



# Correlation

## Standards of Learning for Virginia

### Mathematics

# Grade Four

**For more information about this correlation,  
a quote or to place an order, please contact:**

O'Brien Associates  
2512 Grenoble Road  
Richmond, VA 23294  
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April 2016

**Virginia Standards of Learning  
Mathematics  
Grade Four**

**Number and Number Sense  
Focus: Place Value, Fractions, and Decimals**

- 4.1 The student will**
- a) identify orally and in writing the place value for each digit in a whole number expressed through millions;
  - b) compare two whole numbers expressed through millions, using symbols ( $>$ ,  $<$ , or  $=$ ); and
  - c) round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand.
- 4.2 The student will**
- a) compare and order fractions and mixed numbers;
  - b) represent equivalent fractions; and
  - c) identify the division statement that represents a fraction.

Discover Equivalent Fractions (Level 1) *	A93864	53.00	340	Benchmark Education
Discover Fractions (Level 1) *	A93826	53.00	170	Benchmark Education
Fractions at the Pet Shop (Level 3) *	A93840	53.00	360	Benchmark Education
Fractions at Work (Level 3) *	A93888	53.00	380	Benchmark Education
Fractions in Sports (Level 4) *	A93857	56.00	390	Benchmark Education
Fractions in the Garden (Level 2) *	A93871	53.00	290	Benchmark Education
Fractions in the Kitchen (Level 4) *	A93895	56.00	360	Benchmark Education
Fractions with Friends (Level 2) *	A93833	53.00	240	Benchmark Education
<i>Grandpa's Birthday Present: Understanding Percents *</i>	<i>978-0-7439-0910-5</i>	<i>9.00</i>	<i>0/620</i>	<i>TCM Library</i>
Let's Take a Hike! Converting Fractions to Decimals *	978-0-8239-7456-6	42.00	N	Rosen Classroom
The Stock Market: Understanding and Applying Ratios, Decimals, Fractions and Percentages *	978-1-4042-5122-9	51.00	Y	Rosen Classroom
<i>What Did I Eat? Operations with Fractions, Decimals and Percents *</i>	<i>978-1-4333-3452-8</i>	<i>9.00</i>	<i>T/870</i>	<i>TCM Library</i>

- 4.3 The student will**
- a) read, write, represent, and identify decimals expressed through thousandths;
  - b) round decimals to the nearest whole number, tenth, and hundredth;
  - c) compare and order decimals; and
  - d) given a model, write the decimal and fraction equivalents.

Baseball: The Math of the Game (Sports Math) *	978-1-4296-7316-7	47.70	U/1020	Capstone Classroom
Decimals at the Bank (Level 2) *	Y01335	53.00	430	Benchmark Education
Decimals at the Beach (Level 4) *	Y01337	56.00	390	Benchmark Education
Decimals at the Farmer's Market (Level 3) *	Y01336	53.00	340	Benchmark Education
Decimals at the Pizzeria (Level 2) *	Y01339	53.00	320	Benchmark Education
Decimals at the Sea (Level 3) *	Y01340	53.00	410	Benchmark Education
Decimals in the News (Level 4) *	Y01341	56.00	410	Benchmark Education

<i>Title</i>	<i>ISBN/Code No.</i>	<i>Six-pack price</i>	<i>GR Level</i>	<i>Publisher</i>
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**Virginia Standards of Learning  
Mathematics  
Grade Four**

Discover Decimals and Fractions (Level 1) *	Y01334	53.00	370	Benchmark Education
Discover Decimals and Place Value (Level 1) *	Y01338	53.00	430	Benchmark Education
<i>Grandpa's Birthday Present: Understanding Percents *</i>	<i>978-0-7439-0910-5</i>	<i>9.00</i>	<i>O/620</i>	<i>TCM Library</i>
Let's Take a Hike! Converting Fractions to Decimals *	978-0-8239-7456-6	42.00	N	Rosen Classroom
The Stock Market: Understanding and Applying Ratios, Decimals, Fractions and Percentages *	978-1-4042-5122-9	51.00	Y	Rosen Classroom
<i>What Did I Eat? Operations with Fractions, Decimals and Percents *</i>	<i>978-1-4333-3452-8</i>	<i>9.00</i>	<i>T/870</i>	<i>TCM Library</i>

**Computation and Estimation  
Focus: Factors and Multiples, and Fraction and Decimal Operations**

**4.4 The student will**

- a) estimate sums, differences, products, and quotients of whole numbers;
- b) add, subtract, and multiply whole numbers;
- c) divide whole numbers, finding quotients with and without remainders; and
- d) solve single-step and multistep addition, subtraction, and multiplication problems with whole numbers.

Aircraft Carriers: Supplies for a City at Sea; Multiplying Multidigit Numbers with Regrouping	978-0-8239-7447-4	51.00	R	Rosen Classroom
American History Adds Up *	A9795	51.00	S/980	Benchmark Education
Animals of the Sea *	A9809	51.00	T/910	Benchmark Education
Baseball: The Math of the Game (Sports Math)*	978-1-4296-7316-7	47.70	U/1020	Capstone Classroom
Discover Division (Level 1)	A93789	53.00	390	Benchmark Education
Discover Estimation (Level 1)	Y01330	53.00	330	Benchmark Education
Discover Multiplication (Level 1)	A93741	53.00	400	Benchmark Education
Discover Multiplication of Multidigit Numbers (Level 1)	Y01326	53.00	180	Benchmark Education
Division at the Games (Level 4)	A93819	56.00	430	Benchmark Education
Division at the Movies (Level 2)	A93796	53.00	380	Benchmark Education
Division at the Picnic (Level 3)	A93802	53.00	360	Benchmark Education
Estimation at the Factory (Level 2)	Y01331	53.00	280	Benchmark Education
Estimation in Space (Level 3)	Y01332	53.00	400	Benchmark Education
Estimation in the Ancient World (Level 4)	Y01333	56.00	400	Benchmark Education
Explorers in North America: Solving Addition and Subtraction Problems Using Timelines	978-0-8239-7426-9	51.00	R	Rosen Classroom
Math To Build On	A04216	51.00	R/800	Benchmark Education
Multiplication and Division VCL Set	Y02431	219.00	---	Benchmark Education
Multiplication at the Amusement Park (Level 2)	Y01327	53.00	350	Benchmark Education
Multiplication at the Bakery (Level 4)	Y01329	56.00	510	Benchmark Education

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Mathematics  
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Multiplication at the Baseball Game (Level 2)	A93758	53.00	390	Benchmark Education
Multiplication at the Concert (Level 3)	Y01328	53.00	400	Benchmark Education
Multiplication at the Market (Level 4)	A93772	56.00	450	Benchmark Education
Multiplication in the Community (Level 3)	A93765	53.00	460	Benchmark Education
Number Games Around the World *	A9647	51.00	Q/1000	Benchmark Education
The Stock Market: Understanding and Applying Ratios, Decimals, Fractions and Percentages *	978-1-4042-5122-9	51.00	Y	Rosen Classroom
<i>What Did I Eat? Operations with Fractions, Decimals and Percents *</i>	978-1-4333-3452-8	9.00	T/870	TCM Library

**4.5 The student will**

- a) **determine common multiples and factors, including least common multiple and greatest common factor;**
- b) **add and subtract fractions having like and unlike denominators that are limited to 2, 3, 4, 5, 6, 8, 10, and 12, and simplify the resulting fractions, using common multiples and factors;**
- c) **add and subtract with decimals; and**
- d) **solve single-step and multistep practical problems involving addition and subtraction with fractions and with decimals.**

American History Adds Up *	A9795	51.00	S/980	Benchmark Education
Animals of the Sea *	A9809	51.00	T/910	Benchmark Education
Baseball: The Math of the Game (Sports Math)*	978-1-4296-7316-7	47.70	U/1020	Capstone Classroom
Basketball: The Math of the Game (Sports Math) *	978-1-4296-7318-1	47.70	U/910	Capstone Classroom
Civil War Recipes: Adding and Subtracting Simple Fractions	978-0-8239-7424-5	42.00	P	Rosen Classroom
Decimals at the Bank (Level 2) *	Y01335	53.00	430	Benchmark Education
Decimals at the Beach (Level 4) *	Y01337	56.00	390	Benchmark Education
Decimals at the Farmer's Market (Level 3) *	Y01336	53.00	340	Benchmark Education
Decimals at the Pizzeria (Level 2) *	Y01339	53.00	320	Benchmark Education
Decimals at the Sea (Level 3) *	Y01340	53.00	410	Benchmark Education
Decimals in the News (Level 4) *	Y01341	56.00	410	Benchmark Education
Discover Decimals and Fractions (Level 1) *	Y01334	53.00	370	Benchmark Education
Discover Decimals and Place Value (Level 1) *	Y01338	53.00	430	Benchmark Education
Discover Equivalent Fractions (Level 1) *	A93864	53.00	340	Benchmark Education
Discover Fractions (Level 1) *	A93826	53.00	170	Benchmark Education
Fractions at the Pet Shop (Level 3) *	A93840	53.00	360	Benchmark Education
Fractions at Work (Level 3) *	A93888	53.00	380	Benchmark Education
Fractions in Sports (Level 4) *	A93857	56.00	390	Benchmark Education
Fractions in the Garden (Level 2) *	A93871	53.00	290	Benchmark Education
Fractions in the Kitchen (Level 4) *	A93895	56.00	360	Benchmark Education
Fractions with Friends (Level 2) *	A93833	53.00	240	Benchmark Education
Sports Math	A9663	51.00	R/900	Benchmark Education

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**Virginia Standards of Learning  
Mathematics  
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**Measurement**

**Focus: Equivalence within U.S. Customary and Metric Systems**

**4.6 The student will**

- a) estimate and measure weight/mass and describe the results in U.S. Customary and metric units as appropriate; and
- b) identify equivalent measurements between units within the U.S. Customary system (ounces, pounds, and tons) and between units within the metric system (grams and kilograms).

Baseball: The Math of the Game (Sports Math)*	978-1-4296-7316-7	47.70	U/1020	Capstone Classroom
Let's Visit Canada: The Metric System	978-0-8239-7380-4	42.00	O	Rosen Classroom
Math To Build On *	A04216	51.00	R/800	Benchmark Education
Metric Math *	A.04143	49.00	P/820	Benchmark Education
Natural Wonders of the World: Converting Distance Measurements to Metric Units *	978-1-4042-5120-5	51.00	U	Rosen Classroom

**4.7 The student will**

- a) estimate and measure length, and describe the result in both metric and U.S. Customary units; and
- b) identify equivalent measurements between units within the U.S. Customary system (inches and feet; feet and yards; inches and yards; yards and miles) and between units within the metric system (millimeters and centimeters; centimeters and meters; and millimeters and meters).

Distance, Area and Volume (Measure It!) *	978-1-4329-3775-1	47.94	T/880	Capstone Classroom
American History Adds Up *	A9795	51.00	S/980	Benchmark Education
Animals of the Sea *	A9809	51.00	T/910	Benchmark Education
Baseball: The Math of the Game (Sports Math)*	978-1-4296-7316-7	47.70	U/1020	Capstone Classroom
Basketball: The Math of the Game (Sports Math) *	978-1-4296-7318-1	47.70	U/910	Capstone Classroom
Math To Build On *	A04216	51.00	R/800	Benchmark Education
Metric Math *	A.04143	49.00	P/820	Benchmark Education
Natural Wonders of the World: Converting Distance Measurements to Metric Units *	978-1-4042-5120-5	51.00	U	Rosen Classroom

**4.8 The student will**

- a) estimate and measure liquid volume and describe the results in U.S. Customary units; and
- b) identify equivalent measurements between units within the U.S. Customary system (cups, pints, quarts, and gallons).

<i>At the Aquarium: Volume</i>	978-0-7439-0919-8	9.00	T/840	TCM Library
Distance, Area and Volume (Measure It!) *	978-1-4329-3775-1	47.94	T/880	Capstone Classroom

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Mathematics  
Grade Four**

**4.9 The student will determine elapsed time in hours and minutes within a 12-hour period.**

<i>Hosting the Olympic Summer Games: Elapsed Time</i>	978-0-743-90902-0	9.00	R/720	TCM Library
Time (Measure It!) *	978-1-4329-3778-2	47.94	S/900	Capstone Classroom

**Geometry  
Focus: Representations and Polygons**

- 4.10 The student will**
- a) identify and describe representations of points, lines, line segments, rays, and angles, including endpoints and vertices; and**
  - b) identify representations of lines that illustrate intersection, parallelism, and perpendicularity.**

The Architecture of Frank Lloyd Wright: Understanding the Concepts of Parallel and Perpendicular	978-1-4042-5145-8	51.00	V	Rosen Classroom
<i>Basketball Angles: Understanding Angles</i>	978-0-7439-0914-3	9.00	S/780	TCM Library
Basketball: The Math of the Game (Sports Math) *	978-1-4296-7318-1	47.70	U/910	Capstone Classroom
Discover Congruent and Similar Polygons (Level 1) *	A93949	53.00	530	Benchmark Education
Discover Polygons (Level 1) *	A93901	53.00	330	Benchmark Education
Polygons Around the World (Level 4) *	A93970	56.00	470	Benchmark Education
Polygons Around Town (Level 2) *	A93918	53.00	300	Benchmark Education
Polygons at School (Level 2) *	A93956	53.00	500	Benchmark Education
Polygons in Communities (Level 3) *	A93963	53.00	480	Benchmark Education
Polygons in Puzzles (Level 4) *	A93932	56.00	330	Benchmark Education
Polygons on Maps (Level 3) *	A93925	53.00	340	Benchmark Education
<i>Shaping Our World: 2-D Shapes</i> *	978-0-7439-0881-8	9.00	O/640	TCM Library

- 4.11 The student will**
- a) investigate congruence of plane figures after geometric transformations, such as reflection, translation, and rotation, using mirrors, paper folding, and tracing; and**
  - b) recognize the images of figures resulting from geometric transformations, such as translation, reflection, and rotation.**

Tangram Puzzles: Describing and Comparing Attributes of Plane and Geometric Shapes	978-0-8239-7449-8	42.00	P	Rosen Classroom
Discover Congruent and Similar Polygons (Level 1) *	A93949	53.00	530	Benchmark Education

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Discover Polygons (Level 1) *	A93901	53.00	330	Benchmark Education
Number Games Around the World*	A9647	51.00	Q/1000	Benchmark Education
Polygons Around the World (Level 4) *	A93970	56.00	470	Benchmark Education
Polygons Around Town (Level 2) *	A93918	53.00	300	Benchmark Education
Polygons at School (Level 2) *	A93956	53.00	500	Benchmark Education
Polygons in Communities (Level 3) *	A93963	53.00	480	Benchmark Education
Polygons in Puzzles (Level 4) *	A93932	56.00	330	Benchmark Education
Polygons on Maps (Level 3) *	A93925	53.00	340	Benchmark Education
<i>Shaping Our World: 2-D Shapes *</i>	<i>978-0-7439-0881-8</i>	<i>9.00</i>	<i>O/640</i>	<i>TCM Library</i>

- 4.12 The student will**
- a) define *polygon*; and
  - b) identify polygons with 10 or fewer sides.

Discover Congruent and Similar Polygons (Level 1) *	A93949	53.00	530	Benchmark Education
Discover Polygons (Level 1) *	A93901	53.00	330	Benchmark Education
Polygons Around the World (Level 4) *	A93970	56.00	470	Benchmark Education
Polygons Around Town (Level 2) *	A93918	53.00	300	Benchmark Education
Polygons at School (Level 2) *	A93956	53.00	500	Benchmark Education
Polygons in Communities (Level 3) *	A93963	53.00	480	Benchmark Education
Polygons in Puzzles (Level 4) *	A93932	56.00	330	Benchmark Education
Polygons on Maps (Level 3) *	A93925	53.00	340	Benchmark Education
Where We Play Sports: Measuring the Perimeters of Polygons	978-0-8239-7423-8	42.00	O	Rosen Classroom

**Probability and Statistics  
Focus: Outcomes and Data**

- 4.13 The student will**
- a) predict the likelihood of an outcome of a simple event; and
  - b) represent probability as a number between 0 and 1, inclusive.

<i>CSI: Analyzing Data *</i>	<i>978-0-7439-0921-1</i>	<i>9.00</i>	<i>R/750</i>	<i>TCM Library</i>
Heads or Tails? Exploring Probability Through Games *	978-0-8239-7422-1	42.00	N	Rosen Classroom
Probability	A1249	46.00	M/770	Benchmark Education
<i>The Jungle Park Case: Analyzing Data *</i>	<i>978-0-7439-0922-8</i>	<i>9.00</i>	<i>N/580</i>	<i>TCM Library</i>

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**Virginia Standards of Learning  
Mathematics  
Grade Four**

**4.14 The student will collect, organize, display, and interpret data from a variety of graphs.**

The Amazon and the Sahara: Using Double Line Graphs and Double Bar Graphs	978-0-8239-7376-7	51.00	R	Rosen Classroom
<i>CSI: Analyzing Data</i> *	978-0-7439-0921-1	9.00	R/750	TCM Library
Heads or Tails? Exploring Probability Through Games *	978-0-8239-7422-1	42.00	N	Rosen Classroom
<i>The Jungle Park Case: Analyzing Data</i> *	978-0-7439-0922-8	9.00	N/580	TCM Library
Time (Measure It!) *	978-1-4329-3778-2	47.94	S/900	Capstone Classroom

**Patterns, Functions, and Algebra  
Focus: Geometric Patterns, Equality, and Properties**

**4.15 The student will recognize, create, and extend numerical and geometric patterns.**

<i>Patterns Around Us: Recognizing Patterns</i>	978-0-7439-0895-5	9.00	O/620	TCM Library
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**4.16 The student will**

- a) recognize and demonstrate the meaning of equality in an equation; and
- b) investigate and describe the associative property for addition and multiplication.

**Math Standards Workout  
(Covers concepts across all Grade 4 Standards of Learning)**

Features: Detailed Table of Contents, Introductory and Epilogue Material, Graphic Organizers, Instructional Guide, Resource for visual learners, Glossary, recommended websites, Further Reading.

Making Connections: 50 Math Super Puzzles (make connection between and among different kinds of math skills and typed of mathematical reasoning) (6-pack)	978-1-4488-6687-8	60.00	V	Rosen Classroom
Mental Math: 50 Math Super Puzzles (help improve mental math problem-solving skills) (6-pack)	978-1-4488-6690-8	60.00	V	Rosen Classroom
Problem Solving: 50 Math Super Puzzles (enhance development of math problem-solving skills) (6-pack)	978-1-4488-6688-5	60.00	V	Rosen Classroom
Shapes and Symmetry: 50 Math Super Puzzles (improve ability to identify, analyze and construct various shapes and symmetries) (6-pack)	978-1-4488-6689-2	60.00	V	Rosen Classroom

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Symbols and Algebra: 50 Math Super Puzzles (solve math problems that involve algebra and other symbol systems) (6-pack)	978-1-4488-6691-5	60.00	V	Rosen Classroom
Single copy set (one copy each of six titles)	978-1-4488-7272-5	50.00	V	Rosen Classroom
Classroom Collection (six copies each of six titles)	978-1-4488-7271-8	300.00	V	Rosen Classroom

\*Title in multiple strands

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