

Utah Mathematics Content Standards Correlated to Merit Software Mathematics Programs

Elementary School

Objective	Expectation	Merit Software
<p>Objective 4: Use fractions to communicate parts of the whole.</p>	<p>a. Identify the denominator of a fraction as the number of equal parts in the whole region or set.</p> <p>b. Identify the numerator of a fraction as the number of equal parts being considered.</p> <p>c. Divide regions and sets of objects into equal parts using a variety of objects, models, and illustrations.</p> <p>d. Name and write a fraction to represent a portion of a unit whole for halves, thirds, fourths, sixths, and eighths.</p> <p>e. Determine which of two fractions is greater using models or illustrations.</p>	<p>Fraction Shape-Up</p>

Middle/High School

Objective	Expectations	Merit Software
<p>Objective 1.4: Solve problems involving rational numbers using addition, subtraction, multiplication, and division.</p>	<p>1. Recognize absolute value of a rational number as the value of its distance from zero.</p> <p>2. Evaluate numerical and algebraic expressions containing absolute value.</p> <p>3. Compute with percents, including those greater than 100%</p>	<p>Pre Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p>

	<p>and less than 1%.</p> <p>4. Solve problems using simple proportions.</p>	
Objective 2.1: Use patterns, relations, and functions to represent mathematical situations	<p>1. Represent a variety of relations and functions using tables, graphs, manipulatives, verbal rules, or algebraic rules.</p> <p>2. Describe simple patterns using a mathematical rule or algebraic expression.</p>	<p>Pre Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p>
Objective 2.2: Evaluate, solve, and analyze mathematical situations using algebraic properties and symbols.	<p>1. Solve real-world problems involving constant rates of change, e.g., rates of travel, hourly wages, or rates of interest.</p> <p>2. Solve multi-step equations and inequalities:</p> <ul style="list-style-type: none"> a. Numerically; e.g., from a table or guess and check. b. Algebraically, including the use of manipulatives. c. Graphically. d. Using technology. <p>3. Solve systems of two linear equations or inequalities:</p> <ul style="list-style-type: none"> a. Numerically; e.g., from a table or guess and check. b. Algebraically. c. Graphically. d. Using technology. <p>4. Determine the number of possible solutions for a system of two linear equations.</p> <p>5. Evaluate numerical expressions algebraic expressions, formulas, and equations.</p> <p>6. Solve linear formulas and literal equations for a specified variable, e.g., solve for p in $I = prt$.</p> <p>7. Simplify algebraic expressions, including those having integer exponents.</p> <p>8. Solve proportions that include algebraic first-degree expressions.</p>	<p>Pre Algebra Shape-Up</p> <p>Basic Algebra Shape-Up</p> <p>Word Problem Shape-Up</p>