



Math Connects

Concepts, Skills, and Problem Solving
Course 2
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STANDARDS	PAGE REFERENCES
Cluster 1. Numbers and Operation	
Content Standard A: Number and Number Sense: Students will understand and demonstrate a sense of what numbers mean and how they are used. Students will be able to:	
<p>M1A1.7 Read, compare, order, use, and represent fractions, decimals, and percents and convert among different numeral forms (limited to terminating decimals for decimal to fraction conversion) and apply concepts of integers, absolute value and positive exponents.</p>	<p>Student Edition: 30-33, 80-83, 84-87, 196-200, 203-205, 206-210, 215-220, 230-235, 242-246, 265-270, 328-332, LA2-LA5 <i>Math Lab</i> 250-251 Teacher Wraparound Edition: AE 31, 81, 197, 203, 217; DI 219; FMC 207</p>
<p>M1A3.7 Apply concepts of ratios in practical or other mathematical situations.</p>	<p>Student Edition: 282-286, 287-292, 293-297, 298-303, 304-309, 310-315, 320-326, 350-354 <i>Mid-Chapter Quiz</i> 317 <i>Practice Test</i> 337 <i>Spreadsheet Lab</i> 327 Teacher Wraparound Edition: AE 283, 288, 294, 300, 306; FMC 351; TNT 283, 288</p>

STANDARDS	PAGE REFERENCES
<p>Content Standard B: Computation: Students will understand and demonstrate computation skills (no calculator use for straight computation and numbers used in this section should match those listed for Standard A). Students will be able to:</p>	
<p>M1B1.7 Compute and model all four operations with whole numbers, fractions (including mixed numerals), decimals, and percents applying order of operations and do straight computation with these numbers and operations</p>	<p>Student Edition: 6-7, 38-41, 53-56, 95-99, 103-106, 107-111, 114-118, 236-241, 242-246, 252-257, 265-270, 344-348, 736, 737, 738 <i>Math Lab</i> 342-343 Teacher Wraparound Edition: AE 39, 54, 97, 243; FMC 54</p>
<p>M1B2.7 Create, solve, and justify the solution for multi-step, real-life problems with whole numbers, fractions (including mixed numerals), decimals, and percents.</p>	<p>Student Edition: 25-29, 42-43, 242-246, 248-249, 287-292, 298-303, 304-309, 375-378, 379-382 <i>Reading to Solve Problems</i> 24, 264 <i>Real World Example</i> 267 <i>Spreadsheet Lab</i> 383 Teacher Wraparound Edition: AA 291; AE 244, 306, 376; PA 302; T 42</p>
<p>Content Standard I. Discrete Mathematics: There is considerable overlap with other areas and other aspects are more appropriately assessed locally. No Grade Level Expectations in 5-8.</p>	
<p>Cluster 2. Shape and Size</p>	
<p>Content Standard E: Geometry: Students will understand and apply concepts from geometry.</p>	
<p>M2E1.7 Use properties/ attributes limited to number of vertices, number of edges, number of faces, shapes of faces, and types of angles to identify and distinguish among 3 dimensional figures and draw two- dimensional shapes and three-dimensional figures.</p>	<p>Student Edition: 603-606, 608-612, 613, 629, 699, 700, 714 #8-#9, 745-746 <i>Geometry Lab</i> 607 <i>Practice Test</i> 631 Teacher Wraparound Edition: AE 604, 609; DI 603; FMC 604; PA 611; T 603, 607</p>
<p>M2E3.7 Use a coordinate system to define and locate position.</p>	<p>Student Edition: 88-92, 99 #47-#50, 121, 125 #13, 553-557, 558-562, 566, 672, 696, 713 #12-#13, 721 #9, 724 #11, 743-744 Teacher Wraparound Edition: AA 92, 561; AE 89, 555, 559; FMC 89; T 553</p>

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<p>Content Standard F: Measurement: Students will understand and demonstrate measurement skills. Students will be able to:</p>	
<p>M2F1.7 Perform conversions between pairs within the following groups: inches, feet, yards, and miles; millimeters, centimeters, meters, and kilometers; cups, pints, quarts, and gallons; milliliters and liters; ounces, pounds and tons; grams and kilograms; seconds, minutes, hours, days, weeks, months, and years.</p>	<p>Student Edition: 149 #6, 194 #27, 205 #50, 245 #34, 298-303, 304-309, 315 #51-#54, 320-326, 335, 339, 682, 683, 709 #7-#10, <i>Practice Test</i> 337</p> <p>Teacher Wraparound Edition: AA 302; AE 299, 305, 307, 321; FMC 305</p>
<p>M2F2.7 Solve problems involving unit price, speed and direct measures.</p>	<p>Student Edition: 10-11, 145 #29-#32, 261 #33, 293-297, 319 #5, 375-378, <i>Graphing Calculator Lab</i> 68 <i>Measurement Lab</i> 162, 577, 583 <i>Real World Example</i> 144, 153</p> <p>Teacher Wraparound Edition: AA 296; AE 293, 375, 376; T 11, 162, 583</p>
<p>M2F3.7 Given formulas from which to choose, find areas and perimeters of 2-D shapes (includes circles), and volumes of rectangular solids with rational numbers with correct units.</p>	<p>Student Edition: 156-161, 172, 572-576, 578-582, 584-588, 589-593, 594-595, 613-618, 619-623 <i>Graphing Calculator Lab</i> 624-625 <i>Measurement Lab</i> 162, 577, 583 <i>Practice Test</i> 631</p> <p>Teacher Wraparound Edition: AE 156, 157, 573, 579, 585, 614, 620; DI 158</p>
<p>Cluster 3. Mathematical Decision Making</p>	
<p>Content Standard C: Data Analysis and Statistics: Students will understand and apply concepts of data analysis. Students will be able to:</p>	
<p>M3C1.7 Organize data and analyze patterns and trends in data using modes, medians, means and ranges for sets of data (emphasis on comparing sets begins). Data displays include lists, tables, frequency distributions, line plots, bar graphs or stem and leaf plots.</p>	<p>Student Edition: 14-15, 396-401, 402-408, 410-414, 415-421, 424-425, 426-431, 434-437, 451, 452, 453 <i>Graphing Calculator Lab</i> 409 <i>Practice Test</i> 455 <i>Spreadsheet Lab</i> 422, 432-433</p> <p>Teacher Wraparound Edition: AE 397, 405, 417; FMC 427; TNT 421</p>

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<p>Content Standard D: Probability: Students will understand and apply concepts of probability. Students will be able to: In the following GLEs it is expected that students use area and set models.</p>	
<p>M3D1.7 Find the probability of simple events and express the probability as a fraction or a percentage (percentages limited to multiples of 10% and 25%).</p>	<p>Student Edition: 460-464, 465-470, 471-474, 480-483, 484, 486-490, 499, 690, 712, 723 #2 <i>Mid-Chapter Quiz</i> 479 <i>Practice Test</i> 503 <i>Probability Lab</i> 491 Teacher Wraparound Edition: A 464; AE 461, 467, 481, 484, 488; FMC 487</p>
<p>M3D4.7 Apply the idea of permutation in a problem situation with 6 elements or fewer (e.g., how many ways can the four letters in the word “math” be arranged?).</p>	<p>Student Edition: 475-478, 480-483, 484-485, 486-490, 500, 501, 691, 712, 729 #22, 733 #9 <i>Practice Test</i> 503 <i>Probability Lab</i> 491 Teacher Wraparound Edition: AE 476, 480; FMC 476; T 475</p>
<p>Content Standard J. Mathematical Reasoning: Content Standard J. Mathematical Reasoning: Due to the difficulty of measuring the Reasoning Indicators independently of other content and the reasoning that is implied in other performance indicators, no indicators from Standard J are included.</p>	
<p>Cluster 4. Patterns</p>	
<p>Content Standard G: Patterns, Relations, and Functions: Students will understand that mathematics is the science of patterns, relationships, and functions. Students will be able to:</p>	
<p>M4G1.7 Translate real-life linear situations into equations (limited to one step).</p>	<p>Student Edition: 49-52, 73, 128-133, 136-141, 142-146, 151-155, 170, 171, 670, 674, 675, 706 <i>Practice Test</i> 173 Teacher Wraparound Edition: AE 50, 129, 138, 143, 152; FMC 50</p>
<p>M4G3.7 Solve problems involving linear patterns in the form of tables, graphs, words, rules or equations using rational numbers (including signed values).</p>	<p>Student Edition: 27, 28 #7-#8, 57-61, 63-67, 74, 77 #13, 112-113, 122, 149 #11, 670, 673, 704 #11 <i>Algebra Lab</i> 62 <i>Graphing Calculator Lab</i> 68-69, 624-625 <i>Measurement Lab</i> 162 <i>Mini Lab</i> 44 Teacher Wraparound Edition: AE 58, 59, 112; EC 62; PA 61</p>

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<p>Content Standard H: Algebra Concepts: Students will understand and apply algebraic concepts. Students will be able to:</p>	
<p>M4H1.7 Evaluate formulas with no more than 3 variables using the computation specified in M1B1.7.</p>	<p>Student Edition: 156-161, 379-382, 572-576, 578-582, 584-588, 589-593, 613-618, 619-623, 640-645, 748-749 <i>Measurement Lab</i> 162 <i>Spreadsheet Lab</i> 383 Teacher Wraparound Edition: A 162; AE 156, 379, 573, 620, 641; FMC 380</p>
<p>M4H4.7 Graph inequality statements on a number line.</p>	<p>Student Edition: 84-87, 92 #52-55, 120, 671, 740-741 <i>Mid-Chapter Quiz</i> 100 #12-#15 <i>Practice Test</i> 123 #4-#5 Teacher Wraparound Edition: AA 87; AE 84; TNT 84</p>
<p>M4H6.7 Solve two-step equations using integers and positive rational numbers.</p>	<p>Student Edition: 151-155, 156-161, 171, 262 #49, 581 #14, 582 #22, 640-645, LA6-LA9, LA18-LA20, 675, 702, 740 <i>Practice Test</i> 173 <i>Reading to Solve Problems</i> 150 Teacher Wraparound Edition: AE 151, 642, LA7; FMC 152, 157; TNT 151, 152</p>
<p>Content Standard K. Communication: Students will reflect upon and clarify their understanding of mathematical ideas and relationships. Students will be able to:</p>	
<p>M4K2.7 Read and use statistics, tables, and graphs to communicate ideas and information. Data displays include lists, tables, frequency distributions, line plots, bar graphs, stem and leaf plots or 1st quadrant scatterplots and line graphs and pie charts/circle graphs (read only).</p>	<p>Student Edition: 14-15, 396-401, 410-414, 415-421, 424-425, 426-431, 451, 452, 518-523, LA21-LA25, 687, 688, 711 <i>Practice Test</i> 455 <i>Spreadsheet Lab</i> 422, 432-433 Teacher Wraparound Edition: AE 397, 405, 417; FMC 427; TNT 421</p>