



# Algebra

Concepts and Applications  
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STANDARDS		PAGE REFERENCES
<b>GRADE 9</b>		
<b>Standard 1: Number and Operation</b>		
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.		
<b>Goal 1.1: Understand and use numbers.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.1.1.1	Apply properties of rational numbers. (347.01.b)	<b>Student Edition:</b> 8-13, 14-18, 19-23, 64-69, 70-74, 75-79, 82-85, 94-99, 100-103, 140-145, 154-159 <b>Teacher Wraparound Edition:</b> EC 23
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)	<b>Student Edition:</b> 52-57, 67 Ex5, 69 #60, 74 #47-48, 79 #48, 83 Ex4, 97 Ex7, 99 #42, 103 #33-35, 131 #33-34, 155 Ex5, 198-203, 204-209, 212-217, 352-356

STANDARDS		PAGE REFERENCES
9.M.1.1.3	Apply properties of exponents. (347.01.c)	<b>Student Edition:</b> 336-340, 341-345, 347-351, 352-356, 366-371 <i>Investigation</i> 372-373 <i>Math in the Workplace</i> 346 <b>Teacher Wraparound Edition:</b> EC 345, 351; OEA 351, 356
9.M.1.1.4	Identify exact and approximate roots without simplification.	<b>Student Edition:</b> 357-361, 362-365, 366-371 <i>Hands-On Algebra</i> 362 <b>Teacher Wraparound Edition:</b> EC 365; RA 364
9.M.1.1.5	Solve problems using number theory concepts (factors, multiples, primes). (347.01.d)	<b>Student Edition:</b> 79 #50, 339 #13, 358, 420-425, 470 Ex4 <i>Test Taking Tip</i> 378 <b>Teacher Wraparound Edition:</b> RA 424
9.M.1.1.6	Use appropriate vocabulary.	<b>Student Edition:</b> 4-7, 8-13, 14-18, 19-23, 68 #2, 73 #1, 77 #2, 79 #50, 94-99, 102 #2, 143 #1-2, 156 #1-2, 198-203, 204-209, 352-356, 357-361
<b>Goal 1.2: Perform computations accurately.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.1.2.1	Use the order of operations and perform operations with rational numbers. (347.02.a)	<b>Student Edition:</b> 8-13, 14-18, 19-23, 100-103, 140-145, 154-159, 165-170, 171-175, 176-179
<b>Goal 1.3: Estimate and judge reasonableness of results.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.1.3.1	Apply number sense to everyday situations and judge reasonableness of results. (347.03.a)	<b>Student Edition:</b> 24-29 <i>Investigation</i> 308-309 Could be integrated into the sections found on pages 64-69, 70-74, 75-79, 82-85, 94-99, 100-103, 104-109
9.M.1.3.2	Identify that error accumulates in a computation when there is rounding. (349.05.b)	See Glencoe's <i>Algebra 2</i> © 2005 <b>Student Edition:</b> 735 Ex3

STANDARDS		PAGE REFERENCES
<b>Standard 2: Concepts and Principles of Measurement</b>		
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.		
<b>Goal 2.1: Understand and use U.S. customary and metric measurements.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
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)	<b>Student Edition:</b> 15 Ex4, 21 Ex5, 27 #6, 85 #56, 115 #38, 163 #10, 164 #38, 179 #32, 307 #23, 340 #42, 345 #48, 387 #56, 402 Ex7, 403 #20, 443 #42, 477 #33 <i>Graphing Calculator Exploration</i> 26 <i>Hands-On Algebra</i> 25 <i>Preparing for Standardized Tests</i> 596-597
9.M.2.1.2	Solve problems involving circumference, perimeter, or area of triangles, circles, and rectangles.	<b>Student Edition:</b> 21 Ex5, 115 #38, 163 #10, 164 #38, 179 #32, 307 #23, 340 #42, 345 #48, 396 Ex7, 397 #63-64, 402 Ex7, 403 #20, 438 #18, 443 #42 <i>Graphing Calculator Exploration</i> 26 <i>Preparing for Standardized Tests</i> 596-597
<b>Goal 2.2: Apply the concepts of rates, ratios, and proportions.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.2.2.1	Use rates, ratios, proportions, and map scales in problem-solving situations. (349.03.a)	<b>Student Edition:</b> 188-193, 194-197, 198-203, 212-217, 264-269, 270-275 <i>Hands-On Algebra</i> 194 <i>Preparing for Standardized Tests</i> 546-547 <b>Teacher Wraparound Edition:</b> EC 193, 197; RA 196
9.M.2.2.2	Apply concepts of rates and direct and indirect measurements.	<b>Student Edition:</b> 188-193, 194-197, 264-269, 366-371 <i>Investigation</i> 674-675 <i>Preparing for Standardized Tests</i> 546-547 <b>Teacher Wraparound Edition:</b> FA 258; RA 259
9.M.2.2.3	Construct equivalent units, comparable units, and conversions. (349.02.a)	<b>Student Edition:</b> 188-193, 203 #46-48, 217 #42-43, 264-269, 301 #53 <b>Teacher Wraparound Edition:</b> FA 520

STANDARDS		PAGE REFERENCES
<b>Goal 2.3: Apply dimensional analysis.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
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)	<b>Student Edition:</b> 164 #47, 174 #36, 190 Ex3-5, 267 Ex6, 268 #28-31 <b>Teacher Wraparound Edition:</b> FA 520
<b>Goal 2.4: Apply appropriate techniques and tools to determine measurements.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.2.4.1	Determine and use appropriate units. (349.01.a)	<b>Student Edition:</b> 97 Ex7, 164 #39, 188-193, 204-209 <b>Teacher Wraparound Edition:</b> FA 258; RA 259
9.M.2.4.2	Approximate error in measurement situations.	Measurement activities are found in the following page references. <b>Student Edition:</b> <i>Investigation</i> 262-263, 372-373, 410-411
<b><u>Standard 3: Concepts and Language of Algebra and Functions</u></b>		
Students in Grade 9 use appropriate procedures for manipulating and simplifying algebraic expressions involving variables, integers, rational numbers, and for solving multi-step, first-degree equations and inequalities. Students understand the concept and applications of functions and mathematical models. Given graphs, charts, ordered pairs, mappings, or equations, students determine whether a relation is a function. Students evaluate functions written in functional notation and, given a function, students identify domain and range.		
<b>Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.3.1.1	Represent mathematical relationships using variables, expressions, linear equations and inequalities. (350.01.a)	<b>Student Edition:</b> 4-7, 117-121, 122-127, 128-131, 160-164, 165-170, 171-175, 176-179, 504-508, 509-513, 514-518, 519-523 <b>Teacher Wraparound Edition:</b> EC 170; FA 166; RA 6

STANDARDS		PAGE REFERENCES
<b>Goal 3.2: Evaluate algebraic expressions.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.3.2.1	Use appropriate procedures for manipulating and simplifying algebraic expressions involving variables, integers, and rational numbers. (350.02.a)	<b>Student Edition:</b> 14-18, 19-23, 64-69, 70-74, 75-79, 82-85, 165-170, 171-175, 176-179 <b>Teacher Wraparound Edition:</b> EC 18, 23; RA 21
<b>Goal 3.3: Solve algebraic equations and inequalities.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.3.3.1	Use appropriate procedures to solve multi-step, first-degree equations and inequalities; such as $3(2x - 5) = 5x + 7$ or $3(2x - 5) > 5x + 7$ . (350.03.a)	<b>Student Edition:</b> 112-116, 117-121, 122-127, 128-131, 160-164, 165-170, 171-175, 176-179 <i>Graphing Calculator Exploration</i> 167 <b>Teacher Wraparound Edition:</b> EC 127, 131, 164, 175, 179; FA 166; RA 178
9.M.3.3.2	Differentiate between linear and non-linear equations and graphs.	<b>Student Edition:</b> 250-255 <b>Teacher Wraparound Edition:</b> T 251
<b>Goal 3.4: Solve simple linear systems of equations.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.3.4.1	Use appropriate procedures to solve linear systems of equations involving two variables; such as $x + y = 7$ and $2x + 3y = 21$ . (350.04.a)	<b>Student Edition:</b> 550-553, 554-559, 560-565, 566-571, 572-577 <i>Graphing Calculator Exploration</i> 551 <i>Hands-On Algebra</i> 560 <b>Teacher Wraparound Edition:</b> EC 553, 559, 577
<b>Goal 3.5: Understand the concept of functions.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.3.5.1	Given graphs, charts, ordered pairs, mappings, or equations, determine whether a relation is a function.	<b>Student Edition:</b> 256-261 <i>Investigation</i> 262-263 <b>Teacher Wraparound Edition:</b> FA 254; RA 259

STANDARDS		PAGE REFERENCES
9.M.3.5.2	Evaluate functions written in functional notation.	<b>Student Edition:</b> 256-261 <b>Teacher Wraparound Edition:</b> EC 261
9.M.3.5.3	Given a function, identify domain and range.	<b>Student Edition:</b> 238-243, 244-249, 250-255, 256-261, 289 #29 <i>Investigation</i> 262-263
<b>Goal 3.6: Apply functions to a variety of problems.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.3.6.1	Model and solve real-world phenomena using multi-step, first degree, single variable equations and inequalities, linear equations, and two-variable linear systems of equations. (353.01.a)	<b>Student Edition:</b> 112-116, 117-121, 128-131, 160-164, 165-170, 171-175, 176-179, 188-193, 204-209, 214-217, 264-269, 509-513, 514-518, 519-523, 524-529, 550-553, 560-565, 566-571 <i>Investigation</i> 308-309
9.M.3.6.2	Use graphs and sequences to represent and solve problems. (347.02.b)	<b>Student Edition:</b> 250-255, 256-261, 264-269, 270-275, 284-289, 302-307, 310-315, 316-321, 322-327, 458-463, 464-467, 468-473, 550-553, 580-586 <i>Investigation</i> 110-111, 262-263, 308-309, 494-495
<b>Standard 5: Data Analysis, Probability, and Statistics</b>		
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.		
<b>Goal 5.1: Represent data with a variety of formats.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
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)	<b>Student Edition:</b> 32-37, 38-43, 104-109, 302-307 <i>Investigation</i> 210-211, 308-309 <b>Teacher Wraparound Edition:</b> EC 37, 43; FA 36; RA 304

STANDARDS		PAGE REFERENCES
<b>Goal 5.2: Collect, organize, and display data.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.5.2.1	Collect, organize, and display data in tables, charts, and graphs. (352.02.a)	<b>Student Edition:</b> 32-37, 38-43, 302-307 <i>Investigation</i> 110-111, 308-309 <b>Teacher Wraparound Edition:</b> FA 36, 108; FtC 42; RA 304
<b>Goal 5.3: Apply simple statistical measurements.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
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)	<b>Student Edition:</b> 104-109 <i>Graphing Calculator Exploration</i> 105 <i>Investigation</i> 210-211 <b>Teacher Wraparound Edition:</b> EC 109; FA 108; FtC 106; RA 107
9.M.5.3.2	Make predictions and draw conclusions based on statistical measures. (352.05.a)	<b>Student Edition:</b> 38-43, 104-109, 302-307 <i>Investigation</i> 308-309 <b>Teacher Wraparound Edition:</b> EC 43; FA 108; FtC 42
<b>Goal 5.4: Understand basic concepts of probability.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.5.4.1	Find probabilities based on dependent, independent, and compound events.	<b>Student Edition:</b> 219-223, 224-229, 243 #28 <i>Hands-On Activity</i> 224 <i>Preparing for Standardized Tests</i> 280-281 <b>Teacher Wraparound Edition:</b> EC 223, 229
9.M.5.4.2	Contrast experimental and theoretical probability. (352.04.a)	<b>Student Edition:</b> 219-223 <b>Teacher Wraparound Edition:</b> HOA 220

STANDARDS		PAGE REFERENCES
<b>Goal 5.5: Make predictions or decisions based on data.</b>		
<b>Objective(s): By the end of Grade 9, the student will be able to:</b>		
9.M.5.5.1	Make predictions based on randomness, chance, equally likely events, and probability. (352.04.c)	<b>Student Edition:</b> 219-223, 224-229, 243 #28 <i>Hands-On Activity 224</i> <i>Preparing for Standardized Tests 280-281</i> <b>Teacher Wraparound Edition:</b> EC 223, 229
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)	<b>Student Edition:</b> 219-223 <i>Hands-On Activity 220, 224</i> <b>Teacher Wraparound Edition:</b> OEA 223
9.M.5.5.3	Design, conduct, and interpret results of statistical experiments. (352.05.b)	<b>Student Edition:</b> <i>Hands-On Activity 220, 224</i>
<b><u>GRADE 10</u></b>		
<b><u>Standard 1: Number and Operation</u></b>		
<p>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.</p>		
<b>Goal 1.1: Understand and use numbers.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.1.1.1	Apply properties of rational numbers. (347.01.b)	<b>Student Edition:</b> 8-13, 14-18, 19-23, 64-69, 70-74, 75-79, 82-85, 94-99, 100-103, 140-145, 154-159 <b>Teacher Wraparound Edition:</b> EC 23
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)	<b>Student Edition:</b> 52-57, 67 Ex5, 69 #60, 74 #47-48, 79 #48, 83 Ex4, 97 Ex7, 99 #42, 103 #33-35, 131 #33-34, 155 Ex5, 198-203, 204-209, 212-217, 352-356

STANDARDS		PAGE REFERENCES
10.M.1.1.3	Apply properties of exponents. (347.01.c)	<b>Student Edition:</b> 336-340, 341-345, 347-351, 352-356, 366-371 <i>Investigation</i> 372-373 <i>Math in the Workplace</i> 346 <b>Teacher Wraparound Edition:</b> EC 345, 351; OEA 351, 356
10.M.1.1.4	Identify exact and approximate roots without simplification.	<b>Student Edition:</b> 357-361, 362-365, 366-371 <i>Hands-On Algebra</i> 362 <b>Teacher Wraparound Edition:</b> EC 365; RA 364
10.M.1.1.5	Solve problems using number theory concepts (factors, multiples, primes). (347.01.d)	<b>Student Edition:</b> 79 #50, 339 #13, 358, 420-425, 470 Ex4 <i>Test Taking Tip</i> 378 <b>Teacher Wraparound Edition:</b> RA 424
10.M.1.1.6	Use appropriate vocabulary.	<b>Student Edition:</b> 4-7, 8-13, 14-18, 19-23, 68 #2, 73 #1, 77 #2, 79 #50, 94-99, 102 #2, 143 #1-2, 156 #1-2, 198-203, 204-209, 352-356, 357-361
<b>Goal 1.2: Perform computations accurately.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.1.2.1	Use the order of operations and perform operations with rational numbers. (347.02.a)	<b>Student Edition:</b> 8-13, 14-18, 19-23, 100-103, 140-145, 154-159, 165-170, 171-175, 176-179
<b>Goal 1.3: Estimate and judge reasonableness of results.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.1.3.1	Apply number sense to everyday situations and judge reasonableness of results. (347.03.a)	<b>Student Edition:</b> 24-29 <i>Investigation</i> 308-309 This standard also could be integrated into the sections found on pages 64-69, 70-74, 75-79, 82-85, 94-99, 100-103, 104-109
10.M.1.3.2	Identify that error accumulates in a computation when there is rounding. (349.05.b)	See Glencoe's <i>Algebra 2</i> © 2005 <b>Student Edition:</b> 735 Ex3

STANDARDS	PAGE REFERENCES
<b>Standard 2: Concepts and Principles of Measurement</b>	
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.	
<b>Goal 2.1: Understand and use U.S. customary and metric measurements.</b>	
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>	
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)	<b>Student Edition:</b> 15 Ex4, 21 Ex5, 27 #6, 85 #56, 115 #38, 163 #10, 164 #38, 179 #32, 307 #23, 340 #42, 345 #48, 387 #56, 402 Ex7, 403 #20, 443 #42, 477 #33 <i>Graphing Calculator Exploration</i> 26 <i>Hands-On Algebra</i> 25 <i>Preparing for Standardized Tests</i> 596-597
10.M.2.1.2 Solve problems involving circumference, perimeter, or area of triangles, circles, and rectangles.	<b>Student Edition:</b> 21 Ex5, 115 #38, 163 #10, 164 #38, 179 #32, 307 #23, 340 #42, 345 #48, 396 Ex7, 397 #63-64, 402 Ex7, 403 #20, 438 #18, 443 #42 <i>Graphing Calculator Exploration</i> 26 <i>Preparing for Standardized Tests</i> 596-597
<b>Goal 2.2: Apply the concepts of rates, ratios, and proportions.</b>	
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>	
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)	<b>Student Edition:</b> 188-193, 194-197, 198-203, 212-217, 264-269, 270-275 <i>Hands-On Algebra</i> 194 <i>Preparing for Standardized Tests</i> 546-547 <b>Teacher Wraparound Edition:</b> EC 193, 197; RA 196
10.M.2.2.2 Apply concepts of rates and direct and indirect measurements.	<b>Student Edition:</b> 188-193, 194-197, 264-269, 366-371 <i>Investigation</i> 674-675 <i>Preparing for Standardized Tests</i> 546-547 <b>Teacher Wraparound Edition:</b> FA 258; RA 259

STANDARDS		PAGE REFERENCES
10.M.2.2.3	Construct equivalent units, comparable units, and conversions. (349.02.a)	<b>Student Edition:</b> 188-193, 203 #46-48, 217 #42-43, 264-269, 301 #53 <b>Teacher Wraparound Edition:</b> FA 520
<b>Goal 2.3: Apply dimensional analysis.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
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)	<b>Student Edition:</b> 164 #47, 174 #36, 190 Ex3-5, 267 Ex6, 268 #28-31 <b>Teacher Wraparound Edition:</b> FA 520
<b>Goal 2.4: Apply appropriate techniques and tools to determine measurements.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.2.4.1	Determine and use appropriate units. (349.01.a)	<b>Student Edition:</b> 97 Ex 7, 164 #39, 188-193, 204-209 <b>Teacher Wraparound Edition:</b> FA 258; RA 259
10.M.2.4.2	Approximate error in measurement situations.	Measurement activities are found in the following page references. <b>Student Edition:</b> <i>Investigation</i> 262-263, 372-373, 410-411
<b>Standard 3: Concepts and Language of Algebra and Functions</b>		
Students in Grade 10 use appropriate procedures for manipulating and simplifying algebraic expressions involving variables, integers, rational numbers, and for solving multi-step, first-degree equations and inequalities. Students understand the concept and applications of functions and mathematical models. Given graphs, charts, ordered pairs, mappings, or equations, students determine whether a relation is a function. Students evaluate functions written in functional notation and, given a function, students identify domain and range.		
<b>Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.3.1.1	Represent mathematical relationships using variables, expressions, linear equations and inequalities. (350.01.a)	<b>Student Edition:</b> 4-7, 117-121, 122-127, 128-131, 160-164, 165-170, 171-175, 176-179, 504-508, 509-513, 514-518, 519-523 <b>Teacher Wraparound Edition:</b> EC 170; FA 166; RA 6

STANDARDS		PAGE REFERENCES
<b>Goal 3.2: Evaluate algebraic expressions.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.3.2.1	Use appropriate procedures for manipulating and simplifying algebraic expressions involving variables, integers, and rational numbers. (350.02.a)	<b>Student Edition:</b> 14-18, 19-23, 64-69, 70-74, 75-79, 82-85, 165-170, 171-175, 176-179 <b>Teacher Wraparound Edition:</b> EC 18, 23; RA 21
<b>Goal 3.3: Solve algebraic equations and inequalities.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.3.3.1	Use appropriate procedures to solve multi-step, first-degree equations and inequalities; such as $3(2x - 5) = 5x + 7$ or $3(2x - 5) > 5x + 7$ . (350.03.a)	<b>Student Edition:</b> 112-116, 117-121, 122-127, 128-131, 160-164, 165-170, 171-175, 176-179 <i>Graphing Calculator Exploration</i> 167 <b>Teacher Wraparound Edition:</b> EC 127, 131, 164, 175, 179; FA 166; RA 178
10.M.3.3.2	Differentiate between linear and non-linear equations and graphs.	<b>Student Edition:</b> 250-255 <b>Teacher Wraparound Edition:</b> T 251
<b>Goal 3.4: Solve simple linear systems of equations.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.3.4.1	Use appropriate procedures to solve linear systems of equations involving two variables; such as $x + y = 7$ and $2x + 3y = 21$ . (350.04.a)	<b>Student Edition:</b> 550-553, 554-559, 560-565, 566-571, 572-577 <i>Graphing Calculator Exploration</i> 551 <i>Hands-On Algebra</i> 560 <b>Teacher Wraparound Edition:</b> EC 553, 559, 577
<b>Goal 3.5: Understand the concept of functions.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.3.5.1	Given graphs, charts, ordered pairs, mappings, or equations, determine whether a relation is a function.	<b>Student Edition:</b> 256-261 <i>Investigation</i> 262-263 <b>Teacher Wraparound Edition:</b> FA 254; RA 259

STANDARDS		PAGE REFERENCES
10.M.3.5.2	Evaluate functions written in functional notation.	<b>Student Edition:</b> 256-261 <b>Teacher Wraparound Edition:</b> EC 261
10.M.3.5.3	Given a function, identify domain and range.	<b>Student Edition:</b> 238-243, 244-249, 250-255, 256-261, 289 #29 <i>Investigation</i> 262-263
<b>Goal 3.6: Apply functions to a variety of problems.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.3.6.1	Model and solve real-world phenomena using multi-step, first degree, single variable equations and inequalities, linear equations, and two-variable linear systems of equations. (353.01.a)	<b>Student Edition:</b> 112-116, 117-121, 128-131, 160-164, 165-170, 171-175, 176-179, 188-193, 204-209, 214-217, 264-269, 509-513, 514-518, 519-523, 524-529, 550-553, 560-565, 566-571 <i>Investigation</i> 308-309
10.M.3.6.2	Use graphs and sequences to represent and solve problems. (347.02.b)	<b>Student Edition:</b> 250-255, 256-261, 264-269, 270-275, 284-289, 302-307, 310-315, 316-321, 322-327, 458-463, 464-467, 468-473, 550-553, 580-586 <i>Investigation</i> 110-111, 262-263, 308-309, 494-495
<b>Standard 5: Data Analysis, Probability, and Statistics</b>		
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.		
<b>Goal 5.1: Represent data with a variety of formats.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
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)	<b>Student Edition:</b> 32-37, 38-43, 104-109, 302-307 <i>Investigation</i> 210-211, 308-309 <b>Teacher Wraparound Edition:</b> EC 37, 43; FA 36; RA 304

STANDARDS		PAGE REFERENCES
<b>Goal 5.2: Collect, organize, and display data.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.5.2.1	Collect, organize, and display data in tables, charts, and graphs. (352.02.a)	<b>Student Edition:</b> 32-37, 38-43, 302-307 <i>Investigation</i> 110-111, 308-309 <b>Teacher Wraparound Edition:</b> FA 36, 108; FtC 42; RA 304
<b>Goal 5.3: Apply simple statistical measurements.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
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)	<b>Student Edition:</b> 104-109 <i>Graphing Calculator Exploration</i> 105 <i>Investigation</i> 210-211 <b>Teacher Wraparound Edition:</b> EC 109; FA 108; FtC 106; RA 107
10.M.5.3.2	Make predictions and draw conclusions based on statistical measures. (352.05.a)	<b>Student Edition:</b> 38-43, 104-109, 302-307 <i>Investigation</i> 308-309 <b>Teacher Wraparound Edition:</b> EC 43; FA 108; FtC 42
<b>Goal 5.4: Understand basic concepts of probability.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.5.4.1	Find probabilities based on dependent, independent, and compound events.	<b>Student Edition:</b> 219-223, 224-229, 243 #28 <i>Hands-On Activity</i> 224 <i>Preparing for Standardized Tests</i> 280-281 <b>Teacher Wraparound Edition:</b> EC 223, 229
10.M.5.4.2	Contrast experimental and theoretical probability. (352.04.a)	<b>Student Edition:</b> 219-223 <b>Teacher Wraparound Edition:</b> HOA 220

STANDARDS		PAGE REFERENCES
<b>Goal 5.5: Make predictions or decisions based on data.</b>		
<b>Objective(s): By the end of Grade 10, the student will be able to:</b>		
10.M.5.5.1	Make predictions based on randomness, chance, equally likely events, and probability. (352.04.c)	<b>Student Edition:</b> 219-223, 224-229, 243 #28 <i>Hands-On Activity 224</i> <i>Preparing for Standardized Tests 280-281</i> <b>Teacher Wraparound Edition:</b> EC 223, 229
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)	<b>Student Edition:</b> 219-223 <i>Hands-On Activity 220, 224</i> <b>Teacher Wraparound Edition:</b> OEA 223
10.M.5.5.3	Design, conduct, and interpret results of statistical experiments. (352.05.b)	<b>Student Edition:</b> <i>Hands-On Activity 220, 224</i>