2010 Mathematics Tests Standard and Performance Indicator Map with Answer Key
Grade 8

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 1					
1	Multiple Choice	1	Algebra	7.A02 Add and subtract monomials with exponents of one	B
2	Multiple Choice	1	Geometry	8.G05 Calculate the missing angle measurements when given two parallel lines cut by a transversal	D
3	Multiple Choice	1	Algebra	8.A02 Write verbal expressions that match given mathematical expressions	B
4	Multiple Choice	1	Geometry	8.G03 Calculate the missing angle in a supplementary or complementary pair	B
5	Multiple Choice	1	Algebra	8.A04 Create a graph given a description or an expression for a situation involving a linear or nonlinear relationship	D
6	Multiple Choice	1	Geometry	7.G05 Identify the right angle, hypotenuse, and legs of a right triangle	D
7	Multiple Choice	1	Geometry	8.G03 Calculate the missing angle in a supplementary or complementary pair	A
8	Multiple Choice	1	Geometry	7.G08 Use the Pythagorean Theorem to determine the unknown length of a side of a right triangle	B
9	Multiple Choice	1	Algebra	7.A04 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation	A
10	Multiple Choice	1	Algebra	8.A07 Add and subtract polynomials (integer coefficients)	B
11	Multiple Choice	1	Geometry	8.G05 Calculate the missing angle measurements when given two parallel lines cut by a transversal	D
12	Multiple Choice	1	Geometry	8.G07 Describe and identify transformations in the plane, using proper function notation (rotations, reflections, translations, and dilations)	D
13	Multiple Choice	1	Number Sense and Operations	8.N05 Estimate a percent of quantity, given an application	B
14	Multiple Choice	1	Geometry	8.G04 Determine angle pair relationships when given two parallel lines cut by a transversal	B
15	Multiple Choice	1	Geometry	8.G12 Identify the properties preserved and not preserved under a reflection, rotation, translation, and dilation	C

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 1 (continued)					
16	Multiple Choice	1	Algebra	8.A12 Apply algebra to determine the measure of angles formed by or contained in parallel lines cut by a transversal and by intersecting lines	D
17	Multiple Choice	1	Algebra	8.A06 Multiply and divide monomials	A
18	Multiple Choice	1	Measurement	7.M01 Calculate distance using a map scale	C
19	Multiple Choice	1	Algebra	7.A03 Identify a polynomial as an algebraic expression containing one or more terms	D
20	Multiple Choice	1	Geometry	8.G06 Calculate the missing angle measurements when given two intersecting lines and an angle	C
21	Multiple Choice	1	Algebra	7.A03 Identify a polynomial as an algebraic expression containing one or more terms	D
22	Multiple Choice	1	Algebra	8.A10 Factor algebraic expressions using the GCF	B
23	Multiple Choice	1	Measurement	7.M01 Calculate distance using a map scale	C
24	Multiple Choice	1	Algebra	7.A10 Write an equation to represent a function from a table of values	D
25	Multiple Choice	1	Algebra	8.A01 Translate verbal sentences into algebraic inequalities	D
26	Multiple Choice	1	Algebra	8.A09 Divide a polynomial by a monomial (integer coefficients) *Note: The degree of the denominator is less than or equal to the degree of the numerator for all variables.*	A
27	Multiple Choice	1	Number Sense and Operations	8.N04 Apply percents to: Tax; Percent increase/decrease; Simple interest; Sale price; Commission; Interest rates; Gratuities	B
Book 2					
28	Short Response	2	Number Sense and Operations	8.N04 Apply percents to: Tax; Percent increase/decrease; Simple interest; Sale price; Commission; Interest rates; Gratuities	n/a
29	Short Response	2	Algebra	7.A10 Write an equation to represent a function from a table of values	n/a
30	Short Response	2	Geometry	8.G03 Calculate the missing angle in a supplementary or complementary pair	n/a
31	Short Response	2	Measurement	8.M01 Solve equations/proportions to convert to equivalent measurements within metric and customary measurement systems *Note: Also allow Fahrenheit to Celsius and vice versa.*	n/a

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 2 (continued)					
32	Extended Response	3	Algebra	7.A08 Create algebraic patterns using charts/tables, graphs, equations, and expressions	n/a
33	Extended Response	3	Geometry	8.G09 Draw the image of a figure under a reflection over a given line	n/a
Book 3					
34	Short Response	2	Algebra	7.A04 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation	n/a
35	Short Response	2	Geometry	8.G02 Identify pairs of supplementary and complementary angles	n/a
36	Short Response	2	Number Sense and Operations	8.N01 Develop and apply the laws of exponents for multiplication and division	n/a
37	Short Response	2	Algebra	8.A07 Add and subtract polynomials (integer coefficients)	n/a
38	Short Response	2	Geometry	8.G01 Identify pairs of vertical angles as congruent	n/a
39	Short Response	2	Measurement	7.M06 Compare unit prices	n/a
40	Short Response	2	Geometry	7.G09 Determine whether a given triangle is a right triangle by applying the Pythagorean Theorem and using a calculator	n/a
41	Short Response	2	Algebra	8.A06 Multiply and divide monomials	n/a
42	Extended Response	3	Measurement	7.M07 Convert money between different currencies with the use of an exchange rate table and a calculator	n/a
43	Extended Response	3	Geometry	8.G08 Draw the image of a figure under rotations of 90 and 180 degrees	n/a
44	Extended Response	3	Algebra	8.A16 Find a set of ordered pairs to satisfy a given linear numerical pattern (expressed algebraically); then plot the ordered pairs and draw the line	n/a
45	Extended Response	3	Number Sense and Operations	8.N06 Justify the reasonableness of answers using estimation	n/a