

**2011 Mathematics Test Standard and Performance Indicator Map  
Grade 8**

Question	Type	Points	Strand	Content Performance Indicator
<b>Book 1</b>				
1	Multiple Choice	1	Algebra	8.A14 Solve linear inequalities by combining like terms, using the distributive property, or moving variables to one side of the inequality (include multiplication or division of inequalities by a negative number)
2	Multiple Choice	1	Algebra	8.A04 Create a graph, given a description or an expression for a situation involving a linear or nonlinear relationship
3	Multiple Choice	1	Number Sense and Operations	8.N04 Apply percents to: Tax, percent increase/decrease, simple interest, sale price, commission, interest rates, and gratuities
4	Multiple Choice	1	Geometry	8.G08 Draw the image of a figure under rotations of 90 and 180 degrees
5	Multiple Choice	1	Algebra	7.A10 Write an equation to represent a function from a table of values
6	Multiple Choice	1	Algebra	8.A02 Write verbal expressions that match given mathematical expressions
7	Multiple Choice	1	Geometry	8.G01 Identify pairs of vertical angles as congruent
8	Multiple Choice	1	Algebra	8.A06 Multiply and divide monomials
9	Multiple Choice	1	Algebra	8.A03 Describe a situation involving relationships that matches a given graph
10	Multiple Choice	1	Geometry	8.G16 Determine the equation of a line given the slope and the y-intercept
11	Multiple Choice	1	Algebra	8.A13 Solve multi-step inequalities and graph the solution set on a number line
12	Multiple Choice	1	Algebra	8.A07 Add and subtract polynomials (integer coefficients)
13	Multiple Choice	1	Number Sense and Operations	8.N01 Develop and apply the laws of exponents for multiplication and division
14	Multiple Choice	1	Algebra	8.A03 Describe a situation involving relationships that matches a given graph
15	Multiple Choice	1	Geometry	8.G10 Draw the image of a figure under a translation
16	Multiple Choice	1	Measurement	7.M01 Calculate distance using a map scale

**2011 Mathematics Test Standard and Performance Indicator Map  
Grade 8 (continued)**

Question	Type	Points	Strand	Content Performance Indicator
<b>Book 1 (continued)</b>				
17	Multiple Choice	1	Number Sense and Operations	8.N05 Estimate a percent of a quantity, given an application
18	Multiple Choice	1	Algebra	8.A07 Add and subtract polynomials (integer coefficients)
19	Multiple Choice	1	Geometry	8.G13 Determine the slope of a line from a graph and explain the meaning of slope as a constant rate of change
20	Multiple Choice	1	Geometry	8.G15 Graph a line using a table of values
21	Multiple Choice	1	Algebra	7.A09 Build a pattern to develop a rule for determining the sum of the interior angles of polygons
22	Multiple Choice	1	Measurement	7.M06 Compare unit prices
23	Multiple Choice	1	Geometry	8.G04 Determine angle pair relationship when given two parallel lines cut by a transversal
24	Multiple Choice	1	Number Sense and Operations	8.N03 Read, write, and identify percents less than 1% and greater than 100%
25	Multiple Choice	1	Algebra	8.A08 Multiply a binomial by a monomial or binomial (integer coefficients)
26	Multiple Choice	1	Geometry	8.G04 Determine angle pair relationship when given two parallel lines cut by a transversal
27	Multiple Choice	1	Geometry	8.G19 Graph the solution set of an inequality on a number line
28	Multiple Choice	1	Algebra	8.A10 Factor algebraic expressions using the GCF
29	Multiple Choice	1	Number Sense and Operations	8.N04 Apply percents to: Tax, percent increase/decrease, simple interest, sale price, commission, interest rates, and gratuities
30	Multiple Choice	1	Geometry	8.G05 Calculate the missing angle measurements when given two parallel lines cut by a transversal
31	Multiple Choice	1	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
32	Multiple Choice	1	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
33	Multiple Choice	1	Algebra	8.A01 Translate verbal sentences into algebraic inequalities
34	Multiple Choice	1	Geometry	8.G20 Distinguish between linear and nonlinear equations $ax^2+bx+c$ ; $a=1$ (only graphically)

**2011 Mathematics Test Standard and Performance Indicator Map  
Grade 8 (continued)**

Question	Type	Points	Strand	Content Performance Indicator
<b>Book 1 (continued)</b>				
35	Multiple Choice	1	Geometry	8.G12 Identify the properties preserved and not preserved under a reflection, rotation, translation, and dilation
36	Multiple Choice	1	Geometry	8.G07 Describe and identify transformations in the plane, using proper function notation (rotations, reflections, translations, and dilations)
37	Multiple Choice	1	Geometry	8.G02 Identify pairs of supplementary and complementary angles.
38	Multiple Choice	1	Algebra	8.A11 Factor a trinomial in the form $ax^2+bx+c$ ; $a=1$ and $c$ having no more than 3 sets of factors
39	Multiple Choice	1	Geometry	8.G21 Recognize the characteristics of quadratics in tables, graphs, equations, and situations
40	Multiple Choice	1	Algebra	8.A02 Write verbal expressions that match given mathematical expressions
41	Multiple Choice	1	Geometry	8.G05 Calculate the missing angle measurements when given two parallel lines cut by a transversal
42	Multiple Choice	1	Algebra	8.A14 Solve linear inequalities by combining like terms, using the distributive property, or moving variables to one side of the inequality (include multiplication or division of inequalities by a negative number)
<b>Book 2</b>				
43	Short Response	2	Geometry	8.G11 Draw the image of a figure under a dilation
44	Short Response	2	Geometry	8.G04 Determine angle pair relationship when given two parallel lines cut by a transversal
45	Short Response	2	Algebra	8.A04 Create a graph, given a description or an expression for a situation involving a linear or nonlinear relationship
46	Short Response	2	Number Sense and Operations	8.N04 Apply percents to: Tax, percent increase/decrease, simple interest, sale price, commission, interest rates, and gratuities
47	Short Response	2	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
48	Short Response	2	Geometry	8.G09 Draw the image of a figure under a reflection over a given line

**2011 Mathematics Test Standard and Performance Indicator Map  
Grade 8 (continued)**

Question	Type	Points	Strand	Content Performance Indicator
<b>Book 2 (continued)</b>				
49	Short Response	2	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
50	Short Response	2	Algebra	8.A08 Multiply a binomial by a monomial or binomial (integer coefficients)
51	Extended Response	3	Number Sense and Operations	8.N01 Develop and apply the laws of exponents for multiplication and division
52	Extended Response	3	Algebra	8.A01 Translate verbal sentences into algebraic inequalities
53	Extended Response	3	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
54	Extended Response	3	Algebra	8.A13 Solve multi-step inequalities and graph the solution set on a number line