

**Virginia Standards of Learning Assessment
Algebra II Performance Level Descriptors**

Fail/Does Not Meet	Pass/Proficient	Advanced/College Path
<p>A student performing at this level should be able to:</p> <ul style="list-style-type: none"> • Identify some characteristics of a function and its family, field properties of complex numbers, curves of best fit for a set of data, and whether a situation can be represented by a direct or inverse variation. • Distinguish between a permutation and combination. • Find area under the normal curve using the empirical rule. • Add, subtract, and simplify radical, rational, and polynomial expressions. • Factor polynomials that follow general patterns. • Find solutions from graphs of equations, inequalities, and nonlinear systems of equations. 	<p>A student performing at this level should be able to:</p> <ul style="list-style-type: none"> • Determine characteristics of a function, including relationships between zeros, x-intercepts, and factors of corresponding polynomial expressions. • Analyze transformations of parent functions. • Determine curves of best fit, and solve permutation/combination and variation problems. • Find the area under the normal curve using the empirical rule. • Use z-scores to compare data. • Simplify and perform operations on complex numbers, and radical, rational, and polynomial expressions. 	<p>A student obtaining an “advanced /college path” score should have the necessary knowledge and skills for enrollment, without remediation, in an introductory credit-bearing college mathematics course with Algebra II as the highest prerequisite. Students who achieve an “advanced/college path” score during their high school careers are expected to take additional mathematics courses beyond Algebra II as they continue to prepare for college. A student performing at this level should be able to:</p> <ul style="list-style-type: none"> • Apply multistep simplification and perform operations on complex numbers and radical, rational, and polynomial expressions. • Discriminate between methods to efficiently factor polynomials that require multiple steps.

Fail/Does Not Meet	Pass/Proficient	Advanced/College Path
	<ul style="list-style-type: none">• Factor polynomials.• Find solutions to equations, inequalities, and nonlinear systems of equations.	<ul style="list-style-type: none">• Use real world situations to analyze functions, determining characteristics as such as interval behaviors and discontinuous domains/ranges, and determine and interpret curves of best fit.• Use real world situations to find areas under the normal curve; use z-scores to compare data; and interpret, model, and solve permutation/combination and variation problems that use equations, inequalities, and nonlinear systems of equations.