



# Geometry

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STANDARDS	PAGE REFERENCES
<p><b>Core High School Algebra</b> <b>Grade Standards, Supporting Skills, and Examples</b></p>	
<p><b>Indicator 1: Use procedures to transform algebraic expressions.</b></p>	
<p><b>Standard, Supporting Skills, and Examples</b></p>	
<p><b>9-12.A.1.1. Students are able to write equivalent forms of algebraic expressions using properties of the set of real numbers.</b></p> <ul style="list-style-type: none"> <li>• Evaluate algebraic expressions.</li> <li>• Use laws of exponents.</li> <li>• Use conventional order of operations, including grouping and exponents.</li> </ul>	<p><b>Student Edition:</b>  <i>Get Ready for the Next Lesson</i> 20, 47, 57, 90  <i>Prerequisite Skills</i> 780, 792-797  <i>Quick Check</i> 5 #11-#15, 77 #1-#6, 727 #6-#9  <i>Standardized Test Practice</i> 74 #4, 96 #50, 131 #34, 162 #50, 197 #8, 541 #60</p>
<p><b>Indicator 2: Use a variety of algebraic concepts and methods to solve equations and inequalities.</b></p>	
<p><b>9-12.A.2.1. Students are able to use algebraic properties to transform multi-step, single-variable, first-degree equations.</b></p>	<p><b>Student Edition:</b>            382-384  <i>Get Ready for the Next Lesson</i> 29, 38, 354  <i>Prerequisite Skills</i> 781-782  <i>Quick Check</i> 77 #9-#15  <b>Teacher Wraparound Edition:</b>            AE 382</p>

STANDARDS	PAGE REFERENCES
<p><b>9-12.A.2.2. Students are able to use algebraic properties to transform multi-step, single-variable, first-degree inequalities and represent solutions using a number line.</b></p>	<p><b>Student Edition:</b>  <i>Get Ready for the Next Lesson</i> 301  <i>Prerequisite Skills</i> 784  <i>Standardized Test Practice</i> 626 #4</p>
<p><b>Indicator 3: Interpret and develop mathematical models.</b></p>	
<p><b>9-12.A.3.1. Students are able to create linear models to represent problem situations.</b></p> <ul style="list-style-type: none"> <li>Calculate and interpret slope.</li> </ul>	<p><b>Student Edition:</b>  165-170  <i>Mixed Problem Solving and Proof</i> 830 #13  <i>Preparing for Standardized Tests</i> 843 #3, 850 #6, 851 #20  <i>Prerequisite Skills</i> 786-787  <i>Standardized Test Practice</i> 66 #35, 569 #57, 735 #36  <i>Study Guide and Review</i> 193 #23</p> <p><b>Teacher Wraparound Edition:</b>  AE 167; PAP 170</p>
<p><b>9-12.A.3.2. Students are able to distinguish between linear and nonlinear models.</b></p>	<p>See Glencoe <i>Algebra I</i> © 2008.</p> <p><b>Student Edition:</b>  187-195, 196-202, 204-209, 470-477, 502-508  <i>Graphing Calculator Lab</i> 197, 210-211, 470, 478-479  <i>Practice Test</i> 247, 521</p> <p><b>Teacher Wraparound Edition:</b>  A 211, 470; AE 198, 199, 472, 473, 503; FMC 504; PA 199; T 478</p>
<p><b>Indicator 4: Describe and use properties and behaviors of relations, functions, and inverses.</b></p>	
<p><b>9-12.A.4.1. Students are able to use graphs, tables, and equations to represent linear functions.</b></p>	<p><b>Student Edition:</b>  165-170, 179 #39-#42, 187 #39-#43  <i>Geometry Lab</i> 171  <i>Preparing for Standardized Tests</i> 850 #6, 851 #20  <i>Prerequisite Skills</i> 785, 786-787  <i>Standardized Test Practice</i> 66 #35, 263 #9, 735 #36  <i>Study Guide and Review</i> 193 3-4</p>

STANDARDS	PAGE REFERENCES
<b>Core High School Algebra Performance Descriptors</b>	
<b>Advanced</b>	
<p><b>High school students performing at the advanced level:</b></p> <ul style="list-style-type: none"> <li>transform algebraic expressions;</li> <li>solve quadratic equations;</li> <li>solve a system of linear equations.</li> </ul>	<p><b>Student Edition:</b>  <i>Get Ready for the Next Lesson</i> 20, 47, 57, 90  <i>Preparing for Standardized Tests</i> 846 #9  <i>Prerequisite Skills</i> 780, 788-789, 792-797  <i>Quick Check</i> 5 #11-#15, 77 #1-#6  <i>Standardized Test Practice</i> 74 #4, 96 #50, 131 #34, 162 #50, 541 #60</p>
<b>Proficient</b>	
<p><b>High school students performing at the proficient level:</b></p> <ul style="list-style-type: none"> <li>transform polynomial expressions using real number properties;</li> <li>solve single variable linear equations with integral coefficients;</li> <li>graph linear equations;</li> <li>interpret tables, graphs, and charts to solve problems;</li> <li>create a linear model from a problem context.</li> </ul>	<p><b>Student Edition:</b>  167-168 Example 5, 168-169 #11-#12, #33-#36  <i>Mixed Problem Solving and Proof</i> 830 #13  <i>Prerequisite Skills</i> 781-782, 785, 792-797  <i>Quick Check</i> 201 #1-#5  <i>Standardized Test Practice</i> 66 #35, 90 #55, 541 #60, 560 #66, 735 #36  <i>Study Guide and Review</i> 193 #23  <b>Teacher Wraparound Edition:</b>  AE 167; PAP 170</p>
<b>Basic</b>	
<p><b>High school students performing at the basic level:</b></p> <ul style="list-style-type: none"> <li>transform linear expressions with integral coefficients using real number properties;</li> <li>solve linear equations of the form <math>ax + b = c</math>, where a, b, and c are integers;</li> <li>recognize the graph of a linear equation;</li> <li>graph a line from a table of values.</li> </ul>	<p><b>Student Edition:</b>  <i>Prerequisite Skills</i> 781-782  <i>Quick Check</i> 201 #1-#5</p>

STANDARDS	PAGE REFERENCES
<b>Core High School Geometry</b> <b>Grade Standards, Supporting Skills, and Examples</b>	
<b>Indicator 1: Use deductive and inductive reasoning to recognize and apply properties of geometric figures.</b>	
<b>9-12.G.1.1. Students are able to apply the properties of triangles and quadrilaterals to find unknown parts.</b>	<b>Student Edition:</b> 204-207, 210-216, 247 Example 4, 319 Example 3, 336 Example 4, 341-342, 359 Real-World Example 4 <i>Practice Test</i> 261 #4-#6, #11, #13-#14, #16 <i>Standardized Test Practice</i> 262 #3, 263 #13a <i>Study Guide and Review</i> 257, 259 #26-#28 <b>Teacher Wraparound Edition:</b> A 216; AE 204 #3-#4, 211-213, 247 #4, 320, 336 #4, 341-342, 358
<b>9-12.G.1.2. Students are able to identify and apply relationships among triangles.</b> <ul style="list-style-type: none"> <li>• Definitions and postulates</li> <li>• Similarity theorems</li> <li>• Congruence theorems</li> </ul>	<b>Student Edition:</b> 202-208, 217-223, 225-232, 234-241, 398 Standardized Test Example 1, 400-401 #1-#3, #7-#10, 415-422 <i>Geometry Lab</i> 242-243 <i>Standardized Test Practice</i> 262 #4, 428 #1-#2, #5 <i>Study Guide and Review</i> 257 4-1, 258, 259 4-5, 426 7-5 <b>Teacher Wraparound Edition:</b> AE 203-204, 227, 229, 237, 398; PAP 204
<b>Indicator 2: Use properties of geometric figures to solve problems from a variety of perspectives.</b>	
<b>9-12.G.2.1. Students are able to recognize the relationship between a three-dimensional figure and its two-dimensional representation.</b> <ul style="list-style-type: none"> <li>• Interpret floor plans</li> <li>• Follow instructions for assembly of a product, e.g., “some assembly required.”</li> </ul>	<b>Student Edition:</b> 680-685, 686, 693, 697 #37-#38, 700, 706, 733 #16-#18 <i>Extra Practice</i> 822 Lesson 12-1 <i>Geometry Lab</i> 67 <i>Mid-Chapter Quiz</i> 698 #1-#4 <i>Reading Math</i> 12 <b>Teacher Wraparound Edition:</b> AE 681; PAP 685

STANDARDS	PAGE REFERENCES
<p><b>9-12.G.2.2. Students are able to reflect across vertical or horizontal lines, and translate two-dimensional figures.</b></p> <ul style="list-style-type: none"> <li>Identify lines of symmetry.</li> <li>Use the coordinate plane.</li> </ul>	<p><b>Student Edition:</b>            497-503, 504-509, 510-517, 519-524, 525-532, 684 #33-#37  <i>Geometry Lab</i> 496  <i>Mid-Chapter Quiz</i> 518  <i>Practice Test</i> 547 #1-#22, #27  <i>Standardized Test Practice</i> 548-549 #2, #4, #7, #11  <i>Study Guide and Review</i> 544-546</p> <p><b>Teacher Wraparound Edition:</b>            A 503, 509; AE 498-500, 505-506, 511-512, 527; DI 499, 505; PAP 509</p>
<p><b>9-12.G.2.3. Students are able to use proportions to solve problems.</b></p>	<p><b>Student Edition:</b>            380-385, 388-396, 397-403, 405-414, 415-422  <i>Mid-Chapter Quiz</i> 404  <i>Practice Test</i> 427  <i>Study Guide and Review</i> 425-426</p> <p><b>Teacher Wraparound Edition:</b>            A 386, 403, 422; AE 381-382, 389-391, 399, 406, 408-409, 416, 418; DI 399; PAP 414</p>
<p><b>Core High School Geometry Performance Descriptors</b></p>	
<p><b>Advanced</b></p>	
<p><b>High school students performing at the advanced level:</b></p> <ul style="list-style-type: none"> <li>translate and reflect a figure using the coordinate plane;</li> <li>supply a missing reason and/or statement in a deductive proof.</li> </ul>	<p><b>Student Edition:</b>            111-116, 118-123, 126-131, 498-499 Example 2, 501-502 #3-#6, #25-#32, 504-505 Examples 1 and 2, 506-507 #1-#3, #6-#11, #24-#30  <i>Practice Test</i> 137 #13-#16, 547 #4-#6  <i>Standardized Test Practice</i> 139 #7, #12, 548 #2  <i>Study Guide and Review</i> 135-136, 544</p> <p><b>Teacher Wraparound Edition:</b>            AE 112 #2, 113 #4, 119-120, 127, 498 #2, 505; PAP 123</p>

STANDARDS	PAGE REFERENCES
<b>Proficient</b>	
<p><b>High school students performing at the proficient level:</b></p> <ul style="list-style-type: none"> <li>• use deductive reasoning and known properties of a geometric figure to find other properties;</li> <li>• use proportions to solve problems;</li> <li>• translate or reflect a simple figure using the coordinate plane;</li> <li>• match a two-dimensional drawing to its three-dimensional counterpart.</li> </ul>	<p><b>Student Edition:</b>  107 Example 3, 113 Standardized Test Example 3, 114 #7, 380-385, 388-396, 397-403, 405-414, 415-422, 504-505 Examples 1 and 2, 506-507 #1-#3, #6-#11, #24-#30, 681 Example 2, 684 #28-#32  <i>Geometry Lab</i> 67  <i>Reading Math</i> 12  <i>Standardized Test Practice</i> 548 #2  <i>Study Guide and Review</i> 544</p> <p><b>Teacher Wraparound Edition:</b>  AE 107, 498 #2, 505, 681 #2</p>
<b>Basic</b>	
<p><b>High school students performing at the basic level:</b></p> <ul style="list-style-type: none"> <li>• identify a translation or reflection;</li> <li>• solve a proportion.</li> </ul>	<p><b>Student Edition:</b>  382 Example 3, 383-384 #4-#6, #18-#25  <i>Geometry Lab</i> 496  <i>Get Ready for the Next Lesson</i> 470  <i>Mid-Chapter Quiz</i> 404 #1-#6, 518 #3, #10  <i>Practice Test</i> 427 #1-#3, 547 #27  <i>Standardized Test Practice</i> 548 #2  <i>Study Guide and Review</i> 425 #9-#10, 544 #14</p> <p><b>Teacher Wraparound Edition:</b>  A 386; AE 382 #3; DI 499</p>

STANDARDS	PAGE REFERENCES
<b>Core High School Measurement Grade Standards, Supporting Skills, and Examples</b>	
<b>Indicator 1: Apply measurement concepts in practical applications.</b>	
<p><b>9-12.M.1.1. Students are able to choose appropriate unit label, scale, and precision.</b></p> <ul style="list-style-type: none"> <li>Determine appropriate scales for histograms, scatterplots, and other graphs.</li> </ul>	<p><b>Student Edition:</b> 14, 17-18 #5-#6, #16-#21 <i>Mixed Problem Solving and Proof</i> 828 #5-#7 <i>Prerequisite Skills</i> 776 Example 1, 777 #1-#6 <i>Study Guide and Review</i> 69 #14</p> <p><b>Teacher Wraparound Edition:</b> AE 14 #3</p>
<p><b>9-12.M.1.2. Students are able to use suitable units when describing rate of change.</b></p>	<p><b>Student Edition:</b> 157-158 Real-World Example 2, 160-161 #3-#5, #21, #22, #37-#42 <i>Graphing Calculator Lab</i> 155 #4</p> <p><b>Teacher Wraparound Edition:</b> AE 158 #2; PAP 382</p>
<p><b>9-12.M.1.3. Students are able to use formulas to find perimeter, circumference, and area to solve problems involving common geometric figures.</b></p> <ul style="list-style-type: none"> <li>Use algebraic expressions with geometric formulas.</li> </ul>	<p><b>Student Edition:</b> 51-57, 66 #36-#39, 630-636, 638-647, 649-656 <i>Geometry Lab</i> 648 <i>Graphing Calculator Lab</i> 637 <i>Practice Test</i> 73 #17-#18, #21, 675 #1-#10, #14-#15 <i>Standardized Test Practice</i> 75 #7-#8, 676-677 #2-#3, #6, #12b-c <i>Study Guide and Review</i> 71 #32, 673</p> <p><b>Teacher Wraparound Edition:</b> A 57, 636; AE 51, 631-633, 639-642, 650-652</p>
<b>Core High School Measurement Performance Descriptors</b>	
<b>Advanced</b>	
<p><b>High school students performing at the advanced level:</b></p> <ul style="list-style-type: none"> <li>use dimensional analysis to solve problems;</li> <li>apply indirect measurement methods;</li> <li>represent and solve problems involving volume and surface area.</li> </ul>	<p><b>Student Edition:</b> 62-63 Examples 2 and 3, 400 Real-World Example, 400-401 #6, #11-#13, 686-691, 693-697, 699-705, 706-710, 711-717, 728-735, 737-742, 743-748, <i>Practice Test</i> 427 #9, 723 <i>Standardized Test Practice</i> 724-725 #3, #6, #10 <i>Study Guide and Review</i> 72, 426 7-3, 720-722, 766-767</p> <p><b>Teacher Wraparound Edition:</b> AE 399 #3; DI 399</p>

STANDARDS	PAGE REFERENCES
<b>Proficient</b>	
<p><b>High school students performing at the proficient level:</b></p> <ul style="list-style-type: none"> <li>select a suitable unit of measure for problem situations, including rate of change;</li> <li>choose an appropriate scale for a graph;</li> <li>represent and solve problems involving perimeter, circumference, and area.</li> </ul>	<p><b>Student Edition:</b>            51-57, 66 #36-#39, 157-158 Real-World Example 2, 630-636, 638-647, 649-656  <i>Geometry Lab</i> 648  <i>Graphing Calculator Lab</i> 637  <i>Prerequisite Skills</i> 776 Example 1, 777 #1-#6  <i>Standardized Test Practice</i> 75 #7-#8, 676-677 #2-#3, #6, #12b-c  <i>Study Guide and Review</i> 71 #32, 673</p> <p><b>Teacher Wraparound Edition:</b>            A 57, 636; AE 51, 631-633, 639-642, 650-652</p>
<b>Basic</b>	
<p><b>High school students performing at the basic level:</b></p> <ul style="list-style-type: none"> <li>recognize a unit of measure that describes a rate of change problem;</li> <li>find circumference and area of circles;</li> <li>find perimeter and area of rectangles and triangles.</li> </ul>	<p><b>Student Edition:</b>            51-57, 66 #36-#39, 638-639, 651  <i>Graphing Calculator Lab</i> 637 Activity 1  <i>Practice Test</i> 73 #17, #21  <i>Standardized Test Practice</i> 75 #7-#8</p> <p><b>Teacher Wraparound Edition:</b>            AE 51-52, 639, 651</p>
<b>Core High School Number Sense Grade Standards, Supporting Skills, and Examples</b>	
<p><b>Indicator 1: Analyze the structural characteristics of the real number system and its various subsystems. Analyze the concept of value, magnitude, and relative magnitude of real numbers.</b></p>	
<p><b>9-12.N.1.1. Students are able to identify multiple representations of a real number.</b></p> <ul style="list-style-type: none"> <li>Represent rational and irrational numbers in different forms.</li> </ul>	<p><b>Student Edition:</b>  <i>Get Ready for the Next Lesson</i> 403, 446, 663  <i>Preparing for Standardized Tests</i> 846 #3  <i>Standardized Test Practice</i> 422 #34</p>

STANDARDS	PAGE REFERENCES
<p><b>9-12.N.1.2. Students are able to apply the concept of place value, magnitude, and relative magnitude of real numbers.</b></p> <ul style="list-style-type: none"> <li>Scientific notation</li> <li>Infinitely many solutions</li> <li>Completeness of the real numbers (density, i.e. between any two real numbers is another real number)</li> </ul>	<p><b>Student Edition:</b>  <i>Get Ready for the Next Lesson 11, 278</i></p>
<p><b>Indicator 2: Apply number operations with real numbers and other number systems.</b></p>	
<p><b>9-12.N.2.1. Students are able to add, subtract, multiply, and divide real numbers including integral exponents.</b></p>	<p><b>Student Edition:</b>  <i>Prerequisite Skills 778-779</i>  <i>Quick Check 5 #6-#15</i></p>
<p><b>Indicator 3: Develop conjectures, predictions, or estimations to solve problems and verify or justify the results.</b></p>	
<p><b>9-12.N.3.1. Students are able to use estimation strategies in problem situations to predict results and to check the reasonableness of results.</b></p> <ul style="list-style-type: none"> <li>Use rounding as an estimation strategy.</li> <li>Use non-routine estimation strategies.</li> </ul>	<p><b>Student Edition:</b>  662 #23-#27, 707 Real-World Example  <i>Study Tip 660, 694 Estimation</i>  <i>Test-Taking Tip 52, 745</i></p>
<p><b>9-12.N.3.2. Students are able to select alternative computational strategies and explain the chosen strategy.</b></p> <ul style="list-style-type: none"> <li>Use properties of numbers that allow operational shortcuts for computational procedures.</li> </ul>	<p>The following references discuss alternate methods for solving problems and can be used to meet this objective.</p> <p><b>Student Edition:</b>  662 #30  <i>Study Tip 21, 112, 580, 650</i></p>
<p style="text-align: center;"><b>Core High School Number Sense Performance Descriptors</b></p>	
<p style="text-align: center;"><b>Advanced</b></p>	
<p><b>High school students performing at the advanced level:</b></p> <ul style="list-style-type: none"> <li>classify a number as real, pure imaginary, or complex;</li> <li>evaluate numerical expressions using rational exponents;</li> <li>explain a reasonable solution to a problem.</li> </ul>	<p><b>Student Edition:</b>  707 Real-World Example  <i>Study Tip 660</i>  <i>Test-Taking Tip 52</i></p>

STANDARDS	PAGE REFERENCES
<b>Proficient</b>	
<p><b>High school students performing at the proficient level:</b></p> <ul style="list-style-type: none"> <li>• identify the subsets of the set of real numbers to which a given number belongs;</li> <li>• evaluate numerical expressions using integral exponents;</li> <li>• check reasonableness of a solution to a problem.</li> </ul>	<p><b>Student Edition:</b>            707 Real-World Example  <i>Quick Check 5 #11-#15</i>  <i>Study Tip 660</i>  <i>Test-Taking Tip 52</i></p>
<b>Basic</b>	
<p><b>High school students performing at the basic level:</b></p> <ul style="list-style-type: none"> <li>• give an example of each of the following: a whole number, an integer, and a rational number;</li> <li>• evaluate numerical expressions using whole number exponents.</li> </ul>	<p><b>Student Edition:</b>  <i>Quick Check 5 #11-#15</i></p>
<b>Core High School Statistics &amp; Probability Grade Standards, Supporting Skills, and Examples</b>	
<b>Indicator 1: Use statistical models to gather, analyze, and display data to draw conclusions.</b>	
<p><b>9-12.S.1.1. Students are able to draw conclusions from a set of data.</b></p> <ul style="list-style-type: none"> <li>• Determine and use appropriate statistical values.</li> <li>• Determine which questions can or cannot be answered from a given data set.</li> </ul>	<p><b>Student Edition:</b>  <i>Preparing for Standardized Tests 843 #9, 847 #17, 856 #8</i></p>
<p><b>9-12.S.1.2. Students are able to compare multiple one-variable data sets, using range, interquartile range, mean, mode, and median.</b></p>	<p>See Glencoe <i>Algebra I</i> © 2008.  <b>Student Edition:</b>            711-712, 713, 760 #14, 764 #23, 768 #21  <i>Graphing Calculator Lab 234-235</i>  <b>Teacher Wraparound Edition:</b>            A 235</p>

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<p><b>9-12.S.1.3. Represent a set of data in a variety of graphical forms and draw conclusions.</b></p> <ul style="list-style-type: none"> <li>• Make a scatterplot to draw a regression line and make predictions.</li> <li>• Make a box-and-whisker plot to model a set of one-variable data.</li> <li>• Make a histogram from a frequency distribution.</li> </ul>	<p><b>Student Edition:</b>            565 Real-World Example, 566            Check Your Progress, 567 #9, #29-#31  <i>Mixed Problem Solving and Proof</i> 837 #2-#4  <i>Preparing for Standardized Tests</i> 851 #18, 856 #8  <i>Standardized Test Practice</i> 90 #55</p>
<p><b>Indicator 2: Apply the concepts of probability to predict events/outcomes and solve problems.</b></p>	
<p><b>9-12.S.2.1. Students are able to distinguish between experimental and theoretical probability.</b></p>	<p>The following references discuss finding probabilities (using inscribed angles of a circle and geometric probability) and can be used to meet this objective.</p> <p><b>Student Edition:</b>            580 Example 3, 583-584 #3, #11-#14, 665-671  <i>Mid-Chapter Quiz</i> 587 #19  <i>Practice Test</i> 675 #11-#13  <i>Study Guide and Review</i> 674 11-5</p> <p><b>Teacher Wraparound Edition:</b>            A 671; AE 580 #3, 666-667; PAP 671</p>
<p><b>9-12.S.2.2. Students are able to predict outcomes of simple events using given theoretical probabilities.</b></p> <ul style="list-style-type: none"> <li>• Determine the sample space of an experiment.</li> </ul>	<p>See Glencoe <i>Algebra I</i> © 2008.</p> <p><b>Student Edition:</b>            642-648, 663-670, 672-676, 685, 686, 687, 709, 743  <i>Mid-Chapter Quiz</i> 671  <i>Practice Test</i> 689  <i>Reading Math</i> 649</p> <p><b>Teacher Wraparound Edition:</b>            AA 647; AE 643, 644, 673; DI 664; FMC 643; T 663</p>

## STANDARDS

## PAGE REFERENCES

**Core High School Statistics & Probability  
Performance Descriptors**

**Advanced****High school students performing at the advanced level:**

- calculate probability of compound events;
- determine correlation coefficient in a data set.

The following references discuss finding probabilities (using inscribed angles of a circle and geometric probability) and can be used to meet this objective.

**Student Edition:**

580 Example 3, 583-584 #3, #11-#14, 665-671

*Mid-Chapter Quiz* 587 #19

*Practice Test* 675 #11-#13

*Study Guide and Review* 674 11-5

**Teacher Wraparound Edition:**

A 671; AE 580 #3, 666-667; PAP 671

**Proficient****High school students performing at the proficient level:**

- calculate probability of a simple event and make predictions;
- answer questions about measures of central tendency and five-number summary based on a given data set;
- draw a regression line for a scatterplot.

The following references discuss finding probabilities (using inscribed angles of a circle and geometric probability) and can be used to meet this objective.

**Student Edition:**

580 Example 3, 583-584 #3, #11-#14, 665-671

*Mid-Chapter Quiz* 587 #19

*Practice Test* 675 #11-#13

*Study Guide and Review* 674 11-5

**Teacher Wraparound Edition:**

A 671; AE 580 #3, 666-667; PAP 671

**Basic****High school students performing at the basic level:**

- calculate the probability of a simple event;
- calculate mean, median, and mode for a data set.

The following references discuss finding probabilities (using inscribed angles of a circle and geometric probability) and can be used to meet this objective.

**Student Edition:**

580 Example 3, 583-584 #3, #11-#14, 665-671

*Mid-Chapter Quiz* 587 #19

*Practice Test* 675 #11-#13

*Study Guide and Review* 674 11-5

**Teacher Wraparound Edition:**

A 671; AE 580 #3, 666-667; PAP 671

STANDARDS	PAGE REFERENCES
<b>Advanced High School Algebra</b> <b>Grade Standards, Supporting Skills, and Examples</b>	
<b>Indicator 1: Use procedures to transform algebraic expressions.</b>	
<b>9-12.A.1.1A. Students are able to write equivalent forms of rational algebraic expressions using properties of real numbers.</b>	<b>Student Edition:</b> 322 #37 <i>Prerequisite Skills</i> 780 Example 2a, #2-#3, #5, #8, 794-795 <i>Quick Check</i> 727 #8 <i>Standardized Test Practice</i> 96 #50
<b>9-12.A.1.2A. Students are able to extend the use of real number properties to expressions involving complex numbers.</b>	See Glencoe <i>Algebra 2</i> © 2008. <b>Student Edition:</b> 259-266, 362-368 <i>Algebra Lab</i> 262 <b>Teacher Wraparound Edition:</b> Pre-AP 266
<b>Indicator 2: Use a variety of algebraic concepts and methods to solve equations and inequalities.</b>	
<b>9-12.A.2.1A. Students are able to determine solutions of quadratic equations.</b> <ul style="list-style-type: none"> <li>• Use the quadratic formula.</li> <li>• Use the discriminant, <math>b^2 - 4ac</math>, to describe the nature of the roots.</li> </ul>	<b>Student Edition:</b> <i>Get Ready for the Next Lesson</i> 606 <i>Preparing for Standardized Tests</i> 846 #9 <i>Quick Check</i> 553 #9-#12 <i>Standardized Test Practice</i> 109 #29
<b>9-12.A.2.2A. Students are able to determine the solution of systems of equations and systems of inequalities.</b>	<b>Student Edition:</b> 273-274 Example 3, 274-275 #3, #16-#18 <i>Prerequisite Skills</i> 788-789 <b>Teacher Wraparound Edition:</b> AE 273
<b>9-12.A.2.3A. Students are able to determine solutions to absolute value statements.</b>	The following references discuss absolute value and can be used to meet this objective. <b>Student Edition:</b> <i>Prerequisite Skills</i> 778 Example 1, 779 Example 5, #1-#4, #17-#24

STANDARDS	PAGE REFERENCES
<b>Indicator 3: Interpret and develop mathematical models.</b>	
<p><b>9-12.A.3.1A. Students are able to distinguish between linear, quadratic, inverse variation, and exponential models.</b></p>	<p>See Glencoe <i>Algebra I</i> © 2008.  <b>Student Edition:</b>            155-161, 471-477, 480-485, 502-508, 577-582  <i>Graphing Calculator Lab</i> 162-163, 470, 478-479  <b>Teacher Wraparound Edition:</b>            AE 156, 472, 473, 503; FMC 473, 482, 504, 579;            GIV 578; TNT 474, 503</p>
<p><b>9-12.A.3.2A. Students are able to create formulas to model relationships that are algebraic, geometric, trigonometric, and exponential.</b></p>	<p><b>Student Edition:</b>            318, 649, 686, 699-700, 706, 743  <i>Geometry Lab</i> 30, 447, 556, 578, 607, 630, 638,            648, 651, 712-713, 728, 737  <i>Graphing Calculator Lab</i> 455, 637</p>
<p><b>9-12.A.3.3A. Students are able to use sequences and series to model relationships.</b></p>	<p><b>Student Edition:</b>            78 Example 1, 80-81 #1-#2, #7-#16, #33-#35  <i>Graphing Calculator Lab</i> 387  <b>Teacher Wraparound Edition:</b>            AE 79 #1</p>
<b>Indicator 4: Describe and use properties and behaviors of relations, functions, and inverses.</b>	
<p><b>9-12.A.4.1A. Students are able to determine the domain, range, and intercepts of a function.</b></p>	<p>See Glencoe <i>Algebra I</i> © 2008.  <b>Student Edition:</b>            53-58, 149-154, 155-161, 177, 178, 471-477,            480-485, 518, 735, 752 #1-#4  <b>Teacher Wraparound Edition:</b>            AE 150, 156, 157, 472, 473; FMC 151</p>
<p><b>9-12.A.4.2A. Students are able to describe the behavior of a polynomial, given the leading coefficient, roots, and degree.</b></p>	<p>The following references discuss operations with polynomials and can be used to meet this objective.  <b>Student Edition:</b>  <i>Prerequisite Skills</i> 792-797</p>

STANDARDS	PAGE REFERENCES
<p><b>9-12.A.4.3A. Students are able to apply transformations to graphs and describe the results.</b></p> <ul style="list-style-type: none"> <li>• Change coefficients and/or constants.</li> <li>• Graph the inverse of a function</li> </ul>	<p>Transformations of geometric figures can be found on the following pages:</p> <p><b>Student Edition:</b>            497-503, 504-509, 510-517, 525-532  <i>Geometry Lab</i> 496  <i>Practice Test</i> 547  <i>Standardized Test Practice</i> 548-549 #2, #4, #7, #11  <i>Study Guide and Review</i> 544-546</p> <p><b>Teacher Wraparound Edition:</b>            A 503, 509, 532; AE 498-500, 505-506, 511-513, 526-528; DI 499, 505; PAP 509, 528</p>
<p><b>9-12.A.4.4A. Students are able to apply properties and definitions of trigonometric, exponential, and logarithmic expressions.</b></p>	<p>See Glencoe <i>Algebra 2</i> © 2008.</p> <p><b>Student Edition:</b>            498-506, 509-517, 520-526, 528-533, 536-542, 544-550, 837-841, 842-846, 848-852, 853-859</p> <p><b>Teacher Wraparound Edition:</b>            F 500; Pre-AP 506, 517, 523, 533, 846, 859</p>
<p><b>9-12.A.4.5A. Students are able to describe characteristics of nonlinear functions and relations.</b></p> <ul style="list-style-type: none"> <li>• Conic sections</li> <li>• Trigonometric functions</li> <li>• Exponential and logarithmic functions</li> </ul>	<p>See Glencoe <i>Algebra 2</i> © 2008.</p> <p><b>Student Edition:</b>            498-506, 509-517, 520-526, 528-533, 536-542, 544-550, 567-573, 574-579, 581-588, 590-597, 598-602, 837-841, 842-846, 848-852, 853-859  <i>Algebra Lab</i> 569, 580, 585</p>
<p><b>9-12.A.4.6A. Students are able to graph solutions to linear inequalities.</b></p>	<p><b>Student Edition:</b>  <i>Standardized Test Practice</i> 11 #50</p>

STANDARDS	PAGE REFERENCES
<b>Advanced High School Geometry</b> <b>Grade Standards, Supporting Skills, and Examples</b>	
<b>Indicator 1: Use deductive and inductive reasoning to recognize and apply properties of geometric figures.</b>	
<b>9-12.G.1.1A. Students are able to justify properties of geometric figures.</b>	<b>Student Edition:</b> 78-82, 105-109, 111-117, 118-123, 124-131, 225-231, 234-240, 251-255, 363-368 <i>Geometry Lab</i> 242-243 <i>Standardized Test Practice</i> 139 #7, #12 <i>Study Guide and Review</i> 133 2-1, 135-136 <b>Teacher Wraparound Edition:</b> AE 79, 107, 119-120, 226-228, 235-236, 252-253; PAP 123
<b>9-12.G.1.2A. Students are able to determine the values of the sine, cosine, and tangent ratios of right triangles.</b>	<b>Student Edition:</b> 456-462, 470 #29-#32, 477 #42-#45 <i>Graphing Calculator Lab</i> 455 <i>Mid-Chapter Quiz</i> 463 #10-#16 <i>Practice Test</i> 491 #10-#12 <i>Standardized Test Practice</i> 492 #2 <i>Study Guide and Review</i> 488 8-4 <b>Teacher Wraparound Edition:</b> AE 457-459
<b>9-12.G.1.3A. Students are able to apply properties associated with circles.</b>	<b>Student Edition:</b> 554-561, 563-569, 570-577, 578-586, 588-596, 599-606, 607-613 <i>Practice Test</i> 625 <i>Standardized Test Practice</i> 626-627 #1, #3, #9, #11 <i>Study Guide and Review</i> 621-624 <b>Teacher Wraparound Edition:</b> A 569; AE 555-557, 564-566, 571-573, 579-582, 589-592, 600-602, 608-610; DI 565; PAP 569

STANDARDS	PAGE REFERENCES
<p><b>9-12.G.1.4A. Students are able to use formulas for surface area and volume to solve problems involving three-dimensional figures.</b></p>	<p><b>Student Edition:</b>  62-63 Examples 2 and 3, 686-691, 693-697, 699-705, 706-710, 711-717, 728-735, 737-742, 743-748  <i>Practice Test</i> 723, 769 #1-#11, #15, #25  <i>Standardized Test Practice</i> 724-725 #3, #6, #10, 770-771 #1, #3, #5, #11, #12  <i>Study Guide and Review</i> 720-722, 766-767  <b>Teacher Wraparound Edition:</b>  AE 62-63, 687-688, 694, 729-731, 738-739</p>
<p><b>Indicator 2: Use properties of geometric figures to solve problems from a variety of perspectives.</b></p>	
<p><b>9-12.G.2.1A. Students are able to use Cartesian coordinates to verify geometric properties.</b></p>	<p><b>Student Edition:</b>  227 Example 2, 251-255, 363-367  <i>Practice Test</i> 261 #12, 373 #18  <i>Standardized Test Practice</i> 375 #11  <i>Study Guide and Review</i> 260, 372 6-7  <b>Teacher Wraparound Edition:</b>  A 255; AE 227, 252-253, 364-365; PAP 255, 368</p>
<p align="center"><b>Advanced High School Measurement Grade Standards, Supporting Skills, and Examples</b></p>	
<p><b>Indicator 1: Apply measurement concepts in practical applications.</b></p>	
<p><b>9-12.M.1.1A. Students are able to use dimensional analysis to check answers and determine units of a problem solution.</b></p>	<p>See Glencoe <i>Algebra I</i> © 2008.  <b>Student Edition:</b>  46, 49, 124, 402 #48, 553 #43-#47, 592 #8, 592 #24, 594 #39, 597 #7-#8, 754 #1-#3, 764 #17, 768 #16, 773 #7  <i>Real World Example</i> 562, 591, 596  <b>Teacher Wraparound Edition:</b>  AE 107, 562, 591; FMC 591; TNT 119</p>
<p><b>9-12.M.1.2A. Students are able to use indirect measurement in problem situations that defy direct measurement.</b></p>	<p><b>Student Edition:</b>  400 Real-World Example, 400-401 #6, #11-#13, 441 Real-World Example 1, 466 Example 3, 467 #3, 474 Real-World Example 3, 475 #12  <i>Practice Test</i> 427 #9, 491 #20  <i>Study Guide and Review</i> 426 7-3, 487 #14  <b>Teacher Wraparound Edition:</b>  AE 399 #3, 441, 466, 474; DI 399</p>

STANDARDS	PAGE REFERENCES
<b>Advanced High School Number Sense</b> <b>Grade Standards, Supporting Skills, and Examples</b>	
<b>Indicator 1: Analyze the structural characteristics of the real number system and its various subsystems. Analyze the concept of value, magnitude, and relative magnitude of real numbers.</b>	
<b>9-12.N.1.1A. Students are able to describe the relationship of the real number system to the complex number system.</b>	See Glencoe <i>Algebra 2</i> © 2008. <b>Student Edition:</b> 259-266 <i>Algebra Lab</i> 262 <b>Teacher Wraparound Edition:</b> DI 260; F263
<b>9-12.N.1.2A. Students are able to apply properties and axioms of the real number system to various subsets, e.g., axioms of order, closure.</b>	The following references discuss properties of real numbers and can be used to meet this objective. <b>Student Edition:</b> 111-112
<b>Indicator 2: Apply number operations with real numbers and other number systems.</b>	
<b>9-12.N.2.1A. Students are able to add, subtract, multiply, and divide real numbers including rational exponents.</b>	<b>Student Edition:</b> <i>Prerequisite Skills</i> 778-779, 790-791 <i>Quick Check</i> 5 #6-#15
<b>Advanced High School Statistics &amp; Probability</b> <b>Grade Standards, Supporting Skills, and Examples</b>	
<b>Indicator 1: Use statistical models to gather, analyze, and display data to draw conclusions.</b>	
<b>9-12.S.1.1A. Students are able to analyze and evaluate the design of surveys and experiments.</b>	See Glencoe <i>Algebra 1</i> © 2008. <b>Student Edition:</b> 642-648, 654 #26-#28, 684, 685, 742, 755 <i>Practice Test</i> 689 <i>Reading Math</i> 649 <b>Teacher Wraparound Edition:</b> AA 647; AE 643, 644, 645; DI 644; FMC 643; PA 648; RWC 648; T 642
<b>9-12.S.1.2A. Students are able to analyze and evaluate graphical displays of data.</b>	The following references discuss graphical displays of data and can be used to meet this objective. <b>Student Edition:</b> 565 Real-World Example 3, 566 Check Your Progress, 567 #9, #29-#31 <i>Mixed Problem Solving and Proof</i> 837 #2-#4 <i>Standardized Test Practice</i> 90 #55 <b>Teacher Wraparound Edition:</b> AE 565 #3

STANDARDS	PAGE REFERENCES
<p><b>9-12.S.1.3A. Students are able to compare multiple one-variable data sets, using standard deviation and variance.</b></p> <ul style="list-style-type: none"> <li>Calculate the standard deviation and variance of a data set.</li> </ul>	<p>See Glencoe <i>Algebra 2</i> © 2008.  <b>Student Edition:</b>            717-723  <i>Graphing Calculator Lab</i> 719  <b>Teacher Wraparound Edition:</b>            F 718; Pre-AP 723</p>
<p><b>9-12.S.1.4A. Students are able to describe the normal curve and use it to make predictions.</b></p>	<p>See Glencoe <i>Algebra I</i> © 2008.  <b>Student Edition:</b>  <i>Graphing Calculator Lab</i> 515-516  <b>Teacher Wraparound Edition:</b>            A 516; AA 516; T 515</p>
<p><b>9-12.S.1.5A. Students are able to use scatterplots, best-fit lines, and correlation coefficients to model data and support conclusions.</b></p>	<p><b>Student Edition:</b>  <i>Preparing for Standardized Tests</i> 851 #18, 856 #8  <i>Standardized Test Practice</i> 485 #45</p>
<p><b>Indicator 2: Apply the concepts of probability to predict events/outcomes and solve problems</b></p>	
<p><b>9-12.S.2.1A. Students are able to use probabilities to solve problems.</b></p> <ul style="list-style-type: none"> <li>Compute combinations, permutations.</li> <li>Interpret tables.</li> <li>Create and use tree diagrams.</li> </ul>	<p>The following references discuss finding probabilities (using inscribed angles of a circle and geometric probability) and can be used to meet this objective.  <b>Student Edition:</b>            580 Example 3, 583-584 #3, #11-#14, 665-671  <i>Mid-Chapter Quiz</i> 587 #19  <i>Practice Test</i> 675 #11-#13  <i>Study Guide and Review</i> 674 11-5  <b>Teacher Wraparound Edition:</b>            A 671; AE 580 #3, 666-667; PAP 671</p>

STANDARDS	PAGE REFERENCES
<p><b>9-12.S.2.2A. Students are able to determine probability of compound, complementary, independent, and mutually exclusive events.</b></p>	<p>The following references discuss finding probabilities (using inscribed angles of a circle and geometric probability) and can be used to meet this objective.</p> <p><b>Student Edition:</b>            580 Example 3, 583-584 #3, #11-#14, 665-671  <i>Mid-Chapter Quiz</i> 587 #19  <i>Practice Test</i> 675 #11-#13  <i>Study Guide and Review</i> 674 11-5</p> <p><b>Teacher Wraparound Edition:</b>            A 671; AE 580 #3, 666-667; PAP 671</p>
<p><b>9-12.S.2.3A. Students are able to generate data and use the data to determine empirical (experimental) probabilities.</b></p>	<p>See Glencoe <i>Algebra I</i> © 2008.</p> <p><b>Student Edition:</b>            677-683, 688, 743, 755  <i>Practice Test</i> 689</p> <p><b>Teacher Wraparound Edition:</b>            AE 678, 679; AL 678; DI 664; PA 680; RWC 683; T 672, 677</p>