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

Grade 7: Access Points

Algebraic Reasoning AR

1 Rewrite algebraic expressions in equivalent forms. AR.1

- 1 Add and subtract linear expressions that include like terms. MA.7.AR.1.AP.1
- 2 Use tools or manipulatives to compare two linear expressions, with no more than two operations, to determine whether they are equivalent. MA.7.AR.1.AP.2

2 Write and solve equations and inequalities in one variable. AR.2

- 1 Select a one-step inequality from a list that represents a real-world situation and given a set of three or fewer values, use substitution to solve. MA.7.AR.2.AP.1
- 2a Set up two-step equations in one variable based on real-world problems. MA.7.AR.2.AP.2A
- 2b Solve two-step equations in one variable based on real-world problems, where all terms have positive integer coefficients. MA.7.AR.2.AP.2B

3 Use percentages and proportional reasoning to solve problems. AR.3

- 1 Solve simple percentage problems in real-world contexts. MA.7.AR.3.AP.1
- 2 Solve simple ratio problems in real-world contexts. MA.7.AR.3.AP.2
- 3 Use tools to solve real-world problems involving conversion of units in the same measurement system. MA.7.AR.3.AP.3

4 Analyze and represent two-variable proportional relationships. AR.4

- 1 Given a table or a graph, determine whether two quantities have a proportional relationship. MA.7.AR.4.AP.1
- 2 Identify the constant of proportionality when given a table or graph of a proportional relationship. MA.7.AR.4.AP.2
- 3 Given a table or equation, graph a proportional relationship. MA.7.AR.4.AP.3
- 4 Given a table representation of a proportional relationship, translate the relationship into an equation or a graph. MA.7.AR.4.AP.4
- 5 Solve simple real-world problems involving proportional relationships. MA.7.AR.4.AP.5

Data Analysis and Probability DP

1 Represent and interpret numerical and categorical data. DP.1

1. Use context to determine the appropriate measure of center (mean or median) or range to summarize a numerical data set with 10 or fewer elements, represented numerically or graphically. MA.7.DP.1.AP.1
2. Given two numerical or graphical representations of data in the same form, compare the mean, median or range of each representation. MA.7.DP.1.AP.2
3. Given data from a random sample of the population, select from a list an appropriate prediction about the population based on the data. MA.7.DP.1.AP.3
4. Use proportional reasoning to interpret data in a pie chart. MA.7.DP.1.AP.4
5. Given a data set, select an appropriate graphical representation (histogram, bar chart, or line plot). MA.7.DP.1.AP.5

2 Develop an understanding of probability. Find and compare experimental and theoretical probabilities. DP.2

1. Use tree diagrams, frequency tables, organized lists, and/or simulations to collect data from a simple experiment. MA.7.DP.2.AP.1
2. Given the probability of a simple chance event written as a fraction, percentage or decimal between 0 and 1, determine how likely is it that an event will occur. MA.7.DP.2.AP.2
3. Determine the theoretical probability of a simple chance event. MA.7.DP.2.AP.3
4. Conduct a simple experiment to find experimental probabilities. MA.7.DP.2.AP.4

Geometric Reasoning GR

1 Solve problems involving two-dimensional figures, including circles. GR.1

1. Given the formulas, find the area of parallelograms and rhombi. MA.7.GR.1.AP.1
2. Decompose complex shapes (polygon, trapezoid, and pentagon) into simple shapes (rectangles, squares, triangles) to measure area. MA.7.GR.1.AP.2
3. Apply a given formula for the circumference of a circle to solve mathematical problems. MA.7.GR.1.AP.3
4. Apply a given formula to find the area of a circle to solve mathematical problems. MA.7.GR.1.AP.4
5. Use a scale factor to draw a scale drawing of a real-world two-dimensional polygon on graph paper. MA.7.GR.1.AP.5

2 Solve problems involving three-dimensional figures, including right circular cylinders. GR.2

1. Match the parts of a given formula to the right circular cylinder using the figures net. MA.7.GR.2.AP.1
2. Given the formula, use tools to find the surface area of a right circular cylinder using the figures net. MA.7.GR.2.AP.2
3. Given a formula, use tools to calculate the volume of right circular cylinders. MA.7.GR.2.AP.3

Number Sense and Operations NSO

1 Rewrite numbers in equivalent forms. NSO.1

1. Use properties of whole number exponents to produce equivalent expressions. MA.7.NSO.1.AP.1
2. Rewrite positive rational numbers in different but equivalent forms such as fractions, mixed numbers, repeating decimals and/or percentages to solve problems. MA.7.NSO.1.AP.2

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2 Add, subtract, multiply and divide rational numbers. NSO.2

1. Solve mathematical problems, using no more than four operations, with rational numbers including grouping symbols, whole-number exponents and absolute value. MA.7.NSO.2.AP.1
2. Using tools or models, add, subtract, multiply and divide rational numbers. MA.7.NSO.2.AP.2
3. Using tools or models, solve real-world problems involving any of the four operations with rational numbers. MA.7.NSO.2.AP.3