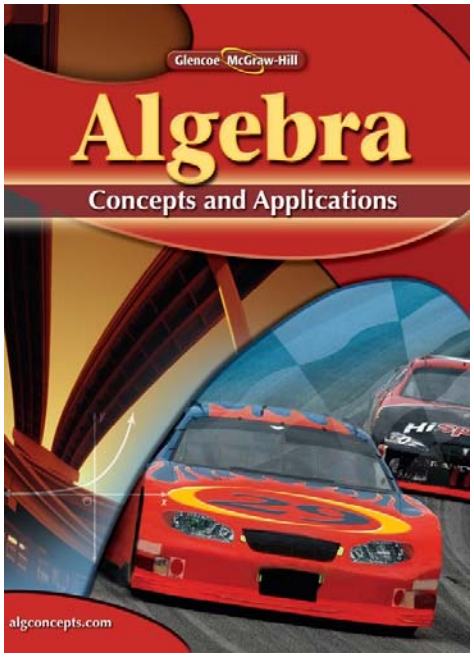
Glencoe

Academic Content Standards
Grade Nine and Grade Ten

Ohio



Algebra

Concepts and Applications

STANDARDS	PAGE REFERENCES
Grade Nine	
Number, Number Sense and Operations Standard	
Number and Number Systems	
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.	**Student Edition:** 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 **Teacher Wraparound Edition:** 5MC 19 #1-#4; EA 17, 23; ICE 15 Ex 1-3; OEA 18; RA 16, 21; TT 72, 76
2. Compare, order and determine equivalent forms for rational and irrational numbers.	**Student Edition:** 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 *Check Your Readiness* 93 *Investigation* 494-495 **Teacher Wraparound Edition:** ICE 615-616 #4-#6

Codes used for Teacher Wraparound Edition pages are the initial caps of headings on that page.

STANDARDS	PAGE REFERENCES
Meaning of Operations	
3. Explain the effects of operations such as multiplication or division, and of computing powers and roots on the magnitude of quantities.	**Student Edition:** 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 *Hands-On Algebra* 141 **Teacher Wraparound Edition:** HOA 141; ML 64, 75; RA 77
Computation and Estimation	
4. Demonstrate fluency in computations using real numbers.	**Student Edition:** 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
5. Estimate the solutions for problem situations involving square and cube roots.	**Student Edition:** 362-365, 367 Ex 2, 371, 376, 377, 387, 559 #36, 602-604, 605 #59, 606-611, 709, 727 #6 *Hands-On Algebra* 362 **Teacher Wraparound Edition:** 5MC 366, 606; ICE 363, 602; OEA 365; RA 364; TT 363
Measurement Standard	
Measurement Units	
1. Convert rates within the same measurement system; e.g., miles per hour to feet per second; kilometers per hour to meters per second.	**Student Edition:** 49 #10, 164 #39 & #47, 190-192, 217 #42-#43, 233 #13, 301 #53, 529 #71, 701, 743 #1, 744 #16 **Teacher Wraparound Edition:** ICE 190 Ex 4, 191 Ex 6; TT 190, 192
Use Measurement Techniques and Tools	
2. Use unit analysis to check computations involving measurement.	**Student Edition:** 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 **Teacher Wraparound Edition:** ICE 190-191 Ex 4-6, 267 Ex 6

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.	**Student Edition:** 340 #43, 360-361 #42-#43, 597 #5, 730 Ch 14 #5, 736 #13, 749 #6 & #8 *Graphing Calculator Exploration* 338-339 *Investigation* 372-373, 410-411 **Teacher Wraparound Edition:** GCE 338
4. Use scale drawings and right triangle trigonometry to solve problems that include unknown distances and angle measures.	**Student Edition:** 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 *Hands-On Algebra* 194 *Investigation* 372-373 **Teacher Wraparound Edition:** ICE 195
5. Solve problems involving unit conversion for situations involving distances, areas, volumes and rates within the same measurement system.	**Student Edition:** 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 *Hands-On Algebra* 194 *Investigation* 372-373, 410-411 **Teacher Wraparound Edition:** ICE 190-191 Ex 4-6, 195, 267 Ex 6
Geometry and Spatial Sense Standard	
Characteristics and Properties	
1. Define the basic trigonometric ratios in right triangles: sine, cosine and tangent.	See Glencoe's *Geometry* © 2008.
2. Apply proportions and right triangle trigonometric ratios to solve problems involving missing lengths and angle measures in similar figures.	**Student Edition:** 546, 547 #1, 635 #4, 681, 736 #10-#11, 740 #15-#16, 743 #13

STANDARDS	PAGE REFERENCES
Visualization and Geometric Models	
3. Analyze two-dimensional figures in a coordinate plane; e.g., use slope and distance formulas to show that a quadrilateral is a parallelogram.	**Student Edition:** 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 & #4, 739 #12, 743 #11, 749 #5 *Investigation* 612-613 **Teacher Wraparound Edition:** EC 326; ICE 323 Ex 2, 607 Ex 2; TT 608
Patterns, Functions and Algebra Standard	
Use Patterns, Relations and Functions	
1. Define function with ordered pairs in which each domain element is assigned exactly one range element.	**Student Edition:** 256-260, 269 Quiz 2 #1-#3, 269 #35, 277 #33-#38, 279 #11-#14, 454 Ex 1, 455 #1 & #4, 704 **Teacher Wraparound Edition:** ICE 256-257 Ex 1-3
2. Generalize patterns using functions or relationships (linear, quadratic and exponential), and freely translate among tabular, graphical and symbolic representations.	**Student Edition:** 302-307, 315 #40-#41, 332 Ex 1, 333 #1, 445-449, 489, 493 #25, 500, 706, 711 *Investigation* 308-309 **Teacher Wraparound Edition:** ICE 304 Ex 2; ML 303; RA 304
3. Describe problem situations (linear, quadratic and exponential) byusing tabular, graphical and symbolic representations.	**Student Edition:** 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 *Graphing Calculator Exploration* 491 *Investigation* 262-263 *Math in the Workplace* 488
4. Demonstrate the relationship among zeros of a function, roots of equations, and solutions of equations graphically and in words.	**Student Edition:** 112-115, 244-249, 468-472, 473 #27, 477 #35, 484-487, 496 **Teacher Wraparound Edition:** TT 487

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.	**Student Edition:** 238-242, 255 #42, 284-289, 316-321, 326 #14, 331 #1-#2, 458-463, 464-469, 489-493, 497, 585 #28, 706 *Graphing Calculator Exploration* 317 **Teacher Wraparound Edition:** 5MC 504 #2
Use Algebraic Representations	
6. Write and use equivalent forms of equations and inequalities in problem situations; e.g., changing a linear equation to the slope-intercept form.	**Student Edition:** 250-255, 290-295, 296-301, 312-315, 322-327, 328-330, 331, 454 Ex 2, 704, 705, 706 *Graphing Calculator Exploration* 551 *Investigation* 308-309 **Teacher Wraparound Edition:** 5MC 316; ICE 312, 323-325; TT 551
7. Use formulas to solve problems involving exponential growth and decay.	**Student Edition:** 489-493, 498 #47-#50 & #52, 499 #21-#22 & #25, 715, 729 Ch 11 #7 *Hands-On Algebra* 489 *Investigation* 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.	**Student Edition:** 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 *Investigation* 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.	**Student Edition:** 550-553, 554-559, 560-565, 566-571, 572-577, 585, 592-593, 595, 634-635, 718-719, 730 Ch 13 *Graphing Calculator Exploration* 551 *Hands-On Algebra* 560 *Investigation* 578-579 **Teacher Wraparound Edition:** 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.	**Student Edition:** 468-473, 474-477, 478-482, 483-487, 497-498, 499 *Graphing Calculator Exploration* 471 *Hands-On Algebra* 478-479 **Teacher Wraparound Edition:** 5MC 474, 478, 483, 489; CTBQ 499; EC 473; ICE 469-470, 475-476, 484-485; ML 483; RA 471, 475, 481
11. Add, subtract, multiply and divide monomials and polynomials (division of polynomials by monomials only).	**Student Edition:** 388-393, 394-398, 399-404, 405-409, 412-414, 415, 425 #58-#66, 428-433, 439 #53-#56, 451 #17-#23, 710-711 *Hands-On Algebra* 388, 400 **Teacher Wraparound Edition:** 5MC 394, 399, 405; EC 393, 398, 404; ICE 389-391, 394-396, 400-402
12. Simplify rational expressions by eliminating common factors and applying properties of integer exponents.	**Student Edition:** 341-345, 347-351, 375, 501 #3 & #9, 640-642, 644-649, 654 #34-#35, 655 Quiz 1, 661 #41, 676-677, 679, 722 **Teacher Wraparound Edition:** 5MC 347, 352, 644, 650; EA 642; EC 549; ICE 343-344, 348-349, 640-641, 645-647
Analyze Change	
13. Model and solve problems involving direct and inverse variation using proportional reasoning.	**Student Edition:** 264-269, 270-275, 276 #5 & #7, 278, 289 #31, 356 #60, 444 #50-#51, 513 #53, 629 #45, 704, 705, 726 Ch 6 #6 *Graphing Calculator Exploration* 272 **Teacher Wraparound Edition:** 5MC 270, 284 #2; EC 275; ICE 265-267, 271-273; TT 265-266, 270-272
14. Describe the relationship between slope and the graph of a direct variation and inverse variation.	**Student Edition:** 264-269, 270-275, 276 #5, 704, 705 **Teacher Wraparound Edition:** EA 268; OEA 269, 275; TT 266, 270, 272
15. Describe how a change in the value of a constant in a linear or quadratic equation affects the related graphs.	**Student Edition:** 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 **Teacher Wraparound Edition:** 5MC 468; ML 316; OEA 467, 493; RA 318

STANDARDS	PAGE REFERENCES
Data Analysis and Probability Standard	
Data Collection	
1. Classify data as univariate (single variable) or bivariate (two variables) and as quantitative (measurement) or qualitative (categorical) data.	See Glencoe's *Algebra 2* © 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.	**Student Edition:** 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 *Investigation* 308-309 **Teacher Wraparound Edition:** 5MC 310, 336 #5; ICE 303-304; ML 303, 308; TT 303
Statistical Methods	
3. Analyze and interpret frequency distributions based on spread, symmetry, skewness, clusters and outliers.	**Student Edition:** 32-37, 39-40 Ex 2-3, 46 #34-#39, 47 #19, 57 #53, 91 #7, 174 #48, 693 #5-#8 **Teacher Wraparound Edition:** 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.	**Student Edition:** 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.	**Student Edition:** 32, 34, 43 #24-#25, 69 #72, 220 Ex 1, 693 **Teacher Wraparound Edition:** EA 35; ICE 33 Ex 1, 220 Ex 1
6. Make inferences about relationships in bivariant data, and recognize the difference between evidence of relationship (correlation) and causation.	**Student Edition:** 38-39, 43 #23, 47 #20, 90, 91 #6, 151 #30, 208 #27, 218, 694

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

STANDARDS	PAGE REFERENCES
Meaning of Operations	
2. Explain the meaning of the *n*th root.	See Glencoe's *Algebra 2* © 2008.
Computation and Estimation	
3. Use factorial notation and computations to represent and solve problem situations involving arrangements.	**Student Edition:** *Investigation* 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.	**Student Edition:** 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 *Hands-On Algebra* 362 **Teacher Wraparound Edition:** 5MC 606; EA 364; EC 365, 473; HOA 363; ICE 363, 469 Ex 3; TT 363
Measurement Standard	
Use Measurement Techniques and Tools	
1. Explain how a small error in measurement may lead to a large error in calculated results.	See Glencoe's *Geometry* © 2008.
2. Calculate relative error.	See Glencoe's *Geometry* © 2008.
3. Explain the difference between absolute error and relative error in measurement.	See Glencoe's *Geometry* © 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.	**Student Edition:** 534 #44
5. Determine the measures of central and inscribed angles and their associated major and minor arcs.	**Student Edition:** 200-201 Ex 6, 202 #15, 203 #43 **Teacher Wraparound Edition:** ICE 200 Ex 6

STANDARDS	PAGE REFERENCES
Geometry and Spatial Sense Standard	
Characteristics and Properties	
1. Formally define and explain key aspects of geometric figures, including: a. interior and exterior angles of polygons; b. segments related to triangles (median, altitude, midsegment); c. points of concurrency related to triangles (centroid, incenter, orthocenter, circumcenter); d. circles (radius, diameter, chord, circumference, major arc, minor arc, sector, segment, inscribed angle).	**Student Edition:** 63 #37, 371 #35, 517 #35, 544 #51, 547 #10, 596-597, 611 Quiz 1 #10
2. Recognize and explain the necessity for certain terms to remain undefined, such as point, line and plane.	See Glencoe's *Geometry* © 2008.
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: a. prove the Pythagorean Theorem; b. prove theorems involving triangle similarity and congruence; c. prove theorems involving properties of lines, angles, triangles and quadrilaterals; d. test a conjecture using basic constructions made with a compass and straightedge or technology.	**Student Edition:** 63 #37, 316-321, 322-327, 366-371, 513 #43, 528 #58, 610 #29 & #32 *Hands-On Algebra* 511 *Investigation* 30-31, 372-373, 612-613 **Teacher Wraparound Edition:** 5MC 322; HOA 511; ICE 323-325; ML 322; TT 323, 324
Spatial Relationships	
4. Construct right triangles, equilateral triangles, parallelograms, trapezoids, rectangles, rhombuses, squares and kites, using compass and straightedge or dynamic geometry software.	See Glencoe's *Geometry* © 2008.
5. Construct congruent figures and similar figures using tools, such as compass, straightedge, and protractor or dynamic geometry software.	See Glencoe's *Geometry* © 2008.

STANDARDS	PAGE REFERENCES
Transformation and Symmetry	
6. Identify the reflection and rotation symmetries of two- and three dimensional figures.	**Student Edition:** 77 Ex 9, 78 #13, 79 #49, 88 #62, 324-325 *Hands-On Algebra* 324 **Teacher Wraparound Edition:** 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.	**Student Edition:** 77 ex 9 (on coordinate axes) Also see Glencoe's *Geometry* © 2008.
8. Derive coordinate rules for translations, reflections and rotations of geometric figures in the coordinate plane.	**Student Edition:** 69 #61 & #62, 77 Ex 9, 78 #13, 79 #49, 88 #62 **Teacher Wraparound Edition:** 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.	**Student Edition:** 79 #49 **Teacher Wraparound Edition:** EC 79
Visualization and Geometric Models	
10. Solve problems involving chords, radii and arcs within the same circle.	**Student Edition:** 200-201 Ex 6, 202 #15, 203 #43, 345 #48, 449 #52, 596 Ex 2, 597 #4 & #8-#9 **Teacher Wraparound Edition:** 5MC 525 #5; ICE 200 Ex 6
Patterns, Functions and Algebra Standard	
Use Patterns, Relations and Functions	
1. Define function formally and with f(x) notation.	**Student Edition:** 256-261, 275 #32, 276 *Investigation* 262-263 *Reading Algebra* 257 **Teacher Wraparound Edition:** 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.	**Student Edition:** 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 *Graphing Calculator Exploration* 317 **Teacher Wraparound Edition:** 5MC 504 #2; GCE 317; ICE 317-318

STANDARDS	PAGE REFERENCES
Use Algebraic Representations	
3. Solve equations and formulas for a specified variable; e.g., express the base of a triangle in terms of the area and height.	**Student Edition:** 115 #38, 117-121, 122-127, 128-131, 133-134 #32-#55, 160-164, 165-170, 171-175, 188-193, 235 #5 & #8-#9, 264-269, 270-275, 290-295, 296-301, 312-315, 409 #39-#41, 725 #4-#7, 730 Ch 14 #5, 735 #8 **Teacher Wraparound Edition:** ICE 123-125, 129-130
4. Use algebraic representations and functions to describe and generalize geometric properties and relationships.	**Student Edition:** 21 Ex 5, 23 #41, 27 #6, 29 #16, 163 #10, 164 #38 & #48, 169 #37, 170 #43-#45, 174 #35, 177 Ex 3, 178-179 #31-#32 & #34, 182 #57, 183 #25, 270, 275 #29, 365 #37, 517 #35, 728 Ch 10 *Graphing Calculator Exploration* 26, 338-339 *Hands-On Algebra* 25
5. Solve simple linear and nonlinear equations and inequalities having square roots as coefficients and solutions.	**Student Edition:** 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 **Teacher Wraparound Edition:** 5MC 483 #4, 489 #2, 606 #5; ICE 359 Ex 6, 485 Ex 3, 603 Ex 10, 624-627
6. Solve equations and inequalities having rational expressions as coefficients and solutions.	**Student Edition:** 123, 125-126, 133 #28, 134 #44-#47, 145 #47, 160-164, 165-170, 171-175, 176-179, 181-182, 204-207, 235 #5 & #8-#9, 465 Ex 5, 585 #24 *Graphing Calculator Exploration* 167 *Math in the Workplace* 488 **Teacher Wraparound Edition:** 5MC 165, 171; ML 160; OEA 164
7. Solve systems of linear inequalities.	**Student Edition:** 586-590, 594 #46-#50, 595 #21-#23, 605 #60, 611 #36, 635 #10, 673 #47, 720 *Graphing Calculator Exploration* 588 *Math in the Workplace* 591 **Teacher Wraparound Edition:** 5MC 600 #5; EA 589; EC 590; GCE 588; ICE 587; ML 586; OEA 590
8. Graph the quadratic relationship that defines circles.	See Glencoe's *Geometry* © 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.	**Student Edition:** 316-321, 322-327, 328, 330, 331 #19, 387 #69, 454 Ex 2, 508 #50, 555-559, 562 Ex 4, 707 **Teacher Wraparound Edition:** 5MC 322; EA 325; ICE 323-325, 555 Ex 3, 557 Ex 6, 562 Ex 4; OEA 327; TT 324, 325, 556
10. Solve real-world problems that can be modeled using linear, quadratic, exponential or square root functions.	**Student Edition:** 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 & #25, 626-627 Ex 5, 628, 632, 633 #25 *Graphing Calculator Exploration* 491 *Math in the Workplace* 488
11. Solve real-world problems that can be modeled, using systems of linear equations and inequalities.	**Student Edition:** 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 *Investigation* 578-579 *Math in the Workplace* 591 *Reteaching Activity* 552
Analyze Change	
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 *Geometry* © 2008.
Data Analysis and Probability Standard	
Data Collection	
1. Describe measures of center and the range verbally, graphically and algebraically.	**Student Edition:** 104-109, 184-185, 281 #10, 346, 521-522 Ex 5, 522 #13, 529 #59, 697 *Graphing Calculator Exploration* 105 *Investigation* 612-613 **Teacher Wraparound Edition:** 5MC 112; EA 107; GCE 105; ICE 105-106; OEA 109; RA 107; TT 105, 106

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.	**Student Edition:** 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 *Investigation* 308-309 **Teacher Wraparound Edition:** 5MC 310; ICE 39-41, 303-304; TT 303
3. Display bivariate data where at least one variable is categorical.	**Student Edition:** 90 Ex 2, 91 #10, 175 #47, 208 #27, 218, 333 #4, 694 Lesson 107 #1-3 **Teacher Wraparound Edition:** EC 43
4. Identify outliers on a data display; e.g., use interquartile range to identify outliers on a box-and-whisker plot.	**Student Edition:** 210-211 **Teacher Wraparound Edition:** A 211
Statistical Methods	
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.	**Student Edition:** 32, 34 #3-#4, 35 #10-#15, 36 #21, 37 #23, 693 Lesson 1-6 #1-#4 *Hands-On Algebra* 220 **Teacher Wraparound Edition:** HOA 220
6. Interpret the relationship between two variables using multiple graphical displays and statistical measures; e.g., scatterplots, parallel ox-and-whisker plots, and measures of center and spread.	**Student Edition:** 38-39, 43 #23, 85 #43-#44, 90, 91 #5-#6, 208 #27, 218 **Teacher Wraparound Edition:** EC 43; ICE 39 Ex 1; OEA 43
Probability	
7. Model problems dealing with uncertainty with area models (geometric probability).	See Glencoe's *Geometry* © 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.	**Student Edition:** 219-223, 230 #5, 243 #29, 398 #76-#77 *Hands-On Algebra* 220 **Teacher Wraparound Edition:** 5MC 224; EA 222; EC 223; HOA 220; ICE 220-221; OEA 223