



Geometry

Concepts and Applications

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STANDARDS		PAGE REFERENCES
<u>GRADE 9</u>		
<u>Standard 1: Number and Operation</u>		
Students in Grade 9 deepen their understanding of real numbers by applying properties of rational numbers and exponents and by identifying exact and approximate roots without simplification. Students use positive and negative numbers, absolute value, fractions, decimals, percentages, and scientific notation. Students use the proper order of operations and perform operations with rational numbers. Students apply number sense to everyday situations and judge reasonableness of answers.		
Goal 1.1: Understand and use numbers.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.1.1.1	Apply properties of rational numbers. (347.01.b)	Student Edition: 50-55, 56-61, 127 #27, 279, 641 #10, 642 #19 <i>Check Your Readiness</i> 3 Teacher Wraparound Edition: F 56
9.M.1.1.2	Use positive and negative numbers, absolute value, fractions, decimals, percentages, and scientific notation, including application in real world situations. (347.01.a)	Student Edition: 50-55, 147 #59, 214 #28 <i>Algebra Review</i> 719, 720, 721 <i>Preparing for Standardized Tests</i> 46-47, 86-87, 225 #9, 273 #2, 347 #3, 583 #2

STANDARDS		PAGE REFERENCES
9.M.1.1.3	Apply properties of exponents. (347.01.c)	Student Edition: 214 #28 <i>Preparing for Standardized Tests</i> 272-273, 347 #3, 583 #2
9.M.1.1.4	Identify exact and approximate roots without simplification.	Student Edition: 256-261, 262-267, 470 Ex3, 548-553, 594 Ex2 <i>Preparing for Standardized Tests</i> 87 #1, 139 #5, 225 #2
9.M.1.1.5	Solve problems using number theory concepts (factors, multiples, primes). (347.01.d)	Student Edition: 28 #30, 44 #32, 50-55 <i>Preparing for Standardized Tests</i> 46-47, 87 #9, 273 #10, 629 #3
9.M.1.1.6	Use appropriate vocabulary.	Student Edition: 28 #30, 50-55, 259 #2, 548-553 <i>Preparing for Standardized Tests</i> 46-47, 86-87, 272-273, 347-348
Goal 1.2: Perform computations accurately.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.1.2.1	Use the order of operations and perform operations with rational numbers. (347.02.a)	Student Edition: 265 #4-6 <i>Algebra Review</i> 718 <i>Check Your Readiness</i> 3 #1-9 <i>Preparing for Standardized Tests</i> 86-87, 272-273
Goal 1.3: Estimate and judge reasonableness of results.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.1.3.1	Apply number sense to everyday situations and judge reasonableness of results. (347.03.a)	Student Edition: 34 #14, 37 Ex4, 50-55, 56-61, 171 Ex2, 197 #23, 256-261, 262-267, 421-422 Ex4, 530 Ex2 Applying number sense also can be applied to the problems on the following pages: 35-40, 76-82, 104-109, 110-114, 116-121, 122-127, 162-167, 246-250 Teacher Wraparound Edition: A 571; FTC 98; RA 416; TT 549
9.M.1.3.2	Identify that error accumulates in a computation when there is rounding. (349.05.b)	Teacher Wraparound Edition: TT 480

STANDARDS	PAGE REFERENCES
Standard 2: Concepts and Principles of Measurement	
Students in Grade 9 formulate and use proportions, ratios, and scaling. Students apply concepts of rates and direct and indirect measurements. Students evaluate given measurement formulas for two- and three-dimensional objects.	
Goal 2.1: Understand and use U.S. customary and metric measurements.	
Objective(s): By the end of Grade 9, the student will be able to:	
9.M.2.1.1 Given the formulas, find the circumference, perimeter, or area of triangles, circles, and quadrilaterals, and the volume and surface area of rectangular prisms and cylinders. (349.01.a)	Student Edition: 35-40, 413-418, 419-424, 478-482, 483-487, 504-509, 510-515, 516-521, 522-527 <i>Graphing Calculator Exploration</i> 478 <i>Hands-On Geometry</i> 420-421, 522 <i>Investigation</i> 432-433 <i>Math in the Workplace</i> 41 <i>Preparing for Standardized Tests</i> 582
9.M.2.1.2 Solve problems involving circumference, perimeter, or area of triangles, circles, and rectangles.	Student Edition: 35-40, 413-418, 419-424, 478-482, 483-487 <i>Graphing Calculator Exploration</i> 478 <i>Hands-On Geometry</i> 388, 415 <i>Investigation</i> 432-433 <i>Preparing for Standardized Tests</i> 582 Teacher Wraparound Edition: EC 482; FA 481; RA 416, 422
Goal 2.2: Apply the concepts of rates, ratios, and proportions.	
Objective(s): By the end of Grade 9, the student will be able to:	
9.M.2.2.1 Use rates, ratios, proportions, and map scales in problem-solving situations. (349.03.a)	Student Edition: 350-355, 356-361, 362-367, 368-373, 382-387, 388-393, 534-539, 564-569, 572-577 <i>Graphing Calculator Exploration</i> 371 <i>Hands-On Geometry</i> 362, 370, 388 <i>Investigation</i> 380-381, 570-571 Teacher Wraparound Edition: EC 355

STANDARDS		PAGE REFERENCES
9.M.2.2.2	Apply concepts of rates and direct and indirect measurements.	Student Edition: 356-361, 362-367, 388-393, 534-539, 564-569, 572-577 <i>Hands-On Geometry</i> 370, 388 <i>Investigation</i> 570-571 <i>Preparing for Standardized Tests</i> 398-399 Teacher Wraparound Edition: RA 360, 365
9.M.2.2.3	Construct equivalent units, comparable units, and conversions. (349.02.a)	Student Edition: 58 Ex3, 59 #8-9, 60 #23-28, 184 Ex2, 532 #15 <i>Preparing for Standardized Tests</i> 776 #15-16, 781 #7c
Goal 2.3: Apply dimensional analysis.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.2.3.1	Use customary and metric units and their relationship to one another and to real world applications involving length, area, capacity, weight, time, and temperature. (349.04.a)	Student Edition: 35-40, 350-355, 356-361, 362-367, 368-373, 382-387, 388-393, 534-539, 564-569, 572-577 <i>Graphing Calculator Exploration</i> 371 <i>Hands-On Geometry</i> 362, 370, 388 <i>Investigation</i> 380-381, 570-571 <i>Preparing for Standardized Tests</i> 776 #15-16, 781 #7c Teacher Wraparound Edition: FA 481
Goal 2.4: Apply appropriate techniques and tools to determine measurements.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.2.4.1	Determine and use appropriate units. (349.01.a)	Student Edition: 56-61 <i>Preparing for Standardized Tests</i> 784 Ex2 Teacher Wraparound Edition: FA 60
9.M.2.4.2	Approximate error in measurement situations.	Student Edition: 59 #3, 427, 428 #1 Teacher Wraparound Edition: EC 418; MTL 483; RA 416 Teacher Resources: <i>Enrichment</i> 69

STANDARDS		PAGE REFERENCES
Standard 4: Concepts and Principles of Geometry		
Students in Grade 9 represent linear relationships using tables, graphs, and mathematical symbols. Students interpret attributes of linear relationships such as slope, rate of change, and intercepts.		
Goal 4.1: Apply concepts of size, shape, and spatial relationships.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.4.1.1	Recognize congruency and similarity of two-dimensional figures. (351.01.a)	Student Edition: 203-207, 210-214, 215-219, 356-361, 362-367, 388-393, 434-439, 687-690, 692-696, 697-702, 703-707 <i>Hands-On Geometry</i> 210, 362, 388 <i>Investigation</i> 208-209 Teacher Wraparound Edition: EC 367
9.M.4.1.2	Recognize similarity as it relates to size variations in two-dimensional objects. (351.01.b)	Student Edition: 388-393, 534-539 <i>Hands-On Geometry</i> 308 <i>Investigation</i> 432-433
Goal 4.2: Apply the geometry of right triangles.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.4.2.1	Given the Pythagorean Theorem, calculate a missing side length of a right triangle where the legs and hypotenuse are natural numbers. (351.02.c)	Student Edition: 256-261, 261 #40, 470 Ex3, 516-521, 522-527, 592-597, 617 #21 <i>Hands-On Geometry</i> 262, 388, 554, 559 <i>Investigation</i> 432-433
Goal 4.3: Apply graphing in two dimensions.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.4.3.1	Identify attributes of the Cartesian Coordinate System, such as quadrants, origin, and axes. (351.03.a)	Student Edition: 68-73, 94 #28, 168-173, 262-264, 660-665 <i>Graphing Calculator Exploration</i> 79 <i>Hands-On Geometry</i> 69-70, 660
9.M.4.3.2	Graph scatter plots and identify informal trend lines (e.g., eyeball fit lines).	Student Edition: 776 #18, 781 #8
9.M.4.3.3	Identify positive and negative correlations.	Student Edition: 776 #18, 781 #8

STANDARDS		PAGE REFERENCES
Goal 4.4: Represent and graph linear relationships.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.4.4.1	Create graphs and equations for linear relationships.	Student Edition: 174-179, 676-680
9.M.4.4.2	Represent linear relationships using tables, graphs, and mathematical symbols.	Student Edition: 174-179, 182 #39-#41, 83 #22-#23 Teacher Wraparound Edition: A 179; EC 179; ICE 176 To include tables, also see Glencoe's <i>Algebra: Concepts and Applications</i> © 2006 Chapter 4.
9.M.4.4.3	Interpret attributes of linear relationships such as slope, rate of change, and intercepts.	Student Edition: 168-173, 174-179, 563 #24 <i>Graphing Calculator Exploration</i> 170 <i>Hands-On Geometry</i> 169
Standard 5: Data Analysis, Probability, and Statistics		
Students in Grade 9 interpret and use basic statistical concepts including mean, median, mode, range, and distribution of data, including outliers. Students make predictions and draw conclusions based on statistical measures and students make predictions based on randomness, chance, equally likely events, and probability. Students find probabilities based on dependent, independent, and compound events and students make predictions based on randomness, chance, equally likely events, and probability.		
Goal 5.1: Represent data with a variety of formats.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.5.1.1	Analyze and interpret tables, charts, and graphs, including scatter plots, broken line graphs, and box-and-whisker plots. (352.01.a)	Student Edition: 7 Ex5, 101 #29, 179 #36 & #38, 219 #29, 267 #34, 277 Ex2, 466 #36, 473 #31 <i>Math in the Workplace</i> 41, 115, 301, 339, 445 <i>Preparing for Standardized Tests</i> 184-85, 225 #10, 273 #3, 347 #7
Goal 5.2: Collect, organize, and display data.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.5.2.1	Collect, organize, and display data in tables, charts, and graphs. (352.02.a)	Student Edition: <i>Preparing for Standardized Tests</i> 185 #10, 776 #18, 781 #8

STANDARDS		PAGE REFERENCES
Goal 5.3: Apply simple statistical measurements.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.5.3.1	Interpret and use basic statistical concepts, including mean, median, mode, range, and distribution of data, including outliers. (352.03.a)	Student Edition: 665 #32 <i>Preparing for Standardized Tests</i> 224-225, 307 #5, 583 #3 & #8, 715 #4, 768 #9, 772 #17
9.M.5.3.2	Make predictions and draw conclusions based on statistical measures. (352.05.a)	Student Edition: 267 #34 <i>Preparing for Standardized Tests</i> 781 #8
Goal 5.4: Understand basic concepts of probability.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.5.4.1	Find probabilities based on dependent, independent, and compound events.	Student Edition: 438 #29, 483-487 <i>Preparing for Standardized Tests</i> 138-139, 185 #9, 347 #2, 545 #5, 629 #2 Teacher Wraparound Edition: RA 486
9.M.5.4.2	Contrast experimental and theoretical probability. (352.04.a)	Student Edition: 484
Goal 5.5: Make predictions or decisions based on data.		
Objective(s): By the end of Grade 9, the student will be able to:		
9.M.5.5.1	Make predictions based on randomness, chance, equally likely events, and probability. (352.04.c)	Student Edition: 438 #29, 483-487 <i>Preparing for Standardized Tests</i> 138-139, 185 #9, 347 #2, 545 #5, 629 #2 Teacher Wraparound Edition: RA 486
9.M.5.5.2	Use appropriate tools/technology to conduct simulations and employ graphical models to make predictions or decisions based on data. (352.05.a)	Student Edition: 9 #36, 133 #33, 653 #16 <i>Preparing for Standardized Tests</i> 184-185

STANDARDS		PAGE REFERENCES
9.M.5.5.3	Design, conduct, and interpret results of statistical experiments. (352.05.b)	See Glencoe's <i>Geometry</i> © 2005 Student Edition: 404 <i>Geometry Activity</i> 406 <i>Spreadsheet Activity</i> 288 <i>WebQuest</i> 164
GRADE 10		
Standard 1: Number and Operation		
Students in Grade 10 deepen their understanding of real numbers by applying properties of rational numbers and exponents and by identifying exact and approximate roots without simplification. Students use positive and negative numbers, absolute value, fractions, decimals, percentages, and scientific notation. Students use the proper order of operations and perform operations with rational numbers. Students apply number sense to everyday situations and judge reasonableness of answers.		
Goal 1.1: Understand and use numbers.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.1.1.1	Apply properties of rational numbers. (347.01.b)	Student Edition: 50-55, 56-61, 127 #27, 279, 641 #10, 642 #19 <i>Check Your Readiness</i> 3 Teacher Wraparound Edition: F 56
10.M.1.1.2	Use positive and negative numbers, absolute value, fractions, decimals, percentages, and scientific notation, including application in real world situations. (347.01.a)	Student Edition: 50-55, 147 #59, 214 #28 <i>Algebra Review</i> 719, 720, 721 <i>Preparing for Standardized Tests</i> 46-47, 86-87, 225 #9, 273 #2, 347 #3, 583 #2
10.M.1.1.3	Apply properties of exponents. (347.01.c)	Student Edition: 214 #28 <i>Preparing for Standardized Tests</i> 272-273, 347 #3, 583 #2
10.M.1.1.4	Identify exact and approximate roots without simplification.	Student Edition: 256-261, 262-267, 470 Ex3, 548-553, 594 Ex2 <i>Preparing for Standardized Tests</i> 87 #1, 139 #5, 225 #2
10.M.1.1.5	Solve problems using number theory concepts (factors, multiples, primes). (347.01.d)	Student Edition: 28 #30, 44 #32, 50-55 <i>Preparing for Standardized Tests</i> 46-47, 87 #9, 273 #10, 629 #3

STANDARDS		PAGE REFERENCES
10.M.1.1.6	Use appropriate vocabulary.	Student Edition: 28 #30, 50-55, 259 #2, 548-553 <i>Preparing for Standardized Tests</i> 46-47, 86-87, 272-273, 347-348
Goal 1.2: Perform computations accurately.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.1.2.1	Use the order of operations and perform operations with rational numbers. (347.02.a)	Student Edition: 265 #4-6 <i>Algebra Review</i> 718 <i>Check your Readiness</i> 3 #1-9 <i>Preparing for Standardized Tests</i> 86-87, 272-273
Goal 1.3: Estimate and judge reasonableness of results.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.1.3.1	Apply number sense to everyday situations and judge reasonableness of results. (347.03.a)	Student Edition: 34 #14, 37 Ex4, 50-55, 56-61, 171 Ex2, 197 #23, 256-261, 262-267, 421-422 Ex4, 530 Ex2 Applying number sense also can be applied to the problems on the following pages: 35-40, 76-82, 104-109, 110-114, 116-121, 122-127, 162-167, 246-250 Teacher Wraparound Edition: A 571; FTC 98; RA 416; TT 549
10.M.1.3.2	Identify that error accumulates in a computation when there is rounding. (349.05.b)	Teacher Wraparound Edition: TT 480

STANDARDS		PAGE REFERENCES
Standard 2: Concepts and Principles of Measurement		
Students in Grade 10, given relative formulas, determine length, distance, area, surface area, capacity, and weight, with appropriate unit labels. Students formulate and use proportions, ratios, and scaling. Students apply concepts of rates and direct and indirect measurements. Students evaluate given measurement formulas for two- and three-dimensional objects.		
Goal 2.1: Understand and use U.S. customary and metric measurements.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.2.1.1	Given the formulas, find the circumference, perimeter, or area of triangles, circles, and quadrilaterals, the volume of spheres, non-oblique prisms, cylinders, and cones, and the surface area of spheres, non-oblique prisms, cylinders, and right square-based pyramids. (349.01.a)	Student Edition: 35-40, 413-418, 419-424, 478-482, 483-487, 504-509, 510-515, 516-521, 522-527 <i>Graphing Calculator Exploration</i> 478 <i>Hands-On Geometry</i> 420-421, 522 <i>Investigation</i> 432-433 <i>Math in the Workplace</i> 41 <i>Preparing for Standardized Tests</i> 582
10.M.2.1.2	Solve problems involving circumference, perimeter, or area of triangles, circles, and rectangles.	Student Edition: 35-40, 413-418, 419-424, 478-482, 483-487 <i>Graphing Calculator Exploration</i> 478 <i>Hands-On Geometry</i> 388, 415 <i>Investigation</i> 432-433 <i>Preparing for Standardized Tests</i> 582 Teacher Wraparound Edition: EC 482; FA 481; RA 416, 422
Goal 2.2: Apply the concepts of rates, ratios, and proportions.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.2.2.1	Use rates, ratios, proportions, map scales, and scale factors (one- and two-dimensional) in problem-solving situations. (349.03.a)	Student Edition: 350-355, 356-361, 362-367, 368-373, 382-387, 388-393, 534-539, 564-569, 572-577 <i>Graphing Calculator Exploration</i> 371 <i>Hands-On Geometry</i> 362, 370, 388 <i>Investigation</i> 380-381, 570-571 Teacher Wraparound Edition: EC 355

STANDARDS		PAGE REFERENCES
10.M.2.2.2	Apply concepts of rates and direct and indirect measurements.	Student Edition: 356-361, 362-367, 388-393, 534-539, 564-569, 572-577 <i>Hands-On Geometry</i> 370, 388 <i>Investigation</i> 570-571 <i>Preparing for Standardized Tests</i> 398-399 Teacher Wraparound Edition: RA 360, 365
10.M.2.2.3	Construct equivalent units, comparable units, and conversions. (349.02.a)	Student Edition: 58 Ex3, 59 #8-9, 60 #23-28, 184 Ex2, 532 #15 <i>Preparing for Standardized Tests</i> 776 #15-16, 781 #7c
Goal 2.3: Apply dimensional analysis.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.2.3.1	Use customary and metric units and their relationship to one another and to real world applications involving length, area, capacity, weight, time, and temperature. (349.04.a)	Student Edition: 35-40, 350-355, 356-361, 362-367, 368-373, 382-387, 388-393, 534-539, 564-569, 572-577 <i>Graphing Calculator Exploration</i> 371 <i>Hands-On Geometry</i> 362, 370, 388 <i>Investigation</i> 380-381, 570-571 <i>Preparing for Standardized Tests</i> 776 #15-16, 781 #7c Teacher Wraparound Edition: FA 481
Goal 2.4: Apply appropriate techniques and tools to determine measurements.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.2.4.1	Determine and use appropriate units. (349.01.a)	Student Edition: 56-61 <i>Preparing for Standardized Tests</i> 784 Ex2 Teacher Wraparound Edition: FA 60
10.M.2.4.2	Approximate error in measurement situations.	Student Edition: 59 #3, 427, 428 #1 Teacher Wraparound Edition: EC 418; MTL 483; RA 416 Teacher Resources: <i>Enrichment</i> 69

STANDARDS		PAGE REFERENCES
Standard 4: Concepts and Principles of Geometry		
Students in Grade 10 recognize congruency and similarity of two-dimensional figures. Students identify and use similarity as it relates to size variations in two- and three- dimensional objects. Given the Pythagorean Theorem, students calculate missing side lengths of right triangles without simplifying radicals. Students represent linear relationships using tables, graphs, and mathematical symbols. Students interpret attributes of linear relationships such as slope, rate of change, and intercepts. Students use logic to make and evaluate mathematical arguments.		
Goal 4.1: Apply concepts of size, shape, and spatial relationships.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.4.1.1	Recognize and apply congruency and similarity of two-dimensional figures. (351.01.a)	Student Edition: 203-207, 210-214, 215-219, 356-361, 362-367, 388-393, 434-439, 687-690, 692-696, 697-702, 703-707 <i>Hands-On Geometry</i> 210, 362, 388 <i>Investigation</i> 208-209 Teacher Wraparound Edition: EC 367
10.M.4.1.2	Recognize and use similarity as it relates to size variations in two- and three-dimensional objects. (351.01.b)	Student Edition: 388-393, 534-539 <i>Hands-On Geometry</i> 308 <i>Investigation</i> 432-433
Goal 4.2: Apply the geometry of right triangles.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.4.2.1	Given the Pythagorean Theorem, calculate missing side lengths of right triangles without simplifying radicals. (351.02.c)	Student Edition: 256-261, 261 #40, 470 Ex3, 516-521, 522-527, 592-597, 617 #21 <i>Hands-On Geometry</i> 262, 388, 554, 559 <i>Investigation</i> 432-433
Goal 4.3: Apply graphing in two dimensions.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.4.3.1	Identify attributes of the Cartesian Coordinate System, such as quadrants, origin, and axes. (351.03.a)	Student Edition: 68-73, 94 #28, 168-173, 262-264, 660-665 <i>Graphing Calculator Exploration</i> 79 <i>Hands-On Geometry</i> 69-70, 660
10.M.4.3.2	Graph scatter plots and identify informal trend lines (e.g., eyeball fit lines).	Student Edition: 776 #18, 781 #8

STANDARDS		PAGE REFERENCES
10.M.4.3.3	Identify positive and negative correlations.	Student Edition: 776 #18, 781 #8
Goal 4.4: Represent and graph linear relationships.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.4.4.1	Create graphs and equations for linear relationships.	Student Edition: 174-179, 676-680
10.M.4.4.2	Represent linear relationships using tables, graphs, and mathematical symbols.	Student Edition: 174-179, 182 #39-#41, 83 #22-#23 Teacher Wraparound Edition: A 179; EC 179; ICE 176 To include tables, also see Glencoe's <i>Algebra: Concepts and Applications</i> © 2006 Chapter 4.
10.M.4.4.3	Interpret attributes of linear relationships such as slope, rate of change, and intercepts.	Student Edition: 168-173, 174-179, 563 #24 <i>Graphing Calculator Exploration</i> 170 <i>Hands-On Geometry</i> 169
Goal 4.5: Use reasoning skills.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.4.5.1	Use logic to make and evaluate mathematical arguments. (348.02.b)	Student Edition: 4-9, 632-637, 638-643, 644-648, 649-653, 654-659, 660-665 <i>Hands-On Geometry</i> 6, 408, 660 <i>Investigation</i> 10-11, 666-667

STANDARDS		PAGE REFERENCES
Standard 5: Data Analysis, Probability, and Statistics		
<p>Students in Grade 10 read, interpret, and use tables, charts, and graphs, including scatter plots, multiple broken line graphs, and box-and-whisker plots. Students interpret and use basic statistical concepts including mean, median, mode, range, and distribution of data, including outliers. Students make predictions and draw conclusions based on statistical measures and students make predictions based on randomness, chance, equally likely events, and probability. Students find probabilities based on dependent, independent, and compound events and students make predictions based on randomness, chance, equally likely events, and probability.</p>		
Goal 5.1: Represent data with a variety of formats.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.5.1.1	Analyze and interpret tables, charts, and graphs, including scatter plots, broken line graphs, and box-and-whisker plots. (352.01.a)	Student Edition: 7 Ex5, 101 #29, 179 #36 & #38, 219 #29, 267 #34, 277 Ex2, 466 #36, 473 #31 <i>Math in the Workplace</i> 41, 115, 301, 339, 445 <i>Preparing for Standardized Tests</i> 184-85, 225 #10, 273 #3, 347 #7
Goal 5.2: Collect, organize, and display data.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.5.2.1	Collect, organize, and display data in tables, charts, and graphs. (352.02.a)	Student Edition: <i>Preparing for Standardized Tests</i> 185 #10, 776 #18, 781 #8
Goal 5.3: Apply simple statistical measurements.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.5.3.1	Interpret and use basic statistical concepts, including mean, median, mode, range, and distribution of data, including outliers. (352.03.a)	Student Edition: 665 #32 <i>Preparing for Standardized Tests</i> 224-225, 307 #5, 583 #3 & #8, 715 #4, 768 #9, 772 #17
10.M.5.3.2	Make predictions and draw conclusions based on statistical measures. (352.05.a)	Student Edition: 267 #34 <i>Preparing for Standardized Tests</i> 781 #8

STANDARDS		PAGE REFERENCES
Goal 5.4: Understand basic concepts of probability.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.5.4.1	Find probabilities based on dependent, independent, and compound events.	Student Edition: 438 #29, 483-487 <i>Preparing for Standardized Tests</i> 138-139, 185 #9, 347 #2, 545 #5, 629 #2 Teacher Wraparound Edition: RA 486
10.M.5.4.2	Contrast experimental and theoretical probability. (352.04.a)	Student Edition: 484
Goal 5.5: Make predictions or decisions based on data.		
Objective(s): By the end of Grade 10, the student will be able to:		
10.M.5.5.1	Make predictions based on randomness, chance, equally likely events, and probability. (352.04.c)	Student Edition: 438 #29, 483-487 <i>Preparing for Standardized Tests</i> 138-139, 185 #9, 347 #2, 545 #5, 629 #2 Teacher Wraparound Edition: RA 486
10.M.5.5.2	Use appropriate tools/technology to conduct simulations and employ graphical models to make predictions or decisions based on data. (352.05.a)	Student Edition: 9 #36, 133 #33, 653 #16 <i>Preparing for Standardized Tests</i> 184-185
10.M.5.5.3	Design, conduct, and interpret results of statistical experiments. (352.05.b)	See Glencoe's <i>Geometry</i> © 2005 Student Edition: 404 <i>Geometry Activity</i> 406 <i>Spreadsheet Activity</i> 288 <i>WebQuest</i> 164