



# Algebra

Concepts and Applications

© 2006

STANDARDS	PAGE REFERENCES
<b>Grade Nine</b>	
<b>Number, Number Sense and Operations Standard</b>	
<i>Number and Number Systems</i>	
1. Identify and justify whether properties (closure, identity, inverse, commutative and associative) hold for a given set and operations; e.g., even integers and multiplication.	<p><b>Student Edition:</b> 10, 14-18, 19-23, 26, 45, 47 #11-#18, 72 Ex 8, 85 #57, 235 #10, 388-393, 394-398, 399-404, 428-433, 623 #38</p> <p><b>Teacher Wraparound Edition:</b> 5MC 19 #1-#4; EA 17, 23; ICE 15 Ex 1-3; OEA 18; RA 16, 21; TT 72, 76</p>
2. Compare, order and determine equivalent forms for rational and irrational numbers.	<p><b>Student Edition:</b> 94-99, 100-103, 136, 137 #4, 198-203, 362-365, 485 Ex 3, 615-619, 623 #38, 630-631, 633, 673 #41, 684-691, 696, 709, 720, 721</p> <p><i>Check Your Readiness</i> 93 <i>Investigation</i> 494-495</p> <p><b>Teacher Wraparound Edition:</b> ICE 615-616 #4-#6</p>

STANDARDS	PAGE REFERENCES
<i>Meaning of Operations</i>	
3. Explain the effects of operations such as multiplication or division, and of computing powers and roots on the magnitude of quantities.	<p><b>Student Edition:</b> 64-69, 70-74, 75-79, 82-85, 140-145, 154-158, 160-163, 336-340, 341-345, 347-351, 352-356, 727 #3, 735 #2, 739 #4, 743 #4</p> <p><i>Hands-On Algebra</i> 141</p> <p><b>Teacher Wraparound Edition:</b> HOA 141; ML 64, 75; RA 77</p>
<i>Computation and Estimation</i>	
4. Demonstrate fluency in computations using real numbers.	<p><b>Student Edition:</b> 8-13, 19-23, 24-29, 64-69, 70-74, 75-79, 82-85, 87-88, 100-103, 140-145, 154-159, 336-340, 341-345, 352-356, 357-361, 366-371, 600-605, 606-611, 614-619, 620-623, 684-687</p>
5. Estimate the solutions for problem situations involving square and cube roots.	<p><b>Student Edition:</b> 362-365, 367 Ex 2, 371, 376, 377, 387, 559 #36, 602-604, 605 #59, 606-611, 709, 727 #6</p> <p><i>Hands-On Algebra</i> 362</p> <p><b>Teacher Wraparound Edition:</b> 5MC 366, 606; ICE 363, 602; OEA 365; RA 364; TT 363</p>
<b>Measurement Standard</b>	
<i>Measurement Units</i>	
1. Convert rates within the same measurement system; e.g., miles per hour to feet per second; kilometers per hour to meters per second.	<p><b>Student Edition:</b> 49 #10, 164 #39 &amp; #47, 190-192, 217 #42-#43, 233 #13, 301 #53, 529 #71, 701, 743 #1, 744 #16</p> <p><b>Teacher Wraparound Edition:</b> ICE 190 Ex 4, 191 Ex 6; TT 190, 192</p>
<i>Use Measurement Techniques and Tools</i>	
2. Use unit analysis to check computations involving measurement.	<p><b>Student Edition:</b> 190-192, 194-197, 231 #15-#19, 233 #13-#15, 267 Ex 6, 701, 726 #1-#2, 734 Ex 3, 735 #1, 736 #12, 739 #13, 740 #16-#19, 741-742, 744 #16-#17</p> <p><b>Teacher Wraparound Edition:</b> ICE 190-191 Ex 4-6, 267 Ex 6</p>

STANDARDS	PAGE REFERENCES
3. Use the ratio of lengths in similar two-dimensional figures or three-dimensional objects to calculate the ratio of their areas or volumes respectively.	<p><b>Student Edition:</b> 340 #43, 360-361 #42-#43, 597 #5, 730 Ch 14 #5, 736 #13, 749 #6 &amp; #8 <i>Graphing Calculator Exploration</i> 338-339 <i>Investigation</i> 372-373, 410-411</p> <p><b>Teacher Wraparound Edition:</b> GCE 338</p>
4. Use scale drawings and right triangle trigonometry to solve problems that include unknown distances and angle measures.	<p><b>Student Edition:</b> 194-197, 203 #45, 203 Quiz 1 #3, 209 #33, 231 #15-#19, 233 #15, 261 #54, 307 #21, 463 #51, 571 #50, 681 #9, 701, 726 Ch 5 #2, 740 #17, 749 #7 <i>Hands-On Algebra</i> 194 <i>Investigation</i> 372-373</p> <p><b>Teacher Wraparound Edition:</b> ICE 195</p>
5. Solve problems involving unit conversion for situations involving distances, areas, volumes and rates within the same measurement system.	<p><b>Student Edition:</b> 190-192, 194-197, 209 #33, 233 #14-#15, 361 #43, 463 #51, 571 #50, 701, 726 #1-#2, 734 Ex 3, 735 #1, 740 #15-#17, 741-742, 743 #1, 749 #7 <i>Hands-On Algebra</i> 194 <i>Investigation</i> 372-373, 410-411</p> <p><b>Teacher Wraparound Edition:</b> ICE 190-191 Ex 4-6, 195, 267 Ex 6</p>
<b>Geometry and Spatial Sense Standard</b>	
<i>Characteristics and Properties</i>	
1. Define the basic trigonometric ratios in right triangles: sine, cosine and tangent.	See Glencoe's <i>Geometry</i> © 2008.
2. Apply proportions and right triangle trigonometric ratios to solve problems involving missing lengths and angle measures in similar figures.	<p><b>Student Edition:</b> 546, 547 #1, 635 #4, 681, 736 #10-#11, 740 #15-#16, 743 #13</p>

STANDARDS	PAGE REFERENCES
<i>Visualization and Geometric Models</i>	
<p>3. Analyze two-dimensional figures in a coordinate plane; e.g., use slope and distance formulas to show that a quadrilateral is a parallelogram.</p>	<p><b>Student Edition:</b> 62 #34, 63 #37, 77 Ex 9, 78 #13, 79 #49, 88 #62, 323 Ex 2, 327 #40, 607 Ex 2, 610 #28-#32, 611 Quiz 1 #10, 632 #52, 727 Ch 7 #7, 730 Ch 14 #2 &amp; #4, 739 #12, 743 #11, 749 #5 <i>Investigation</i> 612-613</p> <p><b>Teacher Wraparound Edition:</b> EC 326; ICE 323 Ex 2, 607 Ex 2; TT 608</p>
<b>Patterns, Functions and Algebra Standard</b>	
<i>Use Patterns, Relations and Functions</i>	
<p>1. Define function with ordered pairs in which each domain element is assigned exactly one range element.</p>	<p><b>Student Edition:</b> 256-260, 269 Quiz 2 #1-#3, 269 #35, 277 #33-#38, 279 #11-#14, 454 Ex 1, 455 #1 &amp; #4, 704</p> <p><b>Teacher Wraparound Edition:</b> ICE 256-257 Ex 1-3</p>
<p>2. Generalize patterns using functions or relationships (linear, quadratic and exponential), and freely translate among tabular, graphical and symbolic representations.</p>	<p><b>Student Edition:</b> 302-307, 315 #40-#41, 332 Ex 1, 333 #1, 445-449, 489, 493 #25, 500, 706, 711 <i>Investigation</i> 308-309</p> <p><b>Teacher Wraparound Edition:</b> ICE 304 Ex 2; ML 303; RA 304</p>
<p>3. Describe problem situations (linear, quadratic and exponential) by using tabular, graphical and symbolic representations.</p>	<p><b>Student Edition:</b> 238-243, 244-249, 250-255, 256-261, 264-269, 289, 294-295, 298-301, 311, 315, 330, 468-473, 474-477, 478-482, 483-487, 489-493, 497-498, 729 Ch 11 <i>Graphing Calculator Exploration</i> 491 <i>Investigation</i> 262-263 <i>Math in the Workplace</i> 488</p>
<p>4. Demonstrate the relationship among zeros of a function, roots of equations, and solutions of equations graphically and in words.</p>	<p><b>Student Edition:</b> 112-115, 244-249, 468-472, 473 #27, 477 #35, 484-487, 496</p> <p><b>Teacher Wraparound Edition:</b> TT 487</p>

STANDARDS	PAGE REFERENCES
5. Describe and compare characteristics of the following families of functions: linear, quadratic and exponential functions; e.g., general shape, number of roots, domain, range, rate of change, maximum or minimum.	<b>Student Edition:</b> 238-242, 255 #42, 284-289, 316-321, 326 #14, 331 #1-#2, 458-463, 464-469, 489-493, 497, 585 #28, 706 <i>Graphing Calculator Exploration</i> 317 <b>Teacher Wraparound Edition:</b> 5MC 504 #2
<i>Use Algebraic Representations</i>	
6. Write and use equivalent forms of equations and inequalities in problem situations; e.g., changing a linear equation to the slope-intercept form.	<b>Student Edition:</b> 250-255, 290-295, 296-301, 312-315, 322-327, 328-330, 331, 454 Ex 2, 704, 705, 706 <i>Graphing Calculator Exploration</i> 551 <i>Investigation</i> 308-309 <b>Teacher Wraparound Edition:</b> 5MC 316; ICE 312, 323-325; TT 551
7. Use formulas to solve problems involving exponential growth and decay.	<b>Student Edition:</b> 489-493, 498 #47-#50 & #52, 499 #21-#22 & #25, 715, 729 Ch 11 #7 <i>Hands-On Algebra</i> 489 <i>Investigation</i> 494-495
8. Find linear equations that represent lines that pass through a given set of ordered pairs, and find linear equations that represent lines parallel or perpendicular to a given line through a specific point.	<b>Student Edition:</b> 238-243, 244-249, 256-261, 264-269, 276-278, 279, 290-295, 296-301, 322-327, 330, 345 #54, 417 #8, 454-455, 705, 707 <i>Investigation</i> 262-263, 308-309
9. Solve and interpret the meaning of 2 by 2 systems of linear equations graphically, by substitution and by elimination, with and without technology.	<b>Student Edition:</b> 550-553, 554-559, 560-565, 566-571, 572-577, 585, 592-593, 595, 634-635, 718-719, 730 Ch 13 <i>Graphing Calculator Exploration</i> 551 <i>Hands-On Algebra</i> 560 <i>Investigation</i> 578-579 <b>Teacher Wraparound Edition:</b> 5MC 550, 554, 560, 566, 572; ICE 550-552, 555-557, 561-563, 567-569, 572-575

STANDARDS	PAGE REFERENCES
10. Solve quadratic equations with real roots by factoring, graphing, using the quadratic formula and with technology.	<p><b>Student Edition:</b> 468-473, 474-477, 478-482, 483-487, 497-498, 499 <i>Graphing Calculator Exploration</i> 471 <i>Hands-On Algebra</i> 478-479</p> <p><b>Teacher Wraparound Edition:</b> 5MC 474, 478, 483, 489; CTBQ 499; EC 473; ICE 469-470, 475-476, 484-485; ML 483; RA 471, 475, 481</p>
11. Add, subtract, multiply and divide monomials and polynomials (division of polynomials by monomials only).	<p><b>Student Edition:</b> 388-393, 394-398, 399-404, 405-409, 412-414, 415, 425 #58-#66, 428-433, 439 #53-#56, 451 #17-#23, 710-711 <i>Hands-On Algebra</i> 388, 400</p> <p><b>Teacher Wraparound Edition:</b> 5MC 394, 399, 405; EC 393, 398, 404; ICE 389-391, 394-396, 400-402</p>
12. Simplify rational expressions by eliminating common factors and applying properties of integer exponents.	<p><b>Student Edition:</b> 341-345, 347-351, 375, 501 #3 &amp; #9, 640-642, 644-649, 654 #34-#35, 655 Quiz 1, 661 #41, 676-677, 679, 722</p> <p><b>Teacher Wraparound Edition:</b> 5MC 347, 352, 644, 650; EA 642; EC 549; ICE 343-344, 348-349, 640-641, 645-647</p>
<i>Analyze Change</i>	
13. Model and solve problems involving direct and inverse variation using proportional reasoning.	<p><b>Student Edition:</b> 264-269, 270-275, 276 #5 &amp; #7, 278, 289 #31, 356 #60, 444 #50-#51, 513 #53, 629 #45, 704, 705, 726 Ch 6 #6 <i>Graphing Calculator Exploration</i> 272</p> <p><b>Teacher Wraparound Edition:</b> 5MC 270, 284 #2; EC 275; ICE 265-267, 271-273; TT 265-266, 270-272</p>
14. Describe the relationship between slope and the graph of a direct variation and inverse variation.	<p><b>Student Edition:</b> 264-269, 270-275, 276 #5, 704, 705</p> <p><b>Teacher Wraparound Edition:</b> EA 268; OEA 269, 275; TT 266, 270, 272</p>
15. Describe how a change in the value of a constant in a linear or quadratic equation affects the related graphs.	<p><b>Student Edition:</b> 255 #42, 316-321, 326 #14, 330 #41, 331 #1-#2, 464-468, 473 #28-#31, 473 Quiz 1 #4-#6, 489-493, 585 #28</p> <p><b>Teacher Wraparound Edition:</b> 5MC 468; ML 316; OEA 467, 493; RA 318</p>

STANDARDS	PAGE REFERENCES
<b>Data Analysis and Probability Standard</b>	
<i>Data Collection</i>	
1. Classify data as univariate (single variable) or bivariate (two variables) and as quantitative (measurement) or qualitative (categorical) data.	See Glencoe's <i>Algebra 2</i> © 2008.
2. Create a scatterplot for a set of bivariate data, sketch the line of best fit, and interpret the slope of the line of best fit.	<b>Student Edition:</b> 302-307, 315 #41, 321 Quiz 2 #1, 328 #9-#10, 329 #26-#27, 331 #12, 449 #63, 623 #46, 706, 727, 744 #23, 745-747, 749 #9 <i>Investigation</i> 308-309 <b>Teacher Wraparound Edition:</b> 5MC 310, 336 #5; ICE 303-304; ML 303, 308; TT 303
<i>Statistical Methods</i>	
3. Analyze and interpret frequency distributions based on spread, symmetry, skewness, clusters and outliers.	<b>Student Edition:</b> 32-37, 39-40 Ex 2-3, 46 #34-#39, 47 #19, 57 #53, 91 #7, 174 #48, 693 #5-#8 <b>Teacher Wraparound Edition:</b> 5MC 38; EC 37; ICE 34 Ex 3, 39 Ex 2; OEA 37; RA 34; TT 53
4. Describe and compare various types of studies (survey, observation, experiment), and identify possible misuses of statistical data.	<b>Student Edition:</b> 32, 34 #2, 37 #23
5. Describe characteristics and limitations of sampling methods, and analyze the effects of random versus biased sampling; e.g., determine and justify whether the sample is likely to be representative of the population.	<b>Student Edition:</b> 32, 34, 43 #24-#25, 69 #72, 220 Ex 1, 693 <b>Teacher Wraparound Edition:</b> EA 35; ICE 33 Ex 1, 220 Ex 1
6. Make inferences about relationships in bivariate data, and recognize the difference between evidence of relationship (correlation) and causation.	<b>Student Edition:</b> 38-39, 43 #23, 47 #20, 90, 91 #6, 151 #30, 208 #27, 218, 694

STANDARDS	PAGE REFERENCES
<i>Probability</i>	
<p>7. Use counting techniques and the Fundamental Counting principle to determine the total number of possible outcomes for mathematical situations.</p>	<p><b>Student Edition:</b> 146-151, 158 #51, 159 Quiz 1 #4-#6, 174 #42-#43, 181 #19-#20, 182 #54, 183 #2 &amp; #8-#10, 193 #62, 279 #24, 280-281, 321 #37, 333 #7, 699, 725 Ch 4 #2, 740 #25, 749 #10 <i>Investigation</i> 152-153 <b>Teacher Wraparound Edition:</b> 5MC 154; ICE 147-148 Ex 1 &amp; 2</p>
<p>8. Describe, create and analyze a sample space and use it to calculate probability.</p>	<p><b>Student Edition:</b> 32, 34, 146-150, 180 #6, 740 #25</p>
<p>9. Identify situations involving independent and dependent events, and explain differences between, and common misconceptions about, probabilities associated with those events.</p>	<p><b>Student Edition:</b> 224-229, 232 #37-#43, 327 #45-#47, 703, 726 Ch 5 #7, 744 #24 <i>Hands-On Algebra</i> 224 <b>Teacher Wraparound Edition:</b> EA 228; HOA 225; OEA 229; TT 228</p>
<p>10. Use theoretical and experimental probability, including simulations or random numbers, to estimate probabilities and to solve problems dealing with uncertainty; e.g., compound events, independent events, simple dependent events.</p>	<p><b>Student Edition:</b> 219-223, 224-229, 232 #37-#43, 233 #2 &amp; #20, 243 #28, 280, 327 #45-#47, 409 #42, 467 #35, 702, 703, 724 #22 &amp; #24 <i>Hands-On Algebra</i> 220, 224 <b>Teacher Wraparound Edition:</b> 5MC 224; ICE 221 Ex 2-4; ML 219, 224; TT 222</p>
<b>Grade Ten</b>	
<b>Number, Number Sense and Operations Standard</b>	
<i>Number and Number Systems</i>	
<p>1. Connect physical, verbal and symbolic representations of irrational numbers; e.g., construct <math>\sqrt{2}</math> as a hypotenuse or on a number line.</p>	<p><b>Student Edition:</b> 362-365, 366-371, 480-482, 485-487, 600-605, 606-611, 614-619, 620-623, 624-629, 630-632, 633, 709, 720-721, 730 <i>Graphing Calculator Exploration</i> 625 <i>Hands-On Algebra</i> 362 <i>Investigation</i> 372-373, 612-613 <b>Teacher Wraparound Edition:</b> ICE 367-368 Ex 2 &amp; 3, 480 Ex 3</p>

STANDARDS	PAGE REFERENCES
<i>Meaning of Operations</i>	
2. Explain the meaning of the $n$ th root.	See Glencoe's <i>Algebra 2</i> © 2008.
<i>Computation and Estimation</i>	
3. Use factorial notation and computations to represent and solve problem situations involving arrangements.	<b>Student Edition:</b> <i>Investigation</i> 152-153
4. Approximate the $n$ th root of a given number greater than zero between consecutive integers when $n$ is an integer; e.g., the 4th root of 50 is between 2 and 3.	<b>Student Edition:</b> 362-365, 371 #37-#40, 376 #49-#53, 377 #16-#19, 387 #62-#65, 469 Ex 3, 472-473, 599 #7-#14, 600-605, 606-611, 614-619, 714 <i>Hands-On Algebra</i> 362 <b>Teacher Wraparound Edition:</b> 5MC 606; EA 364; EC 365, 473; HOA 363; ICE 363, 469 Ex 3; TT 363
<b>Measurement Standard</b>	
<i>Use Measurement Techniques and Tools</i>	
1. Explain how a small error in measurement may lead to a large error in calculated results.	See Glencoe's <i>Geometry</i> © 2008.
2. Calculate relative error.	See Glencoe's <i>Geometry</i> © 2008.
3. Explain the difference between absolute error and relative error in measurement.	See Glencoe's <i>Geometry</i> © 2008.
4. Give examples of how the same absolute error can be problematic in one situation but not in another; e.g., compare "accurate to the nearest foot" when measuring the height of a person versus when measuring the height of a mountain.	<b>Student Edition:</b> 534 #44
5. Determine the measures of central and inscribed angles and their associated major and minor arcs.	<b>Student Edition:</b> 200-201 Ex 6, 202 #15, 203 #43 <b>Teacher Wraparound Edition:</b> ICE 200 Ex 6

STANDARDS	PAGE REFERENCES
<b>Geometry and Spatial Sense Standard</b>	
<i>Characteristics and Properties</i>	
<p>1. Formally define and explain key aspects of geometric figures, including:</p> <ul style="list-style-type: none"> <li>a. interior and exterior angles of polygons;</li> <li>b. segments related to triangles (median, altitude, midsegment);</li> <li>c. points of concurrency related to triangles (centroid, incenter, orthocenter, circumcenter);</li> <li>d. circles (radius, diameter, chord, circumference, major arc, minor arc, sector, segment, inscribed angle).</li> </ul>	<p><b>Student Edition:</b> 63 #37, 371 #35, 517 #35, 544 #51, 547 #10, 596-597, 611 Quiz 1 #10</p>
<p>2. Recognize and explain the necessity for certain terms to remain undefined, such as point, line and plane.</p>	<p>See Glencoe's <i>Geometry</i> © 2008.</p>
<p>3. Make, test and establish the validity of conjectures about geometric properties and relationships using counterexample, inductive and deductive reasoning, and paragraph or two-column proof, including:</p> <ul style="list-style-type: none"> <li>a. prove the Pythagorean Theorem;</li> <li>b. prove theorems involving triangle similarity and congruence;</li> <li>c. prove theorems involving properties of lines, angles, triangles and quadrilaterals;</li> <li>d. test a conjecture using basic constructions made with a compass and straightedge or technology.</li> </ul>	<p><b>Student Edition:</b> 63 #37, 316-321, 322-327, 366-371, 513 #43, 528 #58, 610 #29 &amp; #32 <i>Hands-On Algebra</i> 511 <i>Investigation</i> 30-31, 372-373, 612-613 <b>Teacher Wraparound Edition:</b> 5MC 322; HOA 511; ICE 323-325; ML 322; TT 323, 324</p>
<i>Spatial Relationships</i>	
<p>4. Construct right triangles, equilateral triangles, parallelograms, trapezoids, rectangles, rhombuses, squares and kites, using compass and straightedge or dynamic geometry software.</p>	<p>See Glencoe's <i>Geometry</i> © 2008.</p>
<p>5. Construct congruent figures and similar figures using tools, such as compass, straightedge, and protractor or dynamic geometry software.</p>	<p>See Glencoe's <i>Geometry</i> © 2008.</p>

STANDARDS	PAGE REFERENCES
<i>Transformation and Symmetry</i>	
6. Identify the reflection and rotation symmetries of two- and three dimensional figures.	<b>Student Edition:</b> 77 Ex 9, 78 #13, 79 #49, 88 #62, 324-325 <i>Hands-On Algebra</i> 324 <b>Teacher Wraparound Edition:</b> 5MC 82 #4; EC 79; HOA 324; ICE 77 Ex 9
7. Perform reflections and rotations using compass and straightedge constructions and dynamic geometry software.	<b>Student Edition:</b> 77 ex 9 (on coordinate axes) Also see Glencoe's <i>Geometry</i> © 2008.
8. Derive coordinate rules for translations, reflections and rotations of geometric figures in the coordinate plane.	<b>Student Edition:</b> 69 #61 & #62, 77 Ex 9, 78 #13, 79 #49, 88 #62 <b>Teacher Wraparound Edition:</b> 5MC 82 #4; EC 79; ICE 77 Ex 9
9. Show and describe the results of combinations of translations, reflections and rotations (compositions); e.g., perform compositions and specify the result of a composition as the outcome of a single motion, when applicable.	<b>Student Edition:</b> 79 #49 <b>Teacher Wraparound Edition:</b> EC 79
<i>Visualization and Geometric Models</i>	
10. Solve problems involving chords, radii and arcs within the same circle.	<b>Student Edition:</b> 200-201 Ex 6, 202 #15, 203 #43, 345 #48, 449 #52, 596 Ex 2, 597 #4 & #8-#9 <b>Teacher Wraparound Edition:</b> 5MC 525 #5; ICE 200 Ex 6
<b>Patterns, Functions and Algebra Standard</b>	
<i>Use Patterns, Relations and Functions</i>	
1. Define function formally and with $f(x)$ notation.	<b>Student Edition:</b> 256-261, 275 #32, 276 <i>Investigation</i> 262-263 <i>Reading Algebra</i> 257 <b>Teacher Wraparound Edition:</b> EA 259; ICE 256-258; ML 256; TT 257, 258
2. Describe and compare characteristics of the following families of functions: square root, cubic, absolute value and basic trigonometric functions; e.g., general shape, possible number of roots, domain and range.	<b>Student Edition:</b> 238-242, 255 #42, 284-289, 316-321, 326 #14, 331 #1-#2, 458-463, 464-469, 489-493, 497, 513 #50, 585 #28, 706, 707 <i>Graphing Calculator Exploration</i> 317 <b>Teacher Wraparound Edition:</b> 5MC 504 #2; GCE 317; ICE 317-318

STANDARDS	PAGE REFERENCES
<i>Use Algebraic Representations</i>	
3. Solve equations and formulas for a specified variable; e.g., express the base of a triangle in terms of the area and height.	<p><b>Student Edition:</b> 115 #38, 117-121, 122-127, 128-131, 133-134 #32-#55, 160-164, 165-170, 171-175, 188-193, 235 #5 &amp; #8-#9, 264-269, 270-275, 290-295, 296-301, 312-315, 409 #39-#41, 725 #4-#7, 730 Ch 14 #5, 735 #8</p> <p><b>Teacher Wraparound Edition:</b> ICE 123-125, 129-130</p>
4. Use algebraic representations and functions to describe and generalize geometric properties and relationships.	<p><b>Student Edition:</b> 21 Ex 5, 23 #41, 27 #6, 29 #16, 163 #10, 164 #38 &amp; #48, 169 #37, 170 #43-#45, 174 #35, 177 Ex 3, 178-179 #31-#32 &amp; #34, 182 #57, 183 #25, 270, 275 #29, 365 #37, 517 #35, 728 Ch 10</p> <p><i>Graphing Calculator Exploration</i> 26, 338-339 <i>Hands-On Algebra</i> 25</p>
5. Solve simple linear and nonlinear equations and inequalities having square roots as coefficients and solutions.	<p><b>Student Edition:</b> 359 Ex 6, 359 #15, 361 #44, 364-365 #35-#38, 478-482, 483-487, 603 Ex 10, 604-605, 619 #41, 624-629, 632, 633, 680-681</p> <p><b>Teacher Wraparound Edition:</b> 5MC 483 #4, 489 #2, 606 #5; ICE 359 Ex 6, 485 Ex 3, 603 Ex 10, 624-627</p>
6. Solve equations and inequalities having rational expressions as coefficients and solutions.	<p><b>Student Edition:</b> 123, 125-126, 133 #28, 134 #44-#47, 145 #47, 160-164, 165-170, 171-175, 176-179, 181-182, 204-207, 235 #5 &amp; #8-#9, 465 Ex 5, 585 #24</p> <p><i>Graphing Calculator Exploration</i> 167 <i>Math in the Workplace</i> 488</p> <p><b>Teacher Wraparound Edition:</b> 5MC 165, 171; ML 160; OEA 164</p>
7. Solve systems of linear inequalities.	<p><b>Student Edition:</b> 586-590, 594 #46-#50, 595 #21-#23, 605 #60, 611 #36, 635 #10, 673 #47, 720</p> <p><i>Graphing Calculator Exploration</i> 588 <i>Math in the Workplace</i> 591</p> <p><b>Teacher Wraparound Edition:</b> 5MC 600 #5; EA 589; EC 590; GCE 588; ICE 587; ML 586; OEA 590</p>
8. Graph the quadratic relationship that defines circles.	See Glencoe's <i>Geometry</i> © 2008.

STANDARDS	PAGE REFERENCES
9. Recognize and explain that the slopes of parallel lines are equal and the slopes of perpendicular lines are negative reciprocals.	<p><b>Student Edition:</b> 316-321, 322-327, 328, 330, 331 #19, 387 #69, 454 Ex 2, 508 #50, 555-559, 562 Ex 4, 707</p> <p><b>Teacher Wraparound Edition:</b> 5MC 322; EA 325; ICE 323-325, 555 Ex 3, 557 Ex 6, 562 Ex 4; OEA 327; TT 324, 325, 556</p>
10. Solve real-world problems that can be modeled using linear, quadratic, exponential or square root functions.	<p><b>Student Edition:</b> 117-121, 126-127, 164, 166 Ex 4, 170, 172 Ex 3, 176-179, 204-209, 460-461 Ex 4, 462-463 #42-#43, 472 #24-#25, 490-493, 498 #51-#52, 499 #23 &amp; #25, 626-627 Ex 5, 628, 632, 633 #25</p> <p><i>Graphing Calculator Exploration</i> 491 <i>Math in the Workplace</i> 488</p>
11. Solve real-world problems that can be modeled, using systems of linear equations and inequalities.	<p><b>Student Edition:</b> 537-538 Ex 3, 552-553, 557 Ex 6, 558 #9, 559 #27-#28, 563-564, 565, 567 Ex 2, 570-571, 573-574 Ex 3, 575 Ex 5, 576 #13, 577 #34-#35, 585 #26, 587 Ex 3, 590, 635 #10, 673 #47</p> <p><i>Investigation</i> 578-579 <i>Math in the Workplace</i> 591 <i>Reteaching Activity</i> 552</p>
<b>Analyze Change</b>	
12. Describe the relationship between slope of a line through the origin and the tangent function of the angle created by the line and the positive x-axis.	See Glencoe's <i>Geometry</i> © 2008.
<b>Data Analysis and Probability Standard</b>	
<b>Data Collection</b>	
1. Describe measures of center and the range verbally, graphically and algebraically.	<p><b>Student Edition:</b> 104-109, 184-185, 281 #10, 346, 521-522 Ex 5, 522 #13, 529 #59, 697</p> <p><i>Graphing Calculator Exploration</i> 105 <i>Investigation</i> 612-613</p> <p><b>Teacher Wraparound Edition:</b> 5MC 112; EA 107; GCE 105; ICE 105-106; OEA 109; RA 107; TT 105, 106</p>

STANDARDS	PAGE REFERENCES
2. Represent and analyze bivariate data using appropriate graphical displays (scatterplots, parallel box-and-whisker plots, histograms with more than one set of data, tables, charts, spreadsheets) with and without technology.	<b>Student Edition:</b> 38-43, 46, 47 #20, 57 #51 & #53, 85 #43-#44, 90, 91 #5-#6, 185 #4, 208 #27, 218, 302-307, 330 #41, 332 Ex 1, 694 Lesson 1-7 #1-#3 <i>Investigation</i> 308-309 <b>Teacher Wraparound Edition:</b> 5MC 310; ICE 39-41, 303-304; TT 303
3. Display bivariate data where at least one variable is categorical.	<b>Student Edition:</b> 90 Ex 2, 91 #10, 175 #47, 208 #27, 218, 333 #4, 694 Lesson 107 #1-3 <b>Teacher Wraparound Edition:</b> EC 43
4. Identify outliers on a data display; e.g., use interquartile range to identify outliers on a box-and-whisker plot.	<b>Student Edition:</b> 210-211 <b>Teacher Wraparound Edition:</b> A 211
<i>Statistical Methods</i>	
5. Provide examples and explain how a statistic may or may not be an attribute of the entire population; e.g., intentional or unintentional bias may be present.	<b>Student Edition:</b> 32, 34 #3-#4, 35 #10-#15, 36 #21, 37 #23, 693 Lesson 1-6 #1-#4 <i>Hands-On Algebra</i> 220 <b>Teacher Wraparound Edition:</b> HOA 220
6. Interpret the relationship between two variables using multiple graphical displays and statistical measures; e.g., scatterplots, parallel box-and-whisker plots, and measures of center and spread.	<b>Student Edition:</b> 38-39, 43 #23, 85 #43-#44, 90, 91 #5-#6, 208 #27, 218 <b>Teacher Wraparound Edition:</b> EC 43; ICE 39 Ex 1; OEA 43
<i>Probability</i>	
7. Model problems dealing with uncertainty with area models (geometric probability).	See Glencoe's <i>Geometry</i> © 2008.
8. Differentiate and explain the relationship between the probability of an event and the odds of an event, and compute one given the other.	<b>Student Edition:</b> 219-223, 230 #5, 243 #29, 398 #76-#77 <i>Hands-On Algebra</i> 220 <b>Teacher Wraparound Edition:</b> 5MC 224; EA 222; EC 223; HOA 220; ICE 220-221; OEA 223