Nebraska State Assessment - Grade 7
Math TOS Crosswalk

MA 7.1	**NUMBER: Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.**	
MA 7.1.1	**Numeric Relationships: Students will demonstrate, represent, and show relationships among rational numbers within the base-ten number system.**	**Legacy Standard**
MA 7.1.2	**Operations: Students will compute with rational numbers accurately.**	
MA 7.1.2.a	Solve problems using proportions and ratios (e.g., cross products, percents, tables, equations, and graphs).	MA 8.1.3.e
MA 7.1.2.b	Add, subtract, multiply, and divide rational numbers (e.g., positive and negative fractions, decimals, and integers).	MA 8.1.3.a
MA 7.1.2.c	Apply properties of operations as strategies for problem solving with rational numbers.	MA 8.1.3.d
MA 7.1.2.d	Use multiple strategies to add, subtract, multiply, and divide integers.	MA 8.1.2.a
MA 7.1.2.e	Estimate and check reasonableness of answers using appropriate strategies and tools.	MA 7.1.4.a
MA 7.2	**ALGEBRA: Students will communicate algebraic concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.**	
MA 7.2.1	**Algebraic Relationships: Students will demonstrate, represent, and show relationships with expressions, equations, and inequalities.**	
MA 7.2.1.a	Describe and create an inequality from words and pictures (e.g., one-step, one-variable).	MA 7.3.1.b
MA 7.2.1.b	Represent real-world situations with proportions.	MA 7.3.2.b
MA 7.2.2	**Algebraic Processes: Students will apply the operational properties when evaluating expressions, and solving equations and inequalities.**	
MA 7.2.2.a	Solve equations using the distributive property and combining like terms.	MA 7.3.3.d
MA 7.2.2.b	Use factoring and properties of operations to create equivalent algebraic expressions (e.g., 2x + 6 = 2(x + 3)).	MA 12.3.3.e MA 12.3.3.g
MA 7.2.2.c	Given the value of the variable(s), evaluate algebraic expressions (including absolute value).	MA 7.3.3.c

MA 7.2.2.d	Solve two-step equations involving rational numbers which include the integers.	MA 7.3.3.d
MA 7.2.2.e	Solve one-step inequalities involving integers and rational numbers and represent solutions on a number line.	MA 7.3.3.e
MA 7.2.3	**Applications: Students will solve real-world problems involving expressions, equations, and inequalities.**	
MA 7.2.3.a	Describe and write linear equations from words and tables.	MA 12.3.2.b
MA 7.2.3.b	Write a two-step equation to represent real-world problems involving rational numbers in any form.	MA 8.3.2.b
MA 7.2.3.c	Solve real-world problems with equations that involve rational numbers in any form.	MA 8.3.3.c
MA 7.2.3.d	Solve real-world problems with inequalities.	MA 8.3.3.d
MA 7.2.3.e	Use proportional relationships to solve real-world problems, including percent problems, (e.g., % increase, % decrease, mark-up, tip, simple interest).	MA 7.1.3.c
MA 7.2.3.f	Solve real-world problems involving scale drawings using a proportional relationship.	MA 8.2.5.d
MA 7.3	**GEOMETRY: Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.**	
MA 7.3.1	**Characteristics: Students will identify and describe geometric characteristics of two-dimensional shapes.**	
MA 7.3.1.a	Apply and use properties of adjacent, complementary, supplementary, and vertical angles to find missing angle measures.	MA 8.2.1.d
MA 7.3.1.b	Draw triangles (freehand using a ruler and a protractor, and using technology) with given conditions of three measures of angles or sides, and notice when the conditions determine a unique triangle, more than one triangle, or no triangle.	NONE
MA 7.3.2	**Coordinate Geometry: Students will determine location, orientation, and relationships on the coordinate plane.**	
MA 7.3.3	**Measurement: Students will perform and compare measurements and apply formulas.**	
MA 7.3.3.a	Solve real-world problems involving perimeter and area of composite shapes made from triangles, quadrilaterals and polygons.	MA 8.2.5.a
MA 7.3.3.b	Solve real-world problems involving surface area and volume of composite shapes made from rectangular and triangular prisms.	MA 8.2.5.b
MA 7.3.3.c	Determine the area and circumference of circles both on and off the coordinate plane.	MA 7.2.5.b

MA 7.4	**DATA: Students will communicate data analysis/probability concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines.**	
MA 7.4.1	**Representations: Students will create displays that represent data.**	
MA 7.4.1.a	Represent data using circle graphs.	MA 8.4.1.a
MA 7.4.2	**Analysis & Applications: Students will analyze data to address the situation.**	
MA 7.4.2.a	Solve problems using information presented in circle graphs.	NONE
MA 7.4.2.b	Explain the difference between a population and a sample.	MA 7.4.1.c
MA 7.4.2.c	Generate conclusions about a population based upon a random sample.	NONE
MA 7.4.2.d	Determine and critique biases in different data representations.	MA 8.4.1.e
MA 7.4.3	**Probability: Students will interpret and apply concepts of probability.**	
MA 7.4.3.a	Generate a list of possible outcomes for a simple event.	MA 5.4.3.b
MA 7.4.3.b	Describe the theoretical probability of an event using a fraction, percentage, and decimal.	MA 6.4.3.a
MA 7.4.3.c	Find theoretical probabilities for independent events.	MA 7.4.3.a
MA 7.4.3.d	Perform simple experiments and express the degree of likelihood (possible, impossible, certain, more likely, equally likely, or less likely); write as fractions and percentages.	NONE
MA 7.4.3.e	Find experimental probability for independent events.	MA 8.4.3.b
MA 7.4.3.f	Compare and contrast theoretical and experimental probabilities.	MA 7.4.3.b
MA 7.4.3.g	Find the probability of dependent compound events.	MA 12.4.3.b
MA 7.4.3.h	Identify complementary events and calculate their probabilities.	MA 8.4.3.a