

GLENCOE CORRELATION
MATHEMATICS: APPLICATIONS AND CONCEPTS COURSE 1
NEW JERSEY
 Core Curriculum Content Standards for Mathematics
 Grade 6

| CONTENT STANDARDS | PAGE REFERENCES |
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| Standard 4.1 (Number and Numerical Operations) All students will develop number sense and will perform standard numerical operations and estimations on all types of numbers in a variety of ways. | |
| Building upon knowledge and skills gained in preceding grades, by the end of Grade 6 , students will: | |
| A. Number Sense | |
| 1. Use real-life experiences, physical materials, and technology to construct meanings for numbers (unless otherwise noted, all indicators for grade 6 pertain to these sets of numbers as well). <ul style="list-style-type: none"> • All integers • All fractions as part of a whole, as subset of a set, as a location on a number line, and as divisions of whole numbers • All decimals | SE: 186, 202-203 <i>Hands-on Mini Lab 272</i> <i>Web Quest 3, 97</i> TWE: DI 236 NS 200 TNT 220 |
| 2. Recognize the decimal nature of United States currency and compute with money. | SE: 98, 110 #26, 132, 170 #6 <i>Web Quest 97</i> TWE: A 412 |
| 3. Demonstrate a sense of the relative magnitudes of numbers. | SE: 108-110, 119 #38 TWE: A 155 B 108 DI 153 |
| 4. Explore the use of ratios and proportions in a variety of situations. | SE: 380-383, 386-389, 391-393, 422 #5 & #6 <i>Spreadsheet Investigation 390</i> <i>The Game Zone 399</i> TWE: B 380, 391 ICE 381 |
| 5. Understand and use whole-number percents between 1 and 100 in a variety of situations. | SE: 395-397, 409-412, 420 <i>Hands-on Lab 407-408</i> <i>Spreadsheet Investigation 165</i> TWE: B 395 |
| 6. Use whole numbers, fractions, and decimals to represent equivalent forms of the same number. | SE: 102-105, 202-205, 206-209, 212 #42-#57 TWE: A 105 PC 174F |
| 7. Develop and apply number theory concepts in problem-solving situations. <ul style="list-style-type: none"> • Primes, factors, multiples • Common multiples, common factors | SE: 14-17, 47 #17 & #26, 177-180, 194-197, 211 #29-#34, 214 #6-#8 <i>Study Skill 176</i> TWE: A 179 DI 178 ICE 178 |
| 8. Compare and order numbers. | SE: 108-111, 127 #10-#11, 198-201, 212 #35-#41, 294-298 TWE: DI 199 ICE 199 |

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| B. Numerical Operations | |
| 1. Recognize the appropriate use of each arithmetic operation in problem situations. | SE: 25 Ex 6, 131 #17, 136, 253 #17, 275 #43 <i>Problem-Solving Strategy</i> 125-126 <i>Study Skill</i> 38, 239 TWE: DI 25 TNT 145, 277 |
| 2. Construct, use, and explain procedures for performing calculations with fractions and decimals with: <ul style="list-style-type: none"> • Pencil-and-paper • Mental math • Calculator | SE: 121-124, 131 #17, 136 Ex 5 <i>Hands-on Lab</i> 100-101 <i>Hands-on Mini Lab</i> 152, 228 <i>Problem-Solving Strategy</i> 125-126 <i>Study Tip (Mental Math)</i> 7, 236, 262, 272 TWE: A 126 DI 136, 262 |
| 3. Use an efficient and accurate pencil-and-paper procedure for division of a 3-digit number by a 2-digit number. | SE: 145 Ex 2, 146 #8-#10, #15-#17, 147 #29, 152 Ex 1, 591 |
| 4. Select pencil-and-paper, mental math, or a calculator as the appropriate computational method in a given situation depending on the context and numbers. | SE: 131 #16 & #17, 215 #19, 253 #17, 289 #17 <i>Problem-Solving Strategy</i> 125-126 <i>Study Skill</i> 38 TWE: A 126 DI 125 TNT 277 |
| 5. Find squares and cubes of whole numbers. | SE: 18-19, 22 #14 TWE: B 18 ICE 19 |
| 6. Check the reasonableness of results of computations. | SE: 122 Ex 5, 224 Ex 4 <i>Hands-on Lab</i> 134 <i>Problem-Solving Strategy</i> 156-157 <i>Spreadsheet Investigation</i> 165 <i>Study Tip</i> 109, 145 TWE: A 157 DI 156 NS 224 |
| 7. Understand and use the various relationships among operations and properties of operations. | SE: 136 Ex 5, 251 #3, 252 #2, 333-335, 344, 355, 373 <i>Key Concept</i> 240, 261 <i>Hands-on Lab</i> 332 TWE: PS 251 TNT 262 |
| 8. Understand and apply the standard algebraic order of operations for the four basic operations, including appropriate use of parentheses. | SE: 355-357 <i>Problem-Solving Strategy</i> 358-359 TWE: B 355 DI 356 |
| C. Estimation | |
| 1. Use a variety of strategies for estimating both quantities and the results of computations. | SE: 116-119, 128, 130 #8, 219-222, 256-258, 592-593 TWE: A 119 DI 116, 125 ICE 117 |

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| 2. Recognize when an estimate is appropriate, and understand the usefulness of an estimate as distinct from an exact answer. | SE: 41 #16-#18, 154 #37, 415, 472 #31-#32, 487 #27 <i>Study Skill</i> 38 TWE: A 258 B 116, 141 |
| 3. Determine the reasonableness of an answer by estimating the result of operations. | SE: 7 Ex 1, 141 Ex 1 & 2, 152 Ex 1, 256, 276 Ex 1, 472 #31 & #32, 487 #27 TWE: A 143, 157 B 141, 223 |
| 4. Determine whether a given estimate is an overestimate or an underestimate. | SE: 224 Ex 5, 225 #26, 253 #12 TWE: A 258 |
| Standard 4.2 (Geometry and Measurement) All students will develop spatial sense and the ability to use geometric properties, relationships, and measurement to model, describe and analyze phenomena. | |
| A. Geometric Properties | |
| 1. Understand and apply concepts involving lines and angles. <ul style="list-style-type: none"> • Notation for line, ray, angle, line segment • Properties of parallel, perpendicular, and intersecting lines • Sum of the measures of the interior angles of a triangle is 180° | SE: 506-509, 515 Ex 1, 525 TWE: A 512 DI 507, 523 |
| 2. Identify, describe, compare, and classify polygons and circles. <ul style="list-style-type: none"> • Triangles by angles and sides • Quadrilaterals, including squares, rectangles, parallelograms, trapezoids, rhombi • Polygons by number of sides. • Equilateral, equiangular, regular • All points equidistant from a given point form a circle | SE: 522-525, 539 #22 & #23, 543 #17 <i>Hands-on Lab</i> 526-527 TWE: A 525 ICE 523 PC 504F, 544F |
| 3. Identify similar figures. | SE: 534-536 TWE: DI 520, 534 |
| 4. Understand and apply the concepts of congruence and symmetry (line and rotational). | SE: 528-531, 540 #24-#31, 542 #7 & #8, 543 #18 <i>Hands-on Lab</i> 513-514 TWE: DI 529 ICE 529 TNT 528 |
| 5. Compare properties of cylinders, prisms, cones, pyramids, and spheres. | SE: 564-566 <i>Hands-on Lab</i> 567 TWE: DI 564 |
| 6. Identify, describe, and draw the faces or shadows (projections) of three-dimensional geometric objects from different perspectives. | SE: 564-566 <i>Hands-on Lab</i> 567 TWE: A 565 DI 564 |
| 7. Identify a three-dimensional shape with given projections (top, front and side views). | SE: 580 #13-#15, 581 #8-#10 |

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| 8. Identify a three-dimensional shape with a given net (i.e., a flat pattern that folds into a 3D shape). | SE: 575, 578 <i>Hands-on Lab</i> 574 TWE: TNT 576 |
| B. Transforming Shapes | |
| 1. Use a translation, a reflection, or a rotation to map one figure onto another congruent figure. | SE: 528-529 <i>Hands-on Lab</i> 532-533, 537 TWE: TNT 528 |
| 2. Recognize, identify, and describe geometric relationships and properties as they exist in nature, art, and other real-world settings. | SE: 48, 544 <i>Hands-on Lab</i> 537 TWE: DI 564 MIC 173 |
| C. Coordinate Geometry | |
| 1. Create geometric shapes with specified properties in the first quadrant on a coordinate grid. | SE: 329 #17-#19 TWE: DI 321 |
| D. Units of Measurement | |
| 1. Select and use appropriate units to measure angles, area, surface area, and volume. | SE: 39-41, 470-473, 484-487, 506-509 <i>Hands-on Lab</i> 474-475 TWE: B 465 DI 145, 245, 507 |
| 2. Use a scale to find a distance on a map or a length on a scale drawing. | SE: 391-393, 419 #23-#26, 423 #21, 614 <i>Hands-on Lab</i> 394 <i>Web Quest</i> 377 TWE: ICE 392 |
| 3. Convert measurement units within a system (e.g., 3 feet = ___ inches). | SE: 465-468, 470-473, 476-479, 490-493, 500 #42-#52, 502 #10, 618-619 TWE: A 473, 493 DI 162, 491 ICE 477, 493 |
| 4. Know approximate equivalents between the standard and metric systems (e.g., one kilometer is approximately 6/10 of a mile). | SE: 279 #42-#43 TWE: Note: Foldable on p. 463 offers an opportunity to “compare and contrast” measurements. |
| 5. Use measurements and estimates to describe and compare phenomena. | SE: 471 Ex 4, 473 #34, 497 #28 <i>Hands-on Lab</i> 480-481 TWE: DI 485 |
| E. Measuring Geometric Objects | |
| 1. Use a protractor to measure angles. | SE: 507-508, 511, 518 #6-#8, 538 #8-#10, 541 #7-#9 TWE: A 509 DI 510 ICE 507 |
| 2. Develop and apply strategies and formulas for finding perimeter and area. <ul style="list-style-type: none"> • Triangle, square, rectangle, parallelogram, and trapezoid • Circumference and area of a circle | SE: 39-41, 158-160, 161-164, 268 #18, 546-549, 551-554, 556-559 <i>Hands-on Lab</i> 550-555 <i>Spreadsheet Investigation</i> 469 TWE: A 549 DI 245 PC 544F |

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| 3. Develop and apply strategies and formulas for finding the surface area and volume of rectangular prisms and cylinders. | SE: 570-573, 575-578 TWE: B 570 DI 576 |
| 4. Recognize that shapes with the same perimeter do not necessarily have the same area and vice versa. | SE: <i>Hands-on Lab</i> 464 <i>Spreadsheet Investigation</i> 469 |
| 5. Develop informal ways of approximating the measures of familiar objects (e.g., use a grid to approximate the area of the bottom of one's foot). | SE: 266 Ex 2, 273 Ex 5, 281 #6 TWE: B 39 DI 156, 158, 515 |
| Standard 4.3 (Patterns and Algebra) All students will represent and analyze relationships among variable quantities and solve problems involving patterns, functions, and algebraic concepts and processes. | |
| A. Patterns | |
| 1. Recognize, describe, extend, and create patterns involving whole numbers and rational numbers. <ul style="list-style-type: none"> • Descriptions using tables, verbal rules, simple equations, and graphs • Formal iterative formulas (e.g., NEXT = NOW * 3) • Recursive patterns, including Pascal's Triangle (where each entry is the sum of the entries above it) and the Fibonacci Sequence: 1, 1, 2, 3, 5, 8, . . . (where NEXT = NOW + PREVIOUS) | SE: 10-13, 21 #42-#46, 47 #25, 171 #9, 194, 282-284, 288 #8 <i>Problem-Solving Strategy</i> 280-281 <i>Web Quest</i> 291 TWE: B 280 |
| B. Functions and Relationships | |
| 1. Describe the general behavior of functions given by formulas or verbal rules (e.g., graph to determine whether increasing or decreasing, linear or not). | SE: 323 #38 & #39, 362-365, 366-369, 372 Ex 10, 383 #33-#35 <i>Hands-on Lab</i> 360-361 |
| C. Modeling | |
| 1. Use patterns, relations, and linear functions to model situations. <ul style="list-style-type: none"> • Using variables to represent unknown quantities • Using concrete materials, tables, graphs, verbal rules, algebraic expressions/equations/inequalities | SE: 194, 362-365, 366-369, 375 #19 & #21 <i>Hands-on Lab</i> 271, 299, 332, 337-338, 354 TWE: A 31, 302, 342, 357 DI 340, 351 |
| 2. Draw freehand sketches of graphs that model real phenomena and use such graphs to predict and interpret events. <ul style="list-style-type: none"> • Changes over time • Relations between quantities • Rates of change (e.g., when is plant growing slowly/rapidly, when is temperature dropping most rapidly/slowly) | SE: 57 Ex 1 & 2, 66-69, 91 #12 & #13, 171 #9 <i>Problem-Solving Strategy</i> 54-55, 280-281 <i>Spreadsheet Investigation</i> 60-61 TWE: A 59 DI 54 |

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| D. Procedures | |
| 1. Solve simple linear equations with manipulatives and informally. <ul style="list-style-type: none"> Whole-number coefficients only, answers also whole numbers Variables on one or both sides of equation | SE: 366-369, 373 #22-#24 |
| 2. Understand and apply the properties of operations and numbers. <ul style="list-style-type: none"> Distributive property The product of a number and its reciprocal is 1 | SE: 24-27, 46 #8, 272, 333-336, 348 #7-#10, 370 #7-#14 TWE: DI 25 ICE 273 PC 330F |
| 3. Evaluate numerical expressions. | SE: 24-27, 31 #55-#56, 44 #32-#37, 47 #19-#20 TWE: ICE 25 |
| 4. Extend understanding and use of inequality. <ul style="list-style-type: none"> Symbols (\geq, \neq, \leq) | SE: <i>Hands-on Lab</i> 354 TWE: B 108 NS 224 |
| Standard 4.4 (Data Analysis, Probability, and Discrete Mathematics) All students will develop an understanding of the concepts and techniques of data analysis, probability, and discrete mathematics, and will use them to model situations, solve problems, and analyze and draw appropriate inferences from data. | |
| A. Data Analysis | |
| 1. Collect, generate, organize, and display data. <ul style="list-style-type: none"> Data generated from surveys | SE: 50-53, 182, 438 TWE: A 441 B 50 DI 51 PS 421 TNT 183 |
| 2. Read, interpret, select, construct, analyze, generate questions about, and draw inferences from displays of data. <ul style="list-style-type: none"> Bar graph, line graph, circle graph, table, histogram Range, median, and mean Calculators and computers used to record and process information | SE: 56-59, 62-65, 76-78, 80-83, 222, 279, 410 Ex 3 <i>Problem-Solving Strategy</i> 54-55 <i>Spreadsheet Investigation</i> 60-61, 79, 165 <i>Web Quest</i> 377 TWE: A 59 B 72, 76 DI 54, 57, 68, 81 |
| 3. Respond to questions about data, generate their own questions and hypotheses, and formulate strategies for answering their questions and testing their hypotheses. | SE: 66-69, 108 <i>Problem-Solving Strategy</i> 192 <i>Web Quest</i> 3, 97 TWE: TNT 183 |
| B. Probability | |
| 1. Determine probabilities of events. <ul style="list-style-type: none"> Event, complementary event, probability of an event Multiplication rule for probabilities Probability of certain event is 1 and of impossible event is 0 Probabilities of event and complementary event add up to 1 | SE: 424, 428-431, 454 <i>The Game Zone</i> 443 TWE: A 430 |

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| 2. Determine probability using intuitive, experimental, and theoretical methods (e.g., using model of picking items of different colors from a bag). <ul style="list-style-type: none"> • Given numbers of various types of items in a bag, what is the probability that an item of one type will be picked • Given data obtained experimentally, what is the likely distribution of items in the bag | SE: 428-431, 454 <i>Hands-on Lab</i> 426-427, 432 <i>The Game Zone</i> 443 |
| 3. Explore compound events. | SE: 435 #16-#18, 457 #13-#15 |
| 4. Model situations involving probability using simulations (with spinners, dice) and theoretical models. | SE: <i>Hands-on Lab</i> 426-427 <i>The Game Zone</i> 443 TWE: B 428 ICE 429 |
| 5. Recognize and understand the connections among the concepts of independent outcomes, picking at random, and fairness. | SE: 428-431, 438, 450-453, 454, 456, 457 TWE: DI 429, 451 |
| C. Discrete Mathematics—Systematic Listing and Counting | |
| 1. Solve counting problems and justify that all possibilities have been enumerated without duplication. <ul style="list-style-type: none"> • Organized lists, charts, tree diagrams, tables • Venn diagrams | SE: 177, 414 #8, 433-436, 455 #16-#18, 521 #13 <i>Problem-Solving Strategy</i> 192 <i>Study Skill</i> 176 TWE: A 176 DI 433 PC 504F |
| 2. Apply the multiplication principle of counting. <ul style="list-style-type: none"> • Simple situations (e.g., you can make $3 \times 4 = 12$ outfits using 3 shirts and 4 skirts). • Number of ways a specified number of items can be arranged in order (concept of permutation) • Number of ways of selecting a slate of officers from a class (e.g., if there are 23 students and 3 officers, the number is $23 \times 22 \times 21$) | SE: 436 #25, 459 #18 TWE: A 436 |
| 3. List the possible combinations of two elements chosen from a given set (e.g., forming a committee of two from a group of 12 students, finding how many handshakes there will be among ten people if everyone shakes each other person's hand once). | SE: 433-436 TWE: A 436 |
| D. Discrete Mathematics—Vertex-Edge Graphs and Algorithms | |
| 1. Devise strategies for winning simple games (e.g., start with two piles of objects, each of two players in turn removes any number of objects from a single pile, and the person to take the last group of objects wins) and express those strategies as sets of directions. | Note: These references can be used to fulfill this objective. SE: 446 #12-#14, 551 TWE: PS 457 |

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| 2. Analyze vertex-edge graphs and tree diagrams. <ul style="list-style-type: none"> • Can a picture or a vertex-edge graph be drawn with a single line? (degree of vertex) • Can you get from any vertex to any other vertex? (connectedness) | Note: Tree diagrams are used on p. 433 but not discussed with vertex graphs. |
| 3. Use vertex-edge graphs to find solutions to practical problems. <ul style="list-style-type: none"> • Delivery route that stops at specified sites but involves least travel • Shortest route from one site on a map to another | Note: <i>WebQuest</i> 461 and PS 327 could be used to fulfill this type of graph. |
| Standard 4.5 (Mathematical Processes) All students will use mathematical processes of problem solving, communication, connections, reasoning, representations, and technology to solve problems and communicate mathematical ideas. | |
| Cumulative Progress Indicators At each grade level, with respect to content appropriate for that grade level, students will: | |
| A. Problem Solving | |
| 1. Learn mathematics through problem solving, inquiry, and discovery. | SE: 6-9 <i>Real Life</i> 19, 87 <i>Web Quest</i> 3, 97, 173, 291 TWE: DI 7 PC 48F PS 93 |
| 2. Solve problems that arise in mathematics and in other contexts (cf. workplace readiness standard 8.3). <ul style="list-style-type: none"> • Open-ended problems • Non-routine problems • Problems with multiple solutions • Problems that can be solved in several ways | SE: 58 #2, 335 #2, 364 #2 <i>Problem-Solving Strategy</i> 32-33, 358-359 <i>Web Quest</i> 97, 173 TWE: B 24, 62 DI 236, 262, 294 TNT 55, 277 |
| 3. Select and apply a variety of appropriate problem-solving strategies (e.g., try a simpler problem or make a diagram) to solve problems. | SE: <i>Problem-Solving Strategy</i> 32-33, 125-126, 192-193, 280-281, 413-414 <i>Web Quest</i> 173 TWE: DI 7, 413 |
| 4. Pose problems of various types and levels of difficulty. | SE: 446 #12-#14 <i>Problem-Solving Strategy</i> 32-33, 156-157 <i>Web Quest</i> 173 TWE: A 37, 83, 397 DI 29, 68 TNT 55, 145 |
| 5. Monitor their progress and reflect on the process of their problem-solving activity. | TWE: A 89, 258 F 26, 58 PC 48F, 132F PS 93 TNT 295 |

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| B. Communication | |
| 1. Use communication to organize and clarify their mathematical thinking. <ul style="list-style-type: none"> • Reading and writing • Discussion, listening, and questioning | TWE: A 9 B 6, 28 PC 48F |
| 2. Communicate their mathematical thinking coherently and clearly to peers, teachers, and others, both orally and in writing. | TWE: A 9, 39, 55, 143 B 6, 28 DI 73 F 99 PC 48F |
| 3. Analyze and evaluate the mathematical thinking and strategies of others. | TWE: A 38 B 6 DI 32 F 58 |
| 4. Use the language of mathematics to express mathematical ideas precisely. | SE: 28, 117, 206, 207 <i>Key Concept</i> 80, 334, 465, 522 TWE: B 14, 18, 125, 339 F 5, 379 |
| C. Connections | |
| 1. Recognize recurring themes across mathematical domains (e.g., patterns in number, algebra, and geometry). | SE: 10-13, 231 #33, 282-284 <i>Hands-on Lab</i> 537 <i>Problem-Solving Strategy</i> 280-281 <i>Web Quest</i> 291, 461 TWE: DI 280, 351 PS 93 TNT 55, 277 |
| 2. Use connections among mathematical ideas to explain concepts (e.g., two linear equations have a unique solution because the lines they represent intersect at a single point). | SE: 17 #51, 62-65, 98, 177-180, 194-197, 294, 320, 414 <i>Hands-on Lab</i> 537 TWE: A 105 DI 68 PS 45, 93, 327 |
| 3. Recognize that mathematics is used in a variety of contexts outside of mathematics. | SE: 112 #10, 216 <i>Web Quest</i> 3, 97, 173, 461 TWE: DI 236 MIC 3, 97, 173, 291 PS 93 |
| 4. Apply mathematics in practical situations and in other disciplines. | SE: 48 <i>Real Life</i> 19 <i>Web Quest</i> 3, 97, 173, 461 TWE: DI 236 MIC 3, 97, 173, 291, 461 TNT 145, 277 |
| 5. Trace the development of mathematical concepts over time and across cultures (cf. world languages and social studies standards). | SE: <i>Hands-on Lab</i> 106-107 <i>Study Skill</i> 120 TWE: B 339 DI 36 |

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| 6. Understand how mathematical ideas interconnect and build on one another to produce a coherent whole. | SE: 14-15, 24-27 TWE: B 56 PS 251 TNT 277 |
| D. Reasoning | |
| 1. Recognize that mathematical facts, procedures, and claims must be justified. | SE: 12 #35, 37 #38-#39, 164 #25, 205 #34 <i>Hands-on Lab</i> 151, 537 TWE: DI 32, 142 |
| 2. Use reasoning to support their mathematical conclusions and problem solutions. | SE: 13 #44, 37 #38-#39, 197 #30, 205 #34 <i>Problem-Solving Strategy</i> 32-33, 156-157 TWE: DI 32, 142 |
| 3. Select and use various types of reasoning and methods of proof. | SE: 41 #21, 88 #4 <i>Hands-on Lab</i> 567 <i>Problem-Solving Strategy</i> 32-33, 156-157 <i>Study Tip</i> 63 TWE: DI 32, 68, 125, 395 |
| 4. Rely on reasoning, rather than answer keys, teachers, or peers, to check the correctness of their problem solutions. | SE: 13 #44, 37 #38-#39, 164 #25, 197 #30 <i>Problem-Solving Strategy</i> 156-157 TWE: DI 142 |
| 5. Make and investigate mathematical conjectures. <ul style="list-style-type: none"> • Counterexamples as a means of disproving conjectures • Verifying conjectures using informal reasoning or proofs. | SE: 16 #47, 85 #3, 101 #4, 180 #34, 218 #3, 299 #6, 307 #34-#37, 354 #3, 551 TWE: DI 207, 523 |
| 6. Evaluate examples of mathematical reasoning and determine whether they are valid. | SE: 6-9, 164 #25, 205 #34, 408 #4, 554 #22-#25 <i>Problem-Solving Strategy</i> 32-33, 156-157 TWE: DI 125 |
| E. Representations | |
| 1. Create and use representations to organize, record, and communicate mathematical ideas. <ul style="list-style-type: none"> • Concrete representations (e.g., base-ten blocks or algebra tiles) • Pictorial representations (e.g., diagrams, charts, or tables) • Symbolic representations (e.g., a formula) • Graphical representations (e.g., a line graph) | SE: 31 #48, 56-59, 102-105, 184 #31-#32 <i>Problem-Solving Strategy</i> 54-55, 448-449 <i>Spreadsheet Investigation</i> 60-61 <i>Study Skill</i> 120 TWE: A 31, 105 DI 103 ICE 187 |
| 2. Select, apply, and translate among mathematical representations to solve problems. | SE: 56-59 <i>Hands-on Mini Lab</i> 28, 272 <i>Spreadsheet Investigation</i> 60-61 <i>Study Skill</i> 38, 120 TWE: DI 57, 156 TNT 220 |
| 3. Use representations to model and interpret physical, social, and mathematical phenomena. | SE: 51 Ex 3, 56-59, 66-69 <i>Hands-on Lab</i> 106-107, 134, 259, 337-338 <i>Spreadsheet Investigation</i> 60-61 <i>Study Skill</i> 38 TWE: A 33, 147, 389 TNT 55, 220 |

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| F. Technology | |
| 1. Use technology to gather, analyze, and communicate mathematical information. | SE: 36 #22, 58 #10, 205 #33, 247 #28, 453 #27, 573 #22 <i>Web Quest</i> 3, 291 |
| 2. Use computer spreadsheets, software, and graphing utilities to organize and display quantitative information. | SE: 58 #10, 247 #28, 573 #22 <i>Spreadsheet Investigation</i> 79, 165, 390, 469 <i>Web Quest</i> 291 TWE: DI 68 |
| 3. Use graphing calculators and computer software to investigate properties of functions and their graphs. | Students can use a graphing calculator with this reference. SE: <i>Web Quest</i> 369 |
| 4. Use calculators as problem-solving tools (e.g., to explore patterns, to validate solutions). | SE: <i>Hands-on Lab</i> 139 #2 <i>Problem-Solving Strategy</i> 125 <i>Study Tip</i> 19, 409 <i>Teaching Tip</i> 24, 121 |
| 5. Use computer software to make and verify conjectures about geometric objects. | SE: 573 #22 <i>Web Quest</i> 461, 578 |
| 6. Use computer-based laboratory technology for mathematical applications in the sciences. | SE: 58 #10, 205 #33, 247 #28, 573 #22 <i>Spreadsheet Investigation</i> 60-61 <i>Web Quest</i> 73, 291 TWE: MS 173 |

Codes Used for TWE Pages

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| A | Assess |
| B | Bellringer |
| DI | Daily Intervention |
| F | Foldables |
| ICE | In-Class Examples |
| MIC | More Interdisciplinary Connections |
| MS | Math & Science |
| NS | Number Sense |
| PC | Project Criss Study Skill |
| PS | Portfolio Suggestion |
| TNT | Tips for New Teachers |