

North Dakota State Standards Correlated to Merit Software Math Programs

Elementary School

Objective	Expectations	Merit Software
Students understand and use basic and advanced concepts of number and number systems	<ol style="list-style-type: none"> 1. Write tenths and hundredths as decimals and fractions 2. Compare equivalent decimals and fractions, e.g., $5/10 = .5$ 3. Use mathematical terms when communicating about computations involving fractions; i.e., numerator and denominator 4. Add and subtract fractions and mixed numbers with like denominators 	<p>Word Problem Shape-Up</p> <p>Fraction Shape-Up</p>

Middle School

Objective	Expectations	Merit Software
Students use algebraic concepts, functions, patterns, and relationships to solve problems.	<ol style="list-style-type: none"> 1. Use variables, expressions and equations to represent problem situations 2. Apply the order of operations and the commutative, associative, and distributive properties to simplify algebraic expressions 3. Apply inverse operations and the properties of equality to solve multi-step equations and inequalities in one 	<p>Word Problem Shape-Up</p> <p>Pre-Algebra Shape-Up</p> <p>Algebra Shape-Up</p>

	variable 4. Write multi-step equations and inequalities to represent problem situations	
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High School

Objective	Expectations	Merit Software
Students use algebraic concepts, functions, patterns, and relationships to solve problems.	<ol style="list-style-type: none"> 1. Perform advanced operations (i.e., composition and finding inverses) on algebraic functions 2. Students solve quadratic equations involving complex roots 3. Given the graph of a transformed linear, quadratic, or absolute value function, write its equation 4. Determine and write an equation for a function 	Word Problem Shape-Up Algebra Shape-Up