Student Goals for Pre Algebra Masters

Module 1 :

Student can Identify:
- Operations, primes, composites, decimals
- Reciprocals (multiplicative inverses) and negations (additive inverses)

Student can Explain:
- The definitions of operations like subtraction and division, and how they relate to their inverse operations.
- The relationship between factors and multiples

Student can Calculate:
- Expressions using the order of operations
- The LCM, GCD, and prime factors of integers

Module 2 :

Student can Identify:
- Exponents and roots
- Repeated multiplication as represented in exponent form

Student can Explain:
- The relationship between exponents and roots and their effect on each other
- The origin of the rules regarding exponents

Student can Calculate:
- Exponent values, simplification of expressions using exponents with common bases, and simplification of radical expressions
- Negative exponents

Module 3 :

Student can Identify:
- Ratios, fractions, rates, percents, conversions, and proportions

Student can Explain:
- How fractions, rates, conversions, and percents are all ratio relationships
- What a traditional ratio communicates about a given situation
- The relationship that exists between distance, rate, and time and how it manifests itself.

Student can Calculate:
- The results of adding, multiplying, dividing, and simplifying fractions
- Solve problems involving rates, ratios, percents, and proportions

Module 4 :

Student can Identify:
- The operators within expressions and equations

Student can Explain:
- How to simplify and manipulate expressions using the order of operations, the golden rule, and the multiplicative identity
- The difference between an expression and an equation

Student can Calculate:
- Simplify expressions
- Solve equations for an unknown variable