

Nebraska State Accountability - Alternate Assessment of Mathematics (NeSA-AAM) Tables of Specification

Grade 8

NUMBER SENSE

Gr8 Number System	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.1.1 Students will represent and show relationships among real numbers.						
MA 8.1.1.a <u>General</u> Compare and order real numbers <u>Extended</u> <i>Compare and order positive and negative integers (-50 to 50)</i>	4	0	0-2	0-3	0-2	1-4
MA 8.1.1.d <u>General</u> Classify numbers as natural, whole, integer, rational, irrational, or real <u>Extended</u> <i>Classify numbers as natural or whole</i>	3	0-1	0-2	0-2	0	1-3
Gr8 Computation	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.1.3 Students will compute fluently and accurately using appropriate strategies and tools.						
MA 8.1.3.a <u>General</u> Compute accurately with rational numbers <u>Extended</u> <i>Add and subtract decimals without regrouping</i>	4	0	0-1	0-2	0-2	1-3
MA 8.1.3.b <u>General</u> Evaluate expressions involving absolute value of integers <u>Extended</u> <i>Determine the absolute value of a given situation</i>	4	0	0-1	0-2	0-2	1-3
MA 8.1.3.d <u>General</u> Select, apply, and explain the method of computation when problem solving using rational numbers <u>Extended</u> <i>Select and apply method of computation (addition, subtraction, multiplication, division) when problem solving</i>	4	0	0	0-2	0-2	1-3
MA 8.1.3.e <u>General</u> Solve problems involving ratios and proportions <u>Extended</u> <i>Solve problems involving ratios</i>	4	0	0	0-3	0-2	1-3
Gr8 Estimation	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.1.4 Students will estimate and check reasonableness of answers using appropriate strategies and tools.						
MA 8.1.4.a <u>General</u> Use estimation methods to check the reasonableness of solutions for problems involving rational numbers <u>Extended</u> <i>Apply estimation to the nearest 10 on situations (story problems) involving addition and subtraction</i>	4	0	0	0-2	0-3	1-3

GEOMETRIC/MEASUREMENT CONCEPTS						
Gr8 Characteristics	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.2.1 Students will describe, compare, and contrast characteristics, properties, and relationships of geometric shapes and objects.						
MA 8.2.1.c General Identify geometric properties of parallel lines cut by a transversal and related angles Extended <i>Identify geometric properties of parallel lines cut by a perpendicular transversal that creates right angles</i>	4	0-1	0-2	0-3	0-1	1-3
MA 8.2.1.d General Identify pairs of angles Extended <i>Identify pairs of right angles</i>	4	0-1	0-2	0-3	0-1	1-3
MA 8.2.1.e General Examine the relationships of the interior angles to a triangle Extended <i>Match congruent triangles based on interior angles</i>	3	0	0-2	0-2	0	1-3
Gr8 Coordinate Geometry	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.2.2 Students will specify locations and describe relationships using coordinate geometry.						
MA 8.2.2.a General Use coordinate geometry to represent and examine the properties of rectangles and squares using horizontal and vertical segments Extended <i>Use coordinate geometry to determine the measurement of a side (rectangle, square)</i>	4	0	0-1	0-3	0-2	1-3
Gr8 Measurement	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.2.5 Students will apply appropriate procedures, tools, and formulas to determine measurements.						
MA 8.2.5.c General Apply the Pythagorean theorem to find missing lengths in right triangles and to solve problems Extended <i>Find the missing length and/or height in a right triangle</i>	4	0	0-1	0-2	0-2	1-3
MA 8.2.5.d General Use scale factors to find missing lengths in similar shapes Extended <i>Match similar geometric shapes represented in different scales</i>	3	0	0-3	0-3	0	1-3
ALGEBRAIC CONCEPTS						
Gr8 Relationships	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals

MA 8.3.1 Students will represent and analyze relationships using algebraic symbols.						
MA 8.3.1.b <u>General</u> Describe relationships using algebraic expressions, equations, and inequalities <u>Extended</u> <i>Identify relationships using algebraic expressions</i>	3	0	0-2	0-3	0	1-3
Gr8 Modeling in Context	Highest Level DOK Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.3.2 Students will create, use, and interpret models of quantitative relationships.						
MA 8.3.2.a <u>General</u> Model contextualized problems using various representations <u>Extended</u> <i>Recognize addition and subtraction number sentences using various representations</i>	3	0-1	0-1	0-3	0	1-3
Gr8 Procedures	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.3.3 Students will apply properties to solve equations and inequalities.						
MA 8.3.3.b <u>General</u> Evaluate numerical expressions containing whole number exponents <u>Extended</u> <i>Identify representations of numbers squared</i>	3	0	0-2	0-2	0	1-3
MA 8.3.3.c <u>General</u> Solve multi-step equations involving rational numbers <u>Extended</u> <i>Solve one-step equations involving addition, subtraction, and multiplication</i>	4	0	0-1	0-3	0-1	1-3
MA 8.3.3.d <u>General</u> Solve two-step inequalities involving rational numbers <u>Extended</u> <i>Identify values that make inequalities true</i>	4	0	0-1	0-3	0-2	1-3
DATA ANALYSIS/PROBABILITY CONCEPTS						
Gr8 Display and Analysis	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
MA 8.4.1 Students will formulate questions that can be addressed with data, and then organize, display, and analyze the relevant data to answer their questions.						
MA 8.4.1.b <u>General</u> Compare characteristics between sets of data or within a given set of data <u>Extended</u> <i>Compare characteristics in a set of data</i>	4	0	0-2	0-3	0-2	1-3
MA 8.4.1.d <u>General</u> Select the most appropriate unit of central tendency for sets of data <u>Extended</u> <i>Find the median for a set of data</i>	4	0	0-1	0-2	0-2	1-3

<p>MA 8.4.1.e <u>General</u> Identify misrepresentation and misinterpretation of data represented in circle graphs and box plots <u>Extended</u> <i>Recognize accurate representation of data in a circle graph</i></p>	4	0	0	0-3	0-2	1-3
<p>Gr8 Probability</p>	Highest DOK Stage Tested	Stage 1	Stage 2	Stage 3	Stage 4	Item Totals
<p>MA 8.4.3 Students will apply and interpret basic concepts of probability.</p>						
<p>MA 8.4.3.a <u>General</u> Identify complementary events and calculate their probabilities <u>Extended</u> <i>Determine complementary events</i></p>	3	0	0-1	0-3	0	1-3
<p>MA 8.4.3.b <u>General</u> Compute probabilities for independent compound events <u>Extended</u> <i>Determine the probability for an independent event</i></p>	4	0	0-1	0-2	0-2	1-3