, 432-433, 447</p>
<p>Simplify algebraic expressions, including exponents and radicals.</p>	<p>Student Edition: 6-9, 10-14, 20, 21-25, 26-31, 32, 33-37, 38, 528-534, 536-540, 546, 548, 554, 567-568, 571, 737</p> <p><i>Reading Math</i> 38</p> <p>Teacher Wraparound Edition: AE 11, 23, 27-28, 34-35, 529-531, 537</p>
<p>2.12.4 Determine the domain and range of functions, including linear, quadratic, and absolute value, algebraically and graphically.</p>	<p>Student Edition: 55-58, 143-148, 149-154, 177, 178, 182 #5, 218, 471-477</p> <p><i>Algebra Lab</i> 145</p> <p>Teacher Wraparound Edition: AE 56, 144, 150, 472-473; AL 145; FMC 151</p>

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Solve absolute value equations and inequalities both algebraically and graphically.	Student Edition: 322-327, 328, 329-333, 339, 349, 351, 730 <i>Graphing Calculator Lab 328</i> Teacher Wraparound Edition: AE 323-324, 330-331; DI 323; FCA 328; FM 330; FMC 330; PAA 333; SM 330; SQ 322, 329; WCG 328
2.12.5 Solve systems of two linear equations algebraically and graphically and verify solutions (with and without technology).	Student Edition: 252, 253-258, 259, 260-265, 266-270, 271, 272-278, 280-284, 290-291, 341-345, 364, 369, 491, 727-728, 730, 748, 749 #16-#20 <i>Graphing Calculator Lab 259, 342</i> <i>Spreadsheet Lab 252</i> Teacher Wraparound Edition: AE 254-255, 261-262, 267-268, 273-274, 281-282
2.12.6 Solve mathematical and practical problems involving linear and quadratic equations with a variety of methods, including discrete methods (with and without technology).	Student Edition: 70-76, 77, 78-84, 85-90, 91, 92-97, 98-103, 104, 122-128, 129, 471-477, 480-485, 486-491, 493-499, 500-501 <i>Algebra Lab 72, 77, 91, 500-501</i> <i>Graphing Calculator Lab 470</i> <i>Spreadsheet Lab 129</i>
3.0 Measurement	
<p>Content Standard 3.0 Students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.</p> <p>At a minimum, students will maintain previous skills and attain the following:</p>	
3.12.1 Estimate and convert between customary and metric systems.	Student Edition: 590-594, 596-597, 758 Ex 3 Teacher Wraparound Edition: AE 591, 596 Ex 3; FMC 591; SQ 590
3.12.2 Justify, communicate, and differentiate between precision, error, and tolerance in practical problems.	Student Edition: 322, 326 #37-#38, 327 #52, 329, 331, 332, 333 #37-#38, 345 #44, 482-484 Teacher Wraparound Edition: AE 331 Ex 3, 483 Ex 6; SQ 322

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<p>3.12.3</p> <p>Select and use appropriate measurement tools, techniques, and formulas to solve problems in mathematical and practical situations.</p>	<p>Student Edition:</p> <p>308, 493-497, 500-501, 745, 746, 747, 749, 750, 751, 752, 753, 754, 757-758, 759-760, 763-764, 765-766, 767-768, 769-771, 772-773</p> <p><i>Algebra Lab</i> 500-501</p> <p>Teacher Wraparound Edition:</p> <p>AE 494-496; I 495</p>
<p>3.12.4</p> <p>Interpret and apply consumer data presented in charts, tables, and graphs to make informed financial decisions related to practical applications.</p>	<p>Student Edition:</p> <p>10, 18 #13, 19 #38-#39, 24 #33-#34, 31 #48, 76 #50, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 764, 768, 773</p> <p>Teacher Wraparound Edition:</p> <p>SQ 10</p>
<p>3.12.5</p> <p>Determine the measure of unknown dimensions, angles, areas, and volumes using relationships and formulas to solve problems.</p>	<p>Student Edition:</p> <p>8 #23, 9 #44 & #46-#48, 14 #47, 31, 32 #21, 35 #9, 67 #7-#8, 72, 74-75, 96 #42, 100 Ex 4, 101 #10, 102 #44, 121 #35, 333 #41, 360-362, 370-371, 373, 377-381, 400-402</p> <p><i>Algebra Lab</i> 27-28, 72, 142, 365</p> <p>Teacher Wraparound Edition</p> <p>AE 72, 100 Ex 4; FA 142; FCA 142</p>
<p>4.0 Spatial Relationships, Geometry, and Logic</p>	
<p>Content Standard 4.0 Students will identify, represent, verify, and apply spatial relationships and geometric properties to solve problems, communicate, and make connections within and beyond the field of mathematics.</p> <p>At a minimum, students will maintain previous skills and attain the following:</p>	
<p>4.12.1</p> <p>Identify and use the parts of a circle to solve mathematical and practical problems.</p>	<p>Student Edition:</p> <p>291 #9, 331 #7, 361, 370-371, 378-379, 380 #52-#53, 394 #58, 408 #44-#46, 412 #37, 430 #39, 467 #7, 587 #44, 706-707, 773</p> <p>Teacher Wraparound Edition:</p> <p>PAA 409</p>
<p>Identify and apply properties of interior and exterior angles of polygons to solve mathematical and practical problems.</p>	<p>Student Edition:</p> <p>58 #22-#25</p>
<p>4.12.2</p> <p>Apply properties of similarity through right triangle trigonometry to find missing angles and sides.</p>	<p>Student Edition:</p> <p>241 #37, 373 #57, 508 #49, 560-565, 588 #55-#56, 760, 764 #15, 767 #13</p> <p>Teacher Wraparound Edition:</p> <p>AE 561-562; NTM 565</p>

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<p>4.12.5 Determine the slope of lines using coordinate geometry and algebraic techniques.</p>	<p>Student Edition: 186, 187-195, 196-202, 203, 204-209, 210-211, 212, 213-218, 236-241 <i>Algebra Lab</i> 186 <i>Graphing Calculator Lab</i> 197, 203, 210-211 Teacher Wraparound Edition: AE 188-191, 197-199, 205-206, 214-216, 237-239; FMC 190, 191, 206; FTE 195; GCL 197; PAA 209; SQ 187-188, 213</p>
<p>Identify parallel, perpendicular, and intersecting lines by slope.</p>	<p>Student Edition: 236-241, 246, 247 #19-#20, 258 #46-#47, 270, 726 <i>Algebra Lab</i> 237 Teacher Wraparound Edition: AE 237-239; AL 237; FMC 238, 262; GC 239; I 237, 238; PAA 241; PE 238; SQ 236; TOD 241</p>
<p>Graph linear equations and find possible solutions to those equations using coordinate geometry.</p>	<p>Student Edition: 150-153, 155-161, 162-163, 172-176, 179, 181, 196-202, 204-209, 210-211, 212, 213-218, 236-241 <i>Graphing Calculator Lab</i> 162-163, 210-211 Teacher Wraparound Edition: AE 157-158, 173-174, 198-199, 205-206, 214-216, 237-238</p>
<p>Find possible solution sets of systems of equations whose slopes indicate parallel, perpendicular, or intersecting lines.</p>	<p>Student Edition: 252, 253-258, 259, 260-265, 266-270, 271, 272-278, 280-284, 286, 289, 290-291, 369, 491, 727-728, 748 <i>Graphing Calculator Lab</i> 259 <i>Spreadsheet Lab</i> 252 Teacher Wraparound Edition: AE 254-255, 261-262, 267-268, 273-274, 281-282; FMC 262, 268, 282; PAA 254, 270</p>
<p>4.12.6 Solve problems using complementary and supplementary angles, congruent angles, vertical angles, angles formed when parallel lines are cut by a transversal and angles in polygons.</p>	<p>Student Edition: 263 #20, 403 #58, 560-565, 748 #15, 760 #10, 763 #14 Teacher Wraparound Edition: AE 561-562; FMC 562; PE 561; RM 561</p>
<p>4.12.7 Apply the Pythagorean Theorem and its converse in mathematical and practical situations.</p>	<p>Student Edition: 549-554, 555-559, 569-570, 571, 572-573, 639 #9, 738, 767 #12, 768 #15 Teacher Wraparound Edition: AE 550-551, 556; FMC 551, 556; PAA 551, 559; PE 550, SQ 555</p>

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<p>4.12.8 Solve problems by drawing and/or constructing geometric figures to demonstrate geometric relationships.</p>	<p>Student Edition: 43 #35-#38, 58, 66-67, 74-75, 81 #12, 84, 142, 361-362, 377-381, 389, 394 #58, 401-403, 408 #51, 467 #11, 560-565, 569-570, 571, 572-573 <i>Algebra Lab</i> 72, 142, 447 Teacher Wraparound Edition: AL 72; FCA 142</p>
<p>4.12.9 Formulate, evaluate, and justify arguments using inductive and deductive reasoning in mathematical and practical situations.</p>	<p>Student Edition: 39-44, 45, 52, 63, 171, 172-176, 195, 453, 719, 724 <i>Algebra Lab</i> 45 <i>Reading Math</i> 171, 453 Teacher Wraparound Edition: A 171; AE 40-41, 173-174; F 171; FMC 41; PAA 176; SQ 36, 172; T 171</p>
<p>5.0 Data Analysis</p>	
<p>Content Standard 5.0 Students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections to solve problems, communicate, reason, and make connections within and beyond the field of mathematics. At a minimum, students will maintain previous skills and attain the following:</p>	
<p>5.12.1 Organize statistical data through the use of tables, graphs, and matrices (with and without technology).</p>	<p>Student Edition: 59, 227-233, 234-235, 515-516, 744, 745, 746, 747, 748, 750, 759-760, 764, 768, 769-771, 772-773 <i>Algebra Lab</i> 59, 228 <i>Graphing Calculator Lab</i> 234-235, 515-516 Teacher Wraparound Edition: A 228-229; AL 228</p>
<p>5.12.2 Select and apply appropriate statistical measures in mathematical and practical situations.</p>	<p>Student Edition: 59, 227-233, 234-235, 515-516, 742-743, 746, 747, 748, 750, 753, 754, 755, 759-760, 764, 768, 769-771, 772-773 <i>Algebra Lab</i> 59, 228 <i>Graphing Calculator Lab</i> 234-235, 515-516 Teacher Wraparound Edition: AE 228-229; AL 228</p>

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<p>5.12.3 Distinguish between a sample and a census.</p>	<p>If taking a census is interpreted with gathering data on as many people as possible, the term <i>survey</i> can be used. This is covered on the following page: Student Edition: <i>Reading Math</i> 649 Sample as a portion of <i>population</i> is covered on the following pages: 642-647.</p>
<p>Identify sources of bias and their effect on data representations and statistical conclusions.</p>	<p>Student Edition: 642-648, 649, 654, 671, 685, 689, 742, 755 #1-#2 <i>Reading Math</i> 649 Teacher Wraparound Edition: A 649; AE 643-645; DI 644; F 649; FMC 643; PAA 648; SQ 642; T 649; TOD 648</p>
<p>Use the shape of a normal distribution to compare and analyze data from a sample.</p>	<p>Student Edition: 672-676, 683, 687-688, 689, 742-743, 755 Teacher Wraparound Edition: AE 673-674; M 673; PAA 676; SQ 672</p>
<p>5.12.4 Apply permutations and combinations to mathematical and practical situations, including the Fundamental Counting Principle.</p>	<p>Student Edition: 650-654, 655-661, 686, 689, 742, 755 Teacher Wraparound Edition: A 653; AE 651-652, 656-657; FMC 651, 656, 657; I 657; PAA 662; PE 656, 658; R 657; SQ 650; TT 658</p>
<p>5.12.5 Determine the probability of an event with and without replacement using sample spaces.</p>	<p>Student Edition: 663-670, 671, 686, 689, 743, 755 Teacher Wraparound Edition: AE 664-666; DI 664; FMC 665; I 666; PAA 670; PE 665, 667; SQ 663-664; TOD 670</p>
<p>Design, conduct, analyze, and effectively communicate the results of multi-stage probability experiments.</p>	<p>Student Edition: 663-670, 671, 672-676, 677-683, 686-688, 689, 743, 755 <i>Algebra Lab</i> 678 Teacher Wraparound Edition: AE 664-666, 673-674, 678-679; AL 678; DI 664; FMC 665, 678; I 666; PAA 680; SQ 663-664, 672, 677</p>

STANDARDS	PAGE REFERENCES
<p>5.12.6 Design, construct, analyze, and select an appropriate type of graphical representations to communicate the results of a statistical experiment.</p>	<p>Student Edition: 53-58, 59, 64, 64 #23-#24, 83 #44-#47, 84 #54, 102 #43, 103 #55, 227-233, 234-235, 466 #6, 467 #7, 515-516, 714-715 <i>Algebra Lab</i> 59, 228 <i>Graphing Calculator Lab</i> 234-235, 515-516 Teacher Wraparound Edition: AE 54-56, 228-229; AL 228; PAA 58</p>
<p>Formulate and justify inferences based on a valid data sample.</p>	<p>Student Edition: 642-648, 649, 654, 671, 672-676, 677-683, 685, 687-688, 689, 742, 755 #1-#2 <i>Reading Math</i> 649 Teacher Wraparound Edition: A 649; AA 689; AE 643-645, 673-674, 678-679; DI 644; F 649; FMC 643, 678; PAA 648, 676; SQ 642; T 649; TOD 648</p>