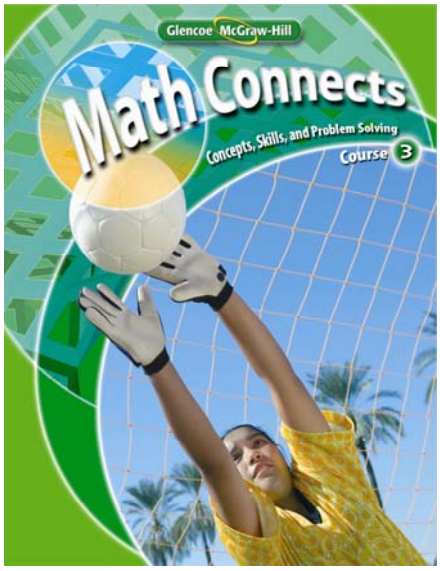
Glencoe

Mathematics Crosswalk
2008 Draft Mathematics Standards
Grade 8

Arizona



Math Connects

Concepts, Skills, and Problem Solving

Course 3

STANDARDS	PAGE REFERENCES
Strand 1: Number Sense and Operations	
1. Number Sense	
1. Compare and order real numbers including very large and small integers and decimals and fractions close to zero.	**Student Edition:** 35, 91 *Check Your Understanding* 37 #1-#4, 93, 158 #7-#9 *Example* 36, 91, 92, 93, 157 *Extra Practice* 668, 671, 675 *Get Ready for the Lesson* 91 *H.O.T. Problems* 95 #37, 133 #34 *Mid-Chapter Quiz* 50 #6, #8, 113 #4-#8, 160 #27-#30 *Mixed Problem Solving* 701 #4 *Practice and Problem Solving* 38 #13-#24, #39, #40, 94, 150 #21-#23, 158 #23-#28, 159 #32-#35 *Practice Test* 79 #5, 139 #20, 183 #4 *Reading Math* 36 *Real-World Example* 92, 131 *Study Guide and Review* 76 #18, #19, 135 #21-#26 *Test Practice* 39, 95 **Teacher Edition:** A 95; ADD 130a; AE 36, 92, 131, 157; DI 93; FMC 36, 92; SQ 35; TNT 95, 133; VSL 35a; WP 155a

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

STANDARDS	PAGE REFERENCES
2. Classify real numbers as rational or irrational.	**Student Edition:** 84, 155 *Check Your Understanding* 158 #1-#4 *Example* 156 *Extra Practice* 675 *Key Concept* 84, 155 *Mid-Chapter Quiz* 160 #21-#26 *Practice and Problem Solving* 158 #11-#18 *Practice Test* 183 #8-#10 *Study Guide and Review* 181 #25-#30 *Study Tip* 156 **Teacher Edition:** AE 156; FMC 156; ORG 155a; SQ 155
3. Solve problems that involve absolute value.*	**Student Edition:** 36 *Check Your Understanding* 37 #5-#12 *Example* 36 *Extra Practice* 668 *Mid-Chapter Quiz* 50 #7 *Practice and Problem Solving* 38 #25-#38 *Practice Test* 79 #6-#8 *Real-World Example* 37 *Study Guide and Review* 76 #21, #22 *Study Tip* 36 *Test Practice* 39, 80 #7 **Teacher Edition:** AE 36, 37; TNT 37
2. Numerical Operations	
1. Solve contextual problems including word problems with factors, multiples, divisibility (with or without remainders), prime numbers, and composite numbers.	**Student Edition:** *Start Smart* 7 **Teacher Edition:** Also see *Math Connects: Concepts, Skills, and Problem Solving Course 2* © 2009 pages 181-189, 211-214.

STANDARDS	PAGE REFERENCES
2. Describe the effect of multiplying and dividing by numbers including the effect of multiplying and dividing a rational number by: • zero, • a number less than zero, • a number between zero and one, • one, or • a number greater than one.*	The following references can be used during teacher/class discussion to meet this standard. **Student Edition:** *Concept Summary* 54 *Example* 52, 53, 97, 103 *Key Concept* 52, 53, 96, 103 *Writing in Math* 101 **Teacher Edition:** SQ 96, 130; TNT 107, 133
3. Recognize the application of the properties of the real number system: commutative, associative, distributive, identity, inverse, and closure.	**Student Edition:** 31 *Check Your Understanding* 32 #8, #9 *Example* 31, 103 *H.O.T. Problems* 56 #63, #64 *Key Concept* 156, 202 *Practice and Problem Solving* 32 #25-#32
4. Simplify numerical expressions using the order of operations that include grouping symbols, square roots, cube roots, absolute values, and positive exponents.	**Student Edition:** 29 *Check Your Understanding* 32 #1-#6, 38 #31-#34, 129 #9 *Example* 30, 37, 127 *Key Concept* 29 *Mid-Chapter Quiz* 50 #3, #4 *Practice and Problem Solving* 32 #11-#24, 128 #24-#27 *Practice Test* 79 #2, #3, #8, 139 #16 *Study Guide and Review* 75 #13-#16 *Test Practice* 81 #10, 141 #10 **Teacher Edition:** AE 30, 37, 127; AP 32; EM 29a

STANDARDS	PAGE REFERENCES
5. Use ratio and proportionality to solve problems involving percentages (including percent increase, percent decrease, and simple interest rates).	**Student Edition:** 263, 284-286, 290 *Check Your Understanding* 287, 292 *Example* 286, 287, 290 *Extra Practice* 682, 683 *Get Ready for the Lesson* 284 *H.O.T. Problems* 289 #29 *Key Concept* 284 *Mixed Problem Solving* 704 #12-#15 *Practice and Problem Solving* 288, 292 *Practice Test* 299 #22-#25 *Real-World Example* 265, 281, 285, 291 *Study Guide and Review* 298 #46-#54 *Test Example* 291 *Test Practice* 283, 289, 293, 300 #1, #3, #8, #11, 569 #10 **Teacher Edition:** AE 265, 281, 285, 286, 287, 291; AP 286; CP 284a; DI 265, 285; FMC 285, 291; SQ 284
6. Convert standard notation to scientific notation and vice versa (include positive and negative exponents).	**Student Edition:** 130 *Check Your Understanding* 132 *Example* 130, 131 *Extra Practice* 674 *Key Concept* 130, 131 *Mixed Problem Solving* 701 #19, #20 *Practice and Problem Solving* 132-133 *Practice Test* 139 #18, #19 *Study Guide and Review* 138 #66-#75 *Test Practice* 133, 140 #2, #7 **Teacher Edition:** AE 131; AM 130a; FMC 131; SQ 130

STANDARDS	PAGE REFERENCES
7. Simplify expressions using the rules of exponents.*	**Student Edition:** 545, 546, 550, 551 *Check Your Understanding* 547, 552, 557 *Example* 545, 546, 550, 551, 555, 556 *Get Ready for the Lesson* 550 *Key Concept* 545, 550, 555, 556 *Mid-Chapter Quiz* 549 #17-#21 *Practice and Problem Solving* 547, 553, 557 *Practice Test* 567 #7, #13-#16, #20, #22-#24 *Real-World Example* 546, 552 *Study Guide and Review* 565 #25-#34, 566 #35-#44 *Test Example* 551 *Test Practice* 548, 554, 558, 569 #6, #9 *Test-Taking Tip* 551 **Teacher Edition:** AE 546, 551, 555, 556; FMC 556; MD 555a; SQ 545, 550, 555; TNT 545
3. Estimation	
1. Make estimates appropriate to a given situation by: • selecting the appropriate method of estimation, • analyzing the effect of an estimation method on the accuracy of results, and • evaluating and justifying the reasonableness of results in a variety of situations that may or may not include calculator and computer results.	The following references can be used during teacher/class discussion to meet this standard. **Student Edition:** 148, 275 *Check Your Understanding* 150, 277 *Example* 148, 275, 276 *Extra Practice* 675, 682 *Get Ready for the Lesson* 275 *H.O.T. Problems* 278 #31-#33 *Practice and Problem Solving* 150, 277 *Real-World Example* 149, 276 *Study Tip* 354, 374 **Teacher Edition:** AE 149, 276; DI 150; SQ 148, 275; TNT 276

STANDARDS	PAGE REFERENCES
2. Locate rational and common irrational numbers on a number line.	**Student Edition:** 35, 93, 148 *Check Your Understanding* 158 #5, #6 *Example* 149, 156, 157 *Practice and Problem Solving* 94 #30-#33, 158 #19-#22 *Test Practice* 95, 151, 159 **Teacher Edition:** AE 156
Strand 2: Data Analysis, Probability, and Discrete Mathematics	
1. Date Analysis (Statistics)	
1. Solve problems by constructing, interpreting, and making calculations based on box and whisker plots, circle graphs, and scatter plots (e.g., for scatter plots determine positive and negative correlation and line of best fit).	**Student Edition:** 510, 511, 582, 605 *Activity* 590 *Check Your Understanding* 512, 585, 607 *Concept Summary* 510 *Example* 510, 511, 582, 583, 584, 605, 606 *Extend* 517, 611 *Extra Practice* 693, 697 *Mixed Problem Solving* 708 #12, #13, 710 #4, #8 *Practice and Problem Solving* 513-514, 586-587, 608-609 *Practice Test* 523 #19 *Study Guide and Review* 522 #40-#43 *Test Practice* 515, 588 **Teacher Edition:** AE 511, 512, 583, 584, 606, 607; AP 588; DI 511; FMC 511, 583; SQ 582

STANDARDS	PAGE REFERENCES
2. Answer questions by selecting, creating, and interpreting contextual displays of data.	**Student Edition:** 510, 576, 582, 605, 612 *Check Your Understanding* 512, 578, 585, 607, 614 *Example* 510, 511, 576, 577, 583, 584, 605, 606, 607 *Extra Practice* 693, 696, 697, 698 *Get Ready for the Lesson* 576 *Mid-Chapter Quiz* 598 #3-#6 *Mixed Problem Solving* 708 #12, #13, 710 #2-#4 *Practice and Problem Solving* 513-514, 578-579, 586-587, 608-609, 615 *Practice Test* 523 #19, 627 #3-#5, #10, #11, #14 *Real-World Example* 612, 613, 614 *Start Smart* 15 *Study Guide and Review* 522 #40-#43, 624 #16, #17, 625 #24-#26, 626 #27-#32 *Test Practice* 515, 525 #7, #9, 580, 588, 610, 616, 628 #1, #10, #11 **Teacher Edition:** AE 512, 577, 578, 606, 607, 613, 614; SQ 576, 582; TNT 576; URW 510a
3. Describe how measures of center and the range relate to the shape of the distribution; informally identify outliers and determine their effect on mean, median, mode, interquartile range (midspread) and range.	**Student Edition:** 600, 606 *Check Your Understanding* 594 #4 *Concept Summary* 591 *Concepts and Skills Bank* 751 *Practice and Problem Solving* 608 #13, 609 #20 *Test Example* 593 *Test Practice* 596, 610 *Writing in Math* 604 **Teacher Edition:** DI 603; KL 591a, 599a

STANDARDS	PAGE REFERENCES
4. Make inferences by comparing two or more data sets describing the same characteristic for two different populations or two subsets of the same population.	**Student Edition:** 613 *Check Your Understanding* 607 #5, 614 #6, #7 *Concepts and Skills Bank* 749 *Example* 607 *Practice and Problem Solving* 608 #14-#18, 609 #21-#23, 615 #16-#19 *Real-World Example* 614 *Test Practice* 616 **Teacher Edition:** AE 607, 614
5. Determine whether information is represented effectively and appropriately given a graph or a set of data by identifying sources of bias and compare and contrast the effectiveness of different representations of data.	**Student Edition:** *Concepts and Skills Bank* 752-753
M05-S2C1-01 **Moved to Grade 5**	
MCWR-S2C1-08 **Moved to College and Work Readiness**	
2. Probability	
1. Determine the probability (theoretical or experimental) that a specific event will occur in a compound probability experiment.	**Student Edition:** 637 *Check Your Understanding* 639 *Example* 643 *Mini Lab* 643 *Practice and Problem Solving* 640-641
2. Interpret probabilities within a given context and compare the outcome of an experiment to predictions made prior to performing the experiment.	The following references can be used during class activities to meet this standard. **Student Edition:** 643 *Check Your Understanding* 639, 645 #1-#3 *Example* 643 *Practice and Problem Solving* 640 #6-#11, #14-#19, #21, #22, #28 **Teacher Edition:** PC 632a; SQ 637

STANDARDS	PAGE REFERENCES
3. Use all possible outcomes (sample space) to determine the probability of dependent and independent events.	**Student Edition:** 637, 638 *Check Your Understanding* 639 *Example* 637 *H.O.T. Problems* 641 #32 *Key Concept* 637, 638 *Practice and Problem Solving* 640-641 *Real-World Example* 639 *Test Example* 638 *Test Practice* 642 **Teacher Edition:** AE 638, 639; AP 639; FMC 638; SQ 637
3. Discrete Mathematics – Systematic Listing and Counting	
1. Solve counting problems and represent counting principles algebraically including factorial notation.	The following references can be expanded to meet this standard. **Student Edition:** 632 *Check Your Understanding* 634 #1, #2 *Example* 632 *Practice and Problem Solving* 634 #4-#13, 635 #16, #17, #20, #21 *Real-World Example* 633 **Teacher Edition:** AE 633
2. Represent, analyze, and solve counting problems that do or do not involve ordering and that do or do not involve repetitions.	See Glencoe's *Pre-Algebra* © 2008 **Student Edition:** 676-680
4. Discrete Mathematics – Vertex-Edge Graphs	
1. Use vertex-edge graphs and algorithmic thinking to represent and find solutions to practical problems related to Euler/Hamilton paths and circuits.	The diagrams in the following references can be used during teacher/class discussion to meet this standard. **Student Edition:** *Check Your Understanding* 322 #2 *Example* 233, 334 *Extend* 312, 313 *Practice and Problem Solving* 169 #8, 170 #11, #14, #15, 234 #5-#7, 318 #17, #18 *Test Practice* 301 #14 **Teacher Edition:** AP 168; MD 216a; SQ 632

STANDARDS	PAGE REFERENCES
2. Use directed graphs to solve problems; construct an adjacency matrix for a given directed graph.	The diagrams in the following references can be used during teacher/class discussion to meet this standard. **Student Edition:** *Check Your Understanding* 322 #2 *Example* 233, 334 *Extend* 312, 313 *Practice and Problem Solving* 169 #8, 170 #11, #14, #15, 234 #5-#7, 318 #17, #18 *Test Practice* 301 #14 **Teacher Edition:** AP 168; MD 216a; SQ 632
Strand 3: Patterns, Algebra, and Functions	
1. Patterns	
1. Describe and extend numerical and geometric patterns using tables, graphs, words, or symbols.	**Student Edition:** 124 *Mixed Problem Solving* 125 *Practice Test* 139 #10 *Real-World Example* 25 *Study Guide and Review* 137 #54-#56 *Test Practice* 141 #11 **Teacher Edition:** ORG 124a
2. Functions and Relationships	
1. Write the rule of a simple function using formal algebraic notation.	The following table references can be extended to meet this standard. **Student Edition:** *Check Your Understanding* 471 #3-#5 *Example* 470, 476 *H.O.T. Problems* 472 #26 *Practice and Problem Solving* 471 #13-#18

STANDARDS	PAGE REFERENCES
2. Translate between different representations of linear expressions using symbols, graphs, tables, or written descriptions.	**Student Edition:** 476 *Check Your Understanding* 478 *Concept Summary* 476 *Example* 476 *Extra Practice* 691 *Practice and Problem Solving* 478-479 *Practice Test* 523 #7, #8 *Real-World Example* 475 *Study Guide and Review* 519 #18, #19 *Test Example* 477 *Test Practice* 524 #5 **Teacher Edition:** AE 476, 477; FMC 476
3. Use a table of values to graph an equation; describe the graph's characteristics.	**Student Edition:** *Check Your Understanding* 478 #5, 484 #4 *Concept Summary* 476 *Example* 476 *Practice and Problem Solving* 485 #15, #16 *Real-World Example* 475 *Test Example* 477 *Test Practice* 480 **Teacher Edition:** AE 476, 477
4. Describe a contextual situation that is depicted by a given graph; sketch a graph that models a given contextual situation.	The following references can be extended during teacher/class discussion to meet this standard. **Student Edition:** *Concepts and Skills Bank* 749 *Example* 529 *Get Ready for the Lesson* 204 *Practice and Problem Solving* 485 #29 *Real-World Example* 475 *Test Practice* 525 #7, 568 #2
5. Determine if a relationship is a function given a graph.	See Glencoe's *Pre-Algebra* ©2008 **Student Edition:** 360-362

STANDARDS	PAGE REFERENCES
6. Identify graphs as linear or nonlinear functions.	**Student Edition:** 476, 528 *Check Your Understanding* 530 #3, #4 *Example* 529 *Extra Practice* 694 *Practice and Problem Solving* 531 #14-#19 *Practice Test* 567 #1 **Teacher Edition:** AE 529; FMC 528; SQ 528
3. Algebraic Representations	
1. Write or identify algebraic expressions, equations, or inequalities that represent a situation.	**Student Edition:** 57 *Check Your Understanding* 59, 68 #4, 72 #7, 121 #9, 429, 436 #7, 443 #1, #2, 447 #5, 452 #9 *Example* 57, 67, 441 *Get Ready for the Lesson* 427 *H.O.T. Problems* 61 #27, 444 #34 *Mixed Problem Solving* 700 #9, #10, 707 #5-#8, #10-#13 *Practice and Problem Solving* 59-60, 68 #20-#23, 72 #20, #21, #31, 121 #22, #23, #28, #33, 429-430, 436 #22, #23, 443 #10-#15, 447 #28-#30, 452 #28, #29 *Practice Test* 79 #18, #24, #25, 459 #11 *Real-World Example* 58, 71, 120, 428, 435, 451 *Study Guide and Review* 77 #39, #40, 78 #49, #50, #55, #56, 455 #21, 457 #36, #43, 458 #51 *Test Example* 58 *Test Practice* 61, 69, 73, 80 #4, 431, 444, 453 **Teacher Edition:** AE 58, 428, 442; CLM 57a; FMC 58; PC 441a; SQ 57; TNT 429; WDE 70a

STANDARDS	PAGE REFERENCES
2. Evaluate algebraic expressions, including formulas, by substituting rational values for variables.	**Student Edition:** 29 *Check Your Understanding* 32 #1-#7, 128 #9, 292 #1, #2, 355 #1-#6 *Example* 30, 127, 290, 353, 354 *Extra Practice* 668 *Mid-Chapter Quiz* 50 #3, #4 *Practice and Problem Solving* 32 #11-#24, 33 #37, #38, 128 #24-#27, 292 #7-#10, 355 #8-#15 *Practice Test* 80 #2-#4 *Study Guide and Review* 75 #13-#17 **Teacher Edition:** AE 30, 127, 291, 353, 354
3. Simplify algebraic expressions using order of operations and combining like terms (apply the identity, inverse, and associative properties).	**Student Edition:** 417, 418 *Check Your Understanding* 419 #12-#14 *Example* 418 *Extra Practice* 688 *Mid-Chapter Quiz* 440 #5-#8 *Practice and Problem Solving* 419 #34-#39 *Practice Test* 459 #3, #4 *Study Guide and Review* 455 #11, #12 **Teacher Edition:** AE 418; FMC 417
4. Solve linear equations or inequalities.	**Student Edition:** *Check Your Understanding* 68, 72, 424, 447, 452 *Example* 66, 67, 70, 71, 422, 423, 445, 449, 450, 451 *Extra Practice* 670, 671, 689, 690, 691 *Key Concept* 65, 66, 70, 71, 445, 449, 450 *Practice and Problem Solving* 68, 72, 425, 447, 452 *Practice Test* 79 #20-#23, 459 #5-#10, #24, #25 *Study Guide and Review* 78, 457 #37-#42, 458 #44-#49 *Test Example* 446 *Test Practice* 426, 448 **Teacher Edition:** AE 66, 67, 71, 423, 446, 450, 451

STANDARDS	PAGE REFERENCES
5. Analyze situations or solve problems using linear equations and inequalities.	**Student Edition:** *Check Your Understanding* 68 #4, 72 #7, 121 #9, 424 #7, #11, 452 #9 *Practice and Problem Solving* 68 #20-#25, 72 #20, #21, #31, 121 #22, #23, #28, 425 #24, #25, #32, #33, 447 #28-#30, 452 #28, #29 *Real-World Example* 71, 120, 451
6. Graph an inequality on a number line.	**Student Edition:** 442 *Check Your Understanding* 443 #6-#9 *Example* 442 *Extra Practice* 690 *Practice and Problem Solving* 443 #22-#29 *Test Practice* 444 **Teacher Edition:** A 444; AE 443; FMC 442
M08-S4C4-03 **Moved to Strand 4 Concept 4**	
M08-S4C3-02 **Moved to Strand 4 Concept 3**	
4. Analysis of Change	
1. Interpret relationships between symbolic linear expressions and graphs of lines by identifying and computing slope and intercepts.	The following references can be used during teacher/class discussion to meet this standard. **Student Edition:** 495 *Check Your Understanding* 482 #2, #3, 497 #1-#6 *Example* 482, 495, 496 *Extra Practice* 692 *Practice and Problem Solving* 484 #11-#14, 497 #10-#21 *Study Guide and Review* 521 #29-#32 *Test Practice* 486, 499 **Teacher Edition:** AE 482, 496; SQ 481, 495

STANDARDS	PAGE REFERENCES
2. Solve contextual problems using simple rates.	**Student Edition:** 191 *Check Your Understanding* 192 #5-#7 *Example* 191 *Extra Practice* 677 *Mid-Chapter Quiz* 215 #4-#6 *Practice and Problem Solving* 192 #17-#25 *Real-World Example* 191 *Study Guide and Review* 243 #10 *Test Practice* 193 **Teacher Edition:** AE 191
Strand 4: Geometry and Measurement	
1. Geometric Properties	
1. Identify the properties of circles: radius, diameter, chords, tangents, secants, inscribed angles, central angles, intercepted arcs, circumference, and area.	**Student Edition:** 352 *Check Your Understanding* 355 *Example* 353, 354 *Extend* 358-359 *Extra Practice* 685 *Key Concept* 353, 354 *Mid-Chapter Quiz* 379 #1-#4 *Practice and Problem Solving* 355-356 *Practice Test* 409 #1-#3 *Real-World Example* 354 *Study Guide and Review* 406 #8-#10 **Teacher Edition:** AE 353, 354; FMC 353
2. Predict results of combining, subdividing, and changing shapes of plane figures and solids (e.g., paper folding, tiling, and rearranging cut up pieces).*	The following references can be expanded to meet this standard. **Student Edition:** 363, 375 *Check Your Understanding* 365, 375 *Concepts and Skills Bank* 738-740 *H.O.T. Problems* 378 #34 *Practice and Problem Solving* 366, 376 *Writing in Math* 367 **Teacher Edition:** DI 364; SQ 363; 373; VSL 368a

STANDARDS	PAGE REFERENCES
3. Use proportional reasoning to justify relationships of congruence and similarity.	The following references can be extended to meet this standard. **Student Edition:** 399 *Check Your Understanding* 222 #1, #2, 401 *Example* 219, 399 *Key Concept* 219 *Mini Lab* 218 *Practice and Problem Solving* 222 #5-#8, 402 **Teacher Edition:** AE 219; VE 320a
4. Determine the measure of angles created when parallel lines are cut by a transversal.	**Student Edition:** 307 *Check Your Understanding* 309 *Extra Practice* 683 *H.O.T. Problems* 310 #36 *Key Concept* 308 *Mid-Chapter Quiz* 326 #5-#9 *Mixed Problem Solving* 705 #1-#3 *Practice and Problem Solving* 309-310 *Real-World Example* 308 *Study Guide and Review* 343 #13-#17 *Test Practice* 311 **Teacher Edition:** AE 308; FMC 307

STANDARDS	PAGE REFERENCES
5. Use the Pythagorean Theorem to solve problems.	**Student Edition:** 162 *Check Your Understanding* 164, 169 *Example* 163 *Extra Practice* 676 *H.O.T. Problems* 166 #30 *Key Concept* 162 *Mixed Problem Solving* 702 #9-#12 *Practice and Problem Solving* 165, 169-170 *Practice Test* 183 #12-#20 *Real-World Example* 167 *Study Guide and Review* 181 #32-#38, 182 #39-#43 *Test Example* 168 *Test Practice* 166, 171, 184 #1, #5, #16 **Teacher Edition:** AE 163, 168
MO7-S4C1-02 **Moved to Grade 5**	
MO5-S4C4-06 **Moved to Grade 7**	
MO7-S4C4-06 **Moved to Grade 5**	
MO5-S4C1-02 **Moved to Grade 5**	
MHS-S4C1-07 **Moved to High School**	
2. Transformation of Shapes	
1. Identify lines of symmetry in plane figures or classify types of symmetries of plane figures.*	**Student Edition:** 327 *Check Your Understanding* 329 *Example* 328 *Extra Practice* 684 *Mixed Problem Solving* 705 #10, #11 *Practice and Problem Solving* 330 *Practice Test* 347 #9-#13 *Study Guide and Review* 345 #27-#31 **Teacher Edition:** AE 328; EC 327a; FMC 328; NL 327a; SQ 327

STANDARDS	PAGE REFERENCES
2. Model the result of rotations in multiples of 45 degrees of a figure about the origin.	**Student Edition:** 328 *Check Your Understanding* 329 #3 *Example* 329 *Mini Lab* 327 *Practice and Problem Solving* 330 #10, #11
3. Describe the transformations that created a tessellation.	**Student Edition:** *Get Ready for the Lesson* 337 Also see *Math Connects: Concepts, Skills, and Problem Solving Course 2* © 2009 **Student Edition:** 548, 552
3. Coordinate Geometry	
1. Make and test a conjecture about how to find the midpoint between any two points on a coordinate plane.	See Glencoe's *Geometry* © 2008.
2. Use the Pythagorean Theorem to find the distance between two points in a coordinate grid.	**Student Edition:** *Check Your Understanding* 176 #12, #13 *Example* 175 *Practice and Problem Solving* 177 #34, #35, #38 *Practice Test* 183 #23-#25 *Real-World Example* 175 *Study Guide and Review* 182 #44-#50 *Study Tip* 175 *Test Practice* 178 **Teacher Edition:** AE 175; TNT 161
MO8-S3C2-03 **Moved to Strand 3 Concept 2**	
4. Measurement	
1. Solve problems involving conversions within the same measurement system such as conversions involving square inches and square feet.*	**Student Edition:** *Concepts and Skills Bank* 742-745 *Test Practice* 249 #8

STANDARDS	PAGE REFERENCES
2. Calculate the area and perimeter of composite figures.	The following references can be extended to meet this standard for perimeter. **Student Edition:** 363 *Check Your Understanding* 365 *Example* 364, 365 *Explore* 362 *Extra Practice* 686 *H.O.T. Problems* 367 #18 *Mid-Chapter Quiz* 379 #6, #7 *Mixed Problem Solving* 706 #4 *Practice and Problem Solving* 366 *Practice Test* 409 #4, #5 *Real-World Example* 364 *Study Guide and Review* 406 #12-#14 *Test Practice* 367, 410 #4, #7 **Teacher Edition:** AE 364, 365; FMC 364; SQ 363
3. Solve geometric problems using ratios and proportions.	The following references use similarity to meet this standard. **Student Edition:** 218 *Check Your Understanding* 222, 402 *Example* 219, 220, 399, 400 *Extra Practice* 679, 688 *Key Concept* 219, 221 *Practice and Problem Solving* 222, 402-403 *Practice Test* 247 #9, #10, 409 #14-#16 *Study Guide and Review* 245 #25-#28, 408 #28 *Test Example* 221, 401 *Test Practice* 223, 248 #2, 404 **Teacher Edition:** AE 219, 220, 221, 400, 401; DI 400; FMC 219, 400

STANDARDS	PAGE REFERENCES
4. Calculate the surface area and volume of rectangular prisms, cylinders, and composite solids.	**Student Edition:** 373, 374, 375, 386, 388 *Check Your Understanding* 375, 389 *Example* 373, 374, 375, 387, 388 *Explore* 385 *Extra Practice* 687 *H.O.T. Problems* 377 #33 *Key Concept* 373, 374, 386, 388 *Mid-Chapter Quiz* 379 #10-#13 *Mini Lab* 373 *Mixed Problem Solving* 706 #6-#8, #10, #11 *Practice and Problem Solving* 376-377, 390 *Practice Test* 409 #8, #10, #11, #13 *Study Guide and Review* 407 #18-#20, 408 #25, #26 *Study Tip* 374, 387, 388 *Test Practice* 378, 391, 410 #3, #9, #11 **Teacher Edition:** AE 374, 375, 387, 388, 389; FMC 374; SQ 386
MO8-S4C1-03 **Moved to Strand 4 Concept 1**	
Strand 5: Structure and Logic	
1. Algorithms and Algorithmic Thinking	
1. Create an algorithm to solve problems involving indirect measurements: • proportional reasoning, • dimensional analysis, • density, and • rates.*	**Student Edition:** 191, 194 *Concepts and Skills Bank* 744 *Example* 191, 195, 198, 199 *Real-World Example* 191 **Teacher Edition:** AE 191

STANDARDS	PAGE REFERENCES
2. Describe when to use proportional reasoning to solve a problem.	The following references can be used during teacher/class discussion to meet this standard. **Student Edition:** 194, 210 *Check Your Understanding* 195, 212 *Example* 194, 211, 220 *H.O.T. Problems* 197 #18 *Key Concept* 210, 219 *Practice and Problem Solving* 196, 213 *Writing in Math* 197 **Teacher Edition:** AE 195, 211, 220
MO6-S5C1-01 **Moved to Grade 6**	
2. Logic, Reasoning, Arguments, and Mathematical Proof	
1. Develop the problem-solving strategy of writing an equation.	**Student Edition:** 57 *Check Your Understanding* 59, 68 #4, 72 #7, 121 #9, 429 #4, #5 *Example* 57, 67 *Practice and Problem Solving* 59-60, 68 #20-#25, 72 #20, #21, #31, 121 #22, #23, 429 #10-#14, 436 #22, #23 *Real-World Example* 58, 71, 120, 428, 435 *Test Example* 58 *Test Practice* 61, 69, 73 **Teacher Edition:** BV 57a; CLM 57a; SQ 57; WDE 70a
2. Solve a non-routine problem by selecting and using a strategy.	**Student Edition:** *H.O.T. Problems* 117 #37, 122 #38, 193 #27, 283 #28, 367 #18, 430 #27, 453 #42, 491 #24 *Mixed Problem Solving* 63, 125, 153, 217, 273, 315, 361, 439, 509, 539, 575, 651 *Practice and Problem Solving* 28 #8, #9, 106 #42, 111 #37, 122 #32, 150 #28, 223 #13, #14, 266 #28, 282 #24, 288 #24, #27, 356 #25, #28, #30, #31, 377 #22, #26, 430 #19-#21 *Test Practice* 81 #14, 171 #19, 185 #16, 301 #14, 411 #11

STANDARDS	PAGE REFERENCES
3. Solve logic problems involving multiple variables, conditional statements, conjectures, and negation using words, charts, and pictures.	**Student Edition:** *Analyze the Results* 40, 161, 172, 224, 312, 324-325, 385, 493, 501, 544, 590, 648-649 *Example* 31 *Exercises* 294 *H.O.T. Problems* 49 #46, #47, 56 #63, #64, 106 #44, 159 #36, 331 #16, #17, 391 #18, 596 #20, 642 #33
4. Make, validate, and justify conclusions and generalizations about linear relationships.	The following references can be used during teacher/class discussion to meet this standard. **Student Edition:** 204, 475 *Concept Summary* 206, 476 *H.O.T. Problems* 209 #25, #26 **Teacher Edition:** DI 477; FMC 205; SQ 204
5. Identify simple valid arguments using if…then statements (e.g., All squares are rectangles. If quadrilateral ABCD is a rectangle, is it a square?).	The following references use geometric figures to meet this standard. **Student Edition:** *Concepts and Skills Bank* 737-738 *H.O.T. Problems* 310 #37, 323 #16, 331 #16, #17, 372 #24, #25, 391 #18
6. Verify the Pythagorean Theorem using a valid argument.	**Student Edition:** *Explore* 161
7. Model the relationship between the subsets of the real number systems.	**Student Edition:** 155 *Key Concept* 84 **Teacher Edition:** OSW 155a