Florida Mathematics (B.E.S.T.)

Grade 6: Access Points

Algebraic Reasoning

Apply previous understanding of arithmetic expressions to algebraic expressions.

1 Write or select an algebraic expression that represents a real-world situation. MA.6.AR.1.AP.1

2 Write or select an inequality that represents a real-world situation. MA.6.AR.1.AP.2

3 Solve an expression using substitution with no more than two operations. MA.6.AR.1.AP.3

4 Use tools or models to combine like terms in an expression with no more than four operations. MA.6.AR.1.AP.

Develop an understanding for solving equations and inequalities. Write and solve one-step equations in one variable.

1 Choose which values, from a set of five or fewer integers, make an equation or inequality true. MA.6.AR.2.AP.1

2 Solve real-world, one-step linear equations using addition and subtraction involving integers. MA.6.AR.2.AP.2

3 Solve real-world, one-step linear equations using multiplication and division involving integers. MA.6.AR.2.AP.3

4 Solve a one-step equation using fractions with like denominators or decimals with place value ranging from the thousand to the thousandths. MA.6.AR.2.AP.4

Understand ratio and unit rate concepts and use them to solve problems.

1 Given a real-world context, write and interpret ratios to show the relative sizes of two quantities using notation: a/b, a to b, or a:b where $b \neq 0$ with guidance and support. MA.6.AR.3.AP.1

2 Given a rate, calculate the unit rate for a ratio with different units. MA.6.AR.3.AP.2

3 Given a visual representation, write or select a ratio that describes the ratio relationship between part-to-part and part-to-whole ratios. MA.6.AR.3.AP.3

4 Calculate a percentage of quantity as rate per 100 using models (e.g., percent bars or 10 10 grids). MA.6.AR.3.AP.4

5a Use tools, models or manipulatives to solve problems involving ratio relationships including mixtures and ratios of length. MA.6.AR.3.AP.5A

5b Use tools, models or manipulatives to solve ratio, rate or unit rate problems involving conversions within the same measurement system. MA.6.AR.3.AP.5B

Data Analysis and Probability

Develop an understanding of statistics and determine measures of center and measures of variability. Summarize statistical distributions graphically and numerically.

1 Identify statistical questions from a list that would generate numerical data. MA.6.DP.1.AP.1

2a Use tools to identify and calculate the mean, median, mode and range represented in a set of data with no more than five elements. MA.6.DP.1.AP.2A

2b Identify and explain what the mean and mode represent in a set of data with no more than five elements. MA.6.DP.1.AP.2B

3 Given a box plot, identify the value of the minimum, the lower quartile, the median, the upper quartile and the maximum. MA.6.DP.1.AP.3

4 Given a histogram or a line plot, describe the physical features of the graph. MA.6.DP.1.AP.4

5 Create histograms to represent sets of numerical data with 10 or fewer elements. MA.6.DP.1.AP.5

6 Calculate and identify changes (increase or decrease) in the median, mode or range when a data value is added or subtracted from a data set. MA.6.DP.1.AP.6

Geometric Reasoning

Apply previous understanding of the coordinate plane to solve problems.

1 Plot integer ordered pairs in all four quadrants and on both axes. MA.6.GR.1.AP.1

2 Count the distance between two ordered pairs with the same x-coordinate or the same y-coordinate. MA.6.GR.1.AP.2

3 Given a rectangle plotted on the coordinate plane, find the perimeter or area of the rectangle. MA.6.GR.1.AP.3

Model and solve problems involving two-dimensional figures and three-dimensional figures.

1 Given the formula, find the area of a triangle. MA.6.GR.2.AP.1

2 Decompose quadrilaterals and composite figures into simple shapes (rectangles or triangles) to measure area. MA.6.GR.2.AP.2

3 Given a real-world problem, find the volume of a rectangular prism using a visual model and the formula. MA.6.GR.2.AP.3

4 Find the surface area of right rectangular prisms by adding the areas of the shapes forming the two-dimensional net. MA.6.GR.2.AP.4

Number Sense and Operations

Extend knowledge of numbers to negative numbers and develop an understanding of absolute value.

1 Plot, order and compare rational numbers (positive and negative integers within 10 from 0, fractions with common denominators, decimals up to the hundredths and percentages) in the same form. MA.6.NSO.1.AP.1

2 Represent positive and negative numbers in the same form on a number line given a real-world situation and explain the meaning of zero within its context. MA.6.NSO.1.AP.2

3 Find absolute value of a rational number ranging from 30 to 30 using a number line. MA.6.NSO.1.AP.3

4 Use manipulatives, models or tools to compare absolute value in mathematical and real-world problems. MA.6.NSO.1.AP.4

Add, subtract, multiply and divide positive rational numbers.

1 Solve one-step multiplication and division problems involving positive decimals whose place value ranges from the tens to the hundredths places. MA.6.NSO.2.AP.1

2 Use tools to calculate the product and quotient of positive fractions by positive fractions, including mixed numbers, using the standard algorithms. MA.6.NSO.2.AP.2

3a Solve one-step real-world problems involving any of the four operations with positive decimals ranging from the hundreds to hundredth place value. MA.6.NSO.2.AP.3A

3b Solve one-step real-world problems involving any of the four operations with positive fractions and mixed numbers with like denominators. MA.6.NSO.2.AP.3B

Apply properties of operations to rewrite numbers in equivalent forms.

1 Use tools to find the greatest common factor and least common multiple of two whole numbers 50 or less. MA.6.NSO.3.AP.1

2 Use the distributive property to express a number as the sum of two whole numbers multiplied by a common factor. MA.6.NSO.3.AP.2

3a Identify what an exponent represents (e.g., 8= 8 8 8). MA.6.NSO.3.AP.3A

3b Solve numerical expressions involving whole-number bases and exponents (e.g.,5+Syntax error from line 1 column 49 to line 1 column 73. Unexpected ' MA.6.NSO.3.AP.3B

4 4 Use a tool to show the prime factors of a composite whole number (e.g., 20 = 2 2 5). MA.6.NSO.3.AP.4

5 Rewrite a positive rational number 3 or less, as a fraction, decimal or a percent. MA.6.NSO.3.AP.5

Extend understanding of operations with integers.

1 Use tools to add and subtract integers between 50 and 50. MA.6.NSO.4.AP.1

2 Use tools to multiply and divide integers between 20 and 20. MA.6.NSO.4.AP.2