



ARIZONA
Mathematics Standard High School
***Geometry: Concepts and Application* © 2004**

OBJECTIVES	PAGE REFERENCES
Strand 1: Number Sense and Operations	
Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.	
Concept 1: Number Sense	
Understand and apply numbers, ways of representing numbers, the relationships among numbers and different number systems.	
PO 1. Classify real numbers as members of one or more subsets: natural, whole, integers, rational, or irrational numbers.	SE: 50-51, 54 #4, 641 #10 <i>Preparing for Standardized Tests</i> 451 #9 <i>Problem-Solving Workshop</i> 453 <i>Study Guide and Assessment</i> 82 #1-#2 TWE: IE 51
PO 2. Identify properties of the real number system: commutative, associative, distributive, identity, inverse, and closure.	SE: 279, 649-652, 561 Example 3 TWE: ML 649 TT 279
PO 3. Distinguish between finite and infinite sets of numbers.	SE: 53 #1 <i>Investigation</i> 154 This objective is covered in more depth in <i>Glencoe's Algebra: Concepts and Applications</i> © 2004.
Concept 2: Numerical Operations	
Understand and apply numerical operations and their relationship to one another.	
PO 1. Select the grade-level appropriate operation to solve word problems.	SE: 22 #38, 40 #31, 55 #29, 146 #47, 258 Example 3, 352 Example 4, 409 Example 1 <i>Preparing for Standardized Tests</i> 224 TWE: EC 261 <i>Enrichment Masters</i> 41
PO 2. Solve word problems using grade-level appropriate operations and numbers.	SE: 37-38 Example 4, 146 #47, 197 #21, 258 Example 3, 297 Example 3, 358 Example 3 <i>Math in the Workplace</i> 41, 301 TWE: RA 259 <i>Study Guide Masters</i> 36
PO 3. Simplify numerical expressions including signed numbers and absolute values.	SE: 52-53, 350-353, 550 Example 7, 552 #7-#14, 602 Example 3 <i>Preparing for Standardized Tests</i> 272 <i>Study Guide and Assessment</i> 578 #11-#16 <i>Test</i> 581 #3-#6
PO 4. Apply subscripts to represent ordinal position.	SE: 77, 78 Example 2

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PO 5. Use grade level-appropriate mathematical terminology.	SE: 198, 239 #22, 413, 474, 586, 697 <i>Investigation</i> 154, 380, 432 <i>Enrichment Masters</i> 8
PO 6. Compute using scientific notation.	SE: 214 #28 <i>Preparing for Standardized Tests</i> 46, 47 #5, 347 #3, 583 #2
PO 7. Simplify numerical expressions using the order of operations.	SE: 64 Example 3, 77 Example 1, 78, 105 Example 3, 164-165 Example 3, 176 Example 6 <i>Preparing for Standardized Tests</i> 46, 86 <i>Enrichment Masters</i> 7
Concept 3: Estimation	
Use estimation strategies reasonably and fluently.	
PO 1. Solve grade-level appropriate problems using estimation.	SE: 171 #2, 267 #34, 414-417, 479 Example 1 <i>Hands-On Geometry</i> 475 #3 <i>Preparing for Standardized Tests</i> 225 #5, 347 #7 <i>Problem-Solving Workshop</i> 401 TWE: EC 418 IE 414
PO 2. Determine if a solution to a problem is reasonable.	SE: 207 #26, 258 Example 3, 278 Example 3, Example 4, 298 Example 4, 411 #3, 414 Example 2, 421-422 Example 4 <i>Math in the Workplace</i> 115 #1-#3, 379 #1-#2
PO 3. Determine rational approximations of irrational numbers.	SE: 51, 497 Example 1, Example 2, 530 Example 2, 555 Example 1, 561 Example 4 <i>Preparing for Standardized Tests</i> 582
Strand 2: Data Analysis, Probability, and Discrete Mathematics	
Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.	
Concept 1: Data Analysis (Statistics)	
Understand and apply data collection, organization and representation to analyze and sort data.	
PO 1. Formulate questions to collect data in contextual situations.	SE: <i>Preparing for Standardized Tests</i> 184 State Test Example, 185 #10, 347 #10
PO 2. Organize collected data into an appropriate graphical representation.	SE: <i>Preparing for Standardized Tests</i> 184 State Test Example, 185 #10, 347 #10
PO 3. Display data as lists, tables, matrices, and plots.	SE: 101 #29, 133 #32, 179 #36-#37, 219 #29, 267 #34, 486 #3-#5 <i>Preparing for Standardized Tests</i> 184 <i>Enrichment Masters</i> 24
PO 4. Construct equivalent displays of the same data.	SE: 72 #36 <i>Math in the Workplace</i> 115 <i>Preparing for Standardized Tests</i> 184 State Test Example <i>Study Guide and Assessment</i> 84 #37
PO 5. Identify graphic misrepresentations and distortions of sets of data.	This concept is covered in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004.

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PO 6. Identify which of the measures of central tendency is most appropriate in a given situation.	This concept can be taught with the following examples. SE: 418 #30, 665 #32 <i>Preparing for Standardized Tests</i> 224, 225 #1, #3, #7, 307 #5, 399 #8
PO 7. Make reasonable predictions based upon linear patterns in data sets or scatter plots.	SE: 7 Example 5, 9 #36, 133 #32, 267 #34 <i>Preparing for Standardized Tests</i> 347 #7
PO 8. Make reasonable predictions for a set of data, based on patterns.	SE: 7 Example 5, 9 #36, 133 #32, 267 #34 <i>Preparing for Standardized Tests</i> 347 #7
PO 9. Draw inferences from charts, tables, graphs, plots, or data sets.	SE: 7 Example 5, 9 #36, 133 #32 <i>Preparing for Standardized Tests</i> 347 #7 TWE: RA 7 <i>Enrichment Masters</i> 9
PO 10. Apply the concepts of mean, median, mode, range, and quartiles to summarize data sets.	SE: 22 #39, 418 #30, 665 #32 <i>Preparing for Standardized Tests</i> 224, 225 #1, #3, #7, 307 #5, 399 #8
PO 11. Evaluate the reasonableness of conclusions drawn from data analysis.	SE: 7 Example 5, 9 #36, 101 #29 <i>Hands-On Geometry</i> 283 <i>Preparing for Standardized Tests</i> 184 SAT Example, 185 #1 TWE: IE 7
PO 12. Recognize and explain the impact of interpreting data (making inferences or drawing conclusions) from a biased sample.	The concept of biased sample can be introduced when the student works on the following problems: SE: <i>Preparing for Standardized Tests</i> 139 #10, 185 #1, #7
PO 13. Draw a line of best fit for a scatter plot.	Scatter plots are covered in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004. In the following examples, a line could be drawn to fit the data: SE: 9 #36, 72 #36, 267 #34
PO 14. Determine whether displayed data has positive, negative, or no correlation.	SE: 169, 179 #39 This objective is covered in greater depth in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004.
PO 15. Identify a normal distribution.	See Glencoe's <i>Algebra: Concepts and Applications</i> © 2004. SE: 106-107, 108 #15, 109 #34 <i>Investigation</i> 210-211
PO 16. Identify differences between sampling and census.	The concepts of sampling and census can be introduced when the student works on the following problems: SE: 484, 486 #7, #24-#25, 487 #28 <i>Preparing for Standardized Tests</i> 138 SAT Example, 139 #4, 185 #9, 545 #5, 629 #2 TWE: A 487
PO 17. Identify differences between biased and unbiased samples.	The concept of biased sample can be introduced when the student works on the following problems: SE: <i>Preparing for Standardized Tests</i> 139 #10, 185 #1, #7

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Concept 2: Probability	
Understand and apply the basic concepts of probability.	
PO 1. Find the probability that a specific event will occur, with or without replacement.	SE: <i>Preparing for Standardized Tests</i> 138 SAT Example, 139 #4, 347 #2, 629 #2 This objective is covered in greater depth in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004.
PO 2. Determine simple probabilities related to geometric figures.	SE: 484 Example 3, 486 #7, #24-#25, 487 #28c TWE: A 487 IE 484 RA 486
PO 3. Predict the outcome of a grade-level appropriate probability experiment.	SE: <i>Preparing for Standardized Tests</i> 138 SAT Example, 139 #4, 347 #2, 629 #2 This objective is covered in greater depth in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004.
PO 4. Record the data from performing a grade-level appropriate probability experiment.	SE: <i>Preparing for Standardized Tests</i> 184 State Test Example, 185 #10, 347 #10
PO 5. Compare the outcome of an experiment to predictions made prior to performing the experiment.	SE: 7 Example 5, 9 #36, 133 #32, 267 #34 <i>Investigation</i> 10-11 <i>Preparing for Standardized Tests</i> 347 #7
PO 6. Distinguish between independent and dependent events.	This objective is covered in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004. SE: 224, 227 #3, 228 #17-18, 229 #21, 315 #43-45, 327 #45-47, 406 #5, 467 #35 TWE: TT 225
PO 7. Compare the results of two repetitions of the same grade-level appropriate probability experiment.	SE: 484 This concept can be taught when students do experiments.
Concept 3: Discrete Mathematics – Systematic Listing and Counting	
Understand and demonstrate the systematic listing and counting of possible outcomes.	
PO 1. Determine the number of possible outcomes for a contextual event using a chart, a tree diagram, or the counting principle.	SE: <i>The Princeton Review</i> 138 A tree diagram or a chart could be used when solving the following problem: SE: <i>Preparing for Standardized Tests</i> 138 State Test Example
PO 2. Determine when to use combinations versus permutations in counting objects.	SE: <i>Preparing for Standardized Tests</i> 138 State Test Example This objective is covered in greater depth in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004.
PO 3. Use combinations or permutations to solve contextual problems.	This objective is covered in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004. SE: 146-147, 148 #3, 149 #11, 150 #20, 151 #23 <i>Investigation</i> 152-153 TWE: ICE 221

OBJECTIVES	PAGE REFERENCES
Concept 4: Vertex-Edge Graphs Understand and apply vertex-edge graphs. (Grades K-8)	
Strand 4: Geometry and Measurement Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.	
Concept 1: Geometric Properties Analyze the attributes and properties of 2- and 3-dimensional shapes and develop mathematical arguments about their relationships.	
PO 1. Identify the attributes of special triangles (isosceles, equilateral, right).	SE: 188-192, 194-197, 202, 246-250, 251-255 <i>Quiz 202</i> TWE: A 192 EC 192 <i>Enrichment Masters 25</i> <i>Study Guide Masters 25, 34</i>
PO 2. Identify the hierarchy of quadrilaterals.	SE: 310-315, 316, 320 #24-#26, 324, 330-331 #7-#8, #16-#21, #39-#44, 333, 335, 336 #3 TWE: EC 321 T 310 <i>Practice Masters 45</i>
PO 3. Make a net to represent a 3-dimensional object.	SE: 506, 509 <i>Graphing Calculator Exploration 504</i> TWE: A 509 GCE 505
PO 4. Make a 3-dimensional model from a net.	This concept can be introduced when the student works on the following problems: SE: 506, 509 <i>Graphing Calculator Exploration 504</i> TWE: A 509 GCE 505
PO 5. Draw 2-dimensional and 3-dimensional figures with appropriate labels.	SE: 498 #1, 500 #32, 508 #2, 509 #16, 513 #1, 514 #21, 520 #2, 531 #2, 537 #2 <i>Hands-On Geometry 510, 522</i> <i>Investigation 502-503</i>
PO 6. Solve problems related to complementary, supplementary, or congruent angle concepts.	SE: 117-121, 122-127, 133 #29, 150 Example 4, 157-159 TWE: EC 126 IE 117-119, 124 <i>Study Guide Masters 16, 17</i>
PO 7. Solve problems by applying the relationship between circles, angles, and intercepted arcs.	SE: 455 Example 2, 456-458, 462-467, 468-473, 477 #21, 482 #27 TWE: EC 466 <i>Practice Masters 61, 62</i>
PO 8. Solve problems by applying the relationship between radii, diameters, chords, tangents, or secants.	SE: 455 Example 2, 456-458, 462-467, 468-473, 477 #21, 482 #27 TWE: EC 466 <i>Practice Masters 61, 62</i>

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PO 9. Solve problems using the triangle inequality property.	SE: 291-295, 296-300 <i>Math in the Workplace</i> 301 <i>Study Guide and Assessment</i> 304 TWE: EC 295, 299 RA 298
PO 10. Solve problems using special case right triangles.	SE: 258 Example 3, 260 #38, 594 Example 2 <i>Investigation</i> 432-433 <i>Preparing for Standardized Tests</i> 628 State Test Example <i>Study Guide and Assessment</i> 270 #36 TWE: EC 61 RA 259 <i>Study Guide Masters</i> 36
PO 11. Determine when triangles are congruent by applying SSS, ASA, AAS, or SAS.	SE: 211-214, 215-219 <i>Study Guide and Assessment</i> 221 <i>Test</i> 223 TWE: EC 219 IE 216 RA 212 <i>Practice Masters</i> 30 <i>Study Guide Masters</i> 29, 30
PO 12. Determine when triangles are similar by applying SAS, SSS, or AA similarity postulates.	SE: 356, 357 Example 2, 359 #6 <i>Practice Masters</i> 48 <i>Study Guide Masters</i> 48
PO 13. Construct a triangle congruent to a given triangle.	SE: 217 #1-#2, 362-367 TWE: A 367 EC 367 IE 364 RA 212 <i>Enrichment Masters</i> 49 <i>Practice Masters</i> 49
PO 14. Solve contextual situations using angle and side length relationships.	SE: 195, 214 #20-#21, 218 #10, 365 Example 3, 366 #5, 367 #14-#16 <i>Investigation</i> 208-209
Concept 2: Transformation of Shapes	
Apply spatial reasoning to create transformations and use symmetry to analyze mathematical situations.	
PO 1. Sketch the planar figure that is the result of two or more transformations.	SE: 320 #27
PO 2. Identify the properties of the planar figure that is the result of two or more transformations.	SE: 200 #8, 202 #27 TWE: IE 200 <i>Study Guide Masters</i> 28
PO 3. Determine the new coordinates of a point when a single transformation is performed on a planar geometric figure.	SE: 687-688, 689 #5-#9, 695 TWE: EC 690, 696 IE 688 <i>Practice Masters</i> 93, 94 <i>Study Guide Masters</i> 95
PO 4. Determine whether a given pair of figures on a coordinate plane represents a translation, reflection, rotation, or dilation.	SE: 687-689, 692-695, 697-699, 703-706 TWE: IE 688, 693 <i>Practice Masters</i> 93, 94 <i>Study Guide Masters</i> 93, 94

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PO 5. Classify transformations based on whether they produce congruent or similar figures.	SE: 207 #25 <i>Investigation</i> 208-209 <i>Study Guide and Assessment</i> 221 Lesson 5-3 TWE: ML 687 RA 694
PO 6. Determine the effects of a single transformation on linear or area measurements of a planar geometric figure.	SE: 199, 200, 407 #37, 687, 695, 703-707 TWE: EC 707 RA 694 <i>Study Guide Masters</i> 96
Concept 3: Coordinate Geometry Specify and describe spatial relationships using coordinate geometry and other representational systems.	
PO 1. Graph a quadratic equation with lead coefficient equal to one.	SE: <i>Preparing for Standardized Tests</i> 545 #10 This objective is covered in greater depth in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004.
PO 2. Graph a linear equation in two variables.	SE: 174, 175 Example 5, 177 #8-#9, 178 #19-#24, #35 <i>Study Guide and Assessment</i> 182 #39-#40 TWE: ML 174 <i>Practice Masters</i> 24
PO 3. Graph a linear inequality in two variables.	This objective is covered in Glencoe's <i>Algebra: Concepts and Applications</i> © 2004. SE: 535-537, 538 #8-11, 539 #28-30
PO 4. Determine the solution to a system of equations in two variables from a given graph.	SE: 676-680, 686 #32 <i>Extra Practice</i> 756 Lesson 16-1 #1-#9 TWE: 5MC 681 A 680 IE 677 <i>Practice Masters</i> 91 <i>Study Guide Masters</i> 91
PO 5. Determine the midpoint between two points in a coordinate system.	SE: 76-81, 619 Example 2, 621 #13 TWE: EC 81 IE 77, 78 ML 76, 618 <i>Study Guide Masters</i> 11
PO 6. Determine changes in the graph of a linear function when constants and coefficients in its equation are varied.	SE: 177 #2, #11, 179 #38-#39 <i>Study Guide and Assessment</i> 182 #39-#41 TWE: A 179 EC 179 <i>Enrichment Masters</i> 24 <i>Study Guide Masters</i> 24
PO 7. Determine the distance between two points in the coordinate system.	SE: 262-266 TWE: EC 267 IE 264 ML 262 <i>Practice Masters</i> 37 <i>Study Guide Masters</i> 37

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Concept 4: Measurement - Units of Measure - Geometric Objects Understand and apply appropriate units of measure, measurement techniques, and formulas to determine measurements.	
PO 1. Calculate the area of geometric shapes composed of two or more geometric figures.	SE: 414 Example 2, 416 #8, 417 #23-#24, 424 #23-#24, 430 #16, 444 #22 <i>Math In the Workplace</i> 41 #1-#2 <i>Study Guide and Assessment</i> 448 #35 <i>Enrichment Masters</i> 418
PO 2. Calculate the volumes of 3-dimensional geometric figures.	SE: 510-515, 522-527, 529-532 TWE: A 515 IE 511, 512 <i>Enrichment Masters</i> 69 <i>Practice Masters</i> 69 <i>Study Guide Masters</i> 69
PO 3. Calculate the surface areas of 3-dimensional geometric figures.	SE: 504-509, 516-521, 529, 531-532 TWE: 5MC 510 EC 509 IE 506, 507, 508 <i>Enrichment Masters</i> 68 <i>Practice Masters</i> 68
PO 4. Compare perimeter, area, or volume of figures when dimensions are changed.	SE: 534-539 TWE: RA 536 IE 535, 536, 537 TT 535 <i>Enrichment Masters</i> 73 <i>Practice Masters</i> 73 <i>Study Guide Masters</i> 73
PO 5. Find the length of a circular arc.	SE: 463 Example 1, 464 Example 2, 466, 482 #27, 501 #36, 680 #28-#29 <i>Hands-On Geometry</i> 469 TWE: IE 465 TT 463 <i>Study Guide Masters</i> 62, 63
PO 6. Find the area of a sector of a circle.	SE: 485-487, 591 #30 <i>Study Guide and Assessment</i> 490 #38 TWE: EC 487 IE 485 <i>Enrichment Masters</i> 66 <i>Practice Masters</i> 66
PO 7. Solve for missing measures in a pyramid (i.e., slant height, height).	SE: 517-521, 523, 526 #11-#14, #17 TWE: A 527 IE 517, 518 <i>Practice Masters</i> 70, 71

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PO 8. Find the sum of the interior and exterior angles of a polygon.	SE: 409-412 <i>Hands-On Geometry</i> 408 TWE: A 412 EC 412 IE 409, 410 RA 411 <i>Practice Masters</i> 55 <i>Study Guide Masters</i> 55
PO 9. Solve scale factor problems using ratios and proportions.	SE: 389-393, 407 #37, 533 #27, 611 #26, 703, 706 #27 TWE: IE 389, 390 <i>Enrichment Masters</i> 53 <i>Practice Masters</i> 53 <i>Study Guide Masters</i> 53
PO 10. Solve applied problems using similar triangles.	SE: 357 Example 2, 365 Example 3, 366 #5, 367 #14-#18, 373 #22-#24, 378 #30, 392 #12
Strand 5: Structure and Logic Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.	
Concept 1: Algorithms and Algorithmic Thinking Use reasoning to solve mathematical problems in contextual situations.	
PO 1. Determine whether a given procedure for simplifying an expression is valid.	SE: 37-38 Example 4, 265 #3, 552 #3, 553 #44, 555 example 1, 602-306 Example 3 <i>Preparing for Standardized Tests</i> 272 SAT Example
PO 2. Determine whether a given procedure for solving an equation is valid.	SE: 265 #3, 513 #3, 525 #3, 615 #3 <i>Preparing for Standardized Tests</i> 272 State Test Example
PO 3. Determine whether a given procedure for solving a linear inequality is valid.	SE: 280 #3, 338 #36, 643 #34 <i>Study Guide and Assessment</i> 304 Lesson 7-4
PO 4. Select an algorithm that explains a particular mathematical process.	SE: 38 #2, 79 #2, 259 #1-#2, 265 #1-#2, 485 #1-#2, 508 #1, 520 #3, 525 #1, 567 #1, 575 #1
PO 5. Determine the purpose of a simple mathematical algorithm.	SE: 36, 77, 256, 263, 312, 479, 483, 485, 505, 517
PO 6. Determine whether given simple mathematical algorithms are equivalent.	SE: 130 Example 3, 195 Example 3, 480 #1, 618, 619 Example 2 <i>Preparing for Standardized Tests</i> 86 State Test Example TWE: EA 621 TT 619

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Concept 2: Logic, Reasoning, Arguments, and Mathematical Proof Evaluate situations, select problem-solving strategies, draw logical conclusions, develop and describe solutions and recognize their applications.	
PO 1. Draw a simple valid conclusion from a given <i>if...then</i> statement and a minor premise.	SE: 24-28, 635, 637 #35, 640 Example 3, 641-642 #4-#20 Quiz 1 648 #3-#4 TWE: IE 26 <i>Enrichment Masters</i> 86 <i>Practice Masters</i> 86 <i>Study Guide Masters</i> 86
PO 2. List related <i>if... then</i> statements in logical order.	SE: 25, 637 #36, 639-642 TWE: EC 28, 643 <i>Enrichment Masters</i> 86 <i>Practice Masters</i> 86 <i>Study Guide Masters</i> 86
PO 3. Write an appropriate conjecture given a certain set of circumstances.	SE: 7 Example 5, 458 #37, 641 #8 <i>Graphing Calculator Exploration</i> 193, 317 <i>Hands-On Geometry</i> 65 <i>Study Guide and Assessment</i> 670 #29
PO 4. Analyze assertions related to a contextual situation by using principles of logic.	SE: 24, 40 #34, 632, 637 #34-#35, 641 #8 TWE: FA 642 ML 638, 644 <i>Enrichment Masters</i> 28
PO 5. Identify a valid conjecture using inductive reasoning.	SE: 4-5, 8 #15-#31, 458 #37, 642 #15, #18-#19, #23-#24, 653 #12 <i>Problem-Solving Workshop</i> 631 <i>Study Guide and Assessment</i> 42 <i>Enrichment Masters</i> 85 <i>Practice Masters</i> 1
PO 6. Distinguish valid arguments from invalid arguments.	SE: 24, 639, 641-642, 653 #12 Quiz 1 648 #3 TWE: 5MC 644 EC 643 FA 642 IE 639 <i>Practice Masters</i> 86
PO 7. Create inductive and deductive arguments concerning geometric ideas and relationships, such as congruence, similarity, and the Pythagorean relationship.	SE: 15 #2, 119 #2, 144 #3, 205 #2, 259 #2-#3, 655 Example 1, 656, 658 <i>Study Guide and Assessment</i> 42 Lesson 1-1
PO 8. Critique inductive and deductive arguments concerning geometric ideas and relationships, such as congruence, similarity, and the Pythagorean relationship.	SE: 15 #2, 37-38 Example 4, 108 #3, 158 #2, 171 #3, 212 #2, 655 Example 1, 656 Example 2
PO 9. Identify a counterexample for a given conjecture.	SE: 6 Example 4, 8 #14, 9 #35, 17 #37, 658 #16, 659 #18, 662 Example 3, 664 #16-#17 TWE: FA 642 IE 6

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PO 10. Construct a counterexample to show that a given conjecture is false.	SE: 6 Example 4, 8 #14, 9 #35, 17 #37, 24, 281 #33 <i>Extending the Investigation</i> 209 <i>Study Guide and Assessment</i> 44 #32 <i>Enrichment Masters</i> 85, 88
PO 11. State the inverse, converse, or contrapositive of a given statement.	SE: 25-28, 34 #15-#17, 121 #35-#36, 291, 635, 637 #36 <i>Study Guide and Assessment</i> 43 Lesson 1-4 TWE: A 28 IE 25, 26
PO 12. Determine if the inverse, converse, or contrapositive of a given statement is true or false.	SE: 28 #30, 633-634, 635 Example 7, 637 #35, 643 #28-#30 <i>Study Guide and Assessment</i> 44 #32 TWE: IE 634-635 TT 25 <i>Practice Masters</i> 85 <i>Study Guide Masters</i> 85
PO 13. Construct a simple formal or informal deductive proof.	SE: 639-643 TWE: A 643 FA 642 IE 639-640 RA 640 <i>Enrichment Masters</i> 86 <i>Practice Masters</i> 86 <i>Study Guide Masters</i> 86
PO 14. Verify characteristics of a given geometric figure using coordinate formulas such as distance, mid-point, and slope to confirm parallelism, perpendicularity, and congruency.	SE: 63 Example 2, 163 Example 1, 167, 171 Example 5 <i>Graphing Calculator Exploration</i> 79 <i>Hands-On Geometry</i> 65, 69-70, 149 <i>Investigation</i> 102-103, 154-155

Codes Used for TWE Pages

5MC	5-Minute Check
A	Assess
EA	Error Analysis
EC	Extra Credit
FA	Family Activity
GCE	Graphing Calculator Exploration
IE	In-Class Examples
ML	Motivating the Lesson
RA	Reteaching Activity
T	Teach
TT	Teaching Tip