

MONROE COUNTY COMMUNITY SCHOOL CORPORATION
CURRICULUM GUIDE

PRE-ALGEBRA

PROFICIENCY 1: THE LEARNER WILL DEMONSTRATE COMPUTATIONAL PROFICIENCY WITH REAL NUMBERS

- 1.1 Calculate sums, differences, products, and quotients of rational numbers, including negatives
- 1.2 Compare two or more rational numbers, including negatives
- 1.3 Use the definition of exponents to write expressions in equivalent forms
- 1.4 Use exponential notation to express the prime factorization of a number
- 1.5 Find the greatest common factor (GCF) and the least common multiple (LCM) of two or more numbers
- 1.6 Find the square root of a perfect square number
- 1.7 Estimate the square root of any number
- 1.8 Use a table of squares or a calculator to find the square root of a number to any given degree of accuracy
- 1.9 Find the absolute value of a real number
- 1.10 Use the order of operations to simplify numerical expressions

PROFICIENCY 2: THE LEARNER WILL DEMONSTRATE AN UNDERSTANDING OF VARIABLE EXPRESSIONS

- 2.1 Represent situations with variable expressions
- 2.2 Evaluate variable expressions for given values of the variables
- 2.3 Use the distributive, associative, and commutative properties to simplify expressions
- 2.4 Add and subtract monomials
- 2.5 Find the greatest common factor (GCF) or least common multiple (LCM) of two or more monomials
- 2.6 Use the laws of exponents to simplify variable expressions

PROFICIENCY 3: THE LEARNER WILL USE VARIABLE EQUATIONS AND INEQUALITIES TO SOLVE PROBLEMS

- 3.1 Represent situations by writing a linear equation in one variable
- 3.2 Represent situations by writing a linear inequality in one variable
- 3.3 Solve one-step or two-step linear equations in one variable using inverse operations
- 3.4 Solve one-step or two-step linear inequalities in one variable using inverse operations
- 3.5 Graph the solution to a one variable linear inequality on a number line
- 3.6 Given a formula, make appropriate substitutions and solve for one variable
- 3.7 Solve applications involving the Pythagorean Theorem
- 3.8 Set up and solve proportion statements to find missing values

PROFICIENCY 4: THE LEARNER WILL DEMONSTRATE AN ELEMENTARY UNDERSTANDING OF RELATIONS AND FUNCTIONS

- 4.1 Graph and locate sets of real numbers on a number line
- 4.2 Graph ordered pairs of numbers on the coordinate plane and interpret information related to these sets of points
- 4.3 Find the distance between two points on a number line
- 4.4 Graph a relation on the coordinate plane
- 4.5 Distinguish between a relation and function
- 4.6 Graph a relation given an equation and domain
- 4.7 Sketch a reasonable graph for a given relationship
- 4.8 Interpret a graph representing a real world situation
- 4.9 Use graphing technology to explore the graphs of functions