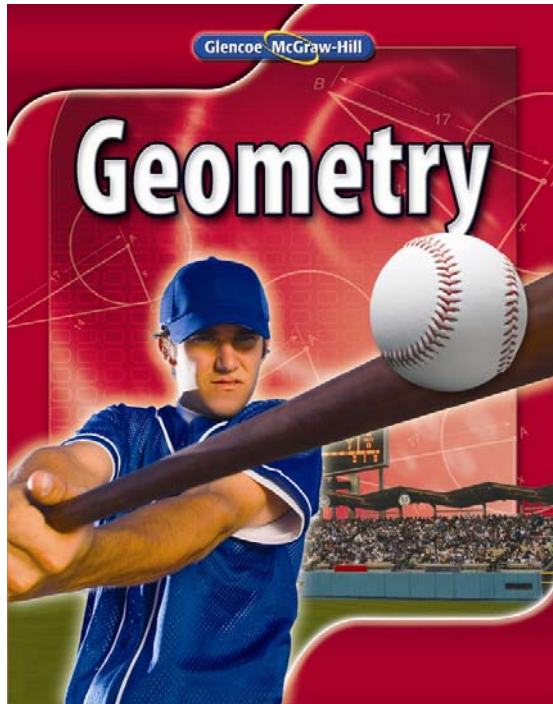




Glencoe

Mathematics Curriculum Framework  
Grades 9-12



STANDARDS	PAGE REFERENCES
<p><b>Algebraic Reasoning: Patterns And Functions</b> – Patterns and functional relationships can be represented and analyzed using a variety of strategies, tools and technologies.</p> <p><b>How do patterns and functions help us describe data and physical phenomena and solve a variety of problems?</b></p>	
<p><b>1.1 Understand and describe patterns and functional relationships.</b></p>	
<p>a. Describe relationships and make generalizations about patterns and functions.</p>	<p><b>Student Edition:</b> 89-96, 133 #1-#2, 163 #1-#2, 165 #2, 167 #12</p> <p><b>Teacher Edition:</b> AE 90, 91, 92; F 93; TNT 92; TWT 90</p>
<p><b>1.2 Represent and analyze quantitative relationships in a variety of ways.</b></p>	
<p>a. Represent and analyze linear and nonlinear functions and relations symbolically and with tables and graphs.</p>	<p><b>Student Edition:</b> 186-194, 195 #17-#19, 201 #43-#45, 203 #64-#66, 225 #21-#23, 227 #4-#7, 229 #1, 230 #3</p> <p><b>Teacher Edition:</b> AE 187, 188, 189; F 187; T 186; TWT 187, 188; WO 188</p>

STANDARDS	PAGE REFERENCES
<p><b>1.3 Use operations, properties and algebraic symbols to determine equivalence and solve problems.</b></p>	
<p>a. Manipulate equations, inequalities and functions to solve problems.</p>	<p><b>Student Edition:</b> 134-135, 137 #9-#12, 138 #13-#16, 141 #45, 161 #29-#35, 163 #8, 167 #9, 1013-1014, 1015 ex 1 – ex 2, 1016 #1-#10, 1017-1018 <i>Study Tip</i> 135 <b>Teacher Edition:</b> AE 135, 1013, 1014, 1015, 1017; F 136; TNT 136; WO 1014, 1018</p>
<p><b>Numerical and Proportional Reasoning</b> – Quantitative relationships can be expressed numerically in multiple ways in order to make connections and simplify calculations using a variety of strategies, tools and technologies. <b>How are quantitative relationships represented by numbers?</b></p>	
<p><b>2.1 Understand that a variety of numerical representations can be used to describe quantitative relationships.</b></p>	
<p>a. Extend the understanding of number to include integers, rational numbers and real numbers.</p>	<p>See Glencoe's <i>Algebra 1</i> © 2010 <b>Student Edition:</b> P7-P10, P11-P12, P13-P16, P17-P19, 92-95, 141, 283-289, 290-295, 558-563 <i>Study Tip</i> P8, P9, P10, P12, P14, P15, P18, P19, 93</p>
<p>b. Interpret and represent large sets of numbers with the aid of technologies.</p>	<p><b>Student Edition:</b> 99-100, 101 #10, 102 #31, 103 #41, 117 ex 3, 443 #59, 934 ex 4, 939, 940, 952-953 example <b>Teacher Edition:</b> AE 100, 117, 934</p>
<p><b>2.2 Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.</b></p>	
<p>a. Develop strategies for computation and estimation using properties of number systems to solve problems.</p>	<p><b>Student Edition:</b> P3 #60-#63, P19-P20, P21 #54-#59, 497 ex 2, 498 #3, 499 #10, 569 #56 <i>Problem Solving Tip</i> 661 <i>Study Tip</i> 28, 247, 336, 402, 832, 917 <b>Teacher Edition:</b> AE P19, P20, 497</p>
<p>b. Solve proportional reasoning problems.</p>	<p><b>Student Edition:</b> 457 ex 1, 460 #1-#2, 461 #38, 462 #42, 466 ex 2, 469 #7, 470 #16, 472 #47, 480 #22-#24, 481 #32, 482 #35 <b>Teacher Edition:</b> AE 458, 459, 467</p>

STANDARDS	PAGE REFERENCES
<p><b>Geometry and Measurement</b> – Shapes and structures can be analyzed, visualized, measured and transformed using a variety of strategies, tools and technologies.</p> <p><b>How do geometric relationships and measurements help us to solve problems and make sense of our world?</b></p>	
<p><b>3.1 Use properties and characteristics of two- and three-dimensional shapes and geometric theorems to describe relationships, communicate ideas and solve problems.</b></p>	
<p>a. Investigate relationships among plane and solid geometric figures using geometric models, constructions and tools.</p>	<p><b>Student Edition:</b>  <i>Construction</i> 17, 30, 39, 40, 205, 264, 265, 271, 273, 332, 488, 704</p> <p><b>Teacher Edition:</b>  DI 16; TNT 38, 39</p>
<p>b. Develop and evaluate mathematical arguments using reasoning and proof.</p>	<p><b>Student Edition:</b>  89-96, 104 #54, 113 #77-#80, 115-123, 132 #55-#56, 133 #16-#17, 141 #49, 149-157, 159 #11-#13, 160 #21-#23, 163 #1-#2</p> <p><b>Teacher Edition:</b>  A 96, 123, 157; AE 90, 91, 116, 117, 118, 150, 152, 153; DI 92, 96, 117; F 93, 121; TWT 90, 118; WO 118</p>
<p><b>3.2 Use spatial reasoning, location and geometric relationships to solve problems.</b></p>	
<p>a. Verify geometric relationships using algebra, coordinate geometry, and transformations.</p>	<p><b>Student Edition:</b>  25 ex 1, 26 ex 2, 27 ex 3, 28 ex 4, 30 #3-#5, 31 #19-#30, 34 #68, 44 #58-#63, 45 #9-#10, 78 #16-#17, 81 #10-#12, 85 #8, 216 #3, 218 #7-#8, 219 #21-#29</p> <p><i>Geometry Lab</i> 550-551</p> <p><i>Key Concept</i> 25, 26</p> <p><b>Teacher Edition:</b>  A 35, 551; AE 26, 27, 28, 29, 216; DI 27, 28; TNT 26; TWT 26; WO 27</p>
<p><b>3.3 Develop and apply units, systems, formulas and appropriate tools to estimate and measure.</b></p>	
<p>a. Solve a variety of problems involving 1-, 2-, and 3-dimensional measurements using geometric relationships and trigonometric ratios.</p>	<p><b>Student Edition:</b>  791-799, 808 #35-#37, 811 #25-#29, 813 #18-#19, 815 #1, 817 #12, 830-837, 838-846, 847-854, 857-863, 864-871</p> <p><b>Teacher Edition:</b>  A 790, 799, 801, 837; AE 792, 793, 794, 815, 831, 832, 833, 840, 841, 842, 848, 849, 858, 859; DI 793, 794, 797, 832, 852; F 793, 832, 840, 849; TNT 792, 831</p>

STANDARDS	PAGE REFERENCES
<p><b>Working with Data: Probability and Statistics</b> – Data can be analyzed to make informed decisions using a variety of strategies, tools and technologies.</p> <p><b>How can collecting, organizing and displaying data help us analyze information and make reasonable predictions and informed decisions?</b></p>	
<p><b>4.1 Collect, organize and display data using appropriate statistical and graphical methods.</b></p>	
<p>a. Create the appropriate visual or graphical representation of real data.</p>	<p><b>Student Edition:</b> 91 ex 3a, 952-953</p> <p><b>Teacher Edition:</b> AE 91, 694</p>
<p><b>4.2 Analyze data sets to form hypotheses and make predictions.</b></p>	
<p>a. Analyze real-world problems using statistical techniques.</p>	<p><b>Student Edition:</b> 91 ex 3b, 694 ex 3, 696 #6, 697 #24, 952-953, 954 #5</p> <p><b>Teacher Edition:</b> AE 91</p>
<p><b>4.3 Understand and apply basic concepts of probability.</b></p>	
<p>a. Understand and apply the principles of probability in a variety of situations.</p>	<p><b>Student Edition:</b> P8-P9, 906-914, 915-921, 922 #7-#15, 930 #30-#31, 931-937, 938-945</p> <p><b>Teacher Edition:</b> A 918; AE P8, P9, 907, 908, 909, 910, 916, 917, 932, 933, 934, 939, 940, 941; DI 909, 913, 916, 920, 932, 934; TWT 933</p>