

Algebra Readiness – “Understanding Balance”

Essential Standards

Grades K - 7

Kindergarten	1 st Grade	2 nd Grade	3 rd Grade
<p>NS 1.3 I know bigger numbers have more objects in a group than smaller numbers.</p> <p>NS 2.1 I can add and subtract using 10 objects or less.</p>	<p>NS 1.2 I know what $<$, $>$, and $=$ means and I know how to compare and order numbers using them.</p> <p>NS 2.1 I know my addition facts to 20 in my head without having to count. When I know my addition facts to 20, I also know my subtraction facts from 20 because of fact families.</p> <p>NS 2.2 I know that subtraction is the opposite operation of addition and I can use this to solve problems.</p> <p>AF 1.1 I can write number sentences to match a problem in addition and subtraction problems and find the answer.</p> <p>AF 1.2 I know the meaning of the following symbols: $+$, $-$, $=$</p>	<p>NS 1.3 (part of standard) I know how to use the symbols $<$, $>$, and $=$ to compare numbers to 1000.</p> <p>NS 2.1 I understand how addition and subtraction are opposite and connected (e.g., an opposite number sentence for $8 + 6 = 14$ is $14 - 6 = 8$). I can use this to solve problems and check my answers.</p> <p>AF 1.1 I know that in addition and multiplication problems, the order in which numbers are combined in a problem does not change the answer (commutative property). I know that in addition and multiplication problems, the way I group the numbers in a problem will not change the answer (associative property).</p> <p>AF 1.2 I can solve a real life problem by using a number sentence.</p>	<p>AF 1.1 I can use math symbols (like $<$, $>$, or $=$) in expressions or equations to show how numbers relate to each other in a problem.</p> <p>AF 1.2 I can solve problems involving numeric equations or inequalities.</p> <p>AF 1.3 I can select the appropriate symbol to make an expression true (e.g., if $4 _ 3 = 12$, what symbol will make this statement true?)</p> <p>AF 1.5 I can recognize and use the commutative and associative property of multiplication.</p>

4 th Grade	5 th Grade	6 th Grade	7 th Grade
<p>AF 1.2 I can understand and solve a mathematical expression with parentheses. Ex: $(28 - 10) - 8$ or $28 - (10 - 8)$</p> <p>AF 1.3 I can place parentheses in a multi-step expression to show which operation should be done first.</p> <p>AF 1.5 I can solve for x or y (in an equation $y=3x + 5$) when the other variable is given.</p> <p>AF 2.1 I understand that if I add the same value to each side of an equation, the two sides will remain equal.</p> <p>AF 2.2 I understand that if I multiply the same value to each side of an equation, the two sides will remain equal.</p>	<p>AF 1.2 I can use a variable (letter) to represent an unknown number. By substituting in a value, I can write and solve algebraic expressions with one variable.</p> <p>AF 1.3 I know and can use the distributive property in equations and expressions with variables, such as: $8 \times 37 = (8 \times 30) + (8 \times 7)$</p>	<p>AF 1.1 I can write and solve one-step linear equations with one variable.</p> <p>AF 1.3 I can apply algebraic order of operations and the commutative, associative, and distributive properties to evaluate expressions. I can justify my thinking in each step of the problem.</p>	<p>AF 1.3 I can simplify numerical expressions (and equations) by applying properties of rational numbers (identity, inverse, distributive, associative, commutative) and justify the process used.</p> <p>AF 4.1 I can solve two-step linear equations and inequalities in one variable over the rational numbers, interpret the solution or solutions in the context from which they arose, and verify the reasonableness of the results.</p>