## 2008 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 | Geometry | 8.G01 Identify pairs of vertical angles as congruent | D |
| 2 | Multiple Choice | 1 | Algebra | 8.A02 Write verbal expressions that match given mathematical expressions | D |
| 3 | Multiple Choice | 1 | Geometry | 8.G05 Calculate the missing angle measurements when given two parallel lines cut by a transversal | B |
| 4 | Multiple Choice | 1 | Geometry | 8.G06 Calculate the missing angle measurements when given two intersecting lines and an angle | A |
| 5 | Multiple Choice | 1 | Algebra | 8.A08 Multiply a binomial by a monomial or binomial (integer coefficients) | D |
| 6 | Multiple Choice | 1 | Geometry | 7.G05 Identify the right angle, hypotenuse, and legs of a right triangle | B |
| 7 | 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 | D |
| 8 | Multiple Choice | 1 | Algebra | 8.A01 Translate verbal sentences into algebraic inequalities | A |
| 9 | Multiple Choice | 1 | Geometry | 8.G02 Identify pairs of supplementary and complementary angles | A |
| 10 | 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 | B |
| 11 | Multiple Choice | 1 | Algebra | 8.A08 Multiply a binomial by a monomial or binomial (integer coefficients) | D |
| 12 | Multiple Choice | 1 | Measurement | 7.M01 Calculate distance using a map scale | B |
| 13 | Multiple Choice | 1 | Geometry | 8.G03 Calculate the missing angle in a supplementary or complementary pair | D |
| 14 | Multiple Choice | 1 | Number Sense and Operations | 8.N05 Estimate a percent of a quantity, given an application | B |
| 15 | Multiple Choice | 1 | Geometry | 8.G04 Determine angle pair relationship when given two parallel lines cut by a transversal | B |
| 16 | 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 |
| 17 | Multiple Choice | 1 | Geometry | 8.G08 Draw the image of a figure under rotations of 90 and 180 degrees | A |

## 2008 Mathematics Tests Standard and Performance Indicator Map with Answer Key Grade 8 (continued)

| Question | Type | Points | Strand | Content Performance Indicator | Answer Key |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Book 1 (continued) |  |  |  |  |  |
| 18 | Multiple Choice | 1 | Algebra | 8.A02 Write verbal expressions that match given mathematical expressions | D |
| 19 | Multiple Choice | 1 | Algebra | 8.A06 Multiply and divide monomials | A |
| 20 | Multiple Choice | 1 | Algebra | 7.A02 Add and subtract monomials and exponents of one | C |
| 21 | Multiple Choice | 1 | Measurement | 7.M01 Calculate distance using a map scale | C |
| 22 | Multiple Choice | 1 | Geometry | 8.G02 Identify pairs of supplementary and complementary angles | A |
| 23 | Multiple Choice | 1 | Algebra | 8.A10 Factor algebraic expressions using the GCF | A |
| 24 | Multiple Choice | 1 | Algebra | 7.A03 Identify a polynomial as an algebraic expression containing one or more terms | B |
| 25 | Multiple Choice | 1 | Geometry | 7.G08 Use the Pythagorean Theorem to determine the unknown length of a side of a right triangle | C |
| 26 | Multiple Choice | 1 | Geometry | 8.G12 Identify the properties preserved and not preserved under a reflection, rotation, translation, and dilation | A |
| 27 | Multiple Choice | 1 | Algebra | 8.A07 Add and subtract polynomials (integer coefficients) | B |

Book 2

| 28 | Extended Response | 3 | Algebra | 8.A16 Find a set of ordered pairs to <br> satisfy a given linear numerical <br> pattern (expressed algebraically); <br> then plot the ordered pairs and draw <br> the line | $\mathrm{n} / \mathrm{a}$ |
| :---: | :--- | :---: | :--- | :--- | :--- |
| 29 | Short Response | 2 | Number Sense and Operations | 8.N04 Apply percents to: tax, <br> percent increase/decrease, simple <br> interest, sale price, commission, <br> interest rates, and gratuities | $\mathrm{n} / \mathrm{a}$ |
| 30 | Short Response | 2 | Algebra | 8.A06 Multiply and divide <br> monomials | $\mathrm{n} / \mathrm{a}$ |
| 31 | Extended Response | 3 | Algebra | 8.A12 Apply algebra to determine <br> the measure of angles formed by or <br> contained in parallel lines cut by a <br> transversal and by intersecting lines | $\mathrm{n} / \mathrm{a}$ |
| 32 | Short Response | 2 | Geometry | 8.G07 Describe and identify <br> transformations in the plane, using <br> proper function notation (rotations, <br> reflections, translations, and <br> dilations) | $\mathrm{n} / \mathrm{a}$ |
| 33 | Short Response | 2 | Algebra | 7.A07 Draw the graphic <br> representation of a pattern from an <br> equation or from a table of data | $\mathrm{n} / \mathrm{a}$ |

# 2008 Mathematics Tests Standard and Performance Indicator Map with Answer Key Grade 8 (continued) 

| Question | Type | Points | Strand | Content Performance Indicator | Answer Key |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Book 3 |  |  |  |  |  |
| 34 | Short Response | 2 | Geometry | 8.G06 Calculate the missing angle measurements when given two intersecting lines and an angle | n/a |
| 35 | Short Response | 2 | Algebra | 8.A07 Add and subtract polynomials (integer coefficients) | n/a |
| 36 | Short Response | 2 | Geometry | 7.G08 Use the Pythagorean Theorem to determine the unknown length of a side of a right triangle | n/a |
| 37 | Short Response | 2 | Geometry | 8.G04 Determine angle pair relationship when given two parallel lines cut by a transversal | n/a |
| 38 | Short Response | 2 | Measurement | 7.M07 Convert money between different currencies with the use of an exchange rate table and calculator | n/a |
| 39 | Short Response | 2 | Algebra | 8.A03 Describe a situation involving relationships that matches a given graph | n/a |
| 40 | Extended Response | 3 | Number Sense and Operations | 8.N04 Apply percents to: tax, percent increase/decrease, simple interest, sale price, commission, interest rates, and gratuities | n/a |
| 41 | Extended Response | 3 | Geometry | 8.G10 Draw the image of a figure under a translation | n/a |
| 42 | Extended Response | 3 | Measurement | 7.M05 Calculate unit price using proportions | n/a |
| 43 | Extended Response | 3 | Geometry | 8.G11 Draw the image of a figure under a dilation | n/a |
| 44 | 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 | n/a |
| 45 | Short Response | 2 | Geometry | 8.G03 Calculate the missing angle in a supplementary or complementary pair | n/a |

