

PreAlgebra Skills to prepare for Algebra

Math Facts – CRITICAL – multiplication and division facts, basic squares and cubes and square roots – ability to add and subtract quickly, multiply by powers of ten, decimals

Positive and negative numbers – CRITICAL
addition, subtraction, multiplication, division

Fractions, decimals and percentages
translation from one form to another
should know basic fractions to percents and reverse by heart
addition, subtraction, division, multiplication of fractions
Addition, subtraction, division multiplication of decimals
calculate % change
derive before and after numbers from base plus % change

Place Value – CRITICAL

Order of operations

Exponents
positive and negative exponents
rules for operations with exponent: multiplication, division, exponent to an exponent,
Power of 0, Power of 1

Combining and simplifying like terms
Understand what can and cannot be combined
Distributive Property

Solving a single variable equation
Include variables with fractional coefficients
Equations involving combining like terms, using distributive property, variables both sides

Substitute value(s) for a variable(s) – CRITICAL – include substituting in complicated expressions involving order of operations, exponents, etc.

Graphing lines
Plotting points
Slope-intercept form
Positive and negative slope
Derive equation from graph

Word problems
Translating text to variables and equations
Rate/time problems
Price/discount problems

Basic geometry - will be helpful – perimeter and area, basic volume, basic shapes

from Jerry Brodkey, a local math teacher

