2008 Mathematics Tests Standard and Performance Indicator Map with Answer Key
Grade 4

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 1					
1	Multiple Choice	1	Number Sense and Operations	4.N02 Read and write whole numbers to 10,000	C
2	Multiple Choice	1	Measurement	4.M02 Use a ruler to measure to the nearest standard unit (whole, 1/2 and 1/4 inches, whole feet, whole yards, whole centimeters, and whole meters)	B
3	Multiple Choice	1	Number Sense and Operations	4.N26 Round numbers less than 1,000 to the nearest tens and hundreds	A
4	Multiple Choice	1	Number Sense and Operations	4.N20 Develop fluency in multiplying and dividing multiples of 10 and 100 up to 1,000	A
5	Multiple Choice	1	Geometry	4.G04 Find the area of a rectangle by counting the number of squares needed to cover the rectangle	C
6	Multiple Choice	1	Number Sense and Operations	4.N02 Read and write whole numbers to 10,000	B
7	Multiple Choice	1	Number Sense and Operations	4.N13 Develop an understanding of the properties of odd/even numbers as a result of multiplication	C
8	Multiple Choice	1	Number Sense and Operations	3.N19 Develop fluency with single digit multiplication facts	C
9	Multiple Choice	1	Number Sense and Operations	3.N20 Use a variety of strategies to solve multiplication problems with factors up to 12 x 12	B
10	Multiple Choice	1	Geometry	4.G01 Identify and name polygons, recognizing that their names are related to the number of sides and angles (triangle, quadrilateral, pentagon, hexagon, and octagon)	C
11	Multiple Choice	1	Number Sense and Operations	4.N17 Use multiplication and division as inverse operations to solve problems	A
12	Multiple Choice	1	Statistics and Probability	4.S06 Formulate conclusions and make predictions from graphs	A
13	Multiple Choice	1	Number Sense and Operations	4.N04 Understand the place value structure of the base ten number system 10 ones = 1 ten 10 tens = 1 hundred 10 hundreds = 1 thousand 10 thousands = 10 1 thousands	C
14	Multiple Choice	1	Algebra	3.A01 Use the symbols <, >, and = (with and without the use of a number line) to compare whole numbers and unit fractions (1/2,1/3,1/4,1/5,1/6, and 1/10)	D
15	Multiple Choice	1	Number Sense and Operations	4.N06 Understand, use, and explain the associative property of multiplication	D

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 1 (continued)					
16	Multiple Choice	1	Measurement	4.M04 Select tools and units appropriate to the mass of the object being measured (grams and kilograms)	A
17	Multiple Choice	1	Algebra	4.A05 Analyze a pattern or a whole-number function and state the rule, given a table or an input/output box	A
18	Multiple Choice	1	Number Sense and Operations	4.N27 Check reasonableness of an answer by using estimation	C
19	Multiple Choice	1	Number Sense and Operations	3.N15 Compare and order unit fractions (1/2, 1/3, 1/4) and find their approximate locations on a number line	D
20	Multiple Choice	1	Measurement	4.M01 Select tools and units (customary and metric) appropriate for the length being measured	B
21	Multiple Choice	1	Algebra	4.A02 Use the symbols $<$, $>$, $=$, and $\neq$ (with and without the use of a number line) to compare whole numbers and unit fractions and decimals (up to hundredths)	B
22	Multiple Choice	1	Geometry	3.G02 Identify congruent and similar figures	B
23	Multiple Choice	1	Number Sense and Operations	3.N14 Explore equivalent fractions (1/2, 1/3, 1/4)	C
24	Multiple Choice	1	Measurement	4.M09 Calculate elapsed time in hours and half hours, not crossing A.M./P.M.	B
25	Multiple Choice	1	Number Sense and Operations	4.N22 Interpret the meaning of remainders	B
26	Multiple Choice	1	Statistics and Probability	4.S05 Develop and make predictions that are based on data	C
27	Multiple Choice	1	Number Sense and Operations	4.N15 Select appropriate computational and operational methods to solve problems	A
28	Multiple Choice	1	Number Sense and Operations	3.N14 Explore equivalent fractions (1/2, 1/3, 1/4)	B
29	Multiple Choice	1	Algebra	4.A01 Evaluate and express relationships using open sentences with one operation	A
30	Multiple Choice	1	Geometry	4.G02 Identify points and line segments when drawing a plane figure	D
31	Short Response	2	Number Sense and Operations	4.N14 Use a variety of strategies to add and subtract numbers up to 10,000	n/a

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 2					
32	Short Response	2	Number Sense and Operations	4.N18 Use a variety of strategies to multiply two-digit numbers by one-digit numbers (with and without regrouping)	n/a
33	Short Response	2	Measurement	4.M08 Make change, using combined coins and dollar amounts	n/a
34	Short Response	2	Measurement	4.M03 Know and understand equivalent standard units of length:12 inches = 1 foot, 3 feet = 1 yard	n/a
35	Extended Response	3	Geometry	Part A: 4.G03 Find perimeter of polygons by adding sides Part B: 4.G04 Find the area of a rectangle by counting the number of squares needed to cover the rectangle	n/a
36	Short Response	2	Number Sense and Operations	4.N22 Interpret the meaning of remainders	n/a
37	Short Response	2	Number Sense and Operations	4.N17 Use multiplication and division as inverse operations to solve problems	n/a
38	Short Response	2	Algebra	4.A04 Describe, extend, and make generalizations about numeric (+,-,×,÷) and geometric patterns	n/a
39	Extended Response	3	Statistics and Probability	4.S03 Represent data using tables, bar graphs, and pictographs	n/a
Book 3					
40	Short Response	2	Number Sense and Operations	4.N18 Use a variety of strategies to multiply two-digit numbers by one-digit numbers (with and without regrouping)	n/a
41	Short Response	2	Geometry	4.G03 Find perimeter of polygons by adding sides	n/a
42	Short Response	2	Measurement	4.M08 Make change, using combined coins and dollar amounts	n/a
43	Extended Response	3	Algebra	4.A05 Analyze a pattern or a whole-number function and state the rule, given a table or an input/output box	n/a
44	Extended Response	3	Number Sense and Operations	3.N20 Use a variety of strategies to solve multiplication problems with factors up to 12 x 12	n/a
45	Short Response	2	Algebra	4.A04 Describe, extend, and make generalizations about numeric (+,-,×,÷) and geometric patterns	n/a
46	Short Response	2	Number Sense and Operations	4.N21 Use a variety of strategies to divide two-digit dividends by one-digit divisors (with and without remainders)	n/a
47	Short Response	2	Statistics and Probability	4.S03 Represent data using tables, bar graphs, and pictographs	n/a
48	Short Response	2	Number Sense and Operations	4.N06 Understand, use, and explain the associative property of multiplication	n/a