Idaho Alternate Assessment Math Blueprint

High School

IDAA MATH ITEM DISTRIBUTION ACROSS STRANDS: 40 ITEMS

Strand	Minimum Items	Maximum Items	% of Items Per Strand
Data Analysis, Probability, & Statistics	8	10	20-25%
Geometry	4	6	10-15%
Measurement	6	8	15-20%
Number and Operations	8	10	20-25%
Patterns, Relations, & Functions	10	12	25-30%

DATA ANALYSIS, PROBABILITY, & STATISTICS ITEMS ACROSS STANDARDS: 8 TO 10 ITEMS

Data Analysis, Probability, and Statistics	Minimum Items	Maximum Items
H.DPS.1a1: Design study using categorical and continuous data, including creating a question, identifying a sample, and making a plan for data collection	0	1
H.DPS.1b1: Complete a graph given the data, using dot plots, histograms, or box plots	0	1
H.DPS.1c1: Use descriptive stats; range, median, mode, mean, outliers/gaps to describe the data set	0	1
H.DPS.1c2: Compare means, median, and range of 2 sets of data	0	1
H.DPS.1c3: Determine what inferences can be made from statistics	0	1
H.DPS.1d1: Represent data on a scatter plot to describe and predict	0	1
H.DPS.1d2: Select an appropriate statement that describes the relationship between variables	0	1
H.DPS.1d3: Make or select an appropriate statement about findings	0	1
H.DPS.1d4: Apply the results of the data to a real-world situation	0	1
H.DPS.2b1: Identify and describe the degree to which something is rated "good" or "bad"/desirable or undesirable based on numerical information	0	1
H.DPS.2c1: Determine the theoretical probability of multistage probability experiments	0	1
H.DPS.2c2: Collect data from multistage probability experiments	0	1
H.DPS.2c3: Compare actual results of multistage experiment with theoretical probabilities	0	1
H.DPS.2d1: Select or make an appropriate statement based on a two-way frequency table	0	1
H.DPS.2e1: Select or make an appropriate statement based on real world examples of conditional probability	0	1

GEOMETRY ITEMS ACROSS STANDARDS: 4 TO 6 ITEMS

Geometry	Minimum Items	Maximum Items
H.GM.1a1: Find the hypotenuse of a two-dimensional right triangle	0	1
H.GM.1a2: Find the missing side lengths of a two-dimensional right triangle	0	1
H.GM.1a3: Apply the Pythagorean Theorem to find the distance between two points in a coordinate system	0	1
H.GM.1b1: Use definitions to demonstrate congruency and similarity in figures	0	1

Geometry	Minimum Items	Maximum Items
H.GM.1c1: Construct, draw or recognize a figure after its rotation, reflection, or translation	0	1
H.GM.1d1: Use the reflections, rotations, or translations in the coordinate plane to solve problems with right angles	0	1
H.GM.1e1: Make formal geometric constructions with a variety of tools and methods	0	1

MEASUREMENT ACROSS STANDARDS: 6 TO 8 ITEMS

Measurement	Minimum Items	Maximum Items
H.ME.1a1: Determine the necessary unit to use to solve real world problems	0	1
H.ME.1a2: Solve real world problems involving units of measurement	0	1
H.ME.1b1: Describe the relationship between the attributes of a figure and the changes in the area or volume when 1 attribute is changed	0	1
H.ME.1b2: Solve a linear equation to find a missing attribute given the area, surface area, or volume and the other attribute	0	1
H.ME.2a1: Describe the accuracy of measurement when reporting quantity	0	1
H.ME.2b1: Determine the dimensions of a figure after dilation	0	1
H.ME.2b2: Determine if 2 figures are similar	0	1
H.ME.2b3: Describe or select why two figures are or are not similar	0	1
H.ME.2b4: Apply the formula to the area of a sector	0	1
H.ME.2b5: Apply the formula of geometric figures to solve design problems	0	1

NUMBER AND OPERATIONS ACROSS STANDARDS: 8 TO 10 ITEMS

Number and Operations	Minimum Items	Maximum Items
H.NO.1a1: Represent quantities and expressions that use exponents	0	1
H.NO.1a2: Explain the influence of an exponent on the location of a decimal point in a given number	0	1
H.NO.1a3: Convert a number expressed in scientific notation	0	1
H.NO.2a1: Solve simple equations using rational numbers with one or more variables	0	1
H.NO.2a2: Understand the definition of a polynomial	0	1
H.NO.2a3: Understand the concepts of combining like terms and closure	0	1
H.NO.2a4: Add, subtract, and multiply polynomials and understand how closure applies under these operations	0	1
H.NO.2a5: Understand and apply the Remainder Theorem	0	1
H.NO.2a6: Find the zeros of a polynomial when the polynomial is factored	0	1
H.NO.2b1: Explain the pattern for the sum or product for combinations of rational and irrational numbers	0	1
H.NO.2c1: Simplify expressions that include exponents	0	1
H.NO.2c2: Rewrite expressions that include rational exponents	0	1
H.NO.3a1: Verify data displays are interpreted accurately within a response	0	1
H.NO.3a2: Rewrite mathematical statements in multiple forms	0	1
H.NO.3a3: Identify an appropriate argument based upon provided data	0	1
H.NO.3a4: Compare the steps using different strategies to solve a problem (compare two strategies to decide best way to solve problem)	0	1
H.NO.3a5: Evaluate provided arguments or logic based upon provided data	0	1

PATTERNS, RELATIONS, AND FUNCTIONS ACROSS STANDARDS: 10 TO 12 ITEMS

Patterns, Relations, and Functions	Minimum Items	Maximum Items
H.PRF.1a1: Interpret the rate of change using graphical representations	0	1
H.PRF.1b1: In a linear situation using graphs or numbers, predicts the change in rate based on a given change in one variable	0	1
H.PRF.1c1: Select the appropriate graphical representation of a linear model based on real world events	0	1
H.PRF.2a1: Translate an algebraic expression into a word problem	0	1
H.PRF.2a2: Factor a quadratic expression	0	1
H.PRF.2a3: Given a quadratic expression, explain the meaning of the zeros graphically. That is for an expression (x – a) (x – c), a and c correspond to the x-intercepts (if a and c are real)	0	1
H.PRF.2a4: Use the formula to solve real world problems such as calculating the height of a tree after n years given the initial height of the tree and the rate the tree grows each year	0	1
H.PRF.2a5: Rewrite rational expressions, a(x)/b(x), in the form q(x) + r(x)/b(x) by using factoring, long division, or synthetic division	0	1
H.PRF.2a6: Write and use a system of equations and/or inequalities to solve a real-world problem	0	1
H.PRF.2b1: Translate a real-world problem into a one variable equation	0	1
H.PRF.2b2: Solve equations with one or two variables using equations or graphs	0	1
H.PRF.2b3: Transform a quadratic equation written in standard form to an equation in vertex form (x - p) = q 2 by completing the square	0	1
H.PRF.2b4: Derive the quadratic formula by completing the square on the standard form of a quadratic equation	0	1
H.PRF.2b5: Solve quadratic equations in one variable by simple inspection, taking the square root, factoring, and completing the square	0	1
H.PRF.2b6: Solve systems of equations using the elimination method	0	1
H.PRF.2b7: Solve a system of equations by substitution	0	1
H.PRF.2b8: Solve systems of equations using graphs	0	1
H.PRF.2b9: Solve a system containing a linear equation and a quadratic equation in two variables graphically and symbolically	0	1
H.PRF.2b10: Understand that all solutions to an equation in two variables are contained on the graph of that equation	0	1
H.PRF.2b11: Graph the solutions to a linear inequality in two variables as a half-plane, excluding the boundary for non-inclusive inequalities	0	1
H.PRF.2b12: Graph the solution set to a system of linear inequalities in two variables as the intersection of their corresponding half-planes	0	1
H.PRF. 2c1: Make predictions based on a given model	0	1
H.PRF. 2d1: Explain why the intersection of y = f(x) and y = g(x) is the solution of f(x) = g(x) for any combination of linear or exponential. Find the solution(s) by: Using technology to graph the equations and determine their point of intersection, using tables of values, or Using successive approximations that become closer and closer to the actual value	0	1