



# MathMatters 2

An Integrated Program

© 2009

STANDARDS	PAGE REFERENCES
<p><b>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:</b></p> <ul style="list-style-type: none"> <li>• <b>Formulate their own problems</b></li> <li>• <b>Find solutions to problems from everyday situations</b></li> <li>• <b>Develop and apply strategies to solve a variety of problems</b></li> <li>• <b>Integrate mathematical reasoning, communication and connections</b></li> </ul>	
<ul style="list-style-type: none"> <li>• Generalize solutions and apply previous knowledge to new problem solving situations</li> </ul>	<p><b>Annotated Teacher's Edition:</b> ETL 51, 106, 179, 209, 214, 226, 228, 245, 255, 258, 276, 297, 307, 336, 380, 382, 395, 434, 458, 520, 524, 545</p>
<ul style="list-style-type: none"> <li>• Determine an efficient strategy, verify, interpret, and evaluate the results with respect to the original problem</li> </ul>	<p><b>Student Edition:</b> 26-27, 92-93, 114-115, 129, 135, 154-155, 161 #26, 199, 205, 209, 232-233, 274-275, 279, 309, 320-321, 358-359, 363, 400-401, 462-463, 508-509, 530-531 <i>Problem Solving Tip</i> 363</p>
<ul style="list-style-type: none"> <li>• Apply problem solving strategies until a solution is found or it is clear that no solution exists</li> </ul>	<p><b>Student Edition:</b> 26-27, 92-93, 114-115, 129, 135, 154-155, 161 #26, 199, 205, 209, 232-233, 274-275, 279, 309, 320-321, 358-359, 400-401, 462-463, 508-509, 530-531</p>

STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> <li>Interpret and solve a variety of mathematical problems by paraphrasing</li> </ul>	<p><b>Student Edition:</b> 27, 233, 260, 270, 278, 312, 318, 321, 336, 340, 346, 350, 359, 378, 382, 392, 401, 463, 509, 531</p> <p><b>Annotated Teacher's Edition:</b> QA 318</p>
<ul style="list-style-type: none"> <li>Identify necessary and extraneous information</li> </ul>	<p><b>Student Edition:</b> 272</p>
<ul style="list-style-type: none"> <li>Check the reasonableness of a solution</li> </ul>	<p><b>Student Edition:</b> 5, 106, 244, 268-270, 473, 485-487, 508-509, 512</p> <p><b>Annotated Teacher's Edition:</b> AA 509; CE 485, 509; ETL 5, 508; QA 5, 106, 270, 509</p>
<ul style="list-style-type: none"> <li>Apply technology as a tool in problem solving situations</li> </ul>	<p><b>Student Edition:</b> 11, 16, 21-22, 26, 29, 39, 82, 84, 88, 197, 205 #36, 215 #28, 248, 260, 266, 268-271, 334, 340-341, 347, 353, 410</p> <p><b>Annotated Teacher's Edition:</b> AA 84, 88</p>
<ul style="list-style-type: none"> <li>Apply combinations of proven strategies and previous knowledge to solve non-routine problems</li> </ul>	<p><b>Student Edition:</b> 26-27, 92-93, 114-115, 129, 135, 154-155, 161 #26, 199, 205, 209, 232-233, 274-275, 279, 309, 320-321, 358-359, 400-401, 462-463, 508-509, 530-531</p>
<p><b>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:</b></p>	
<ul style="list-style-type: none"> <li>Translate information into mathematical language and symbols</li> <li>Process information mathematically</li> <li>Present results in written, oral, and visual formats</li> <li>Discuss and exchange ideas about mathematics as a part of learning</li> <li>Read a variety of fiction and nonfiction texts to learn about mathematics</li> <li>Use mathematical notation to communicate and explain problems</li> </ul>	
<ul style="list-style-type: none"> <li>Use a variety of techniques to solve mathematical problems</li> </ul>	<p><b>Student Edition:</b> 26-27, 92-93, 114-115, 129, 135, 154-155, 161 #26, 199, 205, 209, 232-233, 274-275, 279, 309, 320-321, 358-359, 400-401, 462-463, 508-509, 530-531</p>

STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> <li>Evaluate written and oral presentations in mathematics</li> </ul>	<p><b>Student Edition:</b> 50-51, 56-59, 60-61, 62-65, 66-69, 70-71, 72-75, 82-85, 86-89, 90-91</p> <p><b>Annotated Teacher's Edition:</b> 5MW 72; CE 57, 63, 67, 73, 83, 87; QA 58, 64, 68, 74; TT 72</p>
<ul style="list-style-type: none"> <li>Model and explain mathematical relationships using oral, written, graphic, and algebraic methods</li> </ul>	<p><b>Student Edition:</b> 58-59, 64, 68-69, 74, 111, 114-115, 118-119, 139, 195, 321, 359, 379, 380-382, 388, 392-393, 398-399, 405-407, 410-411, 497, 550</p> <p><b>Annotated Teacher's Edition:</b> CE 115, 381</p>
<ul style="list-style-type: none"> <li>Communicate and evaluate mathematical thinking based on the use of definitions, properties, rules, and symbols in problem solving</li> </ul>	<p><b>Student Edition:</b> 56-59, 62-65, 192-195, 196-199, 202-205, 206-209, 212-215, 216-219, 222-225, 226-229, 284, 524-527</p> <p><b>Annotated Teacher's Edition:</b> QA 194, 198, 204, 208, 214, 218, 224, 228, 284</p>
<ul style="list-style-type: none"> <li>Use everyday language, both orally and in writing, communicate strategies and solutions to problems using appropriate mathematical language</li> </ul>	<p><b>Student Edition:</b> 54 #22, 69, 115 #20, 129, 215, 225, 247 #36, 479, 527 #57, 541 #23 <i>Check Understanding 479</i></p> <p><b>Annotated Teacher's Edition:</b> AA 39, 84, 197, 246, 264, 279, 356, 389, 401, 474, 509</p>
<p><b>Process Standard C:</b> 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"> <li><b>Reinforce and extend their logical reasoning abilities</b></li> <li><b>Reflect on, clarify, and justify their thinking</b></li> <li><b>Ask questions to extend their thinking</b></li> <li><b>Use patterns and relationships to analyze mathematical situations</b></li> <li><b>Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems</b></li> </ul>	
<ul style="list-style-type: none"> <li>Recognize and apply deductive and inductive reasoning</li> </ul>	<p><b>Student Edition:</b> 11, 538-541, 542-545, 546-547, 548-551, 553-554, 555, 624-626 <i>Check Understanding 539</i></p> <p><b>Annotated Teacher's Edition:</b> CE 539, 543, 546-547; ETL 11, 541, 545, 546; ITL 538, 542; QA 540, 544; TT 538, 539, 542, 543</p>

STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> <li>Review and refine the assumptions and steps used to derive conclusions in mathematical arguments</li> </ul>	<p><b>Student Edition:</b> 26-27, 92-93, 114-115, 154-155, 232-233, 274-275, 320-321, 358-359, 400-401, 462-463, 508-509, 530-531</p> <p><b>Annotated Teacher's Edition:</b> GS 26, 92, 114, 154, 232, 274, 320, 358, 400, 462, 508, 530</p>
<ul style="list-style-type: none"> <li>Make and test conjectures about algebraic and geometric properties based on mathematical principles</li> </ul>	<p><b>Student Edition:</b> 72, 82-85, 86-89, 90-91, 92-93, 192-195, 196-199, 200-201, 202-205, 206-209, 210-211, 212-215, 216-219, 220-221, 222-225, 226-229, 230-231</p> <p><b>Annotated Teacher's Edition:</b> CE 93, 227; ITL 86; TT 72, 86, 90</p>
<ul style="list-style-type: none"> <li>Justify the validity of an argument</li> </ul>	<p><b>Student Edition:</b> 257, 530-531, 532-535, 536-537, 538-541, 542-545, 546-547, 548-551, 552-554, 555, 626</p> <p><b>Annotated Teacher's Edition:</b> 5MW 530; CE 531, 533, 537, 539, 543, 549; DI 548; ITL 548; QA 534, 544, 550</p>
<ul style="list-style-type: none"> <li>Construct a valid argument</li> </ul>	<p><b>Student Edition:</b> 193-195, 257, 530-531, 532-535, 536-537, 538-541, 542-545, 546-547, 548-551, 552-554, 555, 626</p> <p><b>Annotated Teacher's Edition:</b> CE 531, 533, 537, 539, 543, 549; DI 548; ITL 542, 548; QA 550</p>
<p><b>Process Standard D:</b> 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"> <li>Link new concepts to prior knowledge</li> <li>Identify relationships between content strands</li> <li>Integrate mathematics with other disciplines</li> <li>Allow the flexibility to approach problems in a variety of ways within and beyond the field of mathematics</li> </ul>	
<ul style="list-style-type: none"> <li>Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics</li> </ul>	<p><b>Student Edition:</b> 158-161, 196-199, 338-341, 376-379, 380-383, 386-389, 390-393, 396-399, 404-407, 432-435, 452-455, 456-459, 478-481, 484-487, 505, 508-509, 530-531, 532-535, 538-541, 548-551</p> <p><b>Annotated Teacher's Edition:</b> CE 505; TT 196</p>

STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> <li>Explain the relationship between concepts and procedures</li> </ul>	<p><b>Student Edition:</b> 114-115</p> <p><b>Annotated Teacher's Edition:</b> CE 115; QA 115</p>
<ul style="list-style-type: none"> <li>Use the connections among mathematical topics to develop multiple approaches to problems</li> </ul>	<p><b>Annotated Teacher's Edition:</b> ETL 51, 106, 179, 209, 214, 226, 228, 245, 255, 258, 276, 297, 307, 336, 380, 382, 395, 434, 458, 520, 524, 545</p>
<ul style="list-style-type: none"> <li>Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science</li> </ul>	<p><b>Student Edition:</b> 11, 14-15, 21, 23, 25, 27, 29, 35-37, 82, 121, 153, 160, 174, 257, 267, 275, 282, 284, 341, 459, 547</p> <p><b>Annotated Teacher's Edition:</b> CE 14, 21, 29</p>
<ul style="list-style-type: none"> <li>Identify, explain, and apply mathematics in everyday life</li> </ul>	<p><b>Student Edition:</b> 6-9, 10-13, 14-15, 16-19, 20-23, 25, 26-27, 28-31, 33, 34-37, 61</p> <p><i>MathWorks</i> 15, 61, 81, 113, 131, 157, 177, 201, 221, 253, 273, 305, 323, 343, 361, 385, 403, 431, 451, 483, 503, 529, 547</p>
<p><b>Grade 12</b></p>	
<p><b>1.0 Numbers, Number Sense, and Computation</b></p>	
<p><b>Content Standard 1.0</b> 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><b>At a minimum, students will maintain previous skills and attain the following:</b></p>	
<p>1.12.6 Determine an approximate value of radical and exponential expressions using a variety of methods.</p>	<p><b>Student Edition:</b> 56-59, 60-61, 82-85, 86-89, 90-91, 94-96, 97, 103, 107, 136-139, 144 #4, 145 #15-#16</p> <p><i>Check Understanding</i> 86, 137</p> <p><i>Mental Math Tip</i> 87</p> <p><i>Think Back</i> 136</p> <p><b>Annotated Teacher's Edition:</b> 5MW 136; CE 83, 87, 90, 102; QA 84, 88</p>

STANDARDS	PAGE REFERENCES
<p>1.12.7</p> <p>Solve mathematical problems involving exponents and roots.</p>	<p><b>Student Edition:</b>            56-59, 60-61, 82-85, 86-89, 90-91, 94-96, 97, 136-139, 142, 143, 473, 484-487, 489  <i>Check Understanding</i> 86, 137  <i>Mental Math Tip</i> 87  <i>Think Back</i> 136</p> <p><b>Annotated Teacher’s Edition:</b>            CE 137, 485; DI 136; ETL 138; ITL 136; QA 138</p>
<p>Perform addition, subtraction, and scalar multiplication on matrices.</p>	<p><b>Student Edition:</b>            38-41, 44, 45, 47, 239 #11, 358-359, 360, 368, 369, 588</p> <p><b>Annotated Teacher’s Edition:</b>            CE 39, 355, 360; ETL 39; QA 40; TT 38</p>
<p>1.12.8</p> <p>Identify and apply real number properties to solve problems.</p>	<p><b>Student Edition:</b>            56-59, 66-69, 70-71, 72-75, 76-79, 82-85, 108-111, 136, 375, 390  <i>Problem Solving Tip</i> 391  <i>Reading Math</i> 390  <i>Think Back</i> 66, 108</p> <p><b>Annotated Teacher’s Edition:</b>            CE 57, 67, 73, 77, 83; DI 77; ITL 76; QA 84; TT 72, 76, 80</p>
<p><b>2.0 Patterns, Functions, and Algebra</b></p>	
<p><b>Content Standard 2.0</b> 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><b>At a minimum, students will maintain previous skills and attain the following:</b></p>	
<p>2.12.1</p> <p>Use algebraic expressions to identify and describe the <math>n^{\text{th}}</math> term of a sequence.</p>	<p><b>Student Edition:</b>            79, 92-93, 96, 97, 99 #17 &amp; #19, 145 #17, 215, 243, 274-275, 541</p> <p><b>Annotated Teacher’s Edition:</b>            CE 93, 275; ETL 79, 541; QA 93</p>
<p>2.12.2</p> <p>Isolate any variable in given equations, inequalities, proportions, and formulas to use in mathematical and practical situations.</p>	<p><b>Student Edition:</b>            104-107, 108-111, 112-113, 116-119, 120-121, 122-125, 130-131, 132-135, 136-139, 140-142, 143, 145, 474-477, 478-481, 484-487, 488-491, 492-493  <i>Check Understanding</i> 104</p> <p><b>Annotated Teacher’s Edition:</b>            CE 105, 109, 117, 123, 133; TT 105</p>

STANDARDS	PAGE REFERENCES
<p>2.12.3 Add, subtract, multiply, and factor 1<sup>st</sup> and 2<sup>nd</sup> degree polynomials connecting the arithmetic and algebraic processes.</p>	<p><b>Student Edition:</b> 376-379, 380-383, 384-385, 386-389, 390-393, 394-395, 396-399, 404-407, 408-411, 412-414, 415 <i>Check Understanding</i> 386 <i>Problem Solving Tip</i> 391 <b>Annotated Teacher’s Edition:</b> AA 389; CE 377, 381, 384, 387, 391, 394-395, 406; DI 384; ETL 382; QA 382</p>
<p>Simplify algebraic expressions, including exponents and radicals.</p>	<p><b>Student Edition:</b> 56-59, 60-61, 66-69, 70-71, 72-75, 76-79, 80-81, 82-85, 86-89, 90-91, 94-96, 97, 136-139, 376-379, 380-383, 386-389, 390-393, 396-399 <b>Annotated Teacher’s Edition:</b> CE 57, 67, 73, 77, 83, 87, 90; DI 136</p>
<p>2.12.4 Determine the domain and range of functions, including linear, quadratic, and absolute value, algebraically and graphically.</p>	<p><b>Student Edition:</b> 264-267, 268-271, 272-273, 274-275, 280-281, 282-284, 287-288, 289, 605 <i>MathWorks</i> 273 <b>Annotated Teacher’s Edition:</b> CE 265, 269, 272, 275; ITL 264; QA 266, 270; TT 264, 265</p>
<p>Solve absolute value equations and inequalities both algebraically and graphically.</p>	<p><b>Student Edition:</b> 51, 54-55, 60-61, 91, 94 #15, 97, 98 #4, 109-111, 131 #48, 196, 244, 261 #39-#43, 267 #14, 272, 274-275, 280-281 <b>Annotated Teacher’s Edition:</b> CE 245; ETL 106; QA 106; TT 196</p>
<p>2.12.5 Solve systems of two linear equations algebraically and graphically and verify solutions (with and without technology).</p>	<p><b>Student Edition:</b> 334-337, 338-341, 342-343, 344-347, 348-351, 352-353, 354-357, 366-367, 369, 370, 399, 445, 610-611 <i>Check Understanding</i> 339 <b>Annotated Teacher’s Edition:</b> CE 339; ITL 338; QA 340; TT 338, 339</p>
<p>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).</p>	<p><b>Student Edition:</b> 244-247, 248-251, 252-253, 254-257, 258-261, 262-263, 264-267, 268-271, 272-273, 281, 286-287, 289, 603 <i>Check Understanding</i> 245, 254 <i>Problem Solving Tip</i> 249 <b>Annotated Teacher’s Edition:</b> CE 245, 249, 252, 255, 259, 262, 265, 269; ITL 268; QA 270</p>

STANDARDS	PAGE REFERENCES
<b>3.0 Measurement</b>	
<p><b>Content Standard 3.0</b> 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><b>At a minimum, students will maintain previous skills and attain the following:</b></p>	
<p>3.12.1 Estimate and convert between customary and metric systems.</p>	<p><b>Student Edition:</b> 23, 131 #4, 629, 636-637, 643 <i>MathWorks</i> 131</p> <p><b>Annotated Teacher's Edition:</b> DI 381; ITL 136; MW 131</p>
<p>3.12.2 Justify, communicate, and differentiate between precision, error, and tolerance in practical problems.</p>	<p>This standard can be met in Glencoe's <i>Geometry</i> © 2008.</p> <p><b>Student Edition:</b> 14, 17-19</p>
<p>3.12.3 Select and use appropriate measurement tools, techniques, and formulas to solve problems in mathematical and practical situations.</p>	<p><b>Student Edition:</b> 216-219, 226-229, 244-247, 474-477, 478-481, 482, 483, 484-487, 488-491, 492-493, 494-497, 503-507, 508-509, 510-512, 513 <i>MathWorks</i> 483 <i>Problem Solving Tip</i> 479</p> <p><b>Annotated Teacher's Edition:</b> CE 245, 475, 479, 485; ETL 216; ITL 226; MW 483</p>
<p>3.12.4 Interpret and apply consumer data presented in charts, tables, and graphs to make informed financial decisions related to practical applications.</p>	<p><b>Student Edition:</b> 2-3, 6-9, 10-13, 14-15, 16-19, 20-23, 24-25, 26-27, 28-31, 34-37, 40-41, 124, 126, 130 #22</p> <p><b>Annotated Teacher's Edition:</b> CE 7, 11, 14-15, 17, 21, 24, 35; ETL 21, 27, 29</p>
<p>3.12.5 Determine the measure of unknown dimensions, angles, areas, and volumes using relationships and formulas to solve problems.</p>	<p><b>Student Edition:</b> 148, 206-209, 210-211, 212-215, 244-247, 420-421, 426-429, 430-431, 432-435, 440-441, 452-455, 456-459, 460-461, 462-463, 465-466, 467, 474-477, 478-481, 482, 483, 484-487, 488-491, 494-497, 498-501, 503-507</p> <p><b>Annotated Teacher's Edition:</b> AA 208; MW 483</p>

STANDARDS	PAGE REFERENCES
<b>4.0 Spatial Relationships, Geometry, and Logic</b>	
<p><b>Content Standard 4.0</b> 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><b>At a minimum, students will maintain previous skills and attain the following:</b></p>	
<p>4.12.1 Identify and use the parts of a circle to solve mathematical and practical problems.</p>	<p><b>Student Edition:</b> 148 #14, 151-153, 156-157, 160-161, 162-165, 167, 185, 226-229, 230-231, 232-233, 236, 237, 246-247</p> <p><b>Annotated Teacher's Edition:</b> CE 151, 163, 227, 233; ETL 226, 227, 228; ITL 226; QA 228, 233</p>
<p>Identify and apply properties of interior and exterior angles of polygons to solve mathematical and practical problems.</p>	<p><b>Student Edition:</b> 191, 206-209, 210-211, 216-219, 220-221, 222-225, 231, 234-235, 237, 239, 599-601</p> <p><b>Annotated Teacher's Edition:</b> AA 208; CE 107, 210, 220; ETL 206, 209; ITL 206; QA 208, 224; TT 207, 210, 220</p>
<p>4.12.2 Apply properties of similarity through right triangle trigonometry to find missing angles and sides.</p>	<p><b>Student Edition:</b> 488-491, 492-493, 494-497, 498-501, 502-503, 504-507, 508-509, 511-512, 513 <i>Check Understanding</i> 494 <i>MathWorks</i> 503 <i>Problem Solving Tip</i> 489, 504</p> <p><b>Annotated Teacher's Edition:</b> CE 489, 493, 495, 499, 502, 505, 509; QA 490, 496, 498, 500, 506</p>
<p>4.12.5 Determine the slope of lines using coordinate geometry and algebraic techniques.</p>	<p><b>Student Edition:</b> 248-251, 252-253, 254-257, 258-261, 262-263, 273, 286-287, 288, 332-333, 334-337, 425, 603, 609 <i>Problem Solving Tip</i> 249, 255</p> <p><b>Annotated Teacher's Edition:</b> CE 249, 252, 255, 262, 335; QA 250, 256, 336</p>
<p>Identify parallel, perpendicular, and intersecting lines by slope.</p>	<p><b>Student Edition:</b> 228, 334-337, 339-341, 342-343, 370 #9, 609 <i>Technology Note</i> 335</p> <p><b>Annotated Teacher's Edition:</b> CE 335, 342; ETL 228, 336; ITL 334, 338; QA 336, 340; TT 334, 335, 339</p>

STANDARDS	PAGE REFERENCES
Graph linear equations and find possible solutions to those equations using coordinate geometry.	<p><b>Student Edition:</b> 244-247, 248-251, 252-253, 254-257, 258-261, 262-263, 264-267, 272-273, 281, 286-287, 289, 603 <i>Check Understanding</i> 245, 254 <i>Problem Solving Tip</i> 249</p> <p><b>Annotated Teacher's Edition:</b> CE 245, 249, 252, 255, 259, 262, 265; QA 246, 250, 256</p>
Find possible solution sets of systems of equations whose slopes indicate parallel, perpendicular, or intersecting lines.	<p><b>Student Edition:</b> 334-337, 338-341, 342-343, 344-347, 348-351, 352-353, 354-357, 366-367, 369, 370, 399, 445, 610-611 <i>Check Understanding</i> 339</p> <p><b>Annotated Teacher's Edition:</b> CE 339; ITL 338; QA 340; TT 338, 339</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><b>Student Edition:</b> 196-199, 200-201, 202-205, 206-209, 210-211, 216-219, 220-221, 222-225, 231, 234-235, 237, 599-602 <i>MathWorks</i> 201</p> <p><b>Annotated Teacher's Edition:</b> AA 197, 208; CE 197, 200, 203, 207, 210, 220; QA 198, 204, 208</p>
4.12.7 Apply the Pythagorean Theorem and its converse in mathematical and practical situations.	<p><b>Student Edition:</b> 244-247, 484-487, 488-491, 492-493, 496, 511, 513, 621, 638 #12 <i>Check Understanding</i> 485</p> <p><b>Annotated Teacher's Edition:</b> AA 246; CE 485, 489, 492-493; DI 484; ETL 485, 487; ITL 484; QA 486, 496; TT 493</p>
4.12.8 Solve problems by drawing and/or constructing geometric figures to demonstrate geometric relationships.	<p><b>Student Edition:</b> 196-199, 200 #10-#11, 208-209, 216-219, 222-225, 226-229, 230, 232-233, 236, 239 #24-#26, 294-295, 296-299, 300-303, 304-305, 306-309, 310-313, 314-315, 316-319, 324-326, 513, 548-551</p> <p><b>Annotated Teacher's Edition:</b> CE 549; ITL 548</p>

STANDARDS	PAGE REFERENCES
<p>4.12.9 Formulate, evaluate, and justify arguments using inductive and deductive reasoning in mathematical and practical situations.</p>	<p><b>Student Edition:</b> 11, 538-541, 542-545, 546-547, 548-551, 553-554, 555, 624-626 <i>Check Understanding</i> 539 <b>Annotated Teacher's Edition:</b> CE 539, 543, 546-547; ETL 11, 541, 545, 546; ITL 538, 542; QA 540, 544; TT 538, 539, 542, 543</p>
<p><b>5.0 Data Analysis</b></p>	
<p><b>Content Standard 5.0</b> 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. <b>At a minimum, students will maintain previous skills and attain the following:</b></p>	
<p>5.12.1 Organize statistical data through the use of tables, graphs, and matrices (with and without technology).</p>	<p><b>Student Edition:</b> 2-3, 4-5, 16-19, 20-23, 24-25, 28-31, 32-33, 34-37, 38-41, 42-44, 45, 46-47, 69, 585-588 <b>Annotated Teacher's Edition:</b> CE 7, 17, 21, 24, 32, 35, 39; TT 16, 24</p>
<p>5.12.2 Select and apply appropriate statistical measures in mathematical and practical situations.</p>	<p><b>Student Edition:</b> 6-9, 10-13, 14-15, 16-19, 20-23, 24-25, 26-27, 28-31, 32-33, 34-37, 38-41, 42-44, 45, 46-47, 585-588 <i>MathWorks</i> 15 <b>Annotated Teacher's Edition:</b> AA 10; CE 7, 11, 17, 21, 24, 27, 29, 32</p>
<p>5.12.3 Distinguish between a sample and a census.</p>	<p><b>Student Edition:</b> 6-9</p>
<p>Identify sources of bias and their effect on data representations and statistical conclusions.</p>	<p><b>Student Edition:</b> 6-9, 14 #8, 34-37 <i>Check Understanding</i> 7 <b>Annotated Teacher's Edition:</b> AA 34; CE 35; ETL 35; ITL 34; QA 36</p>
<p>Use the shape of a normal distribution to compare and analyze data from a sample.</p>	<p>This standard can be met in Glencoe's <i>Geometry</i> © 2008. <b>Student Edition:</b> 724-728</p>
<p>5.12.4 Apply permutations and combinations to mathematical and practical situations, including the Fundamental Counting Principle.</p>	<p><b>Student Edition:</b> 158-161, 172-175, 176-177, 178-181, 184, 185 <b>Annotated Teacher's Edition:</b> CE 159, 173, 179; ETL 179, 180, 181; ITL 158, 172, 178; QA 174, 180; TT 158, 172, 173, 178</p>

STANDARDS	PAGE REFERENCES
<p>5.12.5</p> <p>Determine the probability of an event with and without replacement using sample spaces.</p>	<p><b>Student Edition:</b> 150-153, 154-155, 156-157, 158-161, 162-165, 166-167, 168-171, 176-177, 182-183, 185, 186-187 <i>Check Understanding</i> 159</p> <p><b>Annotated Teacher's Edition:</b> AA 153; CE 151, 155, 159, 163, 169; ETL 163; ITL 150; QA 155; TT 158</p>
<p>Design, conduct, analyze, and effectively communicate the results of multi-stage probability experiments.</p>	<p><b>Student Edition:</b> 150-153, 154-155, 156-157, 158-161, 162-165, 166-167, 168-171, 176-177, 182-183, 185, 186-187 <i>Check Understanding</i> 151, 159</p> <p><b>Annotated Teacher's Edition:</b> CE 151, 155, 159, 163, 169; QA 152, 155; TT 151, 158</p>
<p>5.12.6</p> <p>Design, construct, analyze, and select an appropriate type of graphical representations to communicate the results of a statistical experiment.</p>	<p><b>Student Edition:</b> 2-3, 4, 6-9, 16-19, 20-23, 24-25, 26-27, 28-31, 32-33, 34-37, 38-41, 42-44, 45, 69, 585-587</p> <p><b>Annotated Teacher's Edition:</b> CE 17, 24, 27, 35; ETL 27, 29, 35; QA 18; TT 16</p>
<p>Formulate and justify inferences based on a valid data sample.</p>	<p><b>Student Edition:</b> 6-9, 10-13, 14-15, 16-19, 20-23, 24-25, 26-27, 28-31, 32-33, 34-37, 42-44, 45, 585-586 <i>MathWorks</i> 15</p> <p><b>Annotated Teacher's Edition:</b> CE 7, 14-15, 17, 24, 27, 29, 35; QA 8, 22</p>