

ALGEBRA STANDARDS 6-8

Indicator 1: Use procedures to transform algebraic expressions.

Sixth Grade	Seventh Grade	Eighth Grade:
6.A.1.1. (Application) Use order of operations, excluding nested parentheses and exponents, to simplify whole number expressions.	7.A.1.1. (Application) Write and evaluate algebraic expressions using the set of whole numbers.	8.A.1.1. (Application) Use properties to expand, combine, and simplify 1 st degree algebraic expressions with the set of integers.
6.A.1.2. (Application) Write algebraic expressions involving addition or multiplication using whole numbers.	7.A.1.2. (Knowledge) Identify associative, commutative, distributive, and identity properties involving algebraic expressions.	

Indicator 2: Use a variety of algebraic concepts and methods to solve equations and inequalities.

Sixth Grade	Seventh Grade	Eighth Grade
6.A.2.1. (Application) Write and solve one-step 1 st degree equations, with one variable, involving inverse operations using the set of whole numbers.	7.A.2.1. (Application) Write and solve one-step 1 st degree equations, with one variable, using the set of integers and inequalities, with one variable, using the set of whole numbers.	8.A.2.1. (Application) Write and solve two-step 1 st degree equations, with one variable, and one-step inequalities, with one variable, using the set of integers.

Indicator 3: Interpret and develop mathematical models.

Sixth Grade	Seventh Grade	Eighth Grade
6.A.3.1. (Knowledge) Identify and graph ordered pairs in Quadrant I on a coordinate plane.	7.A.3.1. (Application) Identify and graph ordered pairs on a coordinate plane and inequalities on a number line.	8.A.3.1. (Comprehension) Describe and determine linear relationships.

6.A.3.2. (Application) Solve one-step problems involving ratios and rates.	7.A.3.2. (Application) Model and solve multi-step problems involving rates.	
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Indicator 4: Analyze and describe the properties and behaviors of relations, functions, and their inverses.

Sixth Grade	Seventh Grade	Eighth Grade
6.A.4.1. (Comprehension) Use concrete materials, graphs, and algebraic statements to represent problem situations.	7.A.4.1. (Application) Recognize one-step patterns using tables, graphs, and models and create one-step algebraic expressions representing the pattern.	8.A.4.1. (Synthesis) Create rules to explain the relationship between numbers when a change in the first variable affects the second variable.
		8.A.4.2. (Analysis) Describe and represent relations using tables, graphs, and rules.