

Algebra II

2009/2010 Assessment Pacing Guide

First Nine Weeks - 1st & 2nd Term

(August to October & January to March)

Competency	DOK	Mississippi Mathematics Framework Objectives	Date Taught
1a	2	Diagram the relationship among the subsets of the complex number system. (<i>ADVANCED</i> : Compare the relationship among the subsets of the complex number system.)	
1b*	1	Compute with rational and radical expressions and complex numbers, expressing in simplest form.	
1c	1	Evaluate powers of the imaginary unit, i .	
1d	1	Perform computations, including addition, scalar multiplication, multiplication, determinants, and inverses on matrices.	
2a	2	Solve compound and absolute value inequalities, graphing and writing solutions in interval notation.	
2c	2	Given constraints, find the maximum and minimum value(s) of a system of linear inequalities and explain your reasoning.	
2d	2	Given the solutions(s) to a quadratic equation, find a quadratic equation to fit the solutions(s) and explain or justify the solution process.	
2e	2	Use the discriminant to classify and predict the types of solutions of quadratic equations and justify the classification.	
2f	2	Factor sums and differences of cubes and factor polynomials by grouping.	
2h*	2	Write equivalent forms of rational expressions using real and complex conjugates.	
2l	2	Interpret the zeros and maximum or minimum value(s) of quadratic functions.	
3d	1	Represent complex numbers and the sum of complex numbers in a complex coordinate plane.	
4a	2	Verify the appropriateness of the numerical value and the units of a variable in an equation.	
4b	1	Describe the level of accuracy of measurements in real-world situations by using absolute value inequalities.	
5a	3	Through the use of technology, use scatter plots and linear and quadratic regression analysis to determine an appropriate function to model real-life data.	
5c	3	Model a data set using the median-fit-method with a linear equation and make predictions based on the mode and the equation.	

*These objectives will be taught both 1st & 2nd-9 weeks but will only be assessed on the 2nd Nine Weeks Common Assessment.

ADVANCED descriptions in parentheses of certain objectives indicate skills from the Advanced Performance Level Descriptors (PLDs).

Algebra II

2009/2010 Assessment Pacing Guide

Second Nine Weeks - 1st & 2nd Term

(October to December & March to May)

Second Nine Weeks - 1st & 2nd Term (October to December & March to May)			
Competency	DOK	Mississippi Mathematics Framework Objectives	Date Taught
1b*	1	Compute with rational and radical expressions and complex numbers, expressing in simplest form.	
1e	3	Solve applications and problems in mathematical settings involving arithmetic and geometric sequences and series.	
1f	2	Explain and use the inverse relationship between exponential and logarithmic expressions.	
1g	1	Use the properties of logarithms to simplify logarithmic expressions and to find their approximate values.	
1h	3	Solve application problems involving exponential functions related to growth and decay.	
2b	2	Solve systems of absolute value and quadratic equations using a variety of solution methods including graphing. (<i>ADVANCED: Explain methods used to solve systems of absolute value and quadratic equations.</i>)	
2f	2	Factor sums and differences of cubes and factor polynomials by grouping.	
2g	2	Solve radical equations.	
2h*	2	Write equivalent forms of rational expressions using real and complex conjugates.	
2i	2	Solve equations involving rational expressions and verify solutions.	
2j	2	Explain the results of compositions of functions.	
2k	2	Explain the Binomial Theorem and use it to expand binomial expressions raised to positive integral powers.	
3a	2	Determine and justify whether the inverse of a relation or a function exists.	
3b	2	Classify functions based on sketches of their graphs.	
3c	2	Sketch and describe transformations of quadratic and absolute value functions.	
3e	1	Identify and sketch the essential graphs of the four conic sections: circle, parabola, ellipse, and hyperbola.	
5b	2	Solve simple combinations. (<i>ADVANCED: Justify the solution of simple combinations.</i>)	
5d	2	Identify the difference between permutations and combinations and use them to solve real-world problems.	

Please Note: Shaded objectives will not be covered on the Common Assessment.

ADVANCED descriptions in parentheses of certain objectives indicate skills from the Advanced Performance Level Descriptors (PLDs).