

2009 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.N03 Compare and order numbers to 10,000	C
2	Multiple Choice	1	Number Sense and Operations	3.N19 Develop fluency with single-digit multiplication facts	B
3	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 = 1 ten thousand	C
4	Multiple Choice	1	Geometry	4.G03 Find perimeter of polygons by adding sides	D
5	Multiple Choice	1	Number Sense and Operations	4.N14 Use a variety of strategies to add and subtract numbers up to 10,000	D
6	Multiple Choice	1	Geometry	4.G02 Identify points and line segments when drawing a plane figure	C
7	Multiple Choice	1	Algebra	4.A03 Find the value or values that will make an open sentence true, if it contains < or >	A
8	Multiple Choice	1	Number Sense and Operations	4.N06 Understand, use, and explain the associative property of multiplication	C
9	Multiple Choice	1	Number Sense and Operations	4.N18 Use a variety of strategies to multiply two-digit numbers by one-digit numbers (with and without regrouping)	D
10	Multiple Choice	1	Number Sense and Operations	4.N21 Use a variety of strategies to divide two-digit dividends by one-digit divisors (with and without remainders)	C
11	Multiple Choice	1	Measurement	4.M02 Use a ruler to measure to the nearest standard unit (whole, $\frac{1}{2}$ and $\frac{1}{4}$ inches, whole feet, whole yards, whole centimeters, and whole meters)	B
12	Multiple Choice	1	Number Sense and Operations	4.N02 Read and write whole numbers to 10,000	D
13	Multiple Choice	1	Number Sense and Operations	4.N20 Develop fluency in multiplying and dividing multiples of 10 and 100 up to 1,000	B
14	Multiple Choice	1	Number Sense and Operations	3.N25 Estimate numbers up to 500	C

**2009 Mathematics Tests Standard and Performance Indicator Map with Answer Key
Grade 4 (continued)**

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 1 (continued)					
15	Multiple Choice	1	Statistics and Probability	4.S06 Formulate conclusions and make predictions from graphs	C
16	Multiple Choice	1	Geometry	3.G02 Identify congruent and similar figures	B
17	Multiple Choice	1	Number Sense and Operations	4.N17 Use multiplication and division as inverse operations to solve problems	B
18	Multiple Choice	1	Measurement	4.M10 Calculate elapsed time in days and weeks, using a calendar	D
19	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	B
20	Multiple Choice	1	Number Sense and Operations	3.N14 Explore equivalent fractions ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$)	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)	A
22	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)	A
23	Multiple Choice	1	Statistics and Probability	4.S06 Formulate conclusions and make predictions from graphs	D
24	Multiple Choice	1	Algebra	4.A04 Describe, extend, and make generalizations about numeric ($+$, $-$, \times , \div) and geometric patterns	C
25	Multiple Choice	1	Number Sense and Operations	4.N27 Check reasonableness of an answer by using estimation	A
26	Multiple Choice	1	Number Sense and Operations	4.N26 Round numbers less than 1,000 to the nearest tens and hundreds	B
27	Multiple Choice	1	Number Sense and Operations	4.N15 Select appropriate computational and operational methods to solve problems	D
28	Multiple Choice	1	Measurement	4.M09 Calculate elapsed time in hours and half hours, not crossing A.M./P.M.	C
29	Multiple Choice	1	Number Sense and Operations	4.N22 Interpret the meaning of remainders	B
30	Multiple Choice	1	Measurement	4.M06 Select tools and units appropriate to the capacity being measured (milliliters and liters)	A

**2009 Mathematics Tests Standard and Performance Indicator Map with Answer Key
Grade 4 (continued)**

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 2					
31	Short Response	2	Number Sense and Operations	4.N22 Interpret the meaning of remainders	n/a
32	Short Response	2	Number Sense and Operations	4.N20 Develop fluency in multiplying and dividing multiples of 10 and 100 up to 1,000	n/a
33	Short Response	2	Number Sense and Operations	4.N16 Understand various meanings of multiplication and division	n/a
34	Short Response	2	Algebra	4.A01 Evaluate and express relationships using open sentences with one operation	n/a
35	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
36	Short Response	2	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)	n/a
37	Short Response	2	Measurement	4.M08 Make change, using combined coins and dollar amounts	n/a
38	Extended Response	3	Statistics and Probability	4.S05 Develop and make predictions that are based on data	n/a
39	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
Book 3					
40	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
41	Short Response	2	Measurement	4.M08 Make change, using combined coins and dollar amounts	n/a
42	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
43	Short Response	2	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)	n/a
44	Short Response	2	Measurement	4.M03 Know and understand equivalent standard units of length: 12 inches = 1 foot 3 feet = 1 yard	n/a
45	Short Response	2	Number Sense and Operations	4.N17 Use multiplication and division as inverse operations to solve problems	n/a
46	Short Response	2	Statistics and Probability	4.S03 Represent data using tables, bar graphs, and pictographs	n/a

**2009 Mathematics Tests Standard and Performance Indicator Map with Answer Key
Grade 4 (continued)**

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 3 (continued)					
47	Extended Response	3	Geometry	4.G03 Find perimeter of polygons by adding sides 4.G04 Find the area of a rectangle by counting the number of squares needed to cover the rectangle	n/a
48	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