

**A Correlation of**

**SCOTT FORESMAN ■ ADDISON WESLEY**

**Mathematics**

**to the**

**Louisiana  
Department of Education  
Mathematics—Grade Level Expectations  
Grade Six**



C/M-91\_6

**Book Title:** Scott Foresman – Addison Wesley Mathematics    **Grade Level:** Six

**Publisher:** Pearson Scott Foresman    **Subject/Course:** Mathematics

**Grade 6**

**Number and Number Relations**

**In problem-solving investigations, students demonstrate an understanding of the real number system and communicate the relationships within that system using a variety of techniques and tools.**

**Students use estimation, mental arithmetic, number lines, graphs, appropriate models, manipulatives, calculators, and computers as they extend their investigations of problems involving rational numbers.**

<b>GRADE LEVEL EXPECTATIONS</b>	<b>CORRELATION NOTATIONS</b>
1. Factor whole numbers into primes (N-1-M)	147A–147B, 147–149
2. Determine common factors and common multiples for pairs of whole numbers (N-1-M)	140I, 150A–150B, 150–151, 152A–152B, 152–153
3. Find the greatest common factor (GCF) and least common multiple (LCM) for whole numbers in the context of problem-solving (N-1-M)	140I, 150A–150B, 150–151, 152A–152B, 152–153
4. Recognize and compute equivalent representations of fractions and decimals (i.e., halves, thirds, fourths, fifths, eighths, tenths, hundredths) (N-1-M) (N-3-M)	140J, 164A–164B, 164–167, 172A–172B, 172–175, 251, 358A–358B, 358–361
5. Decide which representation (i.e., fraction or decimal) of a positive number is appropriate in a real-life situation (N-1-M) (N-5-M)	172–175, 251, 358–361
6. Compare positive fractions, decimals, and positive and negative integers using symbols (i.e., $<$ , $=$ , $>$ ) and number lines (N-2-M)	78A–78B, 78–79, 164A–164B, 164–167, 168A–168B, 168–169, 176A–176B, 176–178, 406I, 410A–410B, 410–411
7. Read and write numerals and words for decimals through ten-thousandths (N-3-M)	76–77, 78–79

<b>GRADE LEVEL EXPECTATIONS</b>	<b>CORRELATION NOTATIONS</b>
8. Demonstrate the meaning of positive and negative numbers and their opposites in real-life situations (N-3-M) (N-5-M)	408–409, 410–411, 418–425
9. Add and subtract fractions and decimals in real-life situations (N-5-M)	82, 86A–86B, 86–89, 202J, 204A–204B, 204–205, 206A–206B, 206–209, 215, 218A–218B, 218–219, 220A–220B, 222, 223, 224A–224B, 224–225, 230–231
10. Use and explain estimation strategies to predict computational results with positive fractions and decimals (N-6-M)	82A–82B, 82–83, 170A–170B, 170–171, 256A–256B, 256–257
11. Mentally multiply and divide by powers of 10 (e.g., $25/10 = 2.5$ ; $12.56 \times 100 = 1,256$ ) (N-6-M)	106–109, 122
12. Divide 4-digit numbers by 2-digit numbers with the quotient written as a mixed number or a decimal (N-7-M)	94A–94B, 94–95, 96A–96B, 96–97, 101, 141
13. Use models and pictures to explain concepts or solve problems involving ratio, proportion, and percent with whole numbers (N-8-M)	298I–298J, 316A–316B, 316–317, 320, 323, 330A–330B, 330–331, 332A–332B, 332–333, 352I, 354A–354B, 354–356, 358A, 358–360

## Algebra

In problem-solving investigations students demonstrate an understanding of concepts and processes that allow them to analyze, represent, and describe relationships among variable quantities and to apply algebraic methods to real-world situations.

Students use manipulatives, models, graphs, tables, technology, number sense, and estimation as they extend their investigations of problems involving the concepts and application of algebra.

<b>GRADE LEVEL EXPECTATIONS</b>	<b>CORRELATION NOTATIONS</b>
14. Model and identify perfect squares up to 144 (A-1-M)	<i>This expectation can be introduced on these pages.</i> 8–11

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
15. Match algebraic equations and expressions with verbal statements and vice versa (A-1-M) (A-3-M) (A-5-M) (P-2-M)	40A-40B, 40-43, 710A-710B, 710-711
16. Evaluate simple algebraic expressions using substitution (A-2-M)	41, 56
17. Find solutions to 2-step equations with positive integer solutions (e.g., $3x - 5 = 13$ , $2x + 3x = 20$ ) (A-2-M)	48A-48B, 48-51, 112-113, 33, 276-277, 430-431, 712A-712B, 712-715

## Measurement

**In problem-solving investigations, students demonstrate an understanding of the concepts, processes, and real-life applications of measurement.**

**Students use number sense, estimation, appropriate manipulatives, tools, and technology as they extend their investigations of problems involving measurement.**

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
18. Measure length and read linear measurements to the nearest sixteenth-inch and mm (M-1-M)	542A-542B, 542-545, 546A-546B, 546-549, 550A-550B, 550-551
19. Calculate perimeter and area of triangles, parallelograms, and trapezoids (M-1-M)	540I, 564A-564B, 564-567, 570A-570B, 570-571
20. Calculate, interpret, and compare rates such as \$/lb., mpg, and mph (M-1-M) (A-5-M)	306-309
21. Demonstrate an intuitive sense of relative sizes of common units for length and area of familiar objects in real-life problems (e.g., estimate the area of a desktop in square feet, the average adult is between 1.5 and 2 meters tall) (M-2-M) (G-1-M)	<i>These pages provide opportunities for students to apply this expectation.</i> 542A-542B, 542-545, 546A-546B, 546-549, 550A-550B, 550-551, 553, 550-551

<b>GRADE LEVEL EXPECTATIONS</b>	<b>CORRELATION NOTATIONS</b>
22. Estimate perimeter and area of any 2-dimensional figure (regular and irregular) using standard units (M-2-M)	<i>These pages provide opportunities for students to apply this expectation.</i> 540I, 564A–564B, 564–567, 570A–570B, 570–571, 572A–572B, 572–575, 580–581
23. Identify and select appropriate units to measure area (M-3-M)	568–569, 572A-572B, 572–575

## Geometry

In problem-solving investigations, students demonstrate an understanding of geometric concepts and applications involving one-, two-, and three-dimensional geometry, and justify their findings.

Students use number sense, estimation, models, drawings, manipulatives, and technology as they extend their investigations of problems involving geometric concepts.

<b>GRADE LEVEL EXPECTATIONS</b>	<b>CORRELATION NOTATIONS</b>
24. Use mathematical terms to describe the basic properties of 3-dimensional objects (edges, vertices, faces, base, etc.) (G-2-M)	586–589
25. Relate polyhedra to their 2-dimensional shapes by drawing or sketching their faces (G-2-M) (G-4-M)	586A–586B, 586–589
26. Apply concepts, properties, and relationships of points, lines, line segments, rays, diagonals, circles, and right, acute, and obtuse angles and triangles in real-life situations, including estimating sizes of angles (G-2-M) (G-5-M) (G-1-M)	470I, 470, 472–475, 476A–476B, 476–479, 480A–480B, 480–483, 488–489, 494A–494B, 494–495, 496A–496B, 496–499, 500A–500B, 500–501, 502A–502B, 502–503
27. Make and test predictions regarding tessellations with geometric shapes (G-3-M)	470J, 516A–516B, 516–519
28. Use a rectangular grid and ordered pairs to plot simple shapes and find horizontal and vertical lengths and area (G-6-M)	510A, 510–511, 512

## Data Analysis, Probability, and Discrete Math

In problem-solving investigations, students discover trends, formulate conjectures regarding cause-and-effect relationships, and demonstrate critical thinking skills in order to make informed decisions.

Students use collection and organizational techniques, number sense, estimation, manipulatives, and technology as they extend their investigations of problems involving data.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
29. Collect, organize, label, display, and interpret data in frequency tables, stem-and-leaf plots, and scatter plots and discuss patterns in the data verbally and in writing (D-1-M) (D-2-M) (A-3-M)	628A–628B, 628–631, 632A–632B, 632–633, 640
30. Describe and analyze trends and patterns observed in graphic displays (D-2-M)	618I, 620A–620B, 620–623, 628A–628B, 628–631, 632–633, 636A–636B, 636–637, 638A–638B, 638–641, 642A–642B, 642–645, 646–647, 648A–648B, 648–649, 650A–650B, 650–651
31. Demonstrate an understanding of precision, accuracy, and error in measurement (D-2-M) (M-2-M)	650A–650B, 650–651
32. Calculate and discuss mean, median, mode, and range of a set of discrete data to solve real-life problems (D-2-M)	624A–624B, 624–627, 633
33. Create and use Venn diagrams with two overlapping categories to solve counting logic problems (D-3-M)	89, 151, 413
34. Use lists, tree diagrams, and tables to determine the possible combinations from two disjoint sets when choosing one item from each set (D-4-M)	618J, 654A–654B, 654–657
35. Illustrate and apply the concept of complementary events (D-5-M)	662A–662B, 662–663
36. Apply the meaning of <i>equally likely</i> and <i>equally probable</i> to real-life situations (D-5-M) (D-6-M)	<i>These pages provide opportunities for students to apply this expectation.</i> 662A–662B, 662–663

## Patterns, Relations, and Functions

In problem-solving investigations, students demonstrate an understanding of patterns, relations, and functions that represent and explain real-world situations.

Students use number sense, estimation, manipulatives, drawings, tables, graphs, formulas, and technology as they extend their investigations of problems involving patterns, relations, and functions.

GRADE LEVEL EXPECTATIONS	CORRELATION NOTATIONS
37. Describe, complete, and apply a pattern of differences found in an input-output table (P-1-M) (P-2-M) (P-3-M)	444A–444B, 444–447
38. Describe patterns in sequences of arithmetic and geometric growth and now-next relationships (i.e., growth patterns where the next term is dependent on the present term) with numbers and figures (P-3-M) (A-4-M)	444A–444B, 444–447, 716A–716B, 716–717