



Algebra 2

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STANDARDS	PAGE REFERENCES
Algebra	
<p><input type="checkbox"/> Understands, analyzes, represents, and applies functions.</p>	<p>Student Edition: 61-66, 69-73, 101-107, 109-115, 409-415, 417-421, 424-429, 475-481, 492-498, 533-538, 848-854, 855-860</p> <p><i>Algebra Lab</i> 68</p> <p><i>Graphing Technology Lab</i> 108, 423</p> <p>Teacher Edition: AE 62-64, 102-104, 110-112, 410-412, 418-419, 425-426, 476-479, 534-536, 849-850, 856-858</p>
<p><input type="checkbox"/> Understands, analyzes, solves, and applies equations and inequalities.</p>	<p>Student Edition: 20-25, 27-31, 33-38, 41-47, 259-265, 268-274, 284-289, 292-299, 370-374, 384-389, 453-458, 485-490, 502-506, 594-601</p> <p><i>Graphing Technology Lab</i> 267, 291, 460-461, 483, 523-524, 603-604</p> <p>Teacher Edition: AE 42-44, 260-262, 285-287, 454-455, 595-599</p>

STANDARDS	PAGE REFERENCES
<input type="checkbox"/> Understands, analyzes, transforms, and applies algebraic expressions.	Student Edition: 5-9, 13-17, 333-338, 341-346, 553-560, 562-567 <i>Mid-Chapter Quiz</i> 26 #1-#5, #11, #13 <i>Study Guide and Review</i> 50 #14-#17, #21-#23, 606 Teacher Edition: AE 6-7, 13, 334-336, 342-344, 554-557, 563-564; P 9, 16, 338, 346, 560; SGI 9, 16, 338, 346, 560
<input type="checkbox"/> Understands, analyzes, approximates, and interprets rate of change.	Student Edition: 76-81, 83-88, 92-97 <i>Mid-Chapter Quiz</i> 91 #14-#23 <i>Spiral Review</i> 89 #47-#49 <i>Study Guide and Review</i> 124 Teacher Edition: A 82; AE 77-78, 84-86, 93-95; P 80, 88, 97; SGI 80, 88, 97; WPP 80, 88, 97
<input type="checkbox"/> Understands and applies recursion and iteration*.	Student Edition: 714-718 <i>Study Guide and Review</i> 735 #47-#54 Teacher Edition: AE 715-716; DI 719; P 718; SGI 718
Geometry	
<input type="checkbox"/> Represents and solves geometric problems by specifying locations using coordinates.	Student Edition: 209-216 <i>Preparing for Standardized Tests</i> 243 #5 <i>Standardized Test Practice</i> 245 #14 <i>Study Guide and Review</i> 239 #19-#23 Teacher Edition: AE 210-213; P 215; SGI 215
<input type="checkbox"/> Understands and applies the basic principles of transformational geometry.	Student Edition: 109-115, 209-216, 315-309, 425-428, 476-481, 494-497, 624-628, 863-864 <i>Preparing for Standardized Tests</i> 243 #5 <i>Standardized Test Practice</i> 245 #14 <i>Study Guide and Review</i> 126 #51-#52, 239 #19-#23, 324 #59-#63 Teacher Edition: AE 110-112, 210-213, 307, 425-426, 864-866; FMC 212; P 115, 215, 309; SGI 115, 215, 309

STANDARDS	PAGE REFERENCES
<input type="checkbox"/> Understands and applies properties and relationships of geometric figures.	<p>Student Edition: P15-P16, P17-P18, 7 #25, 9 #40, 21 Example 6, 272-273, 392-394, 434 #46, 442-443, 450 #40-#41, 621 #41, #44 <i>Geometry Lab</i> 824 <i>Mid-Chapter Quiz</i> 26 #4, #19 <i>Posttest</i> P19 #28-#34 <i>Quick Check</i> 805 <i>Skills Review</i> 763 #36-#41 <i>Spiral Review</i> 39 #59, 499 #79 <i>Standardized Test Practice</i> 17 #64, 25 #69, 300 #51, 522 #75, 711 #71, 903 #62</p> <p>Teacher Edition: AE P15-P16, P17-P18, 21, 393</p>
<input type="checkbox"/> Uses trigonometry based on triangles and circles to solve problems about length and angle measures.	<p>Student Edition: 808-815, 817-822, 825-830, 832-838, 841-845, 848-853 <i>Mid-Chapter Quiz</i> 847 <i>Practice Test</i> 883 #1-#15 <i>Spiral Review</i> 903 #68, 917 #55-#57 <i>Standardized Test Practice</i> 879 #51 <i>Study Guide and Review</i> 878-879</p> <p>Teacher Edition: AE 810-812, 818-820, 827-828, 833-836, 842-843; P 815, 822; SGI 815, 822; WPP 815, 822</p>
<input type="checkbox"/> Uses diagrams consisting of vertices and edges (vertex-edge graphs) to model and solve problems.	<p>See <i>Algebra 1</i> © 2010 for the following diagrams that can be used to meet this objective.</p> <p>Student Edition: P25, P28, 643, 645, 646</p>
Statistics and Probability	
<input type="checkbox"/> Understands and interprets descriptive statistics.	<p>Student Edition: 752-757, 773-777 <i>Mid-Chapter Quiz</i> 772 #9</p> <p>Teacher Edition: AE 753-754, 774; P 757; SGI 757; SQ 752; WPP 757</p>
<input type="checkbox"/> Understands and interprets inferential statistics.	<p>Student Edition: 780-784 <i>Study Guide and Review</i> 797 #29-#36</p> <p>Teacher Edition: AE 781</p>

STANDARDS	PAGE REFERENCES
<input type="checkbox"/> Understands and applies the basic ideas of probability.	Student Edition: 759-762, 764-770, 773-777 <i>Concepts and Skills Bank</i> 998-1000 <i>Mid-Chapter Quiz</i> 772 #10-#15 <i>Study Guide and Review</i> 796, 797 #25-#27 Teacher Edition: AE 760, 765-767, 774; P 762, 770; SGI 762, 770; WPP 762, 770
Quantitative Literacy	
<input type="checkbox"/> Understands and applies number operations and properties.	Student Edition: 5-9, 11-16, 193-198, 200-206, 276-281, 431-435 <i>Concepts and Skills Bank</i> 995-996, 997 <i>Mid-Chapter Quiz</i> 26 #1-#14, 208 #5-#15, 283 #17-#23 Teacher Edition: AE 6-7, 13, 194-195, 201-203, 277-281, 995-996, 997; P 198, 206; SGI 198, 206; WPP 198, 206
<input type="checkbox"/> Understands and applies the basic mathematics of decision making in a democratic society	Student Edition: 745-749, 752-757, 773-777, 780-783, 786-792 <i>Graphing Technology Lab</i> 751 <i>Mid-Chapter Quiz</i> 772 #1-#9 <i>Study Guide and Review</i> 795, 797, 798 Teacher Edition: AE 746-748, 753-754, 775, 781, 787-788; P 749, 757; SGI 749, 757; WPP 749, 757
<input type="checkbox"/> Understands and applies the basic mathematics of information processing and the Internet (<i>informatics</i> **).	See <i>Algebra 1</i> © 2010 for the following page references that can be expanded during teacher/class discussion to meet this objective. Student Edition: 111-116, 746-754, 787-791
<input type="checkbox"/> Understands and applies the mathematics of systematic counting (<i>combinatorics</i> **).	Student Edition: P12-P14, 764-770 <i>Posttest</i> P19 #24-#27 Teacher Edition: AE P13-P14, 765-767; P 770; SGI 770

STANDARDS	PAGE REFERENCES
Problem Solving	
<input type="checkbox"/> Builds new mathematical knowledge through problem solving.	Student Edition: 27-31, 41-47, 92-97, 109-115, 160-165, 200-206, 268-274, 368-374, 492-498, 533-538, 586-592 <i>Problem Solving Handbook</i> 936-937, 938-939, 940-941, 942, 943, 944, 945, 946 Teacher Edition: AE 534-536; P 31, 46, 165, 538; WPP 115, 165, 206, 273, 373, 538, 592
<input type="checkbox"/> Applies and adapts a variety of appropriate strategies to solve problems in mathematics and other contexts.	Student Edition: 41-47, 135-140, 143-148, 160-165, 220-227, 229-234, 292-299, 368-374, 586-592 <i>Problem Solving Handbook</i> 936-937, 938-939, 940-941, 942, 943, 944, 945, 946 Teacher Edition: P 373; SGI 373; WPP 46, 299, 373
<input type="checkbox"/> Monitors and reflects on the process of mathematical problem solving.	Student Edition: <i>H.O.T. Problems</i> 47 #53, #61, #62, 81 #36 #40, 149 #64, #66, #68, 172 #29, 198 #40, 227 #58, 234 #40, 265 #52 #54, #56, 289 #62, 299 #48, 309 #52, 346 #43, 363 #48, #53, 389 #60, 415 #60, 490 #43, #49, 521 #72, 830 #51, 838 #48, 853 #37, #41
Communication (Reading, Writing, Speaking, Listening, Viewing)	
<input type="checkbox"/> Organizes and consolidates his/her mathematical thinking through communication.	Student Edition: <i>H.O.T. Problems</i> 16 #61, 24 #66, 38 #49, 47 #58-#59, 66 #37, 140 #46, 198 #40, 274 #86, 299 #48, 374 #83, 498 #66, 521 #72, 538 #18, 567 #66 Teacher Edition: A 235, 257, 355, 396, 416, 507
<input type="checkbox"/> Communicates his/her mathematical thinking coherently and clearly to peers, teachers, and others.	Student Edition: <i>H.O.T. Problems</i> 38 #46, 66 #40, 81 #40, 149 #68, 256 #62, #65, 281 #70, 299 #48, 317 #62, 389 #60, 567 #66, 583 #46, 601 #39 Teacher Edition: A 32, 82, 121, 300, 347, 416, 507, 522
<input type="checkbox"/> Analyzes and evaluates the mathematical thinking and strategies of others.	Student Edition: <i>H.O.T. Problems</i> 24 #62, 38 #45, 47 #53, 66 #35, 81 #36, 149 #64, 227 #58, 256 #61, 274 #79, 289 #58, 317 #58, 354 #63, 415 #60, 429 #51, 425 #59, 444 #60, 481 #35, 490 #43, 498 #65, 521 #68

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<input type="checkbox"/> Uses the language of mathematics to express mathematical ideas precisely.	Student Edition: <i>H.O.T. Problems</i> 106 #44, 115 #44, 120 #37, 156 #49-#50, 256 #65, 265 #54-#56, 289 #62, 317 #62, 354 #67-#68, 363 #47-#48, 381 #43, 481 #38, 498 #66, 510 #65, 583 #46, 601 #39, 645 #46, 659 #47, 701 #72, 718 #53
Reasoning and Proof	
<input type="checkbox"/> Recognizes reasoning and proof as fundamental aspects of mathematics.	Student Edition: 727-730, 891-896. 898-902 <i>H.O.T. Problems</i> 338 #65, 490 #48, 521 #71, 583 #45, 694 #80-#82, 701 #64-#65, #68
<input type="checkbox"/> Makes and investigates mathematical conjectures.	Student Edition: <i>Algebra Lab</i> 219 #11, 311 #4, 638 #6-#12, 785 #4-#6 <i>Geometry Lab</i> 840 #4 <i>Graphing Technology Lab</i> 540 #5-#6, 630 #4 <i>H.O.T. Problems</i> 521 #71
<input type="checkbox"/> Develops and evaluates mathematical arguments and proofs.	Student Edition: 727-730, 891-896. 898-902 <i>H.O.T. Problems</i> 338 #65, 490 #48, 521 #71, 583 #45, 694 #80-#82, 701 #64-#65, #68 <i>Study Guide and Review</i> 736 #63-#69 Teacher Edition: AE 728-729; P 730; SGI 730; WPP 730
<input type="checkbox"/> Selects and uses various types of reasoning and methods of proof.	Student Edition: 727-730, 891-896. 898-902 <i>H.O.T. Problems</i> 338 #65, 374 #81, 490 #48, 521 #71, 583 #45, 694 #80-#82, 701 #64-#65, #68 <i>Study Guide and Review</i> 736 #63-#69 Teacher Edition: AE 728-729; P 730; SGI 730; WPP 730
Representation	
<input type="checkbox"/> Creates and uses representations to organize, record, and communicate mathematical ideas.	Student Edition: 33-38, 41-47, 92-97, 135-140, 209-216, 259-265, 294-299, 350-354, 475-481, 817-822 <i>Key Concept</i> 11, 27, 33 <i>Study Guide and Review</i> 52 Teacher Edition: AE 42-44, 93-95, 136-138. 818; SQ 27

STANDARDS	PAGE REFERENCES
<input type="checkbox"/> Selects, applies, and translates among mathematical representations to solve problems.	Student Edition: 28 Example 2, 33-38, 41-47, 63-66, 92-97, 135-140, 209-216, 259-265, 357-363, 825-830 <i>Algebra Lab</i> 75 <i>Graphing Technology Lab</i> 460-461 <i>Study Guide and Review</i> 52 Teacher Edition: AE 27-29, 34-35, 42-44, 92-97; SQ 27
<input type="checkbox"/> Uses representations to model and interpret physical, social, and mathematical phenomena.	Student Edition: 33-38, 41-47, 92-97, 135-140, 160-165, 185-190, 350-354, 477-481 <i>Graphing Technology Lab</i> 365-366 <i>Study Guide and Review</i> 52 Teacher Edition: AE 42-44, 93-95, 162, 477, 479; P 38, 46, 140, 165; WPP 140, 165
Connections	
<input type="checkbox"/> Recognizes and uses connections among mathematical ideas and how they build on one another to produce a coherent whole.	Student Edition: 41-47, 92-97, 167-172, 292-299, 533-538 Teacher Edition: A 67, 89, 107, 157, 166, 199, 217, 266, 300, 310, 364, 390, 452, 522, 568
<input type="checkbox"/> Recognizes and applies mathematics in contexts outside of mathematics.	Student Edition: 28 Example 2, 118 Example 2, 136 Example 3, 162-165, 271 Example 3, 486-489, 533-538, 589-592, 626 Example 5, 641-645, 775-777, 812-815, 836-838 Teacher Edition: A 136 Example 3, 162, 271; WPP 120, 165, 273, 538