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Correlated to
NH, ME, VT, and RI GLE's
Grade 7

NH,ME, VT, RI Local and NECAP Grade Level Expectations	PAGE(S) WHERE TAUGHT (If submission is not a book, cite appropriate location(s))
NUMBER AND OPERATION	
M(N&O)-7-1 Demonstrates conceptual understanding of rational numbers with respect to percents as a means of comparing the same or different parts of the whole when the wholes vary in magnitude; and percents as a way of expressing multiples of a number using models, explanations, or other representations; and demonstrate conceptual understanding of square roots of perfect squares, rates, and proportional reasoning.	SE/TE Buyer Beware: 4-13, 20-23, 24-33, 34-37, 42-45 Making Mathematical Arguments: 106-109, 111, 112-113, 128, 131 From the Ground Up: 162-163, 177 TE Buyer Beware: 4-5 Making Mathematical Arguments: 93H, 104-105 Technology www.mathscape2.com
M(N&O)-7-2 Demonstrates understanding of the relative magnitude of numbers by ordering, comparing, or identifying equivalent rational numbers across number formats, numbers with whole number bases and whole number exponents, integers, absolute values, or numbers represented in scientific notation using number lines or equality and inequality symbols.	SE/TE Buyer Beware: 26, 28-29, 43 Making Mathematical Arguments: 102-103, 106-113, 127, 128-131 The Language of Algebra: 186-187, 213 TE Making Mathematical Arguments: 93H, 95, 104-105 Technology www.mathscape2.com
M(N&O)-7-3 Demonstrates conceptual understanding of operations with integers and whole number exponents (where the base is a whole number) using models, diagrams, or explanations.	SE/TE Making Mathematical Arguments: 96-99, 100-101, 102-103, 124-125, 126, 127 The Language of Algebra: 194-195, 216 TE Making Mathematical Arguments: 93G, 94, 95 Technology www.mathscape2.com

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M(N&O)-7-4 Accurately solves problems involving proportional reasoning; percents involving discounts, tax, or tips; and rates; and addition or subtraction of integers, raising numbers to whole number powers, and determining square roots of perfect square numbers and non-perfect square numbers.	SE/TE Buyer Beware: 4-13, 19, 20-23, 24-33, 34-37, 39, 40, 41, 42-45 Chance Encounters: 70-71, 88 Making Mathematical Arguments: 96-99, 100-101, 106-109, 111, 124, 125, 126, 128, 129 From the Ground Up: 139, 140-145162-163, 168-170, 177 TE Buyer Beware: 4-5, 14-15 Making Mathematical Arguments: 93G, 93H, 94, 95 From the Ground Up: 138, 159 Technology www.mathscape2.com
M(N&O)-7-6 Mentally calculates benchmark perfect squares and related square roots; determines the part of a number using benchmark percents and related fractions.	SE/TE Buyer Beware: 24-33, 42-45 Making Mathematical Arguments: 107, 111, 128 TE Buyer Beware: 24-25 Making Mathematical Arguments: 93H Technology www.mathscape2.com
M(N&O)-7-7 Makes estimates in a given situation (including tips, discounts, and tax) by identifying when estimation is appropriate, selecting the appropriate method of estimation, determining the level of accuracy needed given the situation, analyzing the effect of the estimation method on the accuracy of results, and evaluating the reasonableness of solutions appropriate to grade level GLEs across content strands.	SE/TE From the Ground Up: 146-147, 156-157, 160-163, 164-165 Getting Down to Business: 228-229, 256 TE Buyer Beware: 24 From the Ground Up: 137H, 158-159 Technology www.mathscape2.com

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NH,ME, VT, RI Local and NECAP Grade Level Expectations	PAGE(S) WHERE TAUGHT (If submission is not a book, cite appropriate location(s))
M(N&O)-7-8 Applies properties of numbers (odd, even, remainders, divisibility, and prime factorization) and field properties (commutative, associative, identity, distributive, and additive inverses) to solve problems and to simplify computations, and demonstrates conceptual understanding of field properties as they apply to subsets of the real numbers.	SE/TE Making Mathematical Arguments: 96-99, 102-103, 118-119, 124, 125, 127, 133 The Language of Algebra: 188-189, 214 TE The Language of Algebra: 183 Technology www.mathscape2.com
GEOMETRY AND MEASUREMENT	
M(G&M)-7-1 Use properties of angle relationships resulting from two or three intersecting lines (adjacent angles, vertical angles, straight angles, or angle relationships formed by two non-parallel lines cut by a transversal), or two parallel lines cut by a transversal to solve problems.	SE/TE Getting in Shape: 274-275, 278-279, 284-285, 302, 304, 306 Technology www.mathscape2.com
M(G&M)-7-2 Applies theorems or relationships (triangle inequality or sum of the measures of interior angles of regular polygons) to solve problems.	SE/TE Getting in Shape: 276-277, 286-287, 291, 297, 303, 307 TE Getting in Shape: 271G, 271H, 273 Technology www.mathscape2.com
M(G&M)-7-4 Applies the concepts of congruency by solving problems on a coordinate plane involving reflections, translations, or rotations.	SE/TE Getting in Shape: 274, 289, 291, 308 TE Getting in Shape: 273, 283 Technology www.mathscape2.com

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NH,ME, VT, RI Local and NECAP Grade Level Expectations	PAGE(S) WHERE TAUGHT (If submission is not a book, cite appropriate location(s))
M(G&M)-7-5 Applies concepts of similarity by solving problems involving scaling up or down and their impact on angle measures, linear dimensions and areas of polygons, and circles when the linear dimensions are multiplied by a constant factor. Describes effects using models or explanations.	SE/TE Buyer Beware: 29, 33, 39, 43 From the Ground Up: 139, 140-145, 160-161, 168-170, 176 Getting in Shape: 274-275, 296-297, 298-299, 302, 310, 311, 312 TE From the Ground Up: 137G, 138, 158, 159 Getting in Shape: 272, 273, 293 Technology www.mathscape2.com
M(G&M)-7-6 Demonstrates conceptual understanding of the area of circles or the area or perimeter of composite figures (quadrilaterals, triangles, or parts of circles), and the surface area of rectangular prisms, or volume of rectangular prisms, triangular prisms, or cylinders using models, formulas, or by solving related problems. Expresses all measures using appropriate units.	SE/TE From the Ground Up: 144-145, 150-153, 154-155, 170, 172, 173 Getting in Shape: 286-287, 297, 298-299, 307, 312 TE From the Ground Up: 139, 148-149 Getting in Shape: 271H, 293 Technology www.mathscape2.com
M(G&M)-7-10 Demonstrates conceptual understanding of spatial reasoning and visualization by sketching three-dimensional solids; and draws nets of rectangular and triangular prisms, cylinders, and pyramids and uses the nets as a technique for finding surface area.	SE/TE From the Ground Up: 144-145, 150-153, 154-155, 170, 172, 173 Getting in Shape: 286-287, 297, 298-299, 307, 312 TE From the Ground Up: 139, 148-149 Getting in Shape: 271H, 293 Technology www.mathscape2.com
FUNCTIONS AND ALGEBRA	

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NH,ME, VT, RI Local and NECAP Grade Level Expectations	PAGE(S) WHERE TAUGHT (If submission is not a book, cite appropriate location(s))
M(F&A)-7-1 Identifies and extends to specific cases a variety of patterns (linear and nonlinear represented in models, tables, sequences, graphs, or in problem situations; and generalizes a linear relationship using words and symbols; generalizes a linear relationship to find a specific case; or writes an expression or equation using words or symbols to express the generalization of a nonlinear relationship.	SE/TE Buyer Beware: 9, 35 Making Mathematical Arguments: 86, 112-113, 116-117, 120-121, 132, 134 From the Ground Up: 160-161, 166-167 The Language of Algebra: 184-185, 192-202, 212, 216-219 Getting in Shape: 286-287, 290-291, 294-295, 307 TE Making Mathematical Arguments: 114-115 From the Ground Up: 137G, 159 The Language of Algebra: 192-193, 202 Getting in Shape: 271H, 281H, 292 Technology www.mathscape2.com
M(F&A)-7-2 Demonstrates conceptual understanding of linear relationships as a constant rate of change by solving problems involving the relationship between slope and rate of change, by describing the meaning of slope in concrete situations, or informally determining the slope of a line from a table or graph; and distinguishes between constant and varying rates of change in concrete situations represented in tables or graphs; or describes how change in the value of one variable relates to change in the value of a second variable in problem situations with constant rates of change..	SE/TE Buyer Beware: 4-13, 35, 37 The Language of Algebra: 184, 185, 196-202, 212, 217-219 TE Buyer Beware: 4, 5 The Language of Algebra: 182-183 Technology www.mathscape2.com
M(F&A)-7-3 Demonstrates conceptual understanding of algebraic expressions by using letters to represent unknown quantities to write algebraic expressions (including those with whole number exponents or more than one variable); or by evaluating algebraic expressions (including those with whole number exponents or more than one variable); or by evaluating an expression within an equation.	SE/TE Making Mathematical Arguments: 98-101, 106-113, 125, 128-131 The Language of Algebra: 184-185, 188-189, 200-202, 212, 214, 220-223 TE Making Mathematical Arguments: 93H, 104-105 The Language of Algebra: 182, 183, 202-203 Technology www.mathscape2.com

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M(F&A)-7-4 Demonstrates conceptual understanding of equality by showing equivalence between two expressions (expressions consistent with the parameters of the left- and right-hand sides of the equations being solved at this grade level) using models or different representations of the expressions, solving multi-step linear equations; or by translating a problem-solving situation into an equation consistent with the parameters of the type of equations being solved for this grade level.	SE/TE From the Ground Up: 166-167, 179 The Language of Algebra: 184-185, 186-187, 188-189, 196, 202-209, 212, 214, 222 Technology www.mathscape2.com
DATA, STATISTICS, AND PROBABILITY	
M(DSP)-7-1 Interprets a given representation (circle graphs, scatter p lots that represent discrete linear relationships, or histograms) to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.	SE/TE Buyer Beware: 8-9, 28-29, 32-33, 35, 43 The Language of Algebra: 196-201, 211, 217-219, 223 Getting Down to Business: 244-245, 264, 266 TE Buyer Beware: 3H, 24-25 Getting Down to Business: 242, 243 Technology www.mathscape2.com
M(DSP)-7-2 Analyzes patterns, trends, or distributions in data in a variety of contexts by solving problems using measures of central tendency (mean, media, or mode) dispersion (range or variation), or outliers to analyze situations to determine their effect on mean, median, or mode; and evaluates the sample from which the statistics were developed (bias).	SE/TE Chance Encounters: 74-77, 90 Making Mathematical Arguments: 112-113, 116-117, 132 From the Ground Up: 163 The Language of Algebra: 188-189, 214 TE Making Mathematical Arguments: 114-115 The Language of Algebra: 183 Technology www.mathscape2.com

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M(DSP)-7-3 Identifies or describes representations or elements of representations that best display a given set of data or situation, consistent with the representations required in M(DSP)-7-1; and organizes and displays data using tables, line graphs, scatter plots, and circle graphs to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.	SE/TE Buyer Beware: 8-928-29, 32-33, 35, 43 Chance Encounters: 52-53, 74-75, 81 From the Ground Up: 163, 177 The Language of Algebra: 194-195, 196-201, 216, 217-219 Getting Down to Business: 244-245, 248-249, 264, 266 TE Buyer Beware: 3H, 24-25 Chance Encounters: 48-49 The Language of Algebra: 181H, 202 Getting Down to Business: 242, 243 Technology www.mathscape2.com
M(DSP)-7-4 Uses counting techniques to solve problems in context involving combinations or permutations using a variety of strategies.	SE/TE Buyer Beware: 27 Chance Encounters: 52-53, 74-79, 81, 89-91 TE Chance Encounters: 49 Technology www.mathscape2.com
M(DSP)-7-5 For a probability event in which the sample space may or may not contain equally likely outcomes, determines the experimental or theoretical probability of an event in a problem-solving situation; and predicts the theoretical probability of an event and tests the prediction through experiments and simulations; and compares and contrasts theoretical and experimental probabilities..	SE/TE Chance Encounters: 50-55, 56-63, 64-71, 72-79, 80, 81, 82, 83-85, 86-88, 89-91 TE Chance Encounters: 48, 49, 64, 65 Technology www.mathscape2.com
M(DSP)-7-6 In response to a teacher of student generated question or hypotheses decides the most effective method (e.g., survey, observation, experimentation) to collect the data (numerical or categorical) necessary to answer the question; collects, organizes, and appropriately displays the data; analyzes the data to draw conclusions about the question or hypothesis being tested while considering the limitations that could affect interpretations; and when appropriate makes predictions; and asks new questions and makes connections to real world situations..	SE/TE Buyer Beware: 29 Chance Encounters: 50-55, 64-71, 80-82, 86-88 Getting Down to Business: 244-245, 264 TE Buyer Beware: 24-25 Chance Encounters: 48, 49, 64, 65 Technology www.mathscape2.com