

## Accuplacer - College-Level Math Content

The College Level Math test measures students' ability to solve problems that involve college-level mathematics concepts. There are six content areas measured on this test: (1 Algebraic Operations, (2 Solutions of Equations and Inequalities, (3 Coordinate Geometry, (4 Applications and other Topics, (5 Functions, and (6 Trigonometry. The approximate distribution of these items is listed in the table below.

- The Algebraic Operations content area includes simplification of rational algebraic expressions, factoring and expanding polynomials, and manipulating roots and exponents.
- The Solutions of Equations and Inequalities content area includes the solution of linear and quadratic equations and inequalities, systems of equations, and other algebraic equations.
- The Coordinate Geometry area presents questions involving plane geometry, the coordinate plane, straight lines, conics, sets of points in the plane, and graphs of algebraic functions.
- The Functions content area includes questions involving polynomial, algebraic, exponential, and logarithmic functions
- The Trigonometry area includes trigonometric functions.
- The Applications and other Algebra Topics area contain complex numbers, series and sequences, determinants, permutations and combinations, factorials, and word problems.

A total of 20 questions are administered on this test. They assess proficiency in intermediate algebra through pre-calculus. Therefore, it enables institutions to place students into intermediate algebra, college algebra, pre-calculus, and introductory calculus courses.

<b>College Level Math Content Area</b>	<b>Approximate Percentage of Test*</b>
<b>Algebraic Operations</b>	
Addition of algebraic fractions	0 - 5
Addition and subtraction of expressions involving absolute value	0 - 5
Operations with polynomials	0 - 5
Multiplication, division, and simplification of algebraic fractions	5 - 7
Operations with exponents	0 - 5
Powers, roots, radicals	0 - 5
Factoring quadratic expressions	0 - 5
<b>Solution of Equations and Inequalities</b>	

Linear equations and inequalities	5 - 7
Quadratic equations	5 - 7
Systems of equations and inequalities	0 - 5
Exponential equations	0 - 5
Equations of degree greater than 2	0 - 5
<b>Coordinate Geometry</b>	
The coordinate plane	0 - 5
Straight lines	5 - 10
Conics	0 - 5
Locus of points	0 - 5
Graphs of algebraic functions	0 - 5
<b>Applications and Other Algebra Topics</b>	
Translation	0 - 5
Complex numbers	0 - 5
Series and Sequences	0 - 5
Determinants	0 - 5
Permutations and combinations	0 - 5
Factorials	0 - 5
Polygons	0 - 5
<b>Functions</b>	
Functions of degree greater than 2	0 - 5
Exponents and logarithms	0 - 5
Graphical properties, exponential and logarithmic functions	0 - 5
Domain and range	0 - 5
Composition of functions	0 - 5
Inverse functions	0 - 5
Computations with simple functions	5 - 7
Periodicity, amplitude, and other properties	0 - 5
<b>Trigonometry</b>	
Fundamental definitions of trig functions	5 - 7
Right triangle trigonometry and circular functions	0 - 5
Laws of sines and cosines	0 - 5
Graphs of trigonometric functions	5 - 7
Trigonometric equations and inequalities	0 - 5
Trigonometric identities	5 - 7
Trigonometric functions of two angles	0 - 5
Inverse trigonometric functions	0 - 5

\*Percentages do not sum to 100 due to the ability of some items to meet multiple content requirements