

What students should know coming into Algebra 1:

- Fractions (basic operations)
 - Percentages
 - Decimals
- Multiplication Tables
 - Perfect Squares
- Prime Factorization
- Number Sense
 - Relationships, operations, magnitude between numbers
- Numbers Sets
 - Integers
 - Real Numbers
 - Whole Numbers
 - Rational Numbers
- Order of Operations
 - PEMDAS
 - Commutative, Associative, Distributive, Identity, Transitive, Inverse Properties of Equality
- Vocabulary
 - Product, factor, is, sum, difference, more than, less than, equals, at most, at least, inequality, quotient, variable, operation, expression, equation, area, volume, numerator, denominator, prime
 - Translate verbal models to symbolic models
- Inverse Operations
 - addition \leftrightarrow subtraction
 - multiplication \leftrightarrow division
 - squares \leftrightarrow square roots
- Cartesian Plane – Plot points on a graph
- Evaluate an expression by “plugging” in a value for a variable

Why we don't use calculators in the 1st year:

- Promotes a fundamental sense of numbers and relations between those numbers.
- Number sense is critical to building a foundation for higher levels of mathematics.
- Helps give students the ability to assess the validity of answers in the context of the situation.