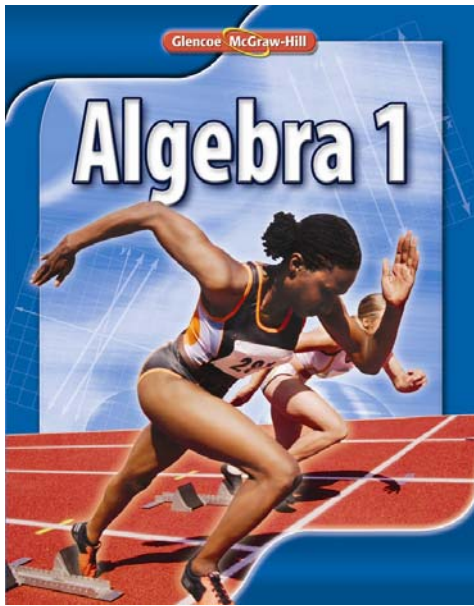




Glencoe

Core Curriculum Mathematics  
High School



# Algebra 1

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STANDARDS	PAGE REFERENCES
<b>Algebra</b>	
<input type="checkbox"/> Understands, analyzes, represents, and applies functions.	<p><b>Student Edition:</b>            45-48  <i>Check Your Understanding</i> 49  <i>Example</i> 45, 46, 47  <i>Extend</i> 53  <i>Extra Practice</i> 817  <i>H.O.T. Problems</i> 51  <i>Key Concept</i> 45  <i>Mixed Problem Solving</i> 845  <i>Practice and Problem Solving</i> 50-51  <i>Study Guide and Review</i> 66 #65-#75  <i>Study Tip</i> 47</p> <p><b>Teacher Edition:</b>            AE 46, 47, 48; DI 48; FMC 46</p>

STANDARDS	PAGE REFERENCES
<p>□ Understands, analyzes, solves, and applies equations and inequalities.</p>	<p><b>Student Edition:</b>  1, 83, 203, 290  <i>Check Your Understanding</i> 34, 86, 100, 157 #5, #6, #12, 286, 293, 298, 306  <i>Example</i> 31, 32, 33, 83, 85, 97, 98, 283, 285, 291, 297, 304, 306  <i>Explore</i> 81-82, 289  <i>Key Concept</i> 83, 84, 290  <i>Mixed Problem Solving</i> 845-847, 849  <i>Practice and Problem Solving</i> 34-36, 86-88, 100-101, 158 #35, #42, #49, #50, 164 #22, #23, #36, #37, 286-287, 293-294, 299-300, 306-308  <i>Real-World Example</i> 85, 155, 163, 285, 291, 296, 305  <i>Study Guide and Review</i> 65 #50-#58, 140-141, 202 #17, #26, 323, 324 #31-#34</p> <p><b>Teacher Edition:</b>  AE 32, 33, 84, 85 98, 284 285, 291, 297, 305;  DI 33 98, 285, 291; TNT 284</p>
<p>□ Understands, analyzes, transforms, and applies algebraic expressions.</p>	<p><b>Student Edition:</b>  5  <i>Check Your Understanding</i> 7, 12 #13, #14, 404 #16  <i>Example</i> 5  <i>Extra Practice</i> 815  <i>Key Concept</i> 6  <i>Practice and Problem Solving</i> 7-8, 13 #36-#38, #55-#58, 405 #57, 406 #61, 442 #30, #41-#43  <i>Real-World Example</i> 12  <i>Study Guide and Review</i> 63 #11-#13, #15, #27  <i>Study Tip</i> 6</p> <p><b>Teacher Edition:</b>  AE 6, 12; DI 6; TT 7</p>
<p>□ Understands, analyzes, approximates, and interprets rate of change.</p>	<p><b>Student Edition:</b>  170  <i>Check Your Understanding</i> 175 #1-#3  <i>Example</i> 172  <i>Extra Practice</i> 821  <i>Key Concept</i> 170  <i>Practice and Problem Solving</i> 175, 176 #16-#19, 177 #46  <i>Real-World Example</i> 170, 171</p> <p><b>Teacher Edition:</b>  AE 171, 172</p>

STANDARDS	PAGE REFERENCES
<input type="checkbox"/> Understands and applies recursion and iteration*.	<b>Student Edition:</b> <i>Problem-Solving Handbook</i> 804-805
<b>Geometry</b>	
<input type="checkbox"/> Represents and solves geometric problems by specifying locations using coordinates.	The following page references can be expanded to meet this objective. <b>Student Edition:</b> 38-39  Also see <i>Pre-Algebra</i> © 2010, pages 101-105, 307-311.
<input type="checkbox"/> Understands and applies the basic principles of transformational geometry.	The following page references can be expanded to meet this objective. <b>Student Edition:</b> 544-549  Also see <i>Pre-Algebra</i> © 2010, pages 101-106, 307-311 605-609.
<input type="checkbox"/> Understands and applies properties and relationships of geometric figures.	<b>Student Edition:</b> P23, P24, P26, P29 <i>Example</i> P23, P24, P26, P27, P30 <i>Exercises</i> P25, P28, P30, P32 <b>Teacher Edition:</b> AE P23, P24, P26, P27, P29, P30; TT P26
<input type="checkbox"/> Uses trigonometry based on triangles and circles to solve problems about length and angle measures.	<b>Student Edition:</b> 649 <i>Check Your Understanding</i> 652 <i>Example</i> 649, 650 <i>Explore</i> 648 <i>Key Concept</i> 649, 651 <i>Practice and Problem Solving</i> 653-654 <i>Real-World Example</i> 651 <i>Study Guide and Review</i> 660 #65-#67 <b>Teacher Edition:</b> AE 650, 651; DI 650
<input type="checkbox"/> Uses diagrams consisting of vertices and edges (vertex-edge graphs) to model and solve problems.	The diagrams on the following page references can be used to meet this objective. <b>Student Edition:</b> P25, P28, 643, 645, 646

STANDARDS	PAGE REFERENCES
<b>Statistics and Probability</b>	
<input type="checkbox"/> Understands and interprets descriptive statistics.	<p><b>Student Edition:</b>            P37, 746, 757  <i>Check Your Understanding</i> 759  <i>Concept Summary</i> 746, 757  <i>Example</i> P37, P38, 757, 758  <i>Exercises</i> P39  <i>Key Concept</i> 757, 758  <i>Practice and Problem Solving</i> 759-761  <i>Real-World Example</i> 759</p> <p><b>Teacher Edition:</b>            AE P37, P38, 747, 758, 759; DI 758; TNT P39</p>
<input type="checkbox"/> Understands and interprets inferential statistics.	<p>The following page references can be used during teacher/class discussion to meet this objective.</p> <p><b>Student Edition:</b>            746-754, 756-761</p>
<input type="checkbox"/> Understands and applies the basic ideas of probability.	<p><b>Student Edition:</b>            P33, 771, 772, 773  <i>Check Your Understanding</i> 775  <i>Example</i> P33, P34, P35  <i>Exercises</i> P36  <i>Extra Practice</i> 844  <i>Key Concept</i> 771, 772, 773  <i>Practice and Problem Solving</i> 775-777  <i>Real-World Example</i> 771, 772, 773  <i>Study Guide and Review</i> 796 #25-#30</p> <p><b>Teacher Edition:</b>            AE P33, P34, P35, 772</p>

STANDARDS	PAGE REFERENCES
<b>Quantitative Literacy</b>	
<input type="checkbox"/> Understands and applies number operations and properties.	<p><b>Student Edition:</b>            P11, P12, 16, 17, 23  <i>Check Your Understanding</i> 12 #1-#9, 13, 14, 19, 27 #1-#3  <i>Concept Summary</i> 26  <i>Example</i> 10, 11, 17, 19  <i>H.O.T. Problems</i> 21 #55-#58  <i>Key Concept</i> 10, 16, 17, 18, 23  <i>Practice and Problem Solving</i> 13 #15-#29, #37, #38, #55, 14 #56, 19-21, 27 #11-#24  <i>Real-World Example</i> 18, 24  <i>Study Guide and Review</i> 63 #18-#23, #27, 64 #28-#42, #49</p> <p><b>Teacher Edition:</b>            AE 11, 17, 18, 19, 24; DI 18, 25; FMC 17, 18, 24; TT 24</p>
<input type="checkbox"/> Understands and applies the basic mathematics of decision making in a democratic society	<p>The concepts on the following page references can be expanded to meet this objective.</p> <p><b>Student Edition:</b>            111-116, 119-123, 195-199  <i>Extend</i> 125</p>
<input type="checkbox"/> Understands and applies the basic mathematics of information processing and the Internet ( <i>informatics**</i> ).	<p>The following page references can be expanded during teacher/class discussion to meet this objective.</p> <p><b>Student Edition:</b>            111-116, 746-754, 787-791</p>
<input type="checkbox"/> Understands and applies the mathematics of systematic counting ( <i>combinatorics**</i> ).	<p><b>Student Edition:</b>            764, 765  <i>Check Your Understanding</i> 767  <i>Example</i> P35  <i>Exercises</i> P36  <i>Extra Practice</i> 843  <i>Practice and Problem Solving</i> 768-769  <i>Real-World Example</i> 764, 765, 766, 767  <i>Study Guide and Review</i> 795 #20-#24</p> <p><b>Teacher Edition:</b>            AE P35, 765, 766, 767; FMC 765, 766</p>

STANDARDS	PAGE REFERENCES
<b>Problem Solving</b>	
<input type="checkbox"/> Builds new mathematical knowledge through problem solving.	<p><b>Student Edition:</b>            P5  <i>Check Your Understanding</i> 78 #9, #10  <i>Example</i> P5, P6  <i>Exercises</i> P6  <i>Practice and Problem Solving</i> 78 #24, #25  <i>Real-World Example</i> 76</p> <p><b>Teacher Edition:</b>            AE P5, P6, 76; TT P5</p>
<input type="checkbox"/> Applies and adapts a variety of appropriate strategies to solve problems in mathematics and other contexts.	<p><b>Student Edition:</b>  <i>Problem-Solving Handbook</i> 804-814  <i>Problem-Solving Tip</i> 25, 133, 182, 317, 486, 646, 672, 772</p>
<input type="checkbox"/> Monitors and reflects on the process of mathematical problem solving.	<p>The following page references can be used during teacher/class discussion to meet this objective.</p> <p><b>Student Edition:</b>            P5  <i>Example</i> P5, P6  <i>Exercises</i> P6</p> <p><b>Teacher Edition:</b>            NM P6</p>
<b>Communication (Reading, Writing, Speaking, Listening, Viewing)</b>	
<input type="checkbox"/> Organizes and consolidates his/her mathematical thinking through communication.	<p>The following page references use the concept of polynomials and can be used to meet this objective.</p> <p><b>Student Edition:</b>  <i>Explore</i> 423, 431-432, 445-446  <i>H.O.T. Problems</i> 406 #65, #67, 414 #61, #64, #65, 428 #52-#54, #56, 437 #36, #41, 443 #45, #48, #50, 451 #45, #49</p> <p><b>Teacher Edition:</b>            TT 402, 409</p>
<input type="checkbox"/> Communicates his/her mathematical thinking coherently and clearly to peers, teachers, and others.	<p>The following page references use the concept of inequalities and can be used to meet this objective.</p> <p><b>Student Edition:</b>  <i>Explore</i> 289  <i>H.O.T. Problems</i> 287 #55, #56, 294 #42, #45, #47, 300 #55, #56, #58, #59, 308 #39, #40, #43  <i>Practice and Problem Solving</i> 287 #45, 300 #54</p> <p><b>Teacher Edition:</b>            DI 291, 308; TT 285, 291, 298, 306</p>

STANDARDS	PAGE REFERENCES
<input type="checkbox"/> Analyzes and evaluates the mathematical thinking and strategies of others.	<p>The following page references use the concept of equations and can be used to meet this objective.</p> <p><b>Student Edition:</b>  <i>H.O.T. Problems</i> 108 #63, 116 #49, 123 #47</p> <p><b>Teacher Edition:</b>            DI 113, 117; WO 108, 117, 122</p>
<input type="checkbox"/> Uses the language of mathematics to express mathematical ideas precisely.	<p>The following page references use the concepts of statistics and probability and can be used to meet this objective.</p> <p><b>Student Edition:</b>  <i>Check Your Understanding</i> 743 #5, #6  <i>H.O.T. Problems</i> 744 #24, 754 #32, 769 #37-#39, 777 #34, #37, #38, 791 #15, #17, #19  <i>Practice and Problem Solving</i> 743 #10-#20</p> <p><b>Teacher Edition:</b>            DI 736D</p>
<b>Reasoning and Proof</b>	
<input type="checkbox"/> Recognizes reasoning and proof as fundamental aspects of mathematics.	<p>The following page references can be used during teacher/class discussion to meet this objective.</p> <p><b>Student Edition:</b>            195  <i>Extend</i> 194  <i>H.O.T. Problems</i> 165 #47, 185 #46, #48, 199 #16, #17</p>
<input type="checkbox"/> Makes and investigates mathematical conjectures.	<p><b>Student Edition:</b>  <i>Explore</i> 82 #10, 213 #6-#8, 423 #9, 648 #2, #3, 669 #5  <i>Extend</i> 269 #3, #5</p>
<input type="checkbox"/> Develops and evaluates mathematical arguments and proofs.	<p><b>Student Edition:</b>            54  <i>Check Your Understanding</i> 56  <i>Example</i> 54, 55, 56  <i>H.O.T. Problems</i> 58  <i>Practice and Problem Solving</i> 57-58  <i>Study Tip</i> 55, 56</p> <p><b>Teacher Edition:</b>            AE 55, 56; FMC 56</p>

STANDARDS	PAGE REFERENCES
<input type="checkbox"/> Selects and uses various types of reasoning and methods of proof.	<p><b>Student Edition:</b>            54  <i>Check Your Understanding</i> 56  <i>Example</i> 54, 55, 56  <i>H.O.T. Problems</i> 58  <i>Practice and Problem Solving</i> 57-58  <i>Study Tip</i> 55, 56</p> <p><b>Teacher Edition:</b>            AE 55, 56; FMC 56</p>
<b>Representation</b>	
<input type="checkbox"/> Creates and uses representations to organize, record, and communicate mathematical ideas.	<p>The following page references use the concept of factoring and can be used to meet this objective.</p> <p><b>Student Edition:</b>  <i>Example</i> 486, 487  <i>Explore</i> 475, 483-484  <i>H.O.T. Problems</i> 473 #32  <i>Practice and Problem Solving</i> 473 #28, 481 #51, 490 #40, 497 #39, 503 #56</p> <p><b>Teacher Edition:</b>            DI 474, 478, 486, 501</p>
<input type="checkbox"/> Selects, applies, and translates among mathematical representations to solve problems.	<p>The following page references use the concept of linear equations and can be used to meet this objective.</p> <p><b>Student Edition:</b>  <i>Explore</i> 81-82, 90  <i>H.O.T. Problems</i> 159 #59  <i>Practice and Problem Solving</i> 79 #46, 101 #41, 106 #33-#36, 107 #46-#51, 159 #58, 228 #44</p> <p><b>Teacher Edition:</b>            DI 162</p>
<input type="checkbox"/> Uses representations to model and interpret physical, social, and mathematical phenomena.	<p>The following page references use the concept of systems of equations and can be used to meet this objective.</p> <p><b>Student Edition:</b>            333  <i>Check Your Understanding</i> 336 #9, 345 #7, 351 #6, 357 #5, #6, 365 #5  <i>Practice and Problem Solving</i> 337 #25, #26, #42, 338 #45, #46, 345 #23-#26, 352 #23, #30-#33, 358 #19, #20, #25-#27, 365 #12-#20  <i>Real-World Example</i> 335, 344, 350, 357, 364</p>

STANDARDS	PAGE REFERENCES
<b>Connections</b>	
<p>□ Recognizes and uses connections among mathematical ideas and how they build on one another to produce a coherent whole.</p>	<p>The following page references use the concept of factoring and can be used to meet this objective.</p> <p><b>Student Edition:</b>  476, 485, 493  <i>Check Your Understanding</i> 472, 479, 489, 496  <i>Example</i> 471, 477, 486, 487, 488, 494, 495  <i>Explore</i> 483-484  <i>Key Concept</i> 477, 493  <i>Practice and Problem Solving</i> 472-473, 480, 489-490, 496-497  <i>Real-World Example</i> 472, 479, 488, 495</p> <p><b>Teacher Edition:</b>  DI 486, 494</p>
<p>□ Recognizes and applies mathematics in contexts outside of mathematics.</p>	<p>The following page references use geometric concepts and can be used to meet this objective.</p> <p><b>Student Edition:</b>  <i>Check Your Understanding</i> 632 #5, 638 #5, 644 #7  <i>Practice and Problem Solving</i> 633 #31, 639 #30, 640 #48-#50, 645 #20-#24  <i>Real-World Example</i> 631, 637, 644</p> <p><b>Teacher Edition:</b>  DI 637</p>